

Overview

Introduction To Fine Wine (2002)

Gallo's Introduction To Fine Wine manual was developed to provide advanced product knowledge training for retail sales representatives after they have "mastered" the basics of their initial job assignment. In other words, this manual should be introduced to the trainee after he or she has demonstrated sales and merchandising proficiency and has become a successful Gallo sales representative (typically after approximately six months of successful sales experience).

The manual is equally applicable to on-premise sales representatives (except, perhaps, for Chapter 11: "The Fine Wine Retailer.") However, since advanced fine wine product knowledge is essential to even early success as an on-premise sales professional, the manual should be introduced at a much earlier time in the trainee's initial training.

Much of The Introduction To Fine Wine manual is very Gallo specific, that is, it provides a great deal of information about how fine wines are typically made at Gallo. However, it also provides a good grounding in some of the more universal aspects of fine wine, including their evaluation, Global production and traditions, history, and selling fine wines to "fine wine retailers."

The manual is not overly technical or complex, but it certainly was not designed as a easy to read superficial overview of the world of fine wine (it was written for those committed to becoming Gallo fine wine sales professionals, and not for "Dummies."). Anyone reading the manual for the first time would benefit significantly from a thorough discussion of each chapter with his or her supervisor or trainer immediately after reading each chapter.

The Introduction To Fine Wine can add significant value to any sales representative's professional development by being used in one of three ways:

1. As the basis for a chapter-by-chapter "read and discuss" on-job-training resource as mentioned above. Keep in mind that this approach requires the supervisor/trainer to bring life and discipline to the training to make sure that the desired learning takes place.
2. As a part of the formal reading pre-assignment for Gallo provided basic fine wine seminar training (four half day "Introduction To Fine Wine" seminar series).
3. As the basis for a "self-instructional" training program (eight basic "learning blocks") when used interchangeably with Gallo training videos to illustrate key topics, i.e., "Vine To Wine II." This approach should only be used with highly committed trainees who are "hungry" for knowledge/skills that will accelerate their professional development and who are sufficiently disciplined to make the most of this type of self-instructional program.

Distributor Use of the Introduction To Fine Wine manual

Basic (foundation level) fine wine training is a high training priority for the Winery. If you, as the responsible Field Marketing Manager, determine that any of your training oriented distributors (distributors who conscientiously use Gallo provided training material) do not have a sufficient number of these manuals to meet their legitimate training requirements, you should review the situation with the Regional Manager of Training & Recruiting (RMT&R) responsible for your region.

The "[Self-Instructional Program Guide](#)" (11 pages plus two copies of a four page form) is also provided as a "content link" for the Introduction To Fine Wine manual. If you feel strongly, after reading the "Guide," that you would like to try using this approach in one or more of your markets, contact the appropriate RMT&R to obtain the two video cassettes (or a DVD) that are used to support the program. **Note to RMT&Rs:** The cassettes can be ordered at minimal expense from Multimedia Services (Ext. 14821). Ask for duplication of: "Introduction to Fine Wine: Self-Instructional Video, Cassettes 1 and 2 (or the corresponding DVD)." They should be charged to the local BU.

E. & J. GALLO WINERY

Introduction To Fine Wine Manual

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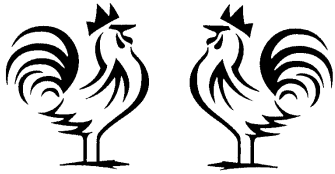
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**E. & J. Gallo Winery
Legal Department
P.O. Box 1130
Modesto, CA 95353**

The Introduction To Fine Wine manual was developed for E. & J. Gallo Winery by:

The Elkind Group
1024 Anza Boulevard
San Francisco, CA 94118
415-876-8402



Chapter 1 Introduction

Welcome to this Introduction To Fine Wine manual from the E. & J. Gallo Winery.

The fact that you are reading this manual means that you are probably a sales representative who has already had a considerable amount of experience selling wine. But most of that experience has involved selling table wines that are not considered to be "fine wines." And even though you may have also had some experience selling more expensive table wines, you probably don't yet consider yourself a wine specialist who can talk comfortably and confidently with a fine wine retailer.

That's about to change. Congratulations! Because by taking the time to read and study this manual you are making a valuable and exciting investment in your own professional development.

Why is it valuable? Because fine wines represent an increasingly important part of your distributor's overall wine sales. So by becoming more knowledgeable about fine wines – especially the fine wines we produce at our Gallo of Sonoma winery – you are positioning yourself for greater success as a sales professional in the wine industry.

Why is it exciting? Because, as you'll soon discover, fine wine is a fascinating subject that extends beyond the bounds of history and geography. For centuries, fine wines have graced the tables of world leaders and have accompanied the celebration of historic victories, treaties, and accomplishments. Today, people around the world enjoy fine wine as the perfect complement to dining, socializing, and relaxing. And the winemaking industry has become truly global in scope, extending beyond the "Old World" of Europe to the "New World" of North and South America, Africa, and the Pacific.

So welcome to the world of fine wine. And welcome to the Introduction To Fine Wine manual.

Overview

This chapter is divided into two parts:

- Introduction To This Manual
- Introduction To Fine Wine

Let's briefly preview each of these parts.

An Introduction To This Manual

The first section of this chapter is designed to provide you with a basic understanding of the design and purpose of this [Introduction To Fine Wine](#) manual. In order to help you maximize your learning and get the most out of the manual, we'll provide you with an understanding of these topics:

- The purpose of this manual.
- Gallo's commitment to your training.
- The contents of this manual and the organization of each of the chapters.
- Two ways you can use this manual to support your personal and professional development.

An Introduction To Fine Wine

The second section of this chapter is designed to provide you with a basic foundation and context for understanding the chapters that follow. We'll consider these topics:

- What is a "fine wine?" We'll explain what we mean by the term "fine wine" and how "fine wines" are different than other wines. We'll also provide a brief overview of the process of making fine wines.
- What is the market for fine wines? We'll look at a profile of the consumers who enjoy fine wine. And we'll examine some of the ways that their buying decisions may differ from the decision-making process of consumers who are looking for less expensive wines.

Objectives

After reading this chapter you should understand and be able to explain:

- The purpose, objectives, and content of the Introduction To Fine Wine manual.
- Gallo's commitment to your training and professional development.
- How to use this manual to maximize your learning.
- What a "fine wine" is and how "fine wines" are different than other wines.
- The general process that is used to produce fine wine anywhere in the world.
- The fine wine marketplace and the general characteristics of the consumers who buy fine wines.

Key Terms

As you read this chapter keep an eye out for these terms. By the end of the chapter you should understand and be able to explain all of them.

Aging

Alcohol Fermentation

Bottling And Binning

Complexity

Crush And De-Stem

Fine Wine

Fining And Filtering

Harvest

HPC

Malolactic Fermentation

MPC

Press

Style

Ultra-Premium

Varietal

Winemaker Notes

IMPORTANT NOTE:

As you read through this chapter be sure to check your understanding by answering the questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

Introduction To This Manual

The purpose of this Introduction To Fine Wine manual is simple and straightforward: to provide you with the knowledge, the skills, the tools, the strategies, and the confidence to sell Gallo wines to fine wine retailers.

During the time that you have been working as a sales representative you may have already experienced a great deal of success selling table wines. If so, that's great. But as you begin to learn about fine wines, be sure to keep in mind these important points. You'll learn more about all of these points as you work through this manual:

- Fine wines represent a rapidly growing segment of the table wine category.
- The E. & J. Gallo Winery has made an enormous investment in acquiring prime vineyard land, cultivating fine wine grapes, and building a state-of-the-art winemaking facility in the heart of the world-famous Sonoma wine country.
- Gallo is currently producing fine quality wines that can compete successfully with fine wines from anywhere in the world, including wines from the fabled "Old World" producers of France and Italy and the innovative "New World" producers of Australia, Chile, and, of course, California.
- The consumers who purchase and enjoy fine wines typically use different selection criteria than consumers who purchase moderately-priced wines.
- Fine wine retailers typically use different criteria than other wine retailers in deciding which fine wines to stock and feature in their stores. In a retail environment, wines in the low-priced to moderately-priced range tend to turn over much more quickly than most fine wines. So a retailer is less hesitant to stock them and less hesitant to promote them. In addition, in the fine wine category the cost of inventory is much higher – and the likelihood of getting immediate consumer acceptance is much lower. So the retailer may be more critical in the evaluation process and more resistant to stocking an additional fine wine item. Consequently, to be successful in the fine wine environment you will need a higher level of product knowledge and sales skills.

So, even though you will be able to draw on all the information, skills, and knowledge that you've already learned on the job, you will need to take a somewhat different approach to selling fine wines – especially to fine wine retailers.

By studying and learning the material in this Introduction To Fine Wine manual, you will be able to:

- Speak confidently about the products you are selling.
- Understand what fine wine retailers are looking for and how fine Gallo wines can meet retailers' needs.
- Help your retailers merchandise and promote fine Gallo wines so they sell *through* to consumers.
- Make professional sales presentations that achieve your objectives.

Gallo's Commitment To Your Training

This Introduction To Fine Wine manual was developed for two reasons:

- The E. & J. Gallo Winery is committed to the growth of the wine industry.
- The E. & J. Gallo Winery is committed to the professional growth and development of the sales representatives who sell Gallo products.

At Gallo, we feel that we are in a "partnership" with you. Our success as a winery is linked to your success as a sales representative. By helping you become more effective we are making an investment in the future of your future and the future of your distributorship, our Winery, and our industry.

Today there are many wineries around the world that produce fine wines. But we can say without boasting that Gallo is the only winery that has made such a substantial commitment to the training and development of sales representatives like you. That's one of the reasons we are a leader in our industry.

IMPORTANT NOTE:

For the most part, this manual focuses on information about fine wines rather than specific sales approaches. However, you will also be reviewing some sales tools and techniques. Although we have followed widely applicable legal principles in preparing these materials, some states or localities may restrict the use of some of these tools and techniques. Your manager will tell you if any practices are restricted or prohibited in your state or marketing area or by the policies of your

distributor. Always check with your manager if you have any questions about legality.

The Contents Of This Manual

This Introduction To Fine Wines manual is designed to provide you with the knowledge, understanding, and confidence you need to sell and present fine wines to your retailers. The manual is divided into 12 chapters and an Appendix:

Chapter 1:	Introduction
Chapter 2:	Growing Fine Wine Grapes
Chapter 3:	Gallo's Approach To Fine Wine
Chapter 4:	Growing Fine Wine Grapes At Gallo Of Sonoma
Chapter 5:	Making Fine White Wine At Gallo Of Sonoma
Chapter 6:	Making Fine Red Wine At Gallo Of Sonoma
Chapter 7:	Evaluating Fine Wine
Chapter 8:	Fine Wines Of The Old World, Part 1
Chapter 9:	Fine Wines Of The Old World, Part 2
Chapter 10:	Fine Wines Of The New World
Chapter 11:	The Fine Wine Retailer
Chapter 12:	SIERA Selling
Appendix:	A Brief History Of Wine.

We've treated the last chapter as an Appendix, since it doesn't really focus on information that will help you sell fine Gallo wines to your customers. But if you're interested in history, this Appendix will give you a sense of the deep, rich tradition of wine and its impact on western culture through the ages.

We have tried to organize the material in a logical sequence so that each chapter builds on what you have learned and prepares you for the material that follows. So, for example:

- *Chapter 4: Growing Fine Wine Grapes At Gallo Of Sonoma* builds on the material that is covered in *Chapter 2: Growing Fine Wine Grapes*.
- *Chapter 6: Making Fine Red Wine At Gallo Of Sonoma* builds on and reinforces the material that is included in *Chapter 5: Making Fine White Wine At Gallo Of Sonoma*.

At the same time, you'll find that each chapter can generally stand on its own for review purposes. So, once you've read all the chapters in order, you can return to any one of them to refresh yourself on a specific topic. For example, if you are particularly interested in enjoying and evaluating wines you can turn back and review *Chapter 7: Evaluating Fine Wine*. Or, if you have a special interest in learning about fine wines from around the world you can turn back and review *Chapters 8 and 9: Fine Wines Of The Old World* or *Chapter 10: Fine Wines Of The New World*.

Even though you may have not had a lot of experience in selling fine wines, we recognize you already have some familiarity with this topic from reading the Gallo Sales Manual. And as you work through this manual, you may encounter some material that you read before or that seems very familiar to you. That's because some of the chapters draw upon and build on information that was originally included in the Gallo Sales Manual. This repetition is intentional.

In the Gallo Sales Manual we tried to provide you with a basic understanding of the fine wine segment early in your development as a sales representative. But as you were starting out you probably did not commit this information to memory or use it as part of your sales efforts. Now you've gained several months of sales experience and you're feeling more confident about talking with your retailers. As your career continues, your focus on fine wines will increase and the information about this segment will become more relevant to what you do on a daily basis. So it's very important that you take the time to read this information, study it, learn it, master it, and – most importantly – apply it on the job.

Keep in mind that this Introduction To Fine Wine manual deals only with certain aspects of sales and merchandising that relate directly to fine wine. Even though there are important differences between fine wines and some of the other wines you've sold, many of the same sales principles apply. The Gallo Sales Manual should continue to be your overall roadmap for sales success – especially in terms of shelf, cold box, and display merchandising activity – in many high volume fine wine stores. If you haven't already made copies of the key areas of that manual, we suggest you visit your distributor's "training library" to review the manual or make copies of important sections.

Finally, you may find some discrepancies between the Gallo Sales Manual and this Introduction To Fine Wine manual. The Gallo Sales Manual was intentionally simplified. In this manual we go

into greater depth on many topics such as growing fine wine grapes, making wine, and sensory evaluation.

The Organization Of Each Chapter

To maximize the usefulness of this manual we have developed a consistent format for each chapter.

Introductory Remarks. Each chapter begins with some informal comments to set the scene and explain why the information contained in the chapter is important to you as a sales professional.

Overview. Each chapter includes a brief overview so that you can get a quick sense of the scope of the material you're going to be covering. Reading the Overview will help you anticipate which information in the chapter will be most important.

Objectives. Each chapter includes specific objectives to guide your learning and help you focus on what's most important. Ultimately, of course, the goal of this manual is to help you perform more confidently and more effectively as you sell fine wines from Gallo to your retailers. The purpose of each chapter is to provide you with information that will enable you to accomplish this goal. So the objectives are typically worded in terms of your ability to "understand and be able to explain" a particular subject.

Key Terms. At the beginning of each chapter we include a list of key terms that appear in that chapter. You should read over the list in advance so that you can be on the lookout for these terms. By the end of the chapter you should understand and be able to explain all of the terms.

Content. Each chapter is divided into a number of short content sections. Here is where we present the information that you are expected to read, understand, and learn. Some of this material will probably already be familiar to you because of what you've learned on the job and from the [Gallo Sales Manual](#). But some of the material will certainly be new for you. You should expect that you'll need to read some of the sections several times to gain a complete understanding of the key information.

Check Your Understanding. At the end of each content section we have included a Check Your Understanding activity with questions for you to answer. To get the most out of each chapter you have to do two things: *answer all the questions correctly and be sure to write your answers*. If you're not sure of an answer, go back and reread the entire section or skim the section to locate the specific information you need. It's all right to look up the answer but in order to facilitate your own learning you must *write your answers down*.

Review. At the end of each chapter there is a brief review of the key learning objectives. Just keep in mind that we can't control your learning – only you can. Make sure you have mastered the material you need to know. If you're not comfortable with all the material, be sure to go back and reread those sections of the chapter.

Field Exercise. Chapters 8-12 also have a field exercise or on-the-job assignment.

- At the end of Chapters 8, 9, and 10, which focus on *Fine Wines Of The Old World* and *Fine Wines Of The New World*, we suggest that you review selected portions of the chapter in conjunction with visits to fine wine retailers. For example, you might read about the wines of Australia and then visit a store that has a good selection of wines from that region. By reading the wine labels and talking with wine retailers you'll be able to continually improve your understanding of the geography of each region, and the grapes, winemaking processes, and styles of its fine wines.
- At the end of *Chapter 11: The Fine Wine Retailer*, we have an assignment that asks you to analyze one of the fine wine accounts in your market and conduct an interview with the owner. In this way, you'll be able to learn more about how to address the unique issues and concerns of fine wine retailers.
- Finally, at the end of *Chapter 12: SIERA Selling*, you will prepare a fine wine sales presentation and review it with your manager. Then you will make the presentation to one of your fine wine accounts.

IMPORTANT NOTE:

Please do not write or mark in this manual, because it will be used again by other sales representatives. If there are any portions of this manual that you want to retain permanently, please feel free to make photocopies for your own use.

Two Ways To Use This Manual

This manual is designed to be used in two ways: as a self-study tool and as a reference tool. Let's consider each of these two ways.

Self-Study Tool

First, the Introduction To Fine Wine manual is intended as a self-study tool that you can use, on your own, to improve your effectiveness as a fine wine sales representative. All retailers share some of the same issues and concerns. But, as you will soon discover – or as you may have already discovered – fine wine retailers are very different in some ways from the retailers who primarily stock less expensive table wines. By reading and studying the entire manual, you'll be able to acquire the knowledge, the skills, and the confidence that you need to increase your sales of fine wines to these discriminating retailers.

To get the most out of this self-study tool you have to take charge of your own learning. Certainly you should make use of whatever study techniques help you to learn most easily. In addition, remember that the single most important thing you can do to facilitate your learning is to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on the answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the section to find the necessary information. Make sure you can answer all of the questions before you continue.

Reference Tool

Every sales professional knows that the process of learning never stops. As you continue on the job, you should refer back to this manual on a regular basis. When questions arise, you can use the manual to find the answers. When you encounter difficult sales situations, you can use it to help you review relevant facts and develop creative solutions.

Keep in mind that after a few months you'll need to return this manual to your manager so that it can be reissued to another sales representative. Therefore, as you work through this manual you should be sure to photocopy those pages or sections that you find especially helpful.

If, at any point, you have trouble understanding any of the material in this manual, ask your manager for help and clarification.

Your Four-Week Self-Instructional Program

As you recall, the Gallo Sales Manual was designed to accompany a specific eight-week training program to help you "get up to speed" as a sales representative. Now that you're already working successfully at your job, we're not going to prescribe such a highly structured approach to using this Introduction To Fine Wine manual. However, we are going to suggest some guidelines that can help design your own self-instructional program.

Don't try to learn everything at once. You should not try to sit down and read this entire manual in one quick undertaking. There's just too much information to read and absorb. In fact, we would suggest that you should plan to allocate between two and four hours to read and study each chapter. Unlike the Gallo Sales Manual, which focused on a wide variety of topics, this Introduction To Fine Wine manual is devoted to a single topic – fine wine. And each chapter builds on information from preceding chapters. So be sure to give yourself the time you need to process, understand, and absorb the information you're reading.

Combine your reading with observations in your accounts. As you work through each chapter, try to supplement your reading with practical information you can gather on the job. For example, during the course of your day take some extra time in those accounts that handle fine wines. Look at the products in those stores and read the shelf talkers and back labels. See if you can find concrete examples of the information you read.

Talk with your fine wine retailers. As you're learning more about fine wines you should take some time to learn more about your fine wine retailers. You'll find that many fine wine retailers are extremely knowledgeable about nearly all aspects of grape cultivation and fine winemaking. Ask them questions and find out about their opinions and preferences. For example, how much do they like to hear about the details of grape cultivation? What are their opinions of specific growing regions? Which styles or trends do they consider most important for their customers?

Talk with your district manager. On a weekly basis you should review your readings, observations, and discussions with your district manager. You'll find that your manager may be able to help you prioritize your learning and focus on those areas that will be most important for your success on the job. And if you have questions about any of the information you're learning, be sure to review those with your manager.

There is not a specific schedule you need to follow to complete this manual. But over the course of a month you should be able to work through all 12 chapters. On the next page we've included a suggested plan for this four-week self-instructional program.

Week 1:

During the first week you should focus on getting an introduction to fine wine and a general understanding of Gallo's approach. We suggest that you read:

- Chapter 1: Introduction
- Chapter 2: Growing Fine Wine Grapes
- Chapter 3: Gallo's Approach To Fine Wine

Week 2

During the second week you should focus specifically on what Gallo is doing to grow fine wine grapes and produce outstanding wines at our Sonoma winery. Read:

- Chapter 4: Growing Fine Wine Grapes At Gallo Of Sonoma
- Chapter 5: Making Fine White Wine At Gallo Of Sonoma
- Chapter 6: Making Fine Red Wine At Gallo Of Sonoma

Week 3:

During the third week you should expand the scope of your knowledge by exploring the sensory aspects of fine wine and the global nature of the fine wine industry. Read:

- Chapter 7: Evaluating Fine Wine
- Chapter 8: Fine Wines Of The Old World, Part 1
- Chapter 9: Fine Wines Of The Old World, Part 2
- Chapter 10: Fine Wines Of The New World

Week 4:

During the fourth week you should "put it all together" by focusing on your retailer and on applying the SIERA techniques to help you make effective sales presentations. Read:

- Chapter 11: The Fine Wine Retailer
- Chapter 12: SIERA Selling
- Appendix: A Brief History Of Wine

The Process Of Learning

Learning can be an exciting process – especially when that learning has a direct and daily impact on your own success on the job. And few topics are as interesting as the subject of fine wine. So you can expect that the process of learning the material in this manual will be enjoyable and rewarding. And we anticipate that you'll enjoy sharing your newly acquired knowledge with friends and family members as well as with your retailers and colleagues.

On the other hand, this manual does contain an enormous amount of information. And we want to be realistic about the challenge that awaits you. Because to understand, learn, and retain the information in this manual will require you to make an investment of time, patience, and practice.

Learning specialists tell us that we go through a four-stage process of learning and acquiring new skills:

Unconscious Incompetence. *We don't know how to do something, and we don't even realize that we don't know.* This is the stage when we watch someone else and think: "That looks easy. I could do that."

Conscious Incompetence. *We don't know how to do something and now we realize that we don't know.* This is the stage when we start to do something new and realize that it's not as easy as it looks. We tend to get frustrated and discouraged. And we may think: "This is stupid. Why did I ever want to do this?"

Conscious Competence. *We're learning how to do something and we're consciously aware of what we're learning and what we're doing.* This is the stage where we may be "talking ourselves through" the process and reminding ourselves of the key steps we need to follow.

Unconscious Competence. *We know how to do something without even thinking about it.* We've mastered and internalized the skill, to the point where we do it well on an automatic or unconscious basis.

To illustrate this process of learning, think back to when you first learned how to drive a car. Before you started driving you had been a passenger many times. And it probably looked as though driving was a "piece of cake." So you were probably eager to get behind the wheel and get going. Even though you didn't know how to drive, you thought it would be easy. (*Unconscious Incompetence.*)

Then when you started to learn, you quickly realized that driving was not as easy as it looked. Maybe you stalled trying to get the car into first gear or reverse. Perhaps you bumped into another car or scraped the side of the garage door as you were learning to maneuver. And you discovered that there was a lot more to this task than you had at first imagined. (*Conscious Incompetence*)

Over time, and with practice, you began to learn all the skills of driving. You learned how to shift gears and control the direction and speed of the vehicle. You learned how to follow the rules of the road and how to anticipate and respond to the behaviors of other drivers. You memorized the somewhat obscure information in the driver's manual and practiced the steps in parallel parking. You learned to be patient, to balance your nervousness and excitement. And, you continually reminded yourself about what to do and how to do it. (*Conscious Competence*)

By now, countless hours behind the wheel have enabled you to master the skills that were once new. These skills are now available at a moment's notice, whenever you need them, with barely a conscious thought. You drive skillfully without focusing a lot of conscious attention on how you're driving. Of course, sometimes we all have to think more consciously about what we are doing in order to drive safely! (*Unconscious Competence*)

You should expect that the process of learning to sell fine wines will follow a similar pattern. At first, you may have to work hard to understand, learn, and master new information and skills. But with time, effort, and practice you will become more comfortable and more capable. So you need to be ready to put in the hard work that will enable you to become more successful. And you need to have the confidence that comes from knowing that your efforts will pay off in terms of improved effectiveness on the job and continuing personal and professional growth.

Of course, as you've already seen, there are always new products to learn about, new retailers to get to know, and new sales techniques to try out. So it's fair to say that your learning never ends. Successful salespeople continue to refresh both their product knowledge and selling skills on a regular basis, which is why you may want to review this manual again in the future.

Keys To Successful Learning

The success of any training program depends on your efforts *to learn what you can use* and *use what you can learn*. Here are some tips that can help you succeed:

- Pay special attention to the objectives at the beginning of every chapter. These are your goals. Keep these objectives in mind as you read the material.
- Answer the questions at the end of each section. When you answer the questions, be sure to write your answers on a separate piece of paper.

- Try to answer the questions without looking back. That way you'll find out if you really know the information. But if you can't answer any of the questions, go back and find the answers. And be sure to write them down.
- If you're not sure of any of the answers, or if you don't understand some of the material, check with your manager.
- At the end of each chapter, review the objectives to see how much you've learned. And, if necessary, go back and reread the entire chapter or any sections of it.

The Decision To Be The Best

As a sales professional your goal should be to become the most successful sales representative possible. This means that *on a daily basis* you need to make a personal commitment to:

- Know your products and the wine industry.
- Organize yourself to get the most out of every sales call.
- Use all your resources and skills to deal with the retailers who make decisions in your accounts.
- Be the best sales representative that you can be.

Once you make this daily commitment, it will be easier for you to find the time and energy you need to work through this manual. As you do, keep in mind that this manual is just a starting point in your fine wine training. Although we have tried to include the most important information you need to get started, we strongly recommend that you take advantage of other educational materials, too. Your distributor may have a selection of books and videos that can enhance your knowledge. In addition, many excellent resources are now available on the Internet. If you've already begun to use these outside sources of information to supplement your development as a wine professional, then congratulations are in order. Keep up the good work!

IMPORTANT REMINDER:

Please do not write or mark in this manual, because it will be used again by other sales representatives. If there are any portions of this manual that you want to retain permanently, please feel free to make photocopies for your own use.

IMPORTANT REMINDER:

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

Check Your Understanding

1. What is the major purpose of this manual?
2. What are the two reasons why the E. & J. Gallo Winery has made the investment to develop this Introduction To Fine Wine manual?
3. What are the two principal ways you can use this manual?
4. What are the four stages of the learning process?
5. As you work through this manual, what are the key steps you should take to maximize your own learning?

An Introduction To Fine Wine

The words “fine wine” conjure up images of elegant events, gourmet cuisine, and special occasions. Fine wines have earned this reputation for a reason: they are the best of the best, the most refined and complex combinations of aromas, flavors, and textures, known to connoisseurs around the world.

But what exactly is a "fine wine?" And how do "fine wines" differ from other wines that many people may find to be perfectly acceptable for everyday enjoyment but somehow do not reach the threshold of "fine?"

Defining exactly what makes a “fine wine” is a somewhat subjective process. And although all fine wines have many characteristics in common, not all fine wines are of equal quality. Even within the fine wine category there are substantial differences.

On the other hand, knowledgeable wine people generally agree on the factors that determine the overall quality of a wine. And they generally agree about what they mean when they talk about "fine wine." Most wine experts would agree that fine wines share most or all of these eight characteristics:

- Grape quality
- Winemaking process
- Quality control standards
- Style and complexity
- Price
- Taste
- Consumer preferences
- Accolades from well-known wine critics

Let's take a brief look at each of these elements.

Grape Quality

You've heard this before and it bears repeating: *fine wine starts with fine grapes*. Wine is an agricultural product. The character of the finished wine depends upon the character of the grapes from which it is made. The winemaker, of course, has a critical role. But even the most talented winemaker, working in the finest winemaking facility, cannot make a fine wine from poor grapes. And the finest wines can only be made from top-quality grapes that were grown and harvested under ideal or near-ideal conditions.

Around the world there are many grapes that are ultimately used to produce wines. But most wines that are considered "fine wines" are made from specific varietals, the so-called "noble grapes." You're already familiar with the most famous varietals:

- Red wine grapes such as Cabernet Sauvignon, Zinfandel, Merlot, Pinot Noir, Sangiovese, and Syrah.
- White wine grapes such as Chardonnay, Sauvignon Blanc, Riesling, Gewürztraminer, and Pinot Grigio (Pinot Gris).

Of course, there are many other varietals that can be used to produce fine wines, and you'll learn more about these in Chapters 8-10 as you read about *Fine Wines Of The Old World* and *Fine Wines Of The New World*. For now, just keep in mind that the winemaker must begin with grapes that are capable of producing fine wine.

At the same time, it's important to cultivate the grapes under optimal conditions. Although there are many areas in the world where grapes can be cultivated, only a few of these areas are blessed with the combination of climate and soil that can produce grapes of exceptional quality. The limited availability of prime vineyard land is only one of the many factors that increases the cost of producing fine wine.

In addition, the grapes must be harvested at the best possible moment. As grapes mature they contain increasing amounts of sugar and decreasing amounts of acid. To make the finest quality wines, the winemaker considers this sugar/acid ratio and the physiological maturity of the grapes, looking for the precise moment that will yield the finest varietal fruit character, overall depth of flavor, and balance of acid and alcohol.

Winemaking Process

In the Gallo Sales Manual you read about the steps that are typically involved in the process of making wine. Although wine has been made for thousands of years, specific equipment and techniques continue to evolve and change. Gallo and other state-of-the-art wineries throughout the world are always testing new approaches for making fine wines. But, in general, winemakers follow these eight steps to produce fine wines.

Grape Harvest. Ripe grapes are picked and delivered to the winery. As you've already read, the grapes must have been cultivated under the best possible conditions in select locations and harvested at the optimal moment of ripeness.

Crush And De-Stem. (*Receiving And Preparation For Fermentation*) Traditionally, the grape clusters are passed through a mechanism that crushes the berries and removes their skins. In Chapters 5 and 6 you'll read about how Gallo has eliminated this step in order to preserve more varietal freshness and avoid extracting bitter tannins from the seeds and stems.

Press. The juice is separated from the skins, seeds, and pulp of the fruit. As you'll see in Chapters 5 and 6, Gallo employs the latest technology to gently separate the juice and protect its varietal character.

Alcohol Fermentation. Fermentation is the chemical process of converting sugar to alcohol. During this stage yeast is added to the juice (or, for red wines, the "must") to convert the grape sugars into alcohol.

Malolactic Fermentation. (Optional) *Malic acid* is a sharp tasting acid that may be converted into a softer tasting acid called *lactic acid*.

Aging And Blending. Once the fermentation steps are complete, the wine is aged to allow the flavors and aromas to mature. Depending on the specific varietal and the desired style of the wine, the winemaker may choose to age the wine in oak barrels to impart a characteristic oakiness to the aromas and flavors of the wine.

Stabilization And Clarification. (Optional) The winemaker may choose a number of specific processes to remove any suspended solids in order to improve the clarity of the wine and/or prevent spoilage in the bottle.

Bottling And Bottle Aging. The wine is transferred into its final package and then aged (or *binned*) in temperature-controlled facilities until the winery releases it. Bottle aging is another factor that adds cost to fine wines.

In Chapters 5 and 6 we're going to take a detailed look at the specific processes Gallo uses to make fine white and red wines. You'll see how Gallo is combining traditional hand-crafting techniques with modern technological innovations to produce outstanding wines on a larger scale and at a more affordable price.

Quality Control Standards

As you can probably imagine (and as you'll learn more about in Chapter 2 and Chapter 4), the process of cultivating fine wine grapes and harvesting them at the optimum moment of ripeness is extraordinarily challenging. Every year growers confront the difficulties of unpredictable weather, varying growing conditions, and dangerous pests such as disease, insects, weeds, and animals.

Similarly, the process of making a fine wine is also challenging. At each stage of the winemaking process there are, literally, many things that can go wrong. And, if something does go wrong at any point there may be little or no opportunity for the winemaker to recover.

So it should come as no surprise that quality control is absolutely critical to making fine wine. The winemaker's *tender loving care*, from harvesting through bottling, is an absolutely essential requirement for turning superior grapes into fine wine.

Style And Complexity

As you'll read in the *Appendix: A Brief History Of Wine*, the art and science of winemaking are, literally, thousands of years old. As you'll see in the chapters ahead, the field continues to move forward with innovative advances and new technologies. But, as you would expect in any field with such a long history, tradition continues to play an important role in winemaking and in defining "fine wines."

To put it simply, there are certain styles that are generally accepted as the classic examples of "fine wines." For the most part, these are the styles that developed in the great "Old World" winemaking regions of Europe, especially France. And these are the styles that "New World" winemakers consciously seek to emulate – whether they are located in Australia, New Zealand, Chile, Argentina, South Africa, Washington, Oregon, or Sonoma, California.

In other words, when winemakers anywhere in the world set out to make a fine Cabernet Sauvignon they are well aware of the traditional characteristics of the great red wines of Bordeaux. When winemakers anywhere in the world set out to make a fine Chardonnay they are well aware of the traditional characteristics of the great white wines of Burgundy. Today, winemakers may make conscious decisions to emulate or deviate from these styles. But the styles themselves are well known and for many years were generally accepted as the standard for any "fine wines."

At the same time, keep in mind that the concept of "fine wine" is constantly evolving and changing. The distinction between "Old World" and "New World" styles is blurring as leading winemakers all around the world seek to emulate each other's technological, stylistic, and marketing innovations. And as the wine industry becomes increasingly global, there may be several different styles and different standards of excellence that co-exist – even within specific fine wine segments.

For example, there are those winemakers and consumers who prefer their Chardonnay aged in oak –or even aged in heavily toasted oak. At the same time, there are winemakers and consumers who prefer their Chardonnay with a fresher, more "fruit-forward" style that emphasizes the characteristics of the grape rather than the artistry of the winemaker.

The choice of a particular style – whether it involves adhering to an "Old World" standard or experimenting with an innovative new approach – does not determine the "quality" of the wine. Instead, it is simply a reflection of the preferences of the winemaker. Just because a wine is crafted in a new or different style does not mean that the wine is not as "good" as a wine that reflects a more traditional approach.

Along with style, *complexity* is another critical characteristic of fine wine. As with any other wines, fine wines may be described by several general terms, such as "buttery" or "oaky" or "spicy." However, unlike other categories of wine, fine wines are appreciated largely for their *complexity*. Based on the character of the grapes and the winemaker's influence, fine wines typically exhibit a variety of distinct yet complementary sensory elements. Although each element is recognizable on its own, the elements are "married" to such an extent that the wine would not be the same if just one of them were different.

You'll learn more about complexity in [*Chapter 7: Evaluating Fine Wine*](#). For now you can consider it as a measure of the variety of sensory characteristics that are available from the wine – particularly in terms of taste, aroma, and feel.

To understand complexity more completely, let's consider two typical consumers: one who favors less expensive wines, the other who prefers fine wines.

From our research, we know that consumers who buy economy-priced, popular-priced, or mid-priced wines are generally looking for *consistency*. These wine-drinkers enjoy certain qualities of fruitiness, sweetness, or lightness in their wines. And they prefer these characteristics to remain relatively constant over time.

On the other hand, fine wine-drinkers are looking for a varied tasting experience. They want to enjoy a distinctive blend of flavors, aromas, and textures. And today, many like to experiment. So, for example, they make seek wines that offer unique taste sensations by combining varietal fruitiness with the toasty quality of oak. They may prefer wines that offer distinctive aromas, such as green peppers, blackberries, pears, or vanilla. Or they may prefer fine wines due to their unique "mouthfeel," the way the wines feel in the mouth.

In addition, fine wine drinkers generally want their experience to change "over time" – whether it's over the course of an evening as they enjoy a single bottle or over the course of several years as they age several bottles for consumption at later dates. So, for example:

- They may notice and appreciate changes that take place over the course of an evening as a bottle of wine warms and "opens."
- They may purchase several bottles of the same wine for consumption over a period of months or years. That way, they can notice and appreciate changes that take place as the wine continues to age and mature.
- They may purchase several vintages of the same wine so they can notice and appreciate variations from one year to another.
- And they may enjoying comparing wines of the same varietal and vintage year from different producers located in similar or different growing areas.

Since complexity is so desirable, the factors that contribute to that complexity take on a special meaning to those individuals who value the subtle, individual nuances of each fine wine. People who truly enjoy and appreciate fine wines sometimes seem to inhabit a different world with a language and value system all its own.

Fine wines gain their unique complexity as a result of being hand crafted with special winemaking techniques. Starting with the best possible grapes, winemakers use a variety of techniques that add distinctive style considerations to enhance and round out the characteristics of each finished wine. You'll learn more about these techniques in Chapters 5 and 6 when you read about how we make fine white and red wines at Gallo of Sonoma

Price

Price alone does not make a wine "fine." However, the factors that you just read about – starting with the highest quality grapes, using a time-consuming and labor-intensive winemaking process, maintaining strict quality control, and hand crafting the wine to achieve a desired style and complexity – these factors all add considerably to the cost of wine production. So fine wines must be retailed at a price point that enables the winery to recover its costs and earn a reasonable profit.

In the Gallo Sales Manual you read about six categories of wine based on price:

- Ultra-Premium
- High-Priced Cork Wines (HPC)
- Medium-priced wines (mid-priced cork or MPC)
- Fighting varietals
- Popular-priced wines
- Economy and box wines

In the United States, fine wines generally fall into the Ultra-Premium or High-Priced Cork Wine categories.

The **Ultra-Premium** category contains the finest and most expensive table wines produced anywhere in the world. In the year 2002, ultra-premium wines were generally considered to be those wines priced at or above \$15 per 750 ml bottle. Many of these outstanding wines actually retail at much higher prices – \$50 or \$100 per bottle, or even more!.

High Priced Cork Wines (HPC) are “hand crafted” fine wines that appeal to discerning wine consumers. In the year 2002, HPC wines were generally considered those wines priced at between \$9 and \$15 per 750 ml bottle.

Taste

Taste is the simplest – and perhaps the ultimate – test of wine quality. If a wine doesn't taste good, then it isn't good – at least not from the perspective of the person who is tasting it.

Of course, if beauty is in the eye of the beholder then taste is in the mouth and nose of the taster. Even the most devoted wine lovers may differ significantly in their taste and style preferences.

On the other hand it's certainly fair to say that there are general standards for how fine wines should taste. And, for the most part, these standards are shared by winemakers, wine writers and critics, and knowledgeable wine drinkers all over the world. After all, if there were no shared standards then there would be no basis for the numerous tasting competitions that are such an important part of the world of fine wine. In fact, it's precisely because there *are* shared standards of taste that fine wines from Gallo have been able to garner prestigious awards at wine festivals and competitions in the United States and abroad.

Consumer Preferences

Consumer preferences are critical in determining whether a particular wine is considered good or not. To put it simply, *fine wines are those wines that appeal to discriminating wine consumers.*

Keep in mind, though, that consumer preferences may change over time – even in relation to fine wines. For example, for many years fine French wines were generally considered to be the "best" fine wines in the world. And, even today, many discriminating wine connoisseurs still consider the finest French wines to be the standard against which other wines are judged. But that view is not universally shared. In recent years, many knowledgeable wine people have begun to prefer the more "fruit forward" character of fine wines from California and Australia. The wines of Italy, which are also generally lighter and more accessible than French wines, have also gained favor with many fine wine drinkers.

So, as the wine industry continues to expand on a global scale, consumers have the opportunity to discover, taste, and enjoy a wider range of wine styles. As you read through this manual you should be aware that Gallo is conducting extensive ongoing market research to understand what consumers are looking for in their fine wines. And with all of the wines in our fine wine portfolio we are making every attempt to meet these preferences and expectations.

Accolades From Well-Known Critics

There are outstanding wineries all over the world that are currently producing very excellent wines. Many of these wines are never reviewed by wine critics. So the fact that a particular bottle of wine has not been reviewed by prominent writers or critics doesn't mean that the wine is not "fine." In fact, you can probably discover many wines that you would enjoy and that would meet all the criteria above for "fine wines" and yet were never reviewed by any critics or wine writers.

On the other hand, if a wine does receive accolades from well-known writers and critics then that is a very positive indication that the wine has exceptional merit. If wine experts *like* a particular wine then that generally means that the wine meets certain traditional or emerging standards of high quality.

Wine writers and critics pay attention to – and are influenced by – all of the factors that we've described above. For example, writers and critics often consider the grape growing and harvesting conditions of each specific vintage. They stay informed about which years produced excellent grapes and which years fell a bit short. And they consider the yield and quality of each harvest when they rate the resulting wine. Their comments may ultimately influence retailers and consumers alike.

Keep in mind, however, that even wine critics have their own prejudices and predispositions. And you should be aware that some famous critics are as well-known for the personal preferences as for their expertise. For example, there may be one critic who has a strong preference for big, buttery Chardonnays that are heavily oaked. Another critic may prefer Cabernet Sauvignons that are made in the traditional Bordeaux style.

So the fact that one particular critic or wine writer does not like one particular wine does not mean that wine is not a "fine wine." On the other hand, if several prominent wine writers and critics all agree that a wine isn't up to par, then it probably isn't.

Finally, you should be aware that sometimes wines are like movies. At some point you've probably seen a movie that you really loved even though the critics hated it. The same can be true with wines, too.

A Glimpse Into The World Of Fine Wines

One of the best ways to get a "feel" for the world of fine wines is to look at a specific wine from the perspective of someone who truly understands fine wines and who wants to know as much as possible about each wine's heritage. To give you that insight, we're going to provide the *winemaker notes* about two fine Gallo wines:

- Gallo of Sonoma 1999 Laguna Ranch Vineyard Chardonnay
- Rancho Zabaco 1999 Chiotti Vineyard Zinfandel

Both of these outstanding wines are from the ultra-premium category.

The winemaker notes will help you begin to understand the mindset of the people who produce – or enjoy – fine quality wines. We're not providing this information to make you an expert on these specific wines. Nor do we expect you to study these descriptions. Instead, our goal is just to help you begin to think about some of the many factors that influence the character of a fine wine. We think the descriptions that follow will help you understand why fine wines are so complex – and why they cost so much in comparison to other wines in Gallo's portfolio.

Winemaker notes tend to be highly personal. They may vary considerably from one winemaker to another, both in terms of information and format. And even the same winemaker may produce very different notes for one wine or vintage than another.

Finally, keep in mind that the winemaker notes contain some technical jargon that you are probably not familiar with. Don't be overly concerned with these new terms. Instead, focus on the process involved in producing these truly fine quality wines.

Gallo Sonoma 1999 Laguna Ranch Vineyard Chardonnay

Chardonnay, Russian River Valley, 1999

VINEYARD

Our family's Laguna Ranch Vineyard, originally planted in the late 1800's, is located in the Region I hillsides of the Russian River Valley. Soils here are a combination of gravelly and sandy loam, referred to as Sebastopol series. The fog that lingers here throughout the day makes this one of our coolest Sonoma County vineyards, and produces Chardonnay grapes with crisp acidity and concentrated citrus, apple, and pear flavors and aromas.

HARVEST

With three generations and over six decades of experience in northern Sonoma, our family believes that the "secret" to making world class wines is to begin with world class grapes. That is why we vigorously shoot-thinned and leaf-removed vines to intensify varietal character for this wine.

Hand harvesting of the specially selected vineyard blocks for this wine occurred in October, 1999.

WINEMAKING

Grapes for this wine were hand-picked and sent whole cluster to a membrane press, bypassing the crusher to reduce the potential for bitter tannin extraction.

The juice was collected for cool fermentation and aged for an average of 10 months in primarily French and European oak barrels, most heavily toasted, to overlay a smoky, nutty character.

This wine completed malolactic fermentation and sur lie aging to impart a silky, elegant texture. Along with the pear and apple characteristics in the wine, expect aromas and flavors of spicy fig, hazelnut, and a lengthy finish with balanced notes of toasty French oak barrels.

FINISHED WINE

Grape Source:	Laguna Ranch Vineyard, Russian River Valley
Oak Barrels:	Francois Freres (Allier, Bertranges, Troncais, Vosges), Mendocino Euro, Vernou, Boutes, Rousseau, Billon, Damy, Toutan Bertranges, Dargaud Jaegle, Latour.
% Varietal:	100% Chardonnay
% Malolactic:	100%
Residual Sugar:	0.30
Titrateable Acidity:	0.61g/100ml
pH:	3.36
Alcohol Level:	14.3%

Rancho Zabaco 1999 Chiotti Vineyard Zinfandel

Zinfandel, Dry Creek Valley, 1999

VITICULTURAL NOTES

Chiotti Vineyard is located at the far northern end of the Dry Creek Valley, on the eastern benchland slope just before Lake Sonoma. This 60-acre vineyard was planted to Zinfandel in 1992. The vineyard's favorable microclimate and gravelly clay loam soil contributes to a unique terroir expressed in velvety layers of wild blueberry and black raspberry fruit flavors. The 1999 growing season was a cool one, with late July and August hitting 80 degrees only once. As a result we had an extra long hang time for the grapes with harvest coming three weeks later than normal. The year was an exceptional one for Zinfandel with ripe and concentrated grapes.

HARVEST NOTES

Zinfandel grapes for this wine were grown on the Chiotti Vineyard. Leaf removal and shoot/cluster thinning were employed to maximize the development of color, aroma, and flavor in the grapes for this wine. Once ripe, clusters were meticulously hand harvested at an average sugar level of 24.3 brix.

WINEMAKING NOTES

Grape clusters for this wine were de-stemmed, but not crushed, minimizing bitter tannin extraction from the seeds and skins. Gentle handling meant we were able to deliver a substantial percentage of whole berries for fermentation, yielding powerful, mouthfilling, bright fruit flavors. The majority of the wine went through fermentation in our horizontal rotary fermenters, which maximize grape skin contact. After settling, the wine was racked into small, mostly French oak barrels and aged for almost five months. This Zinfandel is neither fined nor filtered.

FINISHED WINE

Grape Source:	99% Chiotti Vineyard, Dry Creek Valley
Varietal Source:	99% Zinfandel
Residual Sugar:	0.2g/100ml
Titrateable Acidity:	0.63g/100ml
pH:	3.7
Alcohol Level:	15.6%
Production:	2,100 cases

Summing Up

Obviously, there's a lot to learn about fine wines. And as you read through this [Introduction To Fine Wine](#) manual you will acquire an enormous amount of knowledge in this area. For the moment, just keep in mind these important points about fine wines:

- They use higher-quality grapes.
- They are the result of hand-crafting and refined winemaker processes.
- They are more complex in terms of their flavors, aromas, and textures.
- They command higher prices than other wines.

As you gain experience and confidence in wine appreciation, you will want to carefully study the *Winemaker Notes* that are often prepared for Gallo's fine wines. Reviewing these notes will help you learn describe each wine's unique characteristics accurately and effectively.

The Marketplace: Fine Wine Consumers

Just as fine wines are more complex than other wines that are more moderately priced, the market for fine wines is also more complex. In Chapter 11 you're going to learn about the special characteristics and needs of the fine wine retailer. For now, let's take a brief look at the consumers who purchase and enjoy fine wines.

As you know, the E. & J. Gallo Winery conducts extensive research into the characteristics and buying patterns of wine consumers. Our research suggests that fine wine consumers tend to fit the following profile:

- Have higher expendable income than the average consumer.
- Are generally at least 35 years old or older.
- Have a keen interest in wine, are somewhat knowledgeable about fine wines, and actively seek out information about wines.
- Consume wine frequently with meals and on social occasions.
- Like to experiment with wines.
- Are highly educated (college or post-graduate degree)
- Are not as brand loyal as other categories of wine consumers.

In terms of purchase behavior, fine wine consumers tend to:

- Buy more expensive wines.
- Buy more than one bottle of wine at one time.
- Try new wines that have received praise in the press, have won awards in wine competitions, or have been personally recommended by trusted sources.
- Purchase other products such as:
 - Spirits
 - Prepared luxury foods
 - Gift baskets
 - Cigars
 - Microbeers
 - Innovative consumer electronic products
 - Specialized business or "lifestyle" periodicals

Compared with other wine consumers, the customers who purchase fine wines tend to be influenced to a lesser degree by brand preferences and traditional price/value relationships. In fact, perceived *quality* (rather than price) seems to be the major factor in their buying decisions. Fine wine consumers are generally willing to pay a higher price for wines that they like. However, they do expect – and demand – top quality products.

Check Your Understanding

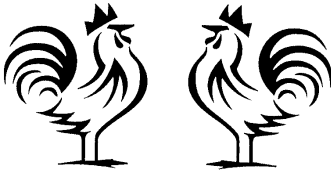
1. What are the eight characteristics that most wine experts would agree are generally shared by wines that are considered to be "fine wines?"
2. What are the eight steps involved in the traditional process of making fine wines?
3. What does the term "complexity" mean in relation to fine wines?
4. What are some general characteristics of fine wine consumers?
5. What is the principal factor that seems to influence a customer's decision to purchase a fine wine?

Review

Now that you have completed this chapter you should understand and be able to explain:

- The purpose, objectives, and content of the Introduction To Fine Wine manual.
- Gallo's commitment to your training and professional development.
- How to use this manual to maximize your learning.
- What a "fine wine" is and how "fine wines" are different than other wines.
- The general process that is used to produce fine wine anywhere in the world.
- The fine wine marketplace and the general characteristics of the consumers who buy fine wines.

If you have met these objectives, congratulations. If not, please review the appropriate sections of this chapter. Make sure you've mastered the essential material before you continue with the other chapters in this manual.



Chapter 2 Growing Fine Wine Grapes

"It takes good grapes to make good wine"

As a sales person you've undoubtedly heard or read this expression or something similar. It turns out to be true. Despite all of the advances in winemaking technology that you will read about in Chapters 5 and 6, wine is fundamentally an agricultural product. And the quality of any wine begins with – and depends on – the quality of the grapes from which it's made.

This chapter will give you a thorough understanding of the complex relationship between nature and people that must exist in order to produce the finest quality wine grapes. We'll provide you with some background information on the annual life cycle of the grapevine. And we'll consider all of the elements that viticulturists must bring together to produce the balanced growth that yields the highest quality grapes.

We have done our best to present all of this material to you in a clear and straightforward way. But there is a lot of information here for you to absorb and assimilate. Since some of this material is probably new to you, you may find it helpful to read some parts of the chapter two or three times.

Overview

This chapter is divided into two major sections.

First, we begin with some background information on The Annual Life Cycle Of The Vine. Here, you'll get a brief introduction to the different stages of growth that a vine goes through each year to produce grapes that are ready for harvest. These stages are:

- Weeping
- Bud Break
- Shoots, Foliage, And Embryo Bunches
- Flowering Of The Vine
- Fruit Set
- Ripening Of The Grapes

In the second and larger section of this chapter we will consider all the factors that determine the characteristics of the grapes at the time of harvest.

- Climate
- Soil
- Soil Amendments
- Rootstock
- Cover Crops
- Varietal/Clone
- Pest Management
- Training/Trellising
- Pruning/Thinning
- Water Management

We will also examine the decisions that a grape grower may make during the course of the season to balance and control these factors in order to optimize the quality of the grapes.

Objectives

After reading this chapter you should understand and be able to explain:

The annual life cycle of the grapevine and the stages that a vine goes through to produce the grapes that are ultimately made into wine.

The factors that determine where fine wine grapes can be grown successfully.

The Heat Summation Method Of Classification that's used to describe wine-growing regions.

The soil characteristics that are most important in growing quality wine grapes.

The differences between "rootstock" and "varietal/clonal selection" and the factors that a grower might consider in selecting each.

How the practices of cover crops, pest management, training and trellising, pruning and thinning, and water management contribute to the balanced growth of the vine.

Key Terms

As you read this chapter keep an eye out for these terms. By the end of the chapter you should understand all of them. More importantly, you should be able to explain how each of these characteristics or processes affects the character or sensory evaluation of the resulting wine.

Balanced Growth

Brix

Bud Break

Canopy Management

Climate

Clonal Selection

Cover Crops

Cultural Practices

Embryo Bunches

Fruit Set

Growing Season

Hang Time

Heat Summation Method Of Classification

Macroclimate

Mesoclimate

Microclimate

pH

Phylloxera

Pierce's Disease

Pruning

Rootstock

Soil Amendments

Terroir

Titrateable Acid

Trellis

Viticulture

Weeping

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

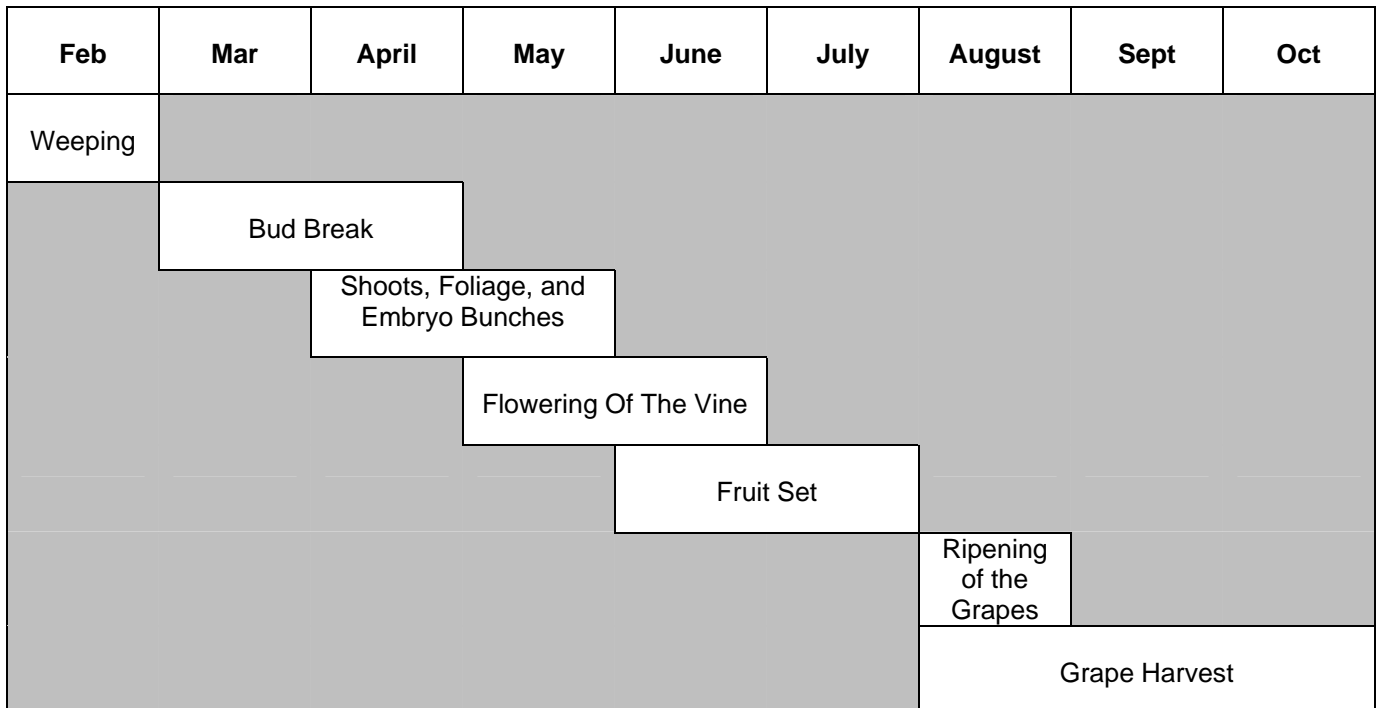
If you're not sure how to answer any of the questions, re-read the section to find the necessary information. Make sure you can answer all of the questions before you continue.

The Annual Life Cycle Of The Vine

Before reviewing the key factors involved in growing quality wine grapes, it's important to begin with a basic understanding of the annual life cycle of the grapevine itself.

Just like a deciduous tree, the grapevine is a perennial plant. In other words, instead of dying at the end of the growing season, the vine goes dormant. The vine's growth cycle (reproductive calendar) starts when winter ends and finishes when winter begins again. But the human work of maintaining the vineyard continues throughout most of the year, even as the vines become dormant during the winter months of November, December, and January.

Here's a graphic chronology of the major events that take place during the growing season. Of course, the specific timetable will vary somewhat depending on the variety of grapes and the location and climate of the vineyard.



Now let's take a closer look at each step in the process.

Weeping (February)

During the cold winter months, a grapevine is dormant. But as spring approaches and the soil starts to warm, the vine's roots begin to collect water. The water pushes the vine's sap up the branches until it oozes out the tips that were pruned during winter. This process is known as *weeping*, and it is the first visible sign that the vine is finally awake after a long winter's rest.

Weeping begins suddenly, increases rapidly, and then gradually decreases in intensity. A single vine can lose up to 10 pints of sap depending on where the vineyard is located and the type of trellis system used in that particular vineyard to train the vines.

Bud Break (March/April)

Most of us think of a "bud" as the growth that will develop into a flower. But for a grapevine, a bud is actually one or more undeveloped stems that are protected in a series of modified leaves known as bud scales. Sometime in early spring, generally between 20 and 30 days after the onset of weeping, the buds begin to swell, grow, and open. This is called *bud break*.

The actual timing of bud break is determined by three factors: the grape variety, the prevailing climate, and the type of soil.

The grape variety. The Chardonnay grape is characterized by early bud breaks. Merlot opens slightly later. Cabernet Sauvignon is one of the last varieties to bud.

Climate. In general, warmer conditions will speed up the process of bud break, even within the same grape variety.

Soil conditions. Soils that retain heat lead to earlier bud break. For example, sand is a warmer soil and tends to accelerate the process. Clay is a cooler soil and it tends to slow the opening of the buds.

The timing of the bud break has an impact on when the vine is most susceptible to frost damage. When bud break occurs early in the season the vines are more vulnerable to spring frost. When bud break occurs later, the grapes mature later in the year and may be damaged by rain and frosts in autumn.

Shoots, Foliage and Embryo Bunches (April/May)

Following bud break, the next development is the emergence of leaves (foliage) and shoots. Once the fourth or fifth leaf has emerged – which generally takes place around mid-April – miniature green clusters begin to form. These clusters are the vine's flowers and are commonly known as *embryo bunches*.

Each blossom that does not become damaged has the potential to develop into a grape. So the number of these blossoms is the first early indicator of the potential size of the crop.

Flowering Of The Vine (May/June)

About eight weeks after bud break, the embryo bunches blossom into flower. Again, the exact timing varies according to the type of grape and the prevailing weather conditions. In warmer climates, flowering often begins when the average daily temperature reaches about 68° F. In cooler regions, the flowering process may be brought on by the increasing length of the days.

Blooming generally lasts between 7-10 days. Again, temperature plays a critical role. Ideally, the air temperature during flowering should remain between 68° F and 77° F. But the soil temperature also affects the length of flowering. In fact, a soil's ability to retain heat has a more significant impact on the vine than the ambient air temperature.

During the time that the vine is in flower, it is very vulnerable to damage from rain or frost. There's no protection against rain, but most vineyards may employ a number of techniques to reduce the possibility of frost damage.

Sprinklers. As temperatures approach freezing, a vineyardist may begin to sprinkle water on the vines. By creating convection currents in the vineyard, the water helps to prevent the temperature from dropping below 33° F. Although this process may seem counterintuitive, it really works!

Fans. As you probably remember from science classes, warm air rises and cold air falls. This means that the coldest air is generally at ground level. Fans or propellers set at a height of between 13-23 feet may be used to combine the cold air at ground level with warmer air from above the vine canopy. Winds of about 2 miles per hour may be sufficient to prevent frost damage.

Stoves. Stoves are used to heat the air surrounding the vines. Sometimes just one or two degrees can make the difference between whether a cluster survives or is destroyed.

Fruit Set (June/July)

Most cultivated grapevines produce what are called "perfect" flowers. This means that they contain both reproductive elements: male (stamen) and female (pistil). And most varieties are self-fertilizing – that is, they are not dependent on wind or insects for fertilization.

Fertilization occurs when pollen from the stamen lands on the female flower, swells, and penetrates the ovule. This begins a complex series of events that ultimately transforms the ovules into seeds and transforms the ovary wall into the skin and flesh of the berry.

This period when flower fertilization occurs and the berries begin to develop is known as *fruit set*.

The percentage of berries that actually set into grapes – and the number of grapes in each cluster – varies depending on the grape variety.

Ripening Of The Grapes (August)

During the months when the grape is green, the fruit continues to develop in size. But very little chemical change occurs. Then, during August, dramatic changes take place as the process of ripening really begins.

The skin turns a different color.

The sugar content builds up dramatically.

The acid composition of the grape changes. *Malic acid* decreases as the *tartaric acid* increases.

From this point, the tartaric acid remains the primary acid in the grape. However, after about two weeks, it does begin to decline in content.

Grape Harvest (August/September/October)

The harvest begins when the grapes achieve just the right balance of sugar, acid, and pH for the particular wine the winemaker intends to make. Let's briefly consider each of these factors.

Sugar. As you'll see in Chapters 5 and 6, the process of making wine depends on fermentation – a chemical process that converts sugar to alcohol. In the field, winemakers use an instrument called a *refractometer* to provide a measurement of what is called the *Brix* scale. The Brix scale provides an indication of the percentage of sugar in the juice of the grapes.

It's not necessarily important to you as a salesperson – or as a consumer – but winemakers know that the degree Brix will convert on a sliding scale of between .55 – .65 to the percentage of alcohol in the final wine. For many wine styles, the optimum Brix is generally between 22° and 24°. This means that if all the sugar in the wine is fermented then the alcohol in the resulting wine will be around 12.7% to 14.2%.

Acid. Acid is an essential component of wine, and is responsible for desirable qualities such as crispness and brightness. *Tartaric acid* is the principal acid in wine, although *malic acid* and minor amounts of other acids are also present. One of the criteria winemakers use to determine the optimal ripeness of grapes is what's called the "titratable acidity." This is a measure of the total amount of acid in the grape juice. Optimum levels are considered to be around 0.65% to 0.85 % for white wines, and around 0.60% to 0.80 % for red wines.

pH. If you took chemistry in high school you may remember that pH is a measure of the relative strength of acids that's based on the number of free Hydrogen ions in a solution. The pH is related to, but not identical to, titratable acidity. For red wines, a pH of 3.4 is considered typical. For white wines the typical pH is around 3.1 or 3.2.

As grapes ripen, the level of sugar (Brix) increases and the level of acid (titratable acidity) decreases. So the winemaker and the grape grower must work together to determine the best moment for harvesting.

Keep in mind that what would be considered the optimal balance of sugar and acid does vary from grape to grape – and even from vineyard to vineyard. Even so, this balance greatly affects the ultimate style of the wine. So it is important that the grapes are picked at just the "right" time.

In warmer climates the harvest generally begins in August and ends in September. In cooler growing regions harvest typically begins between the middle and end of September and continues for a month or longer. This difference is due to the fact that grapes ripen more quickly in warmer climates.

Once harvesting begins, it is critical that the grapes are picked quickly and brought to the winery as soon as possible in order to prevent spoilage or premature fermentation.

A Final Word On The Life Of The Vine

Now that you have a general understanding of the annual cycle of the vine it's important to keep one principle in mind. Like all plants, the vine's "purpose" is to propagate itself. In other words, all of the vine's natural tendencies are aimed at producing more vines – not producing fine wines.

Consider this scenario. What would happen if you took a vine and planted it in deep, rich, black topsoil with abundant sunlight, warmth, nutrients, and water? The vine would probably thrive and would grow as many branches and leaves as possible. Why? Because that unrestrained growth would produce thousands of grape berries. And inside each of those grape berries are the seeds that could produce more vines.

In this way, the vine would help to ensure the survival of its species. However, none of those grapes might ever achieve the color, sugar, or tannin levels desired by today's winemakers.

This scenario highlights the key challenge in growing fine wine grapes. In order to produce fine wine grapes, the vine must be forced to grow in a way that is against its natural tendencies. And the viticulturist must balance the factors of climate, soil, and cultivation to achieve the best possible grapes.

For this reason, you might have heard that a grapevine needs to be "stressed" to produce quality fruit. In this context, the word "stressed" implies that the grower is restricting the vine's intake of nutrients in order to limit the yield of the vine and increase the quality of the grapes.

At Gallo, we believe that this concept of "stressing" the vines is not entirely correct. It's true that many vineyards farmed in this manner do produce excellent wines. But it's also clear that "stress" can be harmful. Stress can affect the fruit to the point where it tastes tired rather than fresh. In fact, too much stress can even kill the vine.

So we believe that the quality of fruit is not derived from "stress" itself, but rather from the results of the stressed conditions: *balanced growth* that achieves an optimum relationship between the leaves and branches of the vine and its fruit clusters.

An Introduction To "Terroir"

French winemakers have a term that they use to describe the way that different elements of grape growing are brought together to produce fine wine grapes. That term is *terroir* (pronounced terr-WAHR).

Writing in the introduction to James E. Wilson's book *Terroir, The Role of Geology, Climate, and Culture in the Making of French Wines*, Hugh Johnson eloquently and poetically refers to *terroir* as: "... the whole ecology of the vineyard: every aspect of its surroundings from bedrock to late frosts and autumn mists, not excluding the way the vineyard is tended, nor even the soul of the vigneron (wine grower)."

Later in his book, Wilson takes a more straightforward approach, defining *terroir* as "a French term meaning total elements of the vineyard." And in the book *Wine Science*, Ron S. Jackson explains the term as "the combined influences of vineyard atmospheric, soil, and cultural conditions on vine growth and fruit ripening."

Wine aficionados may debate the nuances of *terroir* and its impact on the grapes and the resulting wines. But you don't have to get hung up on subtle distinctions. In a nutshell, the major components of *terroir* are climate, soil, and the variety of methods used to nurture and balance the vine – what we call *cultural practices* or *viticulture*. We'll describe these components of *terroir* during the rest of this chapter.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. Well-established grapevines follow a growth cycle that includes six major steps prior to harvest. List these steps in the order they occur.
2. What would you expect to happen if you took a vine and planted it in deep, rich, black topsoil with abundant sunlight, warmth, nutrients, and water? Why would this vine not yield the highest quality wine grapes?
3. What is balanced growth and why is it important to achieve?
4. What is meant by the term *terroir*?

Factors Affecting The Growth Of The Vine – And The Quality Of The Grapes

As you've seen, the French concept of *terroir* is used to encompass all of the factors that contribute to the production of fine quality wine grapes. These factors include:

- Climate
- Soil
- Soil Amendments
- Rootstock
- Cover Crops
- Varietal/Clone
- Pest Management
- Training/Trellising
- Pruning/Thinning
- Water Management

Of these different factors, climate and soil are the most critical – and the ones most dependent on nature. The other factors are *cultural practices* (or *viticulture*) that depend on the skill and decisions of the grape grower.

Let's begin by considering the most important factor: climate.

Climate

Climate – especially temperature – is the single most important factor in grape cultivation. Climate determines the specific locations in the world where wine grapes can be grown successfully. Climate also plays a critical role in determining the quality and balance of the diverse components of a grape. These components, which include sugar, acid, tannin, color, pigments, flavors, and aromas, each impact the character of the resulting wine.

What exactly do we mean by climate? Climate is defined as *the long-term weather pattern of an area, including the elements of temperature, moisture, sunlight, and wind*. In winemaking, the term climate is applied to three significantly different areas:

- *Macroclimate* is the climate of a region.
- *Mesoclimate* is the climate of a vineyard or a specific site within a vineyard.
- *Microclimate* is the climate surrounding the grape cluster on the vine.

As you can certainly see, these terms are not used in common parlance. And even among grape growers there is sometimes a difference of opinion over what constitutes a "mesoclimate" or a "microclimate." So don't worry if, for example, you hear someone refer to the climate of a vineyard as a "microclimate." What's most important is that you recognize that significant climate differences can exist even within a single vineyard.

In any case, we'll start by considering macroclimate, since that's the major determinant of where grapes can be grown.

Where In The World Can Wine Grapes Be Grown?

Climate is the factor that determines the answer to two basic questions:

- Can grapes be grown in a particular area?
- If so, which grapes?

The answers to these questions depend, in turn, on three factors: the length of the growing season, the average temperature, and the extent of temperature changes. Let's consider each of these three factors

The Length Of The Growing Season

In the broadest terms, the growing season for grapes is defined as the "time between frosts" – in other words, the average amount of time between the last frost of spring and the first frost of autumn. But as they sometimes say on Jeopardy, "more specific information is needed."

You see, a plant's rate of metabolism and growth is usually faster when it is warmer. In fact, when the temperature drops below 50° F a grape will not grow and its fruit will not mature. So, in any region, the growing season of a grape is really *the total number of days between frosts when the average daily temperature reaches 50° F or higher*. (And, as you'll see later in this chapter, this is an important factor in determining what is known as "heat summation" or "degree days.")

The length of the growing season determines the types of grapes that can be planted in a specific vineyard. For example, if the growing season in a particular area lasts an average of 150 days then it doesn't make sense to plant grape varieties that take 180 days to mature.

The Average Temperature

Grapes require an average temperature that is neither "too hot" nor "too cold" but "just right." And they need the average temperature to be balanced throughout the growing season in order to achieve the sugar content, acid balance, color, and flavor characteristics that are needed to produce fine wines.

If the average temperature is too warm, the grapes will ripen too quickly. Although they will produce enough sugar, they will not have enough acid or color to produce the finest quality wines. Moreover, in many warm climate zones there is not a sufficiently long winter dormant period for grapes to thrive. And there may be too much humidity, which can result in fungus diseases.

On the other hand, if the average temperature is too cool, the grapes will not ripen sufficiently and they will not have enough sugar to produce fine wine. And in colder climates the winter seasons may be too severe, with too many days of 0° F for even dormant vines to survive.

The Extent Of Temperature Changes

A successful vintage also depends on whether changes in temperature are gradual or abrupt. As you expect, abrupt temperature changes can result in significant problems for the grapes and the vines.

For example, during the spring and fall the vines are particularly susceptible to cold temperatures:

- Early in the spring, unseasonably warm periods may result in premature bud break. Then, if the temperature drops below freezing, the vine can be seriously damaged or even killed.
- In the autumn, if the temperature drops below freezing while the grapes are still on the vine, the quality of the fruit will suffer. And even if the grapes have already been harvested, an early frost may damage or kill a vine that has not yet become dormant.

On the other hand, if the temperature reaches 105° F or more, the grape berries can possibly be damaged – especially those that are exposed to direct sunlight. The extent of damage caused by sunburn and heat depends on when the exposure takes place:

- If the exposure occurs early in the season, some berries will shrink and become hard. However, the undamaged berries will develop normally. So the yield will decrease but the quality of the wine will not be affected.
- If the damage occurs later in the season, some berries will sunburn. They can also become raisined and take on a caramelized flavor. Although this exposure may not result in a significant decrease in yield, the quality of the wine will be affected by the off-flavors that may result.

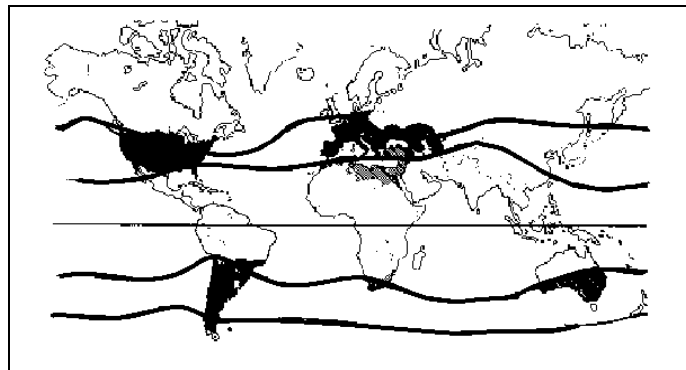
So it turns out that the ideal climate for growing grapes is characterized by a long growing season filled with *warm days and cool nights*. This type of climate enables the grapes to ripen slowly and completely. And the extended "hang time" – the amount of time that the grapes spend on the vine – helps to produce the optimum balance of sugar, acid, color, and flavor characteristics to produce the finest wines.

Two Belts Of Grape Cultivation

These three climate factors – the length of the growing season, the average temperature, and the extent of temperature changes – together limit the growing of grapes for commercial-scale wine production to two loosely defined belts of latitudes.

The belt in the northern hemisphere includes the major grape growing regions of the United States: California, Oregon, Washington. It also includes the great "Old World" wine-producing countries of France, Italy, Germany, Spain, and Portugal.

The belt in the southern hemisphere includes the major emerging "New World" wine-producing countries of Australia, New Zealand, Chile, Argentina, and South Africa.



Within these two belts of latitude there are generally enough warm days between the last frost of spring and the first frost of fall for wine grapes to develop and mature. And throughout the year the temperatures are not too cold for the vines to survive or too hot for the vines to stay healthy.

Now, even though these latitude bands may represent “appropriate” zones for grape growing, all of the winegrowing regions noted on the map do not have the same climates. Within each of these broad areas, additional factors such as the proximity to large bodies of water, annual rainfall, and dozens of other weather-related issues might impact whether an area is suitable for grape cultivation. We'll consider wind and some additional climatic factors.

Wind

Regions that experience strong windstorms are not well suited to growing grapes. In the spring, high winds can severely damage the vine by breaking off tender shoots, resulting in a much smaller crop. During the summer, winds can rip leaves from the vine, decreasing its ability to produce sugar and mature the fruit. Late in the season, strong winds can damage ripening fruit by whipping the vine and exposing the grape clusters to decay and sun damage.

Additional Climatic Factors

Grapes are not always cultivated in regions where they theoretically could be. *Mesoclimatic* factors such as local geography, the prevalence of pests, and local weather patterns may limit the ability to cultivate quality grapes in an economical manner. For example:

- The elevation may be too high in one section of a property.
- The topography of the land may be too steep for farming.
- One area of a parcel may be prone to windstorms.
- The sun's rays may be blocked by nearby hills or mountains.
- The growth of cities and the resulting "urban sprawl" may result in increased smog and poor air quality.

On the other hand, there are a variety of possible positive factors that may influence a decision about vineyard location. For example:

- Grape growers may seek to reduce the possibility of frost damage by locating vineyards on sloped sites that are near lakes, rivers, or open valleys. The slope allows cooler air to flow down away from the grapevines.
- It is often beneficial to locate a vineyard near an old field or meadow that can harbor the kinds of beneficial insects used to control vineyard pests.
- In cooler areas, the best site for a vineyard may be oriented in order to maximize exposure to the sun. For example, in the northern hemisphere a vineyard might be oriented toward the southeast and southwest; in the southern hemisphere, this orientation would be reversed.
- In areas where sunlight and heat are intense, the best site may be oriented in order to minimize sun exposure. For example, in the northern hemisphere a vineyard might be oriented toward the northeast or northwest; again, in the southern hemisphere, this orientation would be reversed.

Finally, climate variations must be taken into account all the way down to the grape cluster, or *microclimate* level. Many of the cultural practices of the vineyard, such as vine spacing, trellising systems, thinning and pruning regimes, and cover crops will all impact the climate surrounding individual grape clusters.

We'll consider all of these practices later in this chapter.

Check Your Understanding

1. What exactly is climate?
2. What is the difference between macroclimate, mesoclimate, and microclimate?
3. What defines the growing season for grapes?
4. Why is climate the single most important factor in growing fine quality grapes?

The Heat Summation Method of Classification

How can a grape grower determine if a particular site is suitable for fine wine grapes? And how can the grower determine which varieties will grow successfully and produce the best quality grapes?

Historically, those decisions have been made based on empirical evidence, which is a fancy way of saying "trial and error." But as you can imagine, planting a vineyard requires a considerable investment of time and money. And it generally takes several years before the vineyard is capable of producing enough grapes to generate any kind of financial return to the owners. So grape growers and wine makers have been interested in developing objective criteria that can provide them with a rational basis for comparing one area to another and determining which grape varieties are most suitable.

The "heat summation" system is a classification method (also known as the "degree day" classification method) that was developed to simplify and standardize comparisons between the different vineyard areas of the world. At first, this system may seem complicated. But it's actually quite simple. And though you won't ever be expected to explain the mathematics behind this system, it is important that you understand the basic concept.

Getting Started With The Fundamentals

The heat summation system is based on one important principle and one important definition.

The principle is one that you learned earlier:

A plant's rate of metabolism and growth is usually faster when it is warmer. In fact, when the temperature drops below 50° F a grape will not grow and its fruit will not mature. So, in any region, the growing season of a grape is the total number of days between frosts when the average daily temperature reaches 50° F or higher.

For this reason, 50° F serves as the basis for the heat summation scale. And 50° F is the starting point that's used to determine the number of "degree days" in a particular growing area.

So, what exactly is a "degree day?" A degree day is not a "day" and it is not a "degree." In fact, a "day" may have many "degree days" in it. A "degree day" is defined as: *a temperature of one degree for a period of one day.* Since 50° F is the starting point, a day with an average temperature of 51° F represents one "degree day." A day with an average temperature of 60° F represents 10 "degree days."

With this principle and definition in mind, here's how the heat summation system works:

- The average daily temperature is calculated by averaging the high and low temperatures for each 24-hour period.
- For each day the number of "degree days" is calculated by determining the difference between the average temperature for that day and 50° F.
- A region's heat summation rating is determined by adding up the total number of "degree days" for every day during the growing season.

To understand this system in more detail, let's consider a few simple examples.

For example, let's say that on a particular day the high temperature was 80° F and the low temperature was 60° F.

First you would find the average temperature for that day. Add the high and low temperature and divide by two.

$$80^{\circ} \text{ F} + 60^{\circ} \text{ F} = 140^{\circ} \text{ F}$$

$$140^{\circ} \text{ F} \div 2 = 70^{\circ} \text{ F}$$

So the average temperature for the day is 70° F.

Then, subtract 50° F to find the number of "degree days."

$$70^{\circ} \text{ F} - 50^{\circ} \text{ F} = 20^{\circ} \text{ F}$$

This day would add 20 "degree days" to the growing season.

Five days with an average daily temperature of 52° F would be equal in "degree days" to one day with an average temperature of 60 degrees F.

Here's why:

$$52^{\circ} \text{ F} - 50^{\circ} \text{ F} = 2^{\circ} \text{ F}$$

$$2^{\circ} \text{ F} \times 5 \text{ days} = 10 \text{ "degree days"}$$

Similarly:

$$60^{\circ} \text{ F} - 50^{\circ} \text{ F} = 10^{\circ} \text{ F}$$

$$10^{\circ} \text{ F} \times 1 \text{ day} = 10 \text{ "degree days"}$$

In the coldest regions where wine grapes can be grown commercially, the annual heat summation equals approximately 1,700 "degree-days." In the hottest regions where wine grapes can be grown commercially, the annual heat summation equals approximately 5,200 "degree-days." (NOTE: All of these calculations are using the Fahrenheit scale.)

Let's take a simplified look at a typical area in Sonoma County.

We know, of course, that the weather varies considerably during the course of the growing season in Sonoma. But for the sake of our illustration, let's make the following assumptions:

- The growing season includes 6 months (April to September) when the average temperature is above 50° F.
- During that season, the average high temperature for the day is 75° F ("warm days").
- During that season, the average low temperature for the day is 55° F ("cool nights").

Please keep in mind that these assumptions are completely fictitious and are for illustration purposes only. In reality, you'd need to collect temperature data – and calculate degree days – on a daily basis. But let's use our simplified assumptions to see how we might calculate the number of degree days for the growing season.

We said that in our theoretical example the high temperature for one day was 75° F and the low temperature was 55° F.

First you would find the average temperature for that day. Add the high and low temperature and divide by two.

$$75^{\circ} \text{ F} + 55^{\circ} \text{ F} = 130^{\circ} \text{ F}$$

$$130^{\circ} \text{ F} \div 2 = 65^{\circ} \text{ F}$$

So the average temperature for the day is 65° F.

Then, subtract 50° F to find the number of "degree days."

$$65^{\circ} \text{ F} - 50^{\circ} \text{ F} = 15^{\circ} \text{ F}$$

This day would add 15 "degree days" to the growing season. And we said that our theoretical growing season was 6 months (180 days). If we had 180 similar days we would calculate the total number of degree days this way:

$$15 \text{ "degree days"} \times 180 \text{ days} = 2,700 \text{ "degree days"}$$

So the total number of "degree days" for that specific growing location would be 2,700.

Limitations Of The Heat Summation System

The heat summation system is an attempt to bring some scientific objectivity to the age-old debate about which grapes will grow best in specific winegrowing areas. But the system does have significant limitations.

For example, consider these hypothetical situations:

- It's a summer day in the high desert. At noon the temperature reaches 100°F. Just before dawn, the temperature has dropped to 40°F. The average temperature on that day was 70°F ($100^{\circ}\text{F} + 40^{\circ}\text{F} \div 2 = 70^{\circ}\text{F}$). Using the heat summation method, that day would represent 20 degree days ($70^{\circ}\text{F} - 50^{\circ}\text{F} = 20$ degree days).
- It's a summer day in the Dry Creek Valley of Sonoma. In the afternoon the temperature reaches a high of 85°F (a "warm day"). That night the temperature drops to 55°F (a "cool night"). The average temperature on that day was 70°F ($85^{\circ}\text{F} + 55^{\circ}\text{F} \div 2 = 70^{\circ}\text{F}$). Using the heat summation method, that day would represent 20 degree days.
- It's a summer day near the town of Cotati in the Sonoma Coast region of Sonoma County. Fog from the Pacific Ocean has kept the temperature near 55°F during the night and most of the day. Then, in the early afternoon, the fog lifts for an hour and the temperature increases to 85°F. The average temperature on that day was 70°F ($85^{\circ}\text{F} + 55^{\circ}\text{F} \div 2 = 70^{\circ}\text{F}$). Using the heat summation method, that day would represent 20 degree days.
- Two vineyards in two different parts of the world have very similar daytime highs and nighttime lows throughout the growing season. The first vineyard, in Sonoma County, sees no rain at all during the growing season. The second vineyard, in France, experiences regular periods of rain and lingering cloudiness. Using the heat summation method, both vineyards might be classified the same way. But the grapes that are growing in the cloudy and rainy French vineyard will ripen more slowly – to the point that the fruit might not reach complete ripeness during some years.

Clearly, these four situations describe very different growing conditions. Yet the heat summation system measures them all in the same way. Similarly, it does not account for regions where some days are simply too hot or too cold for grapes to thrive. So you can see that the system is far from perfect.

Even so, the heat summation system is a useful tool to winegrowers – especially in sunny areas like Australia and the United States. In France, Italy, and other winegrowing countries of Europe, the heat summation system is not used. Instead, traditions – and government regulations – often determine which varieties of grapes are planted in specific locations. (You'll learn more about these traditions and regulations in Chapters 8 and 9.)

Heat Summation Regions

The heat summation system has been used to divide California and other principal new world grape growing areas into five heat summation regions. Each region is characterized by a specific number of "degree days."

The chart below outlines the five regions and typical California locations that are representative of each region. The last column shows examples of winegrowing areas in the Old World that would be roughly comparable under this system. However, keep in mind that these other winegrowing areas do not classify themselves in this way.

Region	Degree Days	California Winegrowing Areas	Old World Winegrowing Areas
I	2,500 or less	Southern Napa Valley Russian River Valley Sonoma Coast	Switzerland The Rhine Moselle Champagne
II	2,501 to 3, 000	Middle Napa Valley Dry Creek Valley Sonoma Valley	Bordeaux
III	3,001 to 3,500	Northern Napa Valley Livermore Alexander Valley	Tuscany
IV	3,501 to 4,000	The towns of: <ul style="list-style-type: none"> • Ukiah • Davis • Lodi 	Sicily Greece Central Spain
V	4,001 or more	Northern Sacramento Valley Central and Southern San Joaquin Valleys	Southern Spain

Keep in mind that the heat summation system is not an exact science. But it does bring a measure of objectivity to the process of comparing different winegrowing areas.

Impact Of Region On Varietal Character

The same grape variety will exhibit different characteristics depending on the region where it is grown. That's because the "hang time" – the length of time that grapes actually hang on the vine – varies depending on the temperature of the region.

- In cooler growing regions it takes longer for grapes to mature. So in these cooler regions grapes tend to have longer hang times.
- In warmer regions the same variety of grapes will ripen more quickly and will have shorter hang times.

The length of the hang time has a major impact on the character and complexity (physiological maturity) of the grapes. Here are some of the effects of hang time.

Acidity. In warmer climates grapes respire (lose) a higher percentage of their acid. In cool growing climates grapes retain more acidity. So, when they're ripe, grapes cultivated in Region I will have more total acid than the same variety grown in Region III.

Color and tannin development in the skins. In warmer regions a grape will reach a specific sugar content earlier in the season than it will in the cooler regions. So a red wine grape may reach a point of optimal ripeness before its pigments have fully developed. In a cooler region, a red wine grape will usually exhibit more red pigment (at the same point of ripeness) than a similar grape grown in a warmer region.

More varietal fruit character. When a grape variety is grown in a cooler region it will generally taste more fruity and robust. When the same variety is grown in a warmer region the taste is less concentrated.

Check Your Understanding

1. Why is 50° F used as the basis for the heat summation method of classification?
2. How do you determine the number of "degree days" for any given day?
3. Suppose that the same varietal grape is grown in two different heat summation regions. How will the cooler region tend to affect the acidity, color, and varietal fruit character of the grape?

Soil

After climate, the second most important factor in growing fine wine grapes is locating the vineyard in an area that has suitable soil. Soil supplies the vines with water and nutrients, anchors the vines in place, and hosts a diverse array of flora and fauna that live symbiotically with the grapevines.

If you're a gardener, you'll know from your own experience that soils are comprised of a variety of particles. From largest to smallest these particles are:

- Rocks
- Gravel
- Sand
- Silt
- Clay
- Organic Matter that is left in the soil left by decomposing plants, animals, and microbes.
- Minerals such as Potassium, Nitrogen, Phosphorous, Sulfur, Magnesium, Calcium, Boron, Manganese, Iron, Copper, Zinc, and Molybdenum, along with non-organic salts.

As you read about soil, you may also encounter the term *loam*. That term refers to a type of soil that is a combination of sand, silt, and clay.

Soil definitely plays an important role in determining which wine grapes will grow best in a particular area and in influencing many of the sensory characteristics of those grapes. For example, consider the world famous Bordeaux region of southwestern France. In Bordeaux, red wines are grown primarily in two different areas: the Left Bank, which is the area west of the Garonne River, and the Right Bank, which is the area east of the Garonne River and north of the Dordogne River. The major difference between these two areas is their soil:

- On the Left Bank, the predominant soil is gravel. Cabernet Sauvignon thrives in gravel and has become the principal grape variety in the Left Bank wine districts of Médoc, Haut-Médoc, and the Graves/Pessac-Léognan.
- On the Right Bank, the predominant soil is clay. Merlot grows very well in clay and has become the principal grape variety in the Right Bank wine districts of St-Emilion and Pomerol.

(You'll learn more about Bordeaux and other famous winegrowing areas of the world in [Chapter 8: Fine Wines Of The Old World, Part 1.](#))

As with so many aspects of grape growing and winemaking, there are a lot of myths about the role that soil plays. For example, some winemakers believe that a specific vineyard produces exceptional grapes because of a particular mineral composition or the unusual texture of the soil. Those elements may have an influence on the grapes, but that influence has been very difficult to quantify.

Wine scientists from all over the world have conducted extensive research to determine the factors that are most important in selecting soil. Here's what they've found:

- No single aspect of the soil can explain the character or quality of a vineyard's wines. In fact, within any particular winegrowing region, the best vineyards have a wide variety of soils, both in terms of texture and chemical composition.
- Grapevines adapt well to any soil that drains well, even one that is not particularly fertile.
- Soils in the best vineyards are neither too fertile nor too depleted. If the soil is too fertile, the grapevines have very high "vigor" and strive to grow as many branches and leaves as possible. If the soil is too depleted, then the vine will not be able to mature its fruit properly. Neither of these extremes represents the kind of *balanced growth* that leads to the highest quality grapes.
- Soils in the best vineyards seem to work in conjunction with the prevailing weather conditions to ensure that the vines are supplied with just the right amount of water – neither too little nor too much. For example, in those geographic areas where summer rains are common (including many regions of Europe) it's important to cultivate vines in soil that drains very well. Grapevines do not thrive in cold, waterlogged soil. And when weather conditions are too wet or too humid, the vines are especially susceptible to pathogens, such as mildew,

In other words, the key to consider is how the soil contributes to the overall *balanced growth* of the vine. That's why the "best" soil is neither too fertile nor too depleted. And that's why the "best" soil provides adequate drainage to balance the water supply to the vine.

It's probably most useful not to consider soil as an isolated factor but rather as part of an overall system of naturally occurring conditions and viticultural practices that should promote balanced growth:

- A balanced supply of nutrients and water produces balanced vine growth with an appropriate balance between leaves and fruit.
- This balance, in turn, helps to assure the optimum amount of sunlight exposure for the branches, leaves, and clusters of the vine.
- The exposure to sunlight helps to stimulate bud break, bunch initiation, fruit set, and berry growth.
- And since the balanced vine has only a limited amount of energy to allocate to growth, it "spends" that energy developing the fruit rather than producing additional branches and leaves. This reduces the overall density of the leaves surrounding the grape clusters ("canopy"), allowing for greater sunlight exposure and ultimately yielding the high quality grapes that produce fine wines.

Check Your Understanding

1. Name the kinds of particles that typically make up the soil in vineyards where fine wines are grown.
2. What are the characteristics of the soil that is found in the best vineyards for growing high quality grapes? Why?

Soil Amendments

As you read a moment ago, fine wine vineyards are generally planted in low vigor soil rather than deep, rich top-soils. As a result, the soil is often deficient in one or more key elements. And the vineyard manager may choose to add one or more substances – generally referred to as "soil amendments" – to improve the soil in a way that leads to higher quality grapes.

Here is a brief summary of some of the typical conditions that can be improved by the judicious use of soil amendments.

Acidity or alkalinity. The acidity or alkalinity of the soil has a major impact on the availability of nutrients to the vine. This factor is related to the chemical nature of the rock in the soil, the organic content of the soil, and the amount of rainfall and weathering. In areas of relatively high rainfall, water tends to "leach" (dissolve and remove) key minerals, and the soil may become too acidic. As a result, there may be deficiencies in key minerals such as calcium, magnesium, and phosphorus. And the acidity of the soil may limit the growth of beneficial bacteria. By adding lime (*calcium oxide*, with the chemical formula CaO) a vineyard manager may reduce the excess acidity of the soil.

Structure. The term "structure" refers to the way that soil particles are bound together. Ideally, the right combination of minerals and organic matter produces soil that is well aerated, holds water, and is crumbly enough to be easily penetrated by the roots of the vine. If there is too much clay in the soil, it becomes more difficult for the roots to penetrate and the soil tends to retain too much water. By adding gypsum (*calcium sulfate*, with the chemical formula CaSO_4) or organic matter a vineyard manager may improve the structure of the soil.

Nutrient deficiencies. Compared with many other crops, grapevines have a relatively limited need for nutrients. Even so, a vineyard manager may use organic or synthetic fertilizers to increase the nutrients that are present in the soil.

The vine's ability to absorb soil nutrients. Most of the nutrients that are present in soil exist in a form that is not available for absorption by the vine. These nutrients become available very slowly as the organic matter in the soil decomposes and the mineral components of the soil are eroded by weathering. The vine's ability to absorb nutrients may be further limited by specific characteristics of its particular rootstock. The vineyard manager may introduce beneficial microbes and fungi into the soil to improve the vine's ability to absorb and process key nutrients.

Each of these soil amendment activities falls within the realm of *viticultural practices*. But, as you can see, there's a great deal of overlap with the natural factors of soil and climate. Each of these soil amendments can, in some way, impact the vigor in the vineyard, which ultimately affects canopy growth and the microclimate of the grapevine clusters.

Check Your Understanding

1. What does the term "soil amendments" refer to?
2. Give three examples of soil amendments that may be utilized by a vineyard manager.

Rootstock

Roots are vital to the overall growth and fruit production of the vine. They provide an anchor to the soil so the vine can grow. They are also the conduits for water and minerals in the soil to reach the vine. And they produce hormones that regulate vine growth and fruit development.

In commercial vineyards all over the world, the vines that you see are actually two different plants: fruit-bearing vines of one grape species have been *grafted* on to a root system from a different grape species!

If you're not familiar with agricultural practices then this approach may seem complex. But it's actually pretty straightforward:

- Winegrowers may purchase "rootstock" from a variety of commercial nurseries. This "rootstock" is just the stem and roots from a grape plant that has been grown in the nursery from grape seeds.
- The grower plants the rootstock in the vineyard and it begins to grow.
- Once the rootstock has taken hold, the grower is ready to perform the graft.
- The grower determines the varietal he or she wants to bear fruit and selects the specific clone of that varietal. (You'll learn more about this process of clonal selection later in this chapter).
- The grower obtains stems of the desired clone.
- The grower whittles the end of each stem and inserts the end into a notch that's been cut in the root vine. Then the grower wraps and seals the graft.

Many commercial grape growers purchase and plant what are called "bench-grafted vines." These vines have already grafted a specific clonal selection onto a designated rootstock. By planting bench-grafted vines, the grape grower can generally achieve a commercial harvest (and begin to recover his or her investment) one year sooner.

Selection of the proper rootstock is critical for two reasons: to provide resistance to soil pests and to manage the vigor (growth) of the vine. In fact, it's because of a soil pest known as *phylloxera* that the process of grafting vines onto different rootstocks was developed in the first place.

Resistance To Soil Pests

There are many soil pests that affect grapevines, including insects, fungi, and bacteria. But over the past 150 years, most concern has been focused on an insect called *phylloxera vastatrix*. Phylloxera is a plant louse, native to the Eastern United States, that attacks the roots of the grapevine and eventually kills it. And, for most of the past century, phylloxera has been one of the vine's deadliest enemies.

In the 1870's, phylloxera was introduced accidentally into Europe. The insect attacked the *vitus vinifera* vines from which most of the world's best wines are made, including Cabernet Sauvignon, Chardonnay, and Pinot Noir. And it destroyed all the major vineyard areas in Europe. Viticulturists tried various methods of combating the infestation without success. But eventually they perfected a technique of grafting the European *vitus vinifera* vines onto American *vitus labrusca* rootstocks from the eastern United States, which were immune to the louse.

Most of vineyards in California had originally been planted with the European *vitus vinifera* vines. So a few years later, in the 1880s, phylloxera destroyed most of the California wine industry, too. Vines in California were then grafted onto rootstocks from the eastern United States. The grafting of *vitus vinifera* vines onto native American *vitus labrusca* rootstock is now the standard practice in many of the world's vineyards.

In the 1980's, phylloxera damage began to appear again in the United States. A mutation of the insect had produced a new strain, known as "Bio-Type B." This new strain of phylloxera has proven to be very dangerous to the AXR #1 rootstock that is currently most prevalent in California. As a result, many vineyards are being replanted with new, more resistant rootstocks.

Managing Growth

Rootstock selection is also an important way for the viticulturist to match the vigor and growth rate of the vine to the needs of the individual vineyard site. Different rootstocks have different growth characteristics. For example:

- Some rootstocks grow vigorously and root deeply, seeking out water and nutrients. These types are best suited to vineyards where water may be scarce.
- Other rootstocks only develop roots closer to the surface, limiting the intake of water and nutrients. These types are ideal for vines that need less water or for sites that are occasionally waterlogged.

Rootstocks also respond differently depending on the specific type of soil where they are planted and the varietal types that are grafted on to them. After considering all of these factors, the viticulturist must determine the optimal planting density (vine spacing). Keep in mind that the number of vines planted in any given area of the vineyard will significantly impact the amount of nutrients and moisture that are available to any one vine.

As you can see, decisions about rootstock selection and vine spacing overlap with all of the other aspects of vineyard management. By controlling the vigor of the vine, the viticulturist can affect the specific microclimate of each vine and each grape cluster.

Check Your Understanding

1. What are the two principal reasons why rootstock selection is important?
2. What is phylloxera? How did it almost destroy the wine industry? Why is it still a threat?
3. How does the fertility of the soil in a particular vineyard affect the spacing of the vine rows?

Cover Crops

Cover crops have been used in vineyards for centuries to aid in soil management. After each harvest, growers have traditionally seeded the rows between the vines with other crops to prevent soil erosion during the winter and spring rainy season. Then, after the end of the rainy season, these cover crops are generally removed.

Some growers also allow grass or weeds to grow in the vineyard beds during the late summer and early fall. They believe that allowing these plants to grow between each row of vines helps to slow the growth of the grapes and allow the fruit to mature more completely.

Check Your Understanding

1. After each harvest, why have growers traditionally planted other crops in the rows between the vines?
2. Why do some growers allow grass or weeds to grow in the vineyard beds during the late summer and early fall?

Varietal/Clone

The choice of which grape variety to graft onto the rootstock is critical. And this choice is based on both business and agricultural factors.

Business factors. From a business perspective, planting a vineyard is a substantial investment that will generate no income for at least three, four, or five years. And the vines will typically grow for 20 years or more – and sometimes much longer. In fact, some wineries even feature wines produced from old vine vineyards. So any planting decision must consider economic factors such as consumer preferences, projected yields, anticipated pricing, and a host of other market dynamics – both current and projected.

Agricultural factors. As we've discussed, different varieties of grapes grow best in different climates and soils. Cabernet Sauvignon will not necessarily thrive in the same vineyard location as Chardonnay. So the vineyard owner must consider which varieties are likely to produce the best quality grapes in each particular vineyard.

Once a vineyard owner has decided to cultivate a particular varietal, then a viticulturist must select a specific grape variety and *clone* of that variety. What is a clone? Over thousands of years of evolution, many grape varieties have subtly mutated to become more attuned to their growing conditions. Even though each clone is still genetically identifiable as the same variety (for example, Chardonnay or Cabernet Sauvignon) certain aspects of each clone might be slightly different. For example, a particular clone may provide greater resistance to rot, higher yield, or unique flavor characteristics.

In practical terms, a clone is simply a piece of a grapevine that has been cut from a *mother vine* and grafted to a different root. The new vine contains all the same genetic material as the mother vine and so it retains all the characteristics of that vine.

The specific clonal selection generally does not have the same degree of impact on quality as factors like climate, soil, or rootstock selection. But it is one further step that can be taken to optimize each section of a vineyard.

Check Your Understanding

1. What are the business factors a grower should consider before selecting a particular varietal to plant in a vineyard? What are the agricultural factors?
2. What is a clonal selection?
3. What are some of the factors that would lead a grower to select a particular clone?

Pest Management

Vineyard managers would like to promote the growth of only those organisms that have a positive impact on grape quality and eliminate those that have a negative impact. In reality, the ecologically diverse environment of any vineyard today dictates that both beneficial elements and pests will be present. Earlier we briefly discussed well known soil-borne pests like phylloxera. But vineyard "pests" take many forms including disease, insects, weeds, and animals.

For many years, grape growers have relied on chemicals to keep vineyards free from insects and weeds. Recently, many growers have taken steps to reduce or eliminate the use of chemical pesticides and herbicides. Instead, they control pests by mechanical means like disking, plowing, and hoeing the vineyard. And they are controlling insect damage by introducing predator insects that do not pose a threat to the vines but feed on the harmful insects.

If you stay current on events in the wine industry then you've probably heard about Pierce's disease and the Glassy-Winged Sharpshooter. This vine disease is caused by a bacteria (*Xylella fastidiosa*) that blocks the water conducting system in the vines and reduces the flow of water from the roots to the leaves. Infected vines usually die within two years.

Pierce's disease is spread by an insect called the Glassy-Winged Sharpshooter, which is a large Leaf Hopper. Though this disease was identified in California in the late 1800's, it has only recently become a major threat to the state's grape growing industry, including vineyards in Napa and Sonoma Counties. At the time of this publication there was considerable public debate about the best way to control the glassy-winged sharpshooter in order to protect the vineyards.

Check Your Understanding

1. What are some of the steps that growers have taken to reduce or eliminate the use of chemical pesticides and herbicides?
2. What is Pierce's disease? How is it spread?

Training/Trellising

Left on its own, a grapevine is not self-supporting like a tree or bush – it's a crawling plant. In order to keep the vine and its fruit off the ground some form of physical *trellis* is needed until the trunk of the vine has grown thick enough to stand upright.

In simplest terms, a trellis is simply a framework made of metal posts and stakes that are connected with wires. The trellis supports the vine and can be used to "train" the foliage and position the leaves properly to allow sunlight and air to reach the fruit. Here are two illustrations of typical trellis systems.



As we mentioned a moment ago, the most fundamental purpose of the trellis is simply to keep the vines and grapes off the ground. In addition, the trellis also plays an important role in helping the viticulturist to achieve the *balanced growth* that is so essential to the production of fine quality grapes.

As a grapevine grows, it produces branches that are called *canes*. The leaves that grow from these canes form a cover or *canopy* that provides shade and shelters the grapes from direct sunlight. From the moment a vine is planted – and throughout the growing season each year – the grower must actively manage the growth of the canes and leaves to assure the highest quality fruit. In practical terms, the viticulturist must achieve two principal objectives:

Sunlight exposure. Grapes ripen as photosynthesis in the leaves forms sugar in the grapes. So the vine must be an efficient solar collector and the fruit must have the right amount of direct sunlight exposure. If the canopy is too dense and the grapes do not receive enough sunlight, they may not ripen completely. If the canopy is too sparse, the grapes may be damaged by overexposure to the sun.

Air circulation. To reduce the chance of mold or mildew, the vine must also be grown in a way that allows regular air circulation to the fruit.

As you've already seen, the factors of climate, soil, rootstock selection, and varietal/clonal selection all impact the amount of foliage the grapevine produces. The amount of water the vine receives is also an important factor. Taking all of these factors into account, the vineyard manager selects the particular trellising systems that will best control both the direction of growth and the final amount of vine foliage in order to provide for optimal ripening of the fruit.

There are literally dozens of different trellising systems used around the world. For example:

- In colder areas, trellising systems are generally higher in order to lift the grapes above the cooler air that tends to lie along the ground. In warmer areas, trellising systems may be lower.
- A two-wire trellis is probably the most common trellis system used in the United States. A three-wire trellis provides the grower with an extra wire for attaching loose canes.
- A lyre or movable wire trellis is made of metal frames that are shaped like the letter Y. This type of trellis raises new vine growth upward, enabling the grape clusters to hang in filtered sunlight underneath the grape leaves. By increasing sunlight and improving air circulation it helps to reduce the rot, mildew, and vegetative flavors that can result when grapes are grown in overly shady areas.

In selecting the optimal trellising system, growers consider a wide variety of factors including the mesoclimate and microclimate of the vineyard, the needs of the specific varietal, the topography of the land, the orientation of the sun, and their own personal preferences.

Check Your Understanding

1. What is a trellis? What is the basic purpose that it serves?
2. How does a viticulturist use a trellis system to achieve the balanced growth that is essential for producing fine quality grapes?
3. What are some of the factors a grower might consider in selecting a particular trellising system?

Pruning/Thinning

A grapevine is a perennial plant. It does not die at the end of the growing season. Left unattended, it will continue to increase in size. In a vineyard, this unchecked growth leads to shady, overcrowded conditions that have a negative impact on the quality of the grapes.

So at the end of each year's harvest, the vines must be pruned to control the quantity of fruit they will produce the next year.

In his book From Vines To Wines: The Complete Guide To Growing Grapes And Making Your Own Wines, author Jeff Cox reviews what he calls "six rules that help explain the facts of grape growth and the central ideas behind pruning." These "rules" were provided by Dr. John McGrew of the United States Department of Agriculture. They are:

1. There are two kinds of buds on a grapevine, those that give rise to shoots that bear fruit, and those that do not.
2. Buds formed on wood of the previous season's growth are fruitful buds.
3. Training puts the crop in an economical and convenient position.
4. A renewal spur gives rise to a vigorous shoot this year that will be retained for the fruiting cane next year.
5. Pruning controls the size of the crop.
6. Fruit production competes with vegetative growth.

To understand and apply these rules, it's important to know a few definitions.

Fruiting cane is grape wood that is one year old. The buds of fruiting cane will generally bear fruit.

A *renewal spur* is a section of fruiting cane that has been pruned to five buds or less. A renewal spur does not generally bear fruit. Instead, it grows long shoots that are retained to become the fruiting cane for the next year.

The process of pruning is designed to balance the fruiting cane (which will yield grapes this year) with renewal spurs (which will yield grapes next year). By controlling the number of fruiting canes – and the number of buds on each cane – it's possible to control the size of next year's crop. By controlling the number of renewal spurs – and the number of buds on each spur – it's possible to control the growth that will bear fruit in the following year.

By pruning, the grower can promote the *balanced growth* that yields the best quality grapes. In a sense, then, pruning is really a radical form of canopy management. But in this case the vine is actually reduced in size by 50% or more.

Thinning Techniques

A few moments ago you read about how a grower utilizes a trellis system to manage the balanced growth of the vine. The grower strives to achieve the balance of sunlight exposure and air circulation that will produce the highest quality fruit.

Once the trellis is installed and the grapevine "trained" upon it, growers can also use a variety of vine thinning techniques to control the density of leaves and canes. These techniques include:

- *Leaf removal:* Removing individual leaves around the fruit.
- *Shoot thinning:* Trimming away shoots that are not bearing fruit.
- *Shoot trimming:* Hedging off shoots that are growing too vigorously.
- *Cluster thinning.* Removing flower clusters before they bloom. This technique is used in the spring, before the clusters' flowers start to open.
- *Crop thinning:* Trimming away selected clusters of fruit. This technique helps to "open up" the fruiting zone if it becomes overcrowded with more clusters than the vine can properly ripen, or if the clusters interfere with sunlight exposure or air circulation.

All of these methods reduce the vine's canopy, increase sunlight and air circulation within the fruiting zone, reduce the likelihood of mildew or bunch rot, and improve the quality of the resulting grapes. And, as you would certainly expect, all of these methods are labor-intensive practices that add to the cost of producing fine wine grapes.

Check Your Understanding

1. Why is it important to prune a grapevine at the end of the growing season?
2. How does controlling the quantity of the harvest help to improve the quality of the grapes?
3. What is the goal of thinning?
4. What are the techniques used for thinning?

Water Management

Providing the proper amount of water to a vine is critical to growing high quality wine grapes. Too little water will stunt the growth of the vine and prevent its fruit from maturing properly. Too much water will cause a vine to grow too vigorously, which may decrease the quality of the grapes.

In some areas of the world there is enough rainfall throughout the growing season. If the vineyard's soil retains an adequate amount of that moisture, then the vine can thrive without additional watering. This is called *dry farming*.

Many of the world's other fine wine growing areas – including parts of California – have what is sometimes referred to as a Mediterranean climate: rain in the winter and drought in the summer. In these areas, grape growers must irrigate their vineyards to properly manage the growth of the vines.

One popular theory holds that the quality of a wine decreases when the vine is watered by irrigation instead of natural rain. This theory is not correct. To the roots of a grapevine, water is water – regardless of whether the source is a rain cloud or an irrigation pipe. However, in terms of the water requirements for growing fine wine grapes, two factors are critical: the purity of the water and the timing of its application. So by using irrigation to control the exact timing and amount of water given to the vine, a grower can dramatically improve grape quality.

In those areas of the world where there is enough rain throughout the year to grow grapes without irrigation, growers may face a variety of challenges throughout the growing season:

- **Spring.** While the vine is in bloom, rain may cause mold and mildew or create a poor set of berries that will result in a light crop.
- **Summer.** If it fails to rain during the growing season, the shoots and leaves will be stunted and the clusters will not receive enough energy for proper ripening.
- **Autumn.** Rains later in the season may cause a delay in ripening, lower quality grapes, or berry cracking and bunch rot that can lead to a total loss of the crop.
- **Throughout the growing season.** Water on the leaves or grapes can cause mildew. Fog and high humidity – even without rain – can lead to this problem. And hailstorms can severely damage the vine at any time – especially when the shoots are small and brittle.

So a grower's principal concern is to provide the vineyard with the right amount of water at the right time. Most fine wine vineyards that rely on irrigation use a "drip irrigation system." Each vine has its own dripping device, which isolates the water supply to the roots. Through historical tracking and constant measurement of the water content in the soil, a grower can manage the irrigation system to match the needs of the vine.

Check Your Understanding

1. In considering a vine's water requirements, what factors are most important?
2. What is dry farming?
3. In areas of the world where there is enough rainfall throughout the year to grow grapes without irrigation, what are some of the challenges that growers may face?

Review

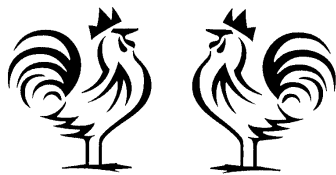
In this chapter we have provided a great deal of information about the life of the grapevine and the process of cultivating fine quality grapes. In the process, we've also tried to clear up some of the popular myths of grape growing.

It's up to you to control your own learning. Here are some suggestions so you can check to see how well you've learned the material in this chapter.

- Summarize the annual life cycle of the grapevine. Explain the stages that a vine goes through to produce the grapes that are ultimately made into wine.
- Explain the factors that determine where fine wine grapes can be grown successfully.
- Explain the Heat Summation Method Of Classification that's used to describe wine-growing regions.
- Explain the soil characteristics that are most important in growing quality wine grapes.
- Explain the differences between "rootstock" and "varietal/clonal selection" and the factors that a grower might consider in selecting each.

Explain how the practices of cover crops, pest management, training and trellising, pruning and thinning, and water management contribute to the balanced growth of the vine.

If you can talk comfortably about each of these topics then you are on the way to mastering the material in this chapter. Congratulations! If not, take some time to reread this chapter and to gain a greater familiarity with these topics.



Chapter 3 Gallo's Approach To Fine Wine

My basic job is to give Gina the best grapes in the world as the starting point for her wines. The difference between good grapes and great grapes is a matter of precision agriculture, taking advantage of the different raw materials Nature gives us in weather, soil, and vine. . . . It's a balance of technology and tradition that gets us the best result. Balance is a key concept in growing grapes, just as it is in the blending of wines.

– Matt Gallo

My winemaking team and I are fortunate to have a state-of-the-art winery where traditional artisan winemaking techniques have been enhanced with the latest in new technologies. We believe the result is a better way to make fine wines. . . . We do everything possible to ensure that great grapes do indeed become great wines.

– Gina Gallo

Just north of the town of Healdsburg, California – in the heart of the renowned wine country of Sonoma County – something extraordinary is happening. Here the age-old art of quality winemaking is enhanced with innovative processes and leading-edge technologies. And here the third generation of Gallo family winemakers is taking up the challenge of producing the best wines – and the best wine values – anywhere in the world. Welcome to the Gallo of Sonoma Winery and to an exciting new approach to making fine wines.

Overview

In this chapter we're going to provide an introduction to Gallo's approach to making fine wine at the Gallo of Sonoma Winery near Healdsburg, California. Since you've been selling Gallo wines for some time, you're already familiar with some parts of the Gallo of Sonoma story. You've certainly seen how Gallo's fine wines have grown increasingly popular with consumers and have garnered an impressive share of prestigious international awards. And you've also heard and seen how Matt and Gina Gallo, grandchildren of Gallo co-founder Julio Gallo, have taken the lead in building and promoting this exciting area of the business.

Now we're going to take a closer look at Gallo of Sonoma and the fine wines we are producing there. And, at the same time, we'll provide you with some of the historical background on a story that has been developing since the earliest days of the E. & J. Gallo Winery – the story of a special relationship with the land, the people, and the extraordinary grapes of Sonoma County.

We'll begin by examining the state of California and considering why the Golden State is an exceptional winegrowing area.

Next we'll introduce you to the system of American Viticultural Areas, or AVAs. Modeled after the French system of *Appellation d'Origine Contrôlée*, these designations are used to distinguish growing regions with special climatic and soil conditions. And, as you'll see, California's importance as a winegrowing area is highlighted by the fact that the state has more than half of all the AVA designations in the United States.

Then we'd like for you to have a sense of the colorful heritage of winemaking in Sonoma County. The history of wine in Sonoma dates back to the earliest days of European colonization. And, from the beginning, Sonoma has been recognized as a truly exceptional winegrowing region. So we'll provide you with a brief history of the wine industry in Sonoma.

As you may remember from the [Gallo Sales Manual](#), it's not by accident that Gallo chose Sonoma County to be the initial center of its fine winemaking operations. We'll review the climate and geography that distinguish Sonoma from the other counties of the North Coast growing region. And we'll explain how the "warm days and cool nights" and "diversity within proximity" of Sonoma make it an ideal location for growing the finest grapes in the world.

As a sales representative you're probably already familiar with at least some of the wines in Gallo's fine wine portfolio. But we will quickly review the entire portfolio, including Gallo of Sonoma, Marcelina, Frei Brothers Reserve, Rancho Zabaco, Turning Leaf Coastal Reserve, Anapamu, and Indigo Hills. Even though you may not currently sell some of these fine wines, it is important that you understand the full breadth of our current efforts. And keep in mind that by the time you read this manual new offerings may have been added to Gallo's fine wine portfolio.

Finally, we'll take you on a brief tour of Gallo's seven vineyards located in Sonoma County. And we'll introduce you to some of the ways that Gallo research and innovation is leading to new viticultural practices and new winemaking processes.

As you read this chapter, keep in mind these important points:

- The E. & J. Gallo Winery has chosen Sonoma as the initial focus for our initiatives in growing fine wine grapes and making fine white and red wines. But as time goes forward we are continuing to expand our fine wine operations. And in years to come we may produce fine wines at other locations in California or in other parts of the world.
- The Gallo of Sonoma Winery near Healdsburg, California is a physical facility that provides the size and flexibility we need to support many different winemaking programs. So it may be helpful for you to think of this facility as a collection of smaller wineries that share the same capabilities.
- In our vineyards and in our winemaking processes, Gallo of Sonoma draws on ongoing research to achieve an optimal blend between the art and craftsmanship of the Old World and the cutting-edge science of the New World.

With these points in mind, let's begin by considering why the state of California is an ideal location for making outstanding fine wines.

Objectives

After completing this chapter you should understand and be able to explain:

- Why California is an exceptional winegrowing area.
- The system of American Viticultural Areas (AVAs) and what it means to fine wine consumers.
- Why Gallo chose to locate the initial site of its fine wine operations in Sonoma County.
- Gallo's fine wine programs, including Gallo of Sonoma, Marcelina, Frei Brothers Reserve, Rancho Zabaco, Turning Leaf Coastal Reserve, Anapamu, and Indigo Hills.
- The advantages that are available as a result of Gallo's extensive portfolio of premier Sonoma vineyards.

Key Terms

As you read this chapter keep an eye out for these terms. By the end of the chapter you should understand all of them.

American Viticultural Area (AVA)

Appellation

Appellation Control Laws

Diversity In Proximity

Growing Season

Hang Time

Heat Summation Method Of Classification

Hectare

Phylloxera

Program

Warm Days And Cool Nights

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

Why California Is An Exceptional Winegrowing Area

Why is California an exceptional area for growing fine wine grapes? There are two answers to this question: climate and geography.

Climate

As you read in Chapter 2, fine wines can only be made from high quality grapes. And climate is the single most important factor in determining where it's possible to grow the high quality grapes that are needed to make fine wines. And, as you'll see, the climate in certain areas of California turns out to be nearly ideal for growing fine wine grapes.

In Chapter 2 we considered three climate factors that determine where fine wine grapes can be grown: the length of the growing season, the average temperature, and the extent of temperature changes. Let's quickly review each of these three factors.

The length of the growing season. When the temperature drops below 50° F a grape will not grow and its fruit will not mature. So, in any region, the growing season of a grape is really *the total number of days between frosts when the average daily temperature reaches 50° F or higher*. The length of the growing season determines the types of grapes that can be planted in a specific vineyard.

The average temperature. Grapes require an average temperature that is neither "too hot" nor "too cold" but "just right." And they need the average temperature to be balanced throughout the growing season in order to achieve the sugar content, acid balance, color, and flavor characteristics that are needed to produce fine wines.

If the average temperature is too warm, the grapes will ripen too quickly. Although they will produce enough sugar, they will not have enough acid or color to produce the finest quality wines. On the other hand, if the average temperature is too cool, the grapes will not ripen sufficiently and they will not have enough sugar to produce fine wine.

The extent of temperature changes. A successful vintage also depends on whether changes in temperature are gradual or abrupt. As you expect, abrupt temperature changes can result in significant problems for the grapes and the vines. So it turns out that the ideal climate for growing grapes is characterized by a long growing season filled with *warm days and cool nights*. This type of climate enables the grapes to ripen slowly and completely. And the extended "hang time" – the amount of time that the grapes spend on the vine – helps to produce the optimum balance of sugar, acid, color, and flavor characteristics to produce the finest wines.

In addition, we also discussed the role of proper *water management* in cultivating fine wine grapes. Grapes need water to grow. But rain during the growing season can cause mold, mildew, and rot. So it can be difficult to grow fine wine grapes in areas where there are significant amounts of rain during the growing season.

So as we take a look at California – and at Sonoma County in particular – keep in mind these important points about the climate required for growing fine wine grapes:

- The growing season must be long enough for the grapes to mature.
- The average temperature must be warm enough for the grapes to develop and ripen, but not so warm that the grapes are damaged or ripen too quickly.
- Temperature changes must be gradual enough to avoid harming the grapes and the vines. The ideal climate for growing grapes is characterized by a long growing season filled with *warm days and cool nights*.
- There must be enough water available to nourish the vines, but not too much rain during the growing season.

Sonoma County and other California grape-growing regions meet all of these requirements. In fact, it's been said that in California "every year is a vintage year." That's because the favorable climate of California usually allows most grape varieties to ripen to the proper sugar level without being damaged by rain or frost.

Many other major grape growing regions of the world are not nearly as fortunate. Often the growing season is not warm enough, there is too much rain, or the threat of autumn frosts forces the harvest to begin before the grapes have fully matured. In fact, during as many as three or four years out of every five (that's 60-80% of the time!) growers in many regions of the world are forced to add sugar to their grapes and lower the acidity to produce the proper balance in their wines. (This process is called *chaptalization*.) In these regions, "vintage years" are usually considered to be those years when the grapes were able to ripen naturally to the optimum sugar level.

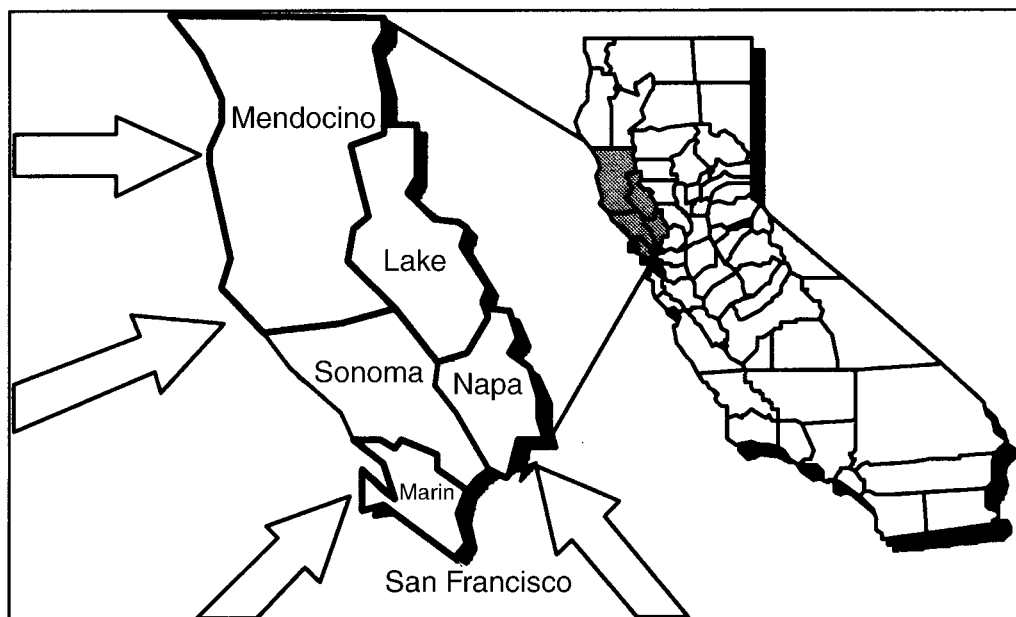
Of course, even California growers must face the uncertainties of storms, high winds, and variations in seasons. But, for the most part, the California climate is consistent enough to yield good grape harvests nearly every year.

Geography

California is also blessed with a varied geography that replicates nearly all of the fine winegrowing regions of the world. For example, the cooler coastal valleys of California have a great deal in common with the Bordeaux and Burgundy regions of France. Some of the warmer valleys farther inland are similar to the historic wine-growing regions of Italy. And parts of the Central Valley are similar to the winegrowing regions of southern France, Australia, and Spain. Because of the unusually wide range of conditions available in California, it's possible for the Golden State to produce a wide variety of exceptionally high-quality wines.

The cooling influences of the Pacific Ocean are the major cause of these diverse growing conditions. In the coastal areas, the ripening effect of the sun is moderated by the cooling impact of the ocean and the fog that often rolls in during the late afternoon or evening. These conditions produce a weather pattern characterized by *warm days and cool nights*. With this weather pattern, grapes typically mature and ripen more slowly. This slower ripening process and longer *hang time* (the length of time the grapes remain on the vine) produces grapes that have more complexity and more intense varietal character than fruit grown in warmer climates.

One of the areas of California especially blessed with this "warm days and cool nights" pattern is the North Coast Growing Region. Located on the northern coast of California, this region comprises five counties: Sonoma, Napa, Mendocino, Lake, and Marin.



Depending upon a vineyard's location in the North Coast region, daytime high temperatures will typically range between 85° and 95° F, making a "warm day." During late afternoon or early evening, however, a thick wall of fog begins creeping over the coastal hills, snaking up each individual valley, cooling temperatures considerably, and creating a "cool night."

Even within this region there are a wide variety of growing conditions. A valley's proximity to the Pacific Ocean (or to San Francisco Bay/San Pablo Bay), the height and profile of its surrounding hillsides, and its direction (North/South or East/West) all impact the effect of the cooling fog.

For example, if a valley is located farther inland and the fog must cross more mountain ranges, then the fog will typically arrive later in the evening and it will typically depart earlier in the morning. This valley will have a warmer overall growing climate than an area that's closer to the coastline, where the fog may linger from early in the evening until late morning or early afternoon the next day.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What are the two major reasons why California is an exceptional area for growing fine wine grapes?
2. Why can it truthfully be said that in California "every year is a vintage year?"
3. What factor accounts for the wide variety of growing conditions in California?
4. What is the weather pattern that is ideal for growing fine wine grapes? Why is this pattern beneficial?
5. What are the five counties that comprise the North Coast Growing Region?

Appellations And AVAs

As a sales representative you're already familiar with many of the federal, state, and local laws and ordinances relating to the sale of wine and other alcoholic beverages. There is also a series of laws that are related to the labeling of wines according to the geographic origins of their grapes. These are the *appellation control* laws.

Appellation control laws are based on the widely shared belief that local variations in climate and soil produce grapes – and, ultimately, wines – with distinct characteristics. (You read about this in [Chapter 2: Growing Fine Wine Grapes](#). And you'll learn more about it in [Chapter 4: Growing Fine Wine Grapes At Gallo Of Sonoma](#).)

In 1935, France became the first country to establish a nationwide system of appellation control with their *Appellation d'Origine Contrôlée*. Now most other wine-producing countries have adopted at least some elements of this system.

In their most basic form, appellation control laws apply only to the specific geographic origin of the grapes. But in some countries they may also limit which grape varieties can be planted in particular areas. And, in some cases, they may even prohibit certain viticultural practices (such as irrigation), limit the maximum yield, or prescribe specific conditions that must be fulfilled before harvesting.

Here in the United States there are actually two different systems of labeling that apply to the geographic origin of grapes: *appellations* and *American Viticultural Areas* (or AVAs).

Appellations

In the United States, an "appellation" is considered to be a state, county, or other legally identified geographic entity. Federal regulations require that at least 75% of the grapes that are used in making a wine labeled with an appellation must have been grown in the designated geographic area. But states may impose more stringent requirements.

For example, Sonoma County is a legally defined geographic area. In order for a wine to be labeled as "Sonoma County" wine, at least 75% of the grapes used in making that wine must have been grown in Sonoma County.

Similarly, because the state of California is a legally defined geographic area, it is also considered an appellation. But California has more stringent standards than the Federal government. California law requires that for a wine to be labeled as a "California" wine 100% of the grapes used in making that wine must have been grown in California.

American Viticultural Areas

In 1978, the United States authorized the Bureau of Alcohol, Tobacco, and Firearms to designate U. S. grape growing areas, which are technically referred to as "American Viticultural Areas" or AVAs.

An AVA is defined as a "delimited grape growing region distinguishable by geographical features, the boundaries of which have been recognized." More simply stated, an AVA is a grape growing region judged to be unique from surrounding areas because of differences in climate, soil, elevation, and other characteristics. The boundaries of this region do not generally correspond with state borders, county lines, or other legally defined geographic areas.

Unlike some other countries, the United States does not regulate which grape varieties may be cultivated in a specific AVA. However, in order for a winery to designate and label a wine with a specific AVA, at least 85% of the grapes used to produce that wine must be from that viticultural area.

At the time this manual went to press, the United States recognized more than 130 AVAs. More than half of these AVAs were located in California, with the greatest concentration in the North Coast region of Sonoma, Napa, Mendocino, and Lake Counties.

At this point you may be wondering about the importance of appellations and AVAs. Do they really make a difference, or are these designations aimed simply at impressing wine aficionados?

That's a reasonable question. And it's a question you should keep in mind as you read Chapters 4-6 about Gallo's approach to growing fine wine grapes and producing fine white and red wines. But, in the meantime, the short answer is yes. Appellations and AVAs do make a difference, and for at least three reasons:

- Some grape varieties grow better in one area than in another. As you already know, climate and soil have a significant impact on the quality of the grapes. And the quality of the grapes has a major impact on the quality of the wine.
- The same varietal grape grown in one appellation or AVA may produce a wine that is distinctly different than a wine made with the same varietal grapes grown in another appellation or AVA. The unique combination of climate, soil, and geography do make a significant difference in the resulting wines.

- Appellation and AVA designations are important economically. If a wine is labeled with a specific AVA then at least 85% of the grapes in that wine must have been grown in that AVA. If a wine is labeled simply as "California" then the grapes could have come from anywhere in California. Because only a limited number of high quality grapes can be grown in a specific area, this distinction adds value to the wine and raises the shelf price. For example, the dry, cool climates of the North Coast produce fewer grapes than the warm climate of the San Joaquin Valley. But grapes from Sonoma, Napa, Mendocino, and Lake Counties are of much higher complexity and concentration and produce much finer wines. So it's probably no surprise that the grapes from these regions are in higher demand and are much more expensive.

Below and on the next page we've included a list of the well-known AVA designations for Sonoma, Napa, Mendocino, and Lake Counties. These designations were current when this manual went to press in 2002.

Keep in mind that grapes grown in any of these four counties may be labeled with a "North Coast" designation. Also, notice that the Los Carneros AVA covers parts of both Sonoma and Napa Counties.

Sonoma County AVAs

Alexander Valley

Chalk Hill

Dry Creek Valley

Knights Valley

Los Carneros

North Coast

Northern Sonoma

Russian River Valley

Sonoma Coast

Sonoma County Green Valley

Sonoma Mountain

Sonoma Valley

Napa County AVAs

Atlas Peak
Chiles Valley
Howell Mountain
Los Carneros
Mount Veeder
Napa Valley
North Coast
Oakville
Rutherford
Spring Mountain District
St. Helena
Stags Leap District
Wild Horse Valley
Yountville

Mendocino County AVAs

Anderson Valley
Cole Ranch
McDowell Valley
Mendocino
Mendocino Ridge
North Coast
Potter Valley
Redwood Valley
Yorkville Highlands

Lake County AVAs

Benmore Valley
Clear Lake,
Guenoc Valley
North Coast

Check Your Understanding

1. In the United States, what is the difference between an appellation and an American Viticultural Area (AVA)?
2. In order for a wine to be labeled with a specific appellation designation, what criteria must it meet?
3. In order for a wine to be labeled with a specific AVA designation, what criteria must it meet?
4. What are three reasons why appellations and AVAs are important to wine consumers?

The History Of Winegrowing In Sonoma County

The history of winegrowing in Sonoma County dates back to the early 1800's. And this history can be traced back directly to the two European cultures that first explored and settled California: the Spanish and the Russians.

Since the early 1600's, the Spanish had been slowly pushing their way north from Mexico, establishing a system of missions along the California coast. From the north, Russian fur trappers had been building a system of military outposts across the Aleutian Islands, down through the areas that are now Alaska, Canada, Washington, and Oregon, and into California. Both of these cultures arrived in Sonoma County in the early 1800's. And both of them brought winemaking to Sonoma.

In 1812, the Russians established Fort Ross at the mouth of the Russian River. Then, in 1817, they planted the first documented vineyards in Sonoma County. (Fort Ross became the last outpost constructed by the Russians and was ultimately abandoned in 1841.)

Meanwhile, in 1823, Father Jose Altimira oversaw the construction of the Mission San Francisco Solano in the location of what is now the town of Sonoma. (This mission turned out to be the northernmost location in the California mission system.) Father Altimira also directed the planting of 1,000 grape vines. Appropriately, these were of the "Mission" variety. Although Mission grapes do not produce the fine wines we now associate with Sonoma, they are a tough variety that survive well in a variety of climates.

In 1833, the Mexican government ordered the secularization of the missions. And in 1835, Colonel Mariano Guadalupe Vallejo was sent to oversee this transition. Soon named a General, Vallejo used cuttings from the mission's vineyard to plant a vineyard of his own. Later, Vallejo gave vines from this vineyard to William Yount who used them to establish the first vineyard in Napa Valley.

In 1846, a group of disgruntled American frontiersman (including Kit Carson, Doc Semple, and John C. Fremont) staged an uprising against the Mexican government in Sonoma. This revolt ultimately overthrew the Mexican authority in California. For several months, California existed as the independent "Bear Flag Republic." Then the United States government annexed California as a territory.

In 1848, gold was discovered at Sutter's Mill. The Gold Rush created the largest peacetime migration in the history of the world. Within a few years more than 300,000 people came to settle in northern California. On September 9, 1850, California became the 31st State.

During the next 50 years, a rapidly growing California population with a strong European heritage created a burgeoning market for wine. And a host of European immigrants contributed to the development of the winemaking industry in Sonoma County. The colorful Hungarian and self-proclaimed "Count" Agoston Harazthy made a particularly significant contribution. In 1857, Harazthy founded one of the first commercial wineries in Northern California. Later named the Buena Vista Winery, it is today the oldest operating commercial winery in the state of California.

By 1868, Sonoma had surpassed Los Angeles as the number one wine grape growing county in California (Napa County ranked fourth overall). That year Sonoma County was responsible for 40% of the state's entire production of wine grapes. One year, later, in 1869, the future looked even brighter. With the newly completed transcontinental railroad linking California to markets along the East Coast, Sonoma County became a leading wine exporter.

In 1882, the Sonoma Valley was home to another significant innovation. Captain James H. Drummond produced the world's first commercially labeled varietal wine. Created for the "Dunfillan" label, the wine was a Cabernet Sauvignon. And it was made from vines propagated with cuttings from Chateau Lafite and Chateau Margaux, two of the premier wine Chateaux in the Bordeaux region of France.

A few years later the Sonoma County wine industry received another boost. In the mid-1880's, French vineyards were devastated by a tiny insect – a root louse called *Phylloxera* that destroyed the root systems of the grapevines. At the time, little was known about how to control Phylloxera, and many people felt that the French vineyards were doomed forever. Enterprising winemakers invested in the "New France" of California and the number of wineries in Sonoma County increased from 50 in 1885, to 116 in 1889.

These entrepreneurs probably didn't realize that Phylloxera would destroy California's vineyards, too. But that's exactly what happened. Phylloxera had actually been identified in the Sonoma Valley as early as 1873. And some grape growers had already begun to experiment with resistant rootstocks that could be used to control the pest. But, at first, the infection seemed to be isolated. So the growers did not undertake any large-scale control efforts.

By the late 1880's it became clear that Phylloxera was out of control throughout California. The pest swept through Sonoma Valley in the late 1880's, Napa County in the 1890's, and the remainder of Sonoma County in the early 1900's. The emerging California wine industry was decimated.

Meanwhile, the French vineyards were starting to recover. Growers had learned how to control Phylloxera by grafting the European *vitis vinifera* vines onto American rootstocks that were resistant to the pest. As their replanted vineyards began to mature, the French winemakers were back in business.

By the time Northern California vineyards had been replanted, the French wine industry had reasserted its prominence. Even so, the number of Sonoma County wineries continued to grow, reaching an all time high of 256 in 1920.

The California wine industry recovered from Phylloxera. But a more devastating blow was struck in 1919 with the ratification of the 18th Amendment to the United States Constitution. Implemented in 1920 through the Volstead Act, the 18th Amendment prohibited the manufacture and sale of wine and all other alcoholic beverages to the general public in the United States.

Many wineries believed this period of Prohibition would not last long. And, in anticipation of future sales, they continued to store hundreds of thousands of gallons of wine they had produced prior to 1920. As the years passed and Prohibition continued, few wineries were able to continue to pay the annual taxes on these reserves. Unfortunately, the only way to avoid paying these taxes was to dump the wine under the supervision of Internal Revenue Service agents. On one occasion, it was reported that so much wine ran into the Dry Creek Valley of Sonoma that it killed all the vegetation down-stream for a mile!

Fortunately for the survival of the American wine industry, the Volstead Act permitted two very important exceptions to the prohibition on winemaking:

- First, the manufacture and sale of wine for religious and medicinal purposes was allowed, though closely monitored.
- Second, it was legal for private households to produce up to 200 gallons of wine per year for personal consumption. This provision led to a host of basement and backyard wineries across the country.

Prohibition effectively eliminated most commercial winemaking in California. But these two "loop holes" allowed vineyard owners to survive – and some to thrive – during this period. In fact, the demand for grapes by home winemakers was so great that the price rose from about \$10 per ton before Prohibition to a new high of \$115 per ton. (After the repeal of Prohibition, prices for grapes did not reach this level again until the late 1960's!) But, for the most part, growers didn't cultivate the varieties that are used to make today's fine wines. Instead, they focused most of their efforts on hardy, thick-skinned grapes that could be transported by rail to distant markets for use by home winemakers.

Here are some numbers that will help you put the impact of Prohibition into perspective. On January 16, 1920, when Prohibition was enacted, California had about 700 bonded wineries. More than 250 of these were located in Sonoma County. On December 5, 1933, when Prohibition was finally repealed, only 160 California wineries opened their doors. Fewer than 40 of these were in Sonoma County.

Two of the wineries that did open for business in 1933 turn out to have a special impact on the later history of winemaking in Sonoma: the Frei Brothers Winery in the Dry Creek Valley of Sonoma County and the Ernest and Julio Gallo Winery in Modesto, California.

After the end of Prohibition, wine production slowly resumed in Sonoma County. But it took nearly 35 years before Sonoma began to experience a true renaissance. In the 1970s, the wine boom in the United States led to a renewed interest in table wines. And the search for prime vineyard land led many of today's most respected wineries to the valleys of Sonoma County.

Here are a few of the outstanding wineries that opened in Sonoma during the 1970s:

1972: Dry Creek Vineyards and Winery

1974: Chateau St. Jean, A. Rafanelli

1975: DeLoach, Preston, Lytton Springs

1976: Jordan, Matanzas Creek

1977: Gallo of Sonoma

Check Your Understanding

1. Which two European cultures first brought winemaking to Sonoma?
2. How did General Vallejo contribute to the history of winemaking in California?
3. Who founded the oldest commercial winery that is still operating today in the United States?
4. What is Phylloxera? How did it contribute to the growth of the wine industry in Sonoma?
5. Which two "loop holes" in the Volstead Act enabled some Sonoma grape growers to survive – and even thrive – during Prohibition?

Now let's take a closer look at Sonoma County and see why Gallo chose Sonoma as the initial site for our fine winemaking operations.

Why Gallo Chose Sonoma County

Our interest in Sonoma began shortly after the start of the winery in 1933. Julio always said Sonoma County was the best place to grow grapes for superior wine.

– Ernest Gallo

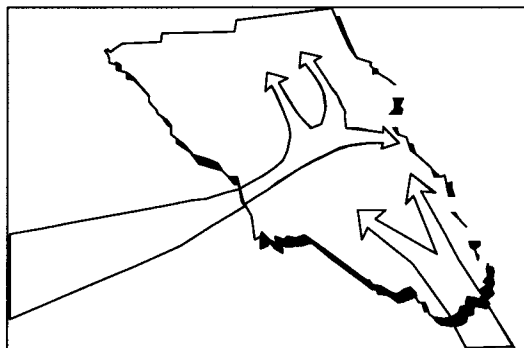
There are a number of reasons why Gallo chose Sonoma County to be the initial focus for our fine wine initiatives. As you've seen, Sonoma has a colorful history with a long tradition of making outstanding wines. The Gallo Winery has had a substantial presence in Sonoma since its earliest days and had already developed close relationships with many of the top local growers. And compared with its better-known Napa Valley neighbor, Sonoma County was still somewhat "undiscovered." So Gallo was certainly attracted by the unique opportunity to help develop this area into one of the truly renowned winegrowing regions of the world.

All of these factors played a part in Gallo's decision. Even so, Gallo ultimately chose Sonoma as its initial focus for two principal reasons: climate and geography.

Climate. In terms of climate, Sonoma is characterized by the *warm days and cool nights* that are the key to growing quality grapes anywhere in the world. Under these conditions grape mature slowly, developing excellent acidity, more intense color, and greater complexity of varietal fruit character. Sonoma County is ideally situated with the Pacific Ocean to the west and San Francisco and San Pablo Bays to the south. The fog and cool breezes from these bodies of water produce an excellent climate for Sonoma vineyards.

Geography. In terms of geography, Sonoma is unique among the five North Coast Counties. Unlike Napa, Sonoma is not just one valley. Rather, it comprises a series of more than a dozen valleys within the coastal foothills between the Pacific Ocean and San Pablo Bay.

Each of these valleys is a different "wall of fog pathway" with its own distinctly different climate and grape growing conditions. And, these distinctly different climate zones produce grapes with distinctly different varietal characteristics.



This diversity of climates within a small geographic area is sometimes referred to as *diversity in proximity*. And it distinguishes Sonoma County from the other grape growing areas of the North Coast. The variety of climatic areas has also been recognized by the designation of 11 distinct American Viticultural Areas (AVAs) within Sonoma.

Sonoma AVAs

As you read earlier, the U. S. Bureau of Alcohol, Tobacco, and Firearms (BATF) considers an AVA to be a grape growing region that is unique from surrounding areas because of differences in climate, soil, elevation, physical features, and other characteristics. The AVAs located in Sonoma County are:

- Sonoma Coast
- Sonoma Valley, including two sub-appellations:
 - Sonoma Mountain
 - Los Carneros
- Northern Sonoma, including four sub-appellations:
 - Knights Valley
 - Dry Creek Valley
 - Alexander Valley
 - Russian River Valley, including two sub-appellations of:
 - * Green Valley
 - * Chalk Hill

Gallo In Sonoma

The Gallo family's relationship with Sonoma dates back to the earliest days of the Winery.

When Prohibition was repealed in 1933, Ernest and Julio Gallo started a winery in their hometown of Modesto, California. From the beginning, they traveled extensively to grape growing regions throughout California in search of the best grapes for making their wines. And by 1934 they had already begun to spend much of their time in the vineyards and wineries of Sonoma County. That year they purchased wine from the winery of Walter and Louis Frei in the Dry Creek Valley of Sonoma County. It soon became apparent to the Gallo brothers that Sonoma would be the focus of their fine wine plans.

When this manual was published in 2002, these plans had grown to include a world-class winery and seven vineyards in Sonoma with a combined area of more than 6,000 acres, or 2,428 *hectares*. (A hectare is a metric unit of area, equal to 10,000 square meters or about 2.471 acres.) As you'll learn in Chapter 4, only about half of the total area of these vineyards is actually devoted to grape cultivation. The other half is set aside to provide natural watershed and habitat for native wildlife as part of an environmentally sensitive method of vineyard management referred to as *Gallo Sustainable Practices*. At the time of publication, approximately 3,000 acres (1,214 hectare) were planted or were in various stages of development.

Check Your Understanding

1. What phrase describes the climate that makes Sonoma County ideal for growing fine wine grapes?
2. What phrase describes the varied geography of Sonoma County?
3. How does the geography of Sonoma County contribute to a wide range of growing conditions?
4. What event marked the beginning of the Gallo family's relationship with Sonoma County?

Overview Of Gallo's Fine Wine Programs

In this section we're going to provide a brief overview of the Gallo fine wine programs. To begin, though, we have to explain what we mean by the term "program."

While you've been working as a sales representative you've probably heard or used the word "program" in reference to a specific promotion. And as you continue to gain experience, you will probably hear the word "program" used in many other ways. It turns out that the word itself does not have a strict legal or technical definition. In this section we're going to focus on how our winemakers use the word "program."

To our winemakers a "program" is generally *a specific lot of vintage wine from an identified vineyard or appellation*. Ultimately, that wine may be offered to the consumer or blended with other "programs" to create a wine that is sold to the consumer. And when that happens, the final resulting wine may be described by our sales and marketing people as a "program."

Here, then, are some of the ways you may hear the word "program" used in relation to fine wines that are made at the Gallo of Sonoma Winery in Healdsburg. We'll move from the most general usage to the most specific:

As a general name for the Winery's varietal wines under production in a given year, regardless of specific brand or appellation descriptions. For example, you may at times hear references to our "2000 Cabernet Sauvignon program." Used in this way, the term "program" would include many different brands such as Gallo of Sonoma, Marcelina, Frei Brothers Reserve, Indigo Hills, and Turning Leaf Coastal Reserve. It would also include Cabernets from specific AVAs, appellations, or vineyards.

As a brand offering. For example, you may hear or read about a specific "Gallo Of Sonoma program" or an "Indigo Hills program." This usage underscores the fact that our Gallo of Sonoma facility actually functions as several different wineries. Each "program" may use the same facilities to make wines that are quite different.

As an offering within a brand. For example, you might hear Gallo of Sonoma 1999 Chardonnay described as a "program."

As a very specific offering within a brand. For example, one of our single vineyard designates such as Gallo of Sonoma 2000 Barelli Creek Cabernet Sauvignon might be described as a "program."

As a specific lot of wine that may be used by our winemakers in blending a particular offering. In Chapters 5 and 6 you'll learn more about how our Gallo of Sonoma winemakers blend wines from different lots to produce a final product that demonstrates specific characteristics. The different lots may result from grapes that were grown in different vineyards or that were fermented or aged in different ways in order to highlight particular flavors or aromas. These different lots often function in the same way as a chef's spice rack, giving our winemakers a wide variety of flavor and aroma characteristics from which to choose when blending. To our winemakers, each of these lots is considered to be a specific "program."

With this background in mind, let's take a closer look at the wines we're producing at our Gallo of Sonoma Winery.

One Facility With Many "Wineries"

In Chapters 5 and 6 you'll learn more about our state-of-the-art winery in Sonoma County. For now, keep in mind that this remarkable facility affords us the ability to function simultaneously as though we were a number of smaller, highly specialized wineries. At every stage of the winemaking process we can separate the grapes, the juice, or the wine in order to preserve, develop, or enhance specific flavor or aroma characteristics.

Now let's take a closer look at some of the brand groups currently being made at Gallo Of Sonoma:

- Gallo of Sonoma (including our Estate, Single Vineyard, and County tiers)
- Marcelina
- Frei Brothers Reserve
- Rancho Zabaco
- Turning Leaf Coastal Reserve
- Anapamu
- Indigo Hills

As we review these different brands we're not going to focus too closely on specific varietal offerings. The specific varietals we make do vary from one year to another based on key marketing considerations and the judgement of our winemakers. For example, with an ultra-premium brand such as Marcelina we may choose in one year to offer a Pinot Noir. In another year, depending on conditions, we may release a Merlot. And, frankly, all of Gallo's fine wines are dynamic, emerging brands. As we continue to build our expertise in making and marketing these wines we will undoubtedly continue to make changes in the focus and alignment of our brands.

Also, keep in mind that all of these fine wine programs do share these important attributes:

- The personal dedication and leadership of Matt and Gina Gallo, third generation winemakers from the Gallo family. Matt and Gina personally head the outstanding teams of viticulturists and winemakers who are responsible for all of these fine wine programs.
- Our state-of-the-art winemaking and aging facility in Sonoma County. This remarkable winery enables our winemakers to combine Old World craftsmanship with New World technology. And, as you'll see, this facility has the capacity to function simultaneously as a number of smaller, highly specialized wineries – providing our winemakers with both the flexibility and control they need to produce remarkably different wines at the same time and in the same place. As we continue to develop and expand this facility we will undoubtedly continue to introduce new fine wine brands.
- Gallo's commitment to bringing consumers the best wines – and the best wine values – available anywhere in the world.

Gallo of Sonoma

In a short time, Gallo of Sonoma has established itself as a winery that produces some of the best wines – and some of the best values – in the fine wine category.

Gallo of Sonoma wines are made from the highest quality grapes grown in Sonoma County. These grapes are cultivated at our own vineyards and are also purchased from the finest grape growers throughout this premier winegrowing region. In fact, since 1990, Sonoma County wines have won more medals and awards than any other winegrowing region in California. So it should come as no surprise that Gallo of Sonoma wines have won numerous accolades at prestigious wine tasting competitions all over the world.

Under the Gallo of Sonoma label we produce and market three distinct tiers of fine wines, each made in a different style and for a different consumer:

- Gallo of Sonoma Estate Wines
- Gallo of Sonoma Single Vineyard Wines
- Gallo of Sonoma County Wines

Let's take a closer look at each of these.

Gallo of Sonoma Estate Wines

Gallo of Sonoma Estate Wines are our finest offerings, designed to appeal to the most knowledgeable and discerning wine drinkers.

Earlier in this chapter we described the criteria that wines must meet in order to bear a specific appellation or AVA designation. An "estate bottled" wine is the most specific designation possible. In order for a wine to be labeled "estate," all aspects of the winemaking process – from growing the grapes to bottling the finished wine – must be controlled by the named winery. All of the grapes must be grown on property that is owned or controlled (leased for three years or longer) by the bottling winery within the boundaries of the named AVA. And the wine must be pressed, fermented, finished, aged, and bottled in a continuous process at the named location.

At the time this manual went to press we were producing two Estate wines: Cabernet Sauvignon and Chardonnay. To make these extraordinary wines, perfectly ripened bunches of grapes from the finest blocks of our vineyards were selectively hand harvested under the close supervision of our viticulturists and winemakers. Then, combining traditional hand crafting techniques with modern technology, our winemakers aged and blended wines that represent the ultimate quality and refinement.

Gina Gallo explains: "The estate wines we make are the best of the best. These are our 'reserve' wines. I use grapes Matt gives me from special vineyard blocks where the gods conspire to provide exceptional fruit. The estate wines are made from a single varietal from a single part of a single ranch and aged along traditional lines, so you end up with extremely well balanced, highly structured wines that will age beautifully."

Gallo of Sonoma Single Vineyard Wines

As you read earlier, one reason why Gallo favors Sonoma County is that it is characterized by "diversity in proximity." Because of Sonoma's many separate valleys, each with its own unique "wall of fog" pathway, diverse growing conditions exist in close proximity to each other.

This diversity serves as the basis for our Gallo of Sonoma Single Vineyard Wines. Each of these outstanding wines is made entirely from grapes selected from one of our seven Sonoma vineyards. In this way, they highlight the distinct character and diverse viticultural attributes of each vineyard location.

In order to be designated as "a single vineyard" wine, at least 95% of the grapes used in making that wine must have been grown in that specific vineyard.

Gina Gallo has described the Single Vineyard Wines this way: "Our single vineyard wines are something very different from the estate bottlings. Because of the amazing differences in land and weather at the vineyards, I can make different styles of the same wines and show the range of possibility in the fruit. This is where I can use the freedom of 'New World' blending techniques. This is where I get the sunshine into the Zinfandel, the berry into the Cabernet, and the mystery into the Pinot Noir. With the single vineyard series I can express myself as well as the grape. These are big, delicious wines for enthusiasts who like a lot of character in the glass."

Gallo of Sonoma County Wines

For many wine lovers, the first introduction to the wines of Gallo of Sonoma may come from the County varietals. Simply stated, these wines offer some of the best value of any fine wines on the market today. They are balanced enough to appeal to a wide range of wine consumers and complex enough to please even the most discerning aficionados.

As you know, in order for a wine to carry a Sonoma County appellation, at least 75% of the grapes used in making that wine must have been grown in Sonoma County.

Gina Gallo describes the County Wines in this way: "These wines use grapes from all around Sonoma County, so I can really put a sampler pack for your taste buds in each bottle. The wines show you why we think this is the best place in the world to make wine. You get a good, clear expression of each variety of grape in the classic California styles. They are all aged in oak in our cellar at Gallo of Sonoma, and they are good and true examples of their types."

Marcelina

Gallo's Marcelina brand derives its name from the legend of Marcelina Dominguez, who was purported to be the first female viticulturist in the history of California winemaking. Traditionally, our Marcelina wines are ultra-premium Cabernet Sauvignon and Chardonnay that are produced at our Gallo of Sonoma winery with outstanding grapes from the Napa Valley and Carneros Valley. In addition, in some years we may offer other prestigious varietals.

Gallo's relationship with the Napa Valley dates back almost as far as our roots in Sonoma. As early as 1937 Julio Gallo recognized the extraordinary quality of Napa Valley grapes and began buying fruit from that region. Julio forged relationships with growers that have continued to the present day. As a result, we are able to obtain exceptional fruit from premier vineyards. And we use that fruit to produce our Marcelina wines.

Julio's philosophy was to utilize winemaking techniques that allowed the natural flavors of the grape to emerge as fully as possible. When this manual went to press, this philosophy was still being reflected in the artistry of Marcelina's lead winemaker, Marcello Monticelli.

In crafting Marcelina wines, Monticelli utilizes a high percentage of prized "free run" juice that imparts a cleaner finish and greater flavor complexity. He enhances the natural varietal flavors of the grapes with the subtle character of fine oak. The results are rich, concentrated wines that are produced in limited quantities to delight the palates of the most demanding wine enthusiasts.

Frei Brothers Reserve

Founded by Andrew Frei in 1890, Frei Bros. Winery is one of California's oldest wineries. Winemakers at the Frei Bros. Winery in Sonoma County believed that the secret to making a high-quality wine started with the fruit. By embracing this fruit-forward philosophy, they crafted some of the finest wines in the region.

Today, Frei Brothers Reserve builds on this 110 year old tradition to produce wines of grace and authenticity that, like Andrew Frei himself, truly stand out. These wines combines choice grapes from select Sonoma AVAs with the spirit of Old World winemaking techniques that highlight varietal character.

Frei Brothers Reserve wines are different from many other fine California wines in that they highlight the aromas and flavors of the grapes from which they were made rather than the techniques that the winemaker applied during the winemaking process.

Rancho Zabaco

According to the early history of Sonoma County, the Zabaco area included both the Dry Creek Valley and substantial portions of the Russian River Valley near Geyserville. Drawing on this heritage, our Rancho Zabaco brand provides outstanding examples of Zinfandel and other varietals.

The "warm days and cool nights" of Sonoma result in the extended hang time that produces fruit with the most fully developed varietal character. And Rancho Zabaco features bold, intense varietals that are individually selected from the specific valleys and microclimates where they grow best. For example, the Dry Creek Zinfandel has bold flavors of spicy fruit.

Rancho Zabaco has vintage dated Zinfandel offerings in several distinct styles and price tiers, including Dancing Bull, Sonoma Heritage Vines, Dry Creek Valley and some single vineyard designates. Rancho Zabaco wines are extremely versatile and provide an excellent complement to today's flavorful cuisine.

Turning Leaf Coastal Reserve

Turning Leaf Coastal Reserve was launched in 1999 as a premium line extension to the Turning Leaf brand. The wines are crafted from grapes that were cultivated in prime coastal regions such as Sonoma County in the North Coast and the San Luis Obispo area in the Central Coast. These coastal areas are renowned for their diverse climatic influences and the wide range of flavors that they produce.

The unique, harmonious blend between the climate, soil, grapes, and sun that occurs in these coastal regions inspires the philosophy behind the Turning Leaf Coastal Reserve brand. We begin with incredible grapes and try to nurture them further through gentle handling and attention to every detail from pressing and fermentation to barrel aging and blending.

The wines of Turning Leaf Coastal Reserve provide exceptional pleasure and value whether they are enjoyed alone or paired with foods. These extraordinary wines have received numerous awards and accolades and have been rated as a "Best Value" by *Wine Spectator* magazine.

Anapamu

The Anapamu brand was developed to showcase the sun-rich flavors of California's Central Coast. This rapidly developing AVA extends from Santa Barbara in the south to Livermore in the north.

The name "Anapamu" means "rising place" in the Native American Chumash language and refers to the hillside vineyards where the grapes are grown. Gallo sources fruit from some of the best growers in the area. And we are currently developing our own vineyards in outstanding AVAs including Sunnybrook Vineyards in Paso Robles and the Olsen Vineyard in the Santa Lucia Highlands of Monterey County.

In the Central Coast region, vines are planted both north-to-south (as in the North Coast) and east-to-west. This enables the grapes to capture the intense sunlight of the region. At the same time, seasonal fog and cool coastal breezes help to promote the extended "hang time" that yields the most intense varietal character.

Indigo Hills

Indigo Hills represents one of the best values on the market for consumers who favor HPC and ultra-premium varietals. The wines are made from grapes that are grown in California's cool coastal areas, including Mendocino County and the Central Coast. These are areas where the cool climate causes the grapes to ripen more slowly, resulting in distinctive varietal flavor, refreshing acidity, and silky layers on the palate.

The Indigo Hills name was inspired by the colors and geography of this coastal region. Every evening as the sun slowly descends behind the Pacific Coast mountains, the hills come alive in shades of indigo, blue, silver, and purple. The name also evokes the cool climate that is responsible for the unique qualities of the grapes used in these fine wines.

The Indigo Hills brand allows our winemakers exceptional flexibility in blending grapes from a variety of sources. As a result, they are able to produce wines that offer both refined sophistication and exceptional value. Vintages in the late 1990's received many awards and medals and were consistently rated as a "Best Buy" in *Wine Spectator* magazine. And the excellent acidity of Indigo Hills wines makes them an incomparable accompaniment to a wide range of cuisines.

Check Your Understanding

1. What are the three tiers of wine that we produce and market under the name Gallo of Sonoma?
2. Where do we obtain the grapes for our Marcelina wines?
3. What characterizes our Rancho Zabaco wines?
4. Where are the vineyards that provide the grapes for our Anapamu brand? What are the two weather characteristics that produce their distinctive flavors?
5. Which areas are the source of the grapes for our Indigo Hills wines? This brand allows our winemakers exceptional flexibility in blending wines from different sources. As a result, what benefits are they able to provide to consumers?

Gallo's Sonoma Vineyards

The E. & J. Gallo Winery has taken full advantage of the diversity of Sonoma County's growing conditions by establishing a portfolio of seven vineyards in four different American Viticultural Areas.

Four of the vineyards are located in the warmer, inland parts of Sonoma County that are farther from the cooling effects of the Pacific Ocean. Here we are growing grapes that are conducive to warmer climates, such as Cabernet Sauvignon, Zinfandel, Merlot, and Sangiovese.

- Dry Creek Valley:
- Frei Ranch Vineyard
 - Stefani Vineyard
 - Chiotti Vineyard

- Alexander Valley:
- Barrelli Creek Vineyard

The other three vineyards are in the cooler, coastal areas of Sonoma County. Here we are growing grapes that thrive in cooler climates, such as Pinot Noir, Chardonnay, and Pinot Gris.

- Russian River Valley:
- Laguna Vineyard
 - Our New Russian River Valley Vineyard (unnamed at the time this manual was published)
- Sonoma Coast
- Two Rock Vineyard

The unique climate of each vineyard produces grapes with distinctive flavors and aromas. By itself, each of these individual vineyards has the potential to produce some of the world's finest grapes and wines. Taken together as a portfolio, these vineyards provide a wide range of flavors and aromas that our wine makers can craft into varietal wines of extraordinary complexity and depth.

Let's take a closer look at each of these vineyards. We'll begin by considering the four vineyards located in the warmer AVAs of the Dry Creek Valley and Alexander Valley.

Dry Creek Valley: Frei Ranch Vineyard

Ernest and Julio Gallo first purchased wine from Frei Brothers Winery in 1934. The winery was originally constructed in 1885 by Charles Dunz, and purchased by Andrew Frei in 1890. It was one of only four early Dry Creek Valley wineries that survived Prohibition. In 1934, Andrew Frei's sons, Walter and Louis, were operating the vineyard and winery.

Over the next 13 years the relationship between the Gallo and Frei families grew stronger. In 1947 Ernest and Julio Gallo entered into an agreement to purchase the total production from Frei Brothers. That agreement lasted 30 years.

In 1977, Ernest and Julio Gallo purchased the Frei Brothers Winery and about 200 acres of surrounding vineyard. Over the next 23 years the Gallo family continued to expand the size of the vineyard through acquisitions of adjoining properties.

The Gallo of Sonoma Frei Ranch Vineyard is characterized by the "warm days and cool nights" that are so typical of Sonoma. In this vineyard the fog tends to clear away by mid-morning, leaving a full day of sun for the grapes. Using the Heat Summation Method of Classification that you read about in Chapter 2, the vineyard averages 3,100 degree days, which is considered a cool Region III mesoclimate. Annual rainfall is approximately 42 inches.

At the time of publication, roughly 700 acres were planted, predominantly with Cabernet Sauvignon, Zinfandel, Syrah, and Merlot. These red varieties receive excellent hang time and achieve optimal maturity each year with deep, rich flavors and impressive tannin and acid levels.

Dry Creek Valley: Stefani Vineyard

Located less than three miles from the Frei Ranch Vineyard, this vineyard was originally planted by the Stefani family in the late 1800's. In the early 1940's, Ernest and Julio Gallo began purchasing fruit from Paul Stefani. This vineyard became one of the first consistently high quality sources of Zinfandel fruit for the red wines produced by the E. & J. Gallo Winery.

In 1988, the Gallo family purchased the vineyard and some of the surrounding property.

Although the Stefani Vineyard is situated very near to Frei Ranch, its mesoclimate is somewhat different. That's because Frei Ranch is located in the Dry Creek Valley, which runs north to south. Stefani Vineyard sits in the Canyon Valley, a short connector that runs east to west between the Dry Creek Valley and the Alexander Valley. As a result, it receives less fog than the Dry Creek Valley, and on average, mid-day temperatures are a few degrees warmer than at Frei Ranch Vineyard.

Using the Heat Summation Method of Classification, Stefani Vineyard averages approximately 3,300 degree days. So it is considered a mid-Region III mesoclimate. Average rainfall on this vineyard is approximately 40 inches.

At the time of publication, roughly 200 acres were planted, predominantly with Cabernet Sauvignon and Zinfandel.

Despite the geographic proximity between the Frei Ranch and Stefani vineyards, their different mesoclimates produce fruit with distinctively different characteristics. The slightly warmer temperatures at the Stefani vineyard tend to produce red grapes with riper, "rounder" qualities.

Dry Creek Valley: Chiotti Vineyard

Rounding out the Gallo family's three vineyards in the Dry Creek Valley AVA is the Chiotti Vineyard. The land on which this vineyard sits was once part of the Patten Ranch and was owned by one of the earliest grape growing families in the Dry Creek Valley. Vineyards in this area date back as far as 1881.

As you saw with the Frei Ranch and Stefani vineyards, the Gallo family also had a long history of buying grapes from this Chiotti property. In fact, Ernest and Julio Gallo began purchasing grapes from this vineyard in the early 1940's. And they purchased this vineyard in 1990.

Chiotti is located north of the Frei Ranch and Stefani vineyards, just south of Lake Sonoma. It is a mid-Region III vineyard with approximately 3,300 degree days, very similar in climate to Stefani Vineyard. Average annual rainfall is approximately 40 inches.

At the time of publication, Chiotti Vineyard had roughly 55 acres under cultivation, planted predominantly with Zinfandel and Merlot.

Varietal character from this vineyard tends to be a bit more "racy," with elements of boysenberry jam and black pepper.

Alexander Valley: Barrelli Creek Vineyard

Our Barrelli Creek Vineyard in the Alexander Valley is located on the site of some of the original Italian Swiss Colony vineyards that were planted in 1881. One of the early wine pioneers in Sonoma County, Italian Swiss Colony established a winery and vineyards in the northern end of the Alexander Valley. The founders of this winery were actually from northern Italy rather than from Switzerland, and they named the area of their vineyards "Asti" after one of the local winegrowing villages of their home region.

By the 1980's, the vineyards had been neglected and turned into pastureland. The Gallo family purchased the property in 1989 and undertook extensive replanting efforts that lasted until 1995.

Barrelli Creek is the warmest of our seven Sonoma County properties. That's because the Alexander Valley is another mountain range farther away from the Pacific Ocean than the Dry Creek Valley. As a result, there's less fog intrusion at Barrelli Creek, and the growing climate is somewhat warmer. Using the Heat Summation Method of Classification the vineyard averages 3,500 degree days. So it's considered to be at the very high end of Region III, almost in Region IV.

Average rainfall on this vineyard is approximately 40 inches.

This vineyard is large, with about 600 acres under cultivation at the time this manual was published. To make the best use of its distinctly warmer climate the Gallo family has planted a broad range of varietals including Cabernet Sauvignon, Merlot, Malbec, Petit Verdot, Zinfandel, Sangiovese, Cabernet Franc, Petite Sirah, and Barbera,. These red grapes exhibit the very ripe fruit characteristics you'd expect from a warmer vineyard, with strong accents of plum, blackberry jam, and cassis, along with the deep, rich color and tannins so prized from grapes grown in the Alexander Valley.

Check Your Understanding

1. Our Frei ranch and Stefani Vineyards are located just three miles apart. Yet their different mesoclimates produce fruit with distinctly different characteristics. How is this possible?
2. Located in the Alexander Valley, our Barelli Creek Vineyard has the warmest growing climate of any of our vineyards. How does this affect the choice of varieties that we cultivate there? What impact does the warmer climate have on the characteristics of the grapes?

Now let's consider the three vineyards that are located in the cooler AVAs of the Russian River Valley and the Sonoma Coast.

Russian River Valley: Laguna Vineyard

When the Gallo family purchased the Frei Brothers Winery and Vineyard in Dry Creek in 1977, they also received a plot of land in the Russian River Valley. Andrew Frei had originally purchased this land in 1882. Over the years, the Frei family had experimented with growing a wide variety of crops, including grapes. But by the time the Gallos purchased the ranch it was being used entirely for cultivating apples.

The Gallo family knew that the property had once hosted a thriving vineyard and they recognized the unique attributes of the Russian River Valley as a viticultural area. So in 1980, the Gallos planted 100 acres of grapes. Initially three varieties were evaluated: Chardonnay, Gewürztraminer and Riesling. By the end of the decade, the Laguna Vineyard had grown to 360 acres, and all of the vines had been grafted over to Chardonnay. In 1996, the Gallo family acquired an additional parcel of property just to the north, increasing the total Laguna Vineyard plantings to 480 acres.

This Russian River Valley vineyard is located less than 12 miles from the Pacific Ocean. The cooling marine fog typically arrives early in the evening and remains until the late morning or early afternoon. On many summer days the fog does not clear at all!

This heavy fog intrusion makes the Russian River Valley one of the coolest areas in Sonoma County. So this AVA is characterized by a very long growing season with an extended "hang time" for the fruit. Laguna Vineyard has a moderate Region I mesoclimate of 2,450 degree days, and annual rainfall of about 53 inches.

Chardonnay grapes grown in this vineyard reflect the very cool weather. They are characterized by high acidity and prominent flavors of citrus and green apples.

The Pinot Noir grapes grown here are typical of those cultivated in the Russian River Valley AVA. The fruit is of moderate weight and silky in texture, with highlights of red cherry and spice.

Our New Russian River Valley Vineyard

Our newest and yet unnamed vineyard in the Russian River Valley is located further east, toward the town of Guerneville. The Porter family first settled this historic site in 1848. Successive generations of Porters raised cattle on the property until 1940, when it was sold to the American actor Fred MacMurray. (MacMurray starred in the film noir classic "Double Indemnity" and later became well known for his television series "My Three Sons" and a number of Disney films including "The Absent-Minded Professor" and "Son of Flubber.") He continued to raise prize cattle and sheep on the site until he died in 1994.

In her 1996 essay [History of the Twin Valley Ranch](#), Fred's daughter Kate MacMurray described the colorful origins of this property:

"In 1846 the Porter family arrived in Sonoma Town in old thimble skein wagons with top sheets, their wives astride Missouri mules and their children driving before them scrub Durham cattle and trail worn sheep. After depositing their families and livestock in town, the Porter men joined the army to fight in the war against General Vallejo. After the close of the war, the Porter family settled on several hundred acres bordering a flowing creek which they named Porter Creek."

The Gallo family acquired this historic property in 1996, becoming only the third owners in 150 years. We began planting in 1997.

This vineyard is unique in that it actually has two different mesoclimates, one in each of two "twin" valleys.

The lower valley is considered an upper Region I or lower Region II mesoclimate with an average of 2,540 degree days. The upper valley is a mid-Region II mesoclimate with 2,800 degree days. Rainfall is fairly consistent throughout the property, at 58 inches.

At the time of publication, about 450 acres have been planted with Pinot Noir, Pinot Gris, Zinfandel, Syrah, and Sauvignon Blanc. 1999 marked the first vintage from this vineyard, made from a small harvest of Pinot Gris and Sauvignon Blanc. Both of these "first crop" wines were marketed successfully in the Rancho Zabaco line.

Sonoma Coast: Two Rock Vineyard

Our Two Rock Vineyard is located further to the south and east in the Sonoma Coast AVA. Of all the AVAs in Sonoma County, Sonoma Coast has the greatest exposure to the cooling influences of the Pacific Ocean. The climate is one of the coolest and windiest in the county.

This vineyard sits in the middle of what is known as the “Petaluma Wind Gap,” a barren, hilly terrain dominated by pastureland. After Matt Gallo negotiated a creative partnership for water rights in the area, Gallo of Sonoma became the first commercial winery to purchase and develop vineyards in this locale. We began planting this site in 1996. And three years later we purchased an adjacent parcel of land to expand the vineyard.

The mesoclimate of the Two Rock Vineyard is actually divided in two parts. The cooler part of the vineyard is classified as a sub-Region I, with just 1,900 degree days. The warmer part of the vineyard is classified as a mid-Region I, with 2,200 degree days. Annual rainfall in this vicinity is just 30 inches.

Matt Gallo calls Two Rock his “greatest challenge,” because the vines will be “living on the edge” in terms of their ability to survive and ripen to maturity each year. On the other hand, if it's possible to grow grapes successfully their extremely long "hang time" should be ideal for producing excellent acidity.

The property has a total of 560 acres. Of these, 440 acres are planted, primarily with the cool climate varietals of Pinot Noir, Pinot Gris, and Chardonnay. But we've also planted a small amount of Sauvignon Blanc to assess its potential at this location.

Check Your Understanding

1. What accounts for the cooler weather conditions in the AVAs of the Russian River Valley and Sonoma Coast?
2. Which varietals are planted in the Gallo vineyards that are located in these AVAs?
3. What impact does the cooler weather have on the growing season and the "hang time" for this fruit? How does this affect the characteristics of the grapes?

Gallo Research And Innovation

A core value of the E. & J. Gallo Winery is an emphasis on *continuous improvement*. From the beginning, the Winery has invested in research and education to continually improve the quality of the grapes and wines it produces.

Writing in the August 2000 issue of *Wine Business Monthly*, contributing editor Paul Franson noted: "Viticulturists and enologists are experimenters by nature, but the Gallos may be performing more research and exploiting its results to a greater extent than the rest of the industry."

As early as 1947 the E. & J. Gallo Winery initiated a formal research program and established a special "micro-winery" to evaluate the results of viticultural experiments. Grapes from vineyard trials were made into wine under exacting scientific standards to assess each specific variable under investigation.

Today, the Gallo Basic Research Center in the San Joaquin Valley is staffed by a team of leading scientists from the United States and other countries around the world. The team typically includes representatives from France, Ireland, Germany, United Kingdom, Australia, and New Zealand.

These scientists have helped us to expand our programs in genetics, biochemistry, microbiology, and sensory and flavor science. And we've recently added a unique resource for the study of flavor science. We are working in the laboratory to discover what makes wines taste really good. Then we're taking that knowledge back into the vineyard and winery in practical applications.

Each year, the Winery makes several hundred small batch wines – only a case or two of each of them – to test the combinations of science and craftsmanship that produce the finest wines.

For instance, the winemakers might be trying to develop a stronger blackberry accent in the Cabernet Sauvignon. To encourage the vine to produce that particular flavor compound in the fruit, the winegrowers will try different cultivation techniques suggested by the Basic Research Center.

Oak aging is also a focus of current research. During the fermentation and aging processes, the use of oak barrels can have a complex impact on red or white wines. There are enormous variations available based on the geographic source of the oak, the way the barrels are prepared, and the length and timing of the contact with the wine. We are systematically studying every aspect of the interaction of wine with oak. And we will be introducing more innovations in the future based on our findings about how oak affects the sensory characteristics of the wine.

In addition to these areas of basic research, Gallo is also conducting ongoing experiments in our vineyards and in the processes we use to make fine white and red wines. You'll learn more about these innovations in Chapters 4-6.

A Final Note

As you are aware, the wine industry is extremely dynamic. As it has often been said, the only thing that's certain is change!

This is especially true of Gallo's continually changing fine wine portfolio. We are constantly introducing new SKUs, new labels, new packaging, and new brands. Our experience has shown that the product knowledge section of any training manual can be somewhat "dated" even before hard copies are shipped out to our distributors. It seems that some major change is always announced even before the ink can dry!

This is why we urge you to seek out and use the resources within your distributor to keep as current as possible about the Gallo products that you represent. Your managers are fantastic resources, and so are the fine wine specialists and experienced sales people within your organization. These people will also know where you can find current Gallo publications, including product brochures, flyers, reprints of the results from major competitions and judgments, press releases, and winemaker's notes.

At the time that manual went to press, the E. & J. Gallo Winery was in the process of implementing two web-based information sources that promise to be of significant value to sales representatives who have access to the Internet and take the initiative to do some exploring. Both of the applications described below are in various stages of development; given the vibrant nature of the web they will probably continue to evolve. And both applications require you to register in order to establish a *User ID* and a *Password*.

Trade Network (TradeNet to "insiders"). This site was developed to give sales people and their retailers the most up-to-date information possible regarding Gallo's products and promotional information.

You can access this site at <http://trade.ejgallo.com>. You shouldn't have any difficulty registering for this site. Just follow the on-screen instructions.

Once you access Trade Network, visit "Brand Central" for Winemaker Notes, Awards & Accolades, Product Visuals, Product Specifications, and more.

Wine Academy. At press time this very promising site was still in the final test stage of development. Gallo's Wine Academy will be an extremely valuable interactive distance learning tool for the person who wants to be a truly knowledgeable, professional and *successful* fine wine sales representative.

You can access this site at: <http://www.GalloWineAcademy.com>. (NOTE: At press time the Wine Academy was in the final test stages and was available only to a limited group of people. However, by the time you read this manual – or soon afterwards – a general registration process will probably be in place. So if you're not able to register the first time you try, be persistent.)

As the Wine Academy develops, it will become the Gallo Winery's on-line learning center for the people who represent Gallo's fine wine offerings. Not only will the Wine Academy provide valuable product knowledge, but it will also include modules on such topics as grape growing, understanding the characteristics of specific varietal wines, and wines from different regions of the world. And it will also feature suggestions about how to sell fine Gallo wines.

One of the best features of Wine Academy is that it is a truly interactive learning tool. So you will be able to receive feedback about how well you are mastering the material. And you'll be able to control your own learning as you build the knowledge and skills that will help you achieve your professional goals.

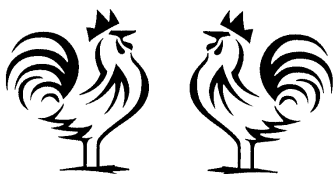
Review

In this chapter we have given you a great deal of information about the E. & J. Gallo Winery's approach to making fine wines at Gallo of Sonoma. We've provided background information about the state of California, the North Coast Growing Region, and Sonoma County. We've given a brief summary of Gallo's fine wine programs. We've introduced you to our portfolio of Sonoma vineyards. And we've outlined some of the research and innovation that underscores the position of leadership that Gallo of Sonoma has taken in the fine wine industry.

It's up to you to control your own learning. Here are some suggestions so you can check to see how well you've learned the material in this chapter.

- Explain why California is an exceptional winegrowing area.
- Describe the system of American Viticultural Areas (AVAs) and what it means to fine wine consumers.
- Explain why Gallo chose to locate its fine wine operations in Sonoma County.
- Provide an overview of Gallo's fine wine programs, including Gallo of Sonoma, Marcelina, Frei Brothers Reserve, Rancho Zabaco, Turning Leaf Coastal Reserve, Anapamu, and Indigo Hills.
- Summarize the advantages that are available as a result of Gallo's extensive portfolio of premier Sonoma vineyards.

You should be able to speak confidently and knowledgeably about each of these topics. If you are comfortable with your ability to discuss these areas then you are well on your way to mastering the material in this chapter. Congratulations! If you're not yet comfortable, take some time to reread this chapter and to gain a greater familiarity with these topics.



Chapter 4 Growing Fine Wine Grapes At Gallo of Sonoma

In *Chapter 2: Growing Fine Wine Grapes*, you learned about the many factors that lead to *balanced growth* and produce the finest wine grapes. In the process, you were introduced to the French concept of *terroir*. This term refers to the "total elements of the vineyard" (James E. Wilson) and "the combined influences of vineyard atmospheric, soil, and cultural conditions on vine growth and fruit ripening" (Ron S. Jackson).

You also saw that there is an interrelationship between these many factors. For example, climate and rainfall may impact the type of soil on the site, the specific characteristics of the rootstock, and the specific varietal (and clone) that may be cultivated.

For many years, Gallo scientists have been systematically studying these factors and their complex interrelationship. One outcome of this research is a conceptual framework called the *Gallo Quality Circle Of Grape Growing*. This model summarizes the factors that must be managed together in order to produce balanced growth and the finest quality wine grapes:

In this chapter we'll use the Gallo Quality Circle Of Grape Growing (generally referred to simply as the "Quality Circle") as a framework to review the practices Gallo employs at our Sonoma vineyards. As we examine each part of the Quality Circle, we'll explain how Gallo viticulturists work to produce the balanced growth that yields the highest quality grapes. And at each stage of the grape growing process we will also focus on Gallo's innovative viticultural practices in Sonoma County.

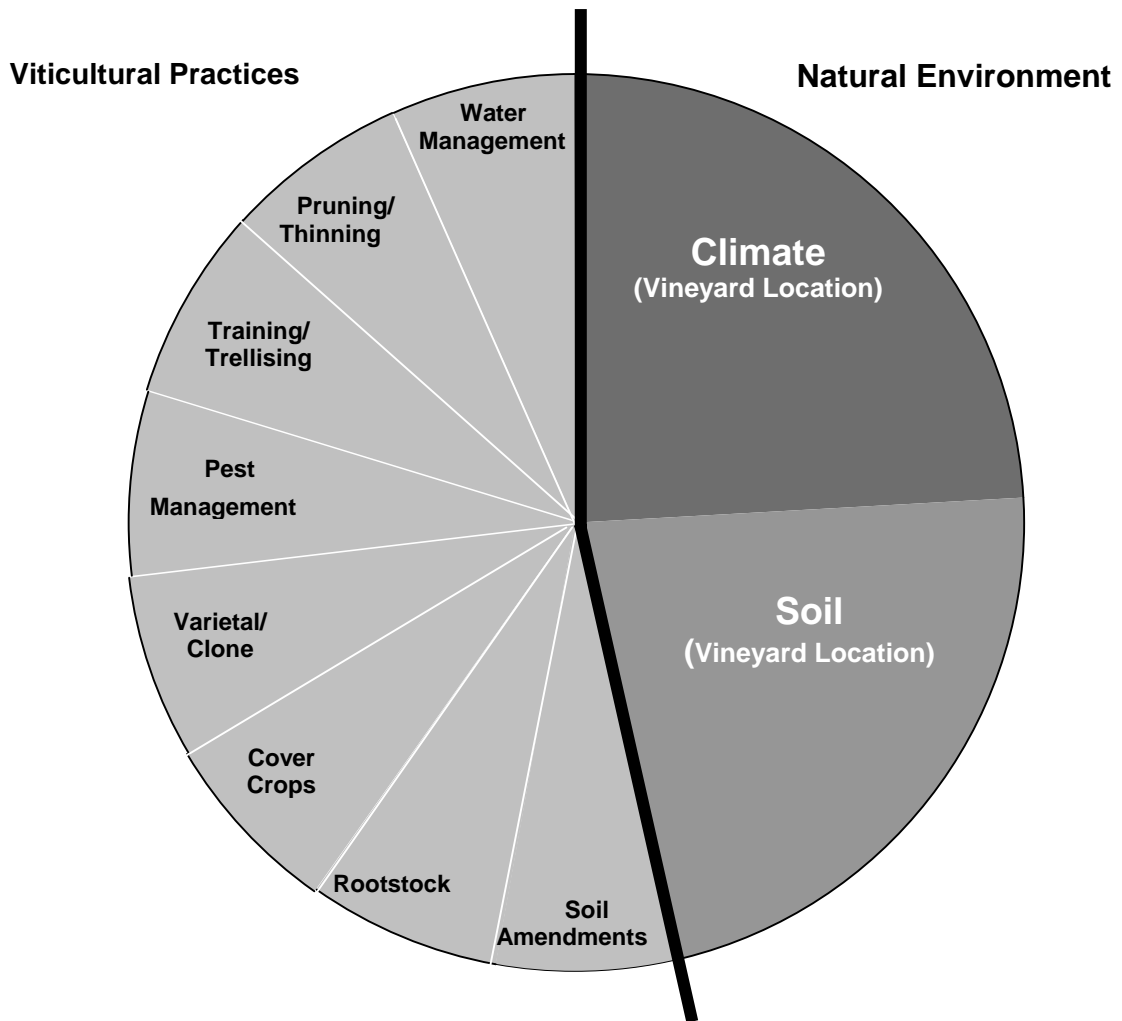
This information is extremely important because it will equip you to properly represent your products in a highly competitive sales environment. So be sure to study it carefully and use it on the job. If you find any sections that you feel are particularly important to retain, you may want to photocopy them for your own use.

This chapter does contain a lot of detailed information that may be new to you. So take your time and review the material carefully. You may find it helpful to read some parts of the chapter two or three times.

Overview

The Gallo Quality Circle Of Grape Growing summarizes the factors that must be managed together in order to produce balanced growth and the finest quality wine grapes:

Gallo Quality Circle



The Quality Circle encompasses all of the factors that comprise the French concept of *terroir*. As you recall, this concept includes both natural and cultural elements:

- Climate
- Soil
- Soil Amendments
- Rootstock
- Cover Crops
- Varietal/Clone
- Pest Management
- Training/Trellising
- Pruning/Thinning
- Water Management

In this chapter we'll review each element of the Quality Circle and examine how Gallo is promoting balanced growth at our Sonoma vineyards. We'll also describe the scientific research that Gallo is conducting and how we are applying the results of this research to make ongoing improvements to our viticultural techniques.

As you read this chapter, keep in mind that Gallo does not grow all of the grapes that are used in making our fine wines. We also purchase grapes from selected growers in Sonoma, the North Coast, and other prime winegrowing areas in California. However, Gallo's Grower Relations Department works closely with all of our growers and assists them in achieving the same kind of high standards that we maintain in our own vineyards.

Objectives

After reading this chapter you should understand and be able to explain:

- How the elements of The Gallo Quality Circle Of Grape Growing work together to promote balanced growth.
- The traditional and innovative grape growing practices ("viticulture") that Gallo vineyard managers are implementing in our Sonoma vineyards.
- The relationship of these viticultural practices to the actual taste and quality of a wine.
- The leading-edge research that Gallo is currently conducting in each element of the Quality Circle.

Key Terms

As you read this chapter keep an eye out for these terms. You may already be familiar with some of them from previous chapters. By the end of this chapter you should understand all of them. More importantly, you should be able to explain how each of these characteristics or processes affects the grapes – and the taste of the resulting wine.

Balanced Growth

Benchland

Canopy Management

Clonal Selection

50-50 Formula

Gallo Quality Circle of Grape Growing

Gallo Sustainable Practices

Gallo Signature Soil

Give Back Plan

Growing Season

Hang Time

Heat Summation Method of Classification

Macroclimate

Mesoclimate

Microclimate

Phylloxera

Rootstock

Terroir

Test Plot

Trellis

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

Balanced Growth And The Quality Circle Of Grape Growing

In Chapter 2 you read about the traditional view that grapevines must be "stressed" in order to produce the highest quality grapes. At Gallo, we believe that the key to growing fine wine grapes is not "stress" but rather the *balanced growth* that results from properly controlling all of the different conditions that contribute to the growth of the vine. And we believe that balanced growth can have significant positive effects on the grapes – and on the wine produced from them:

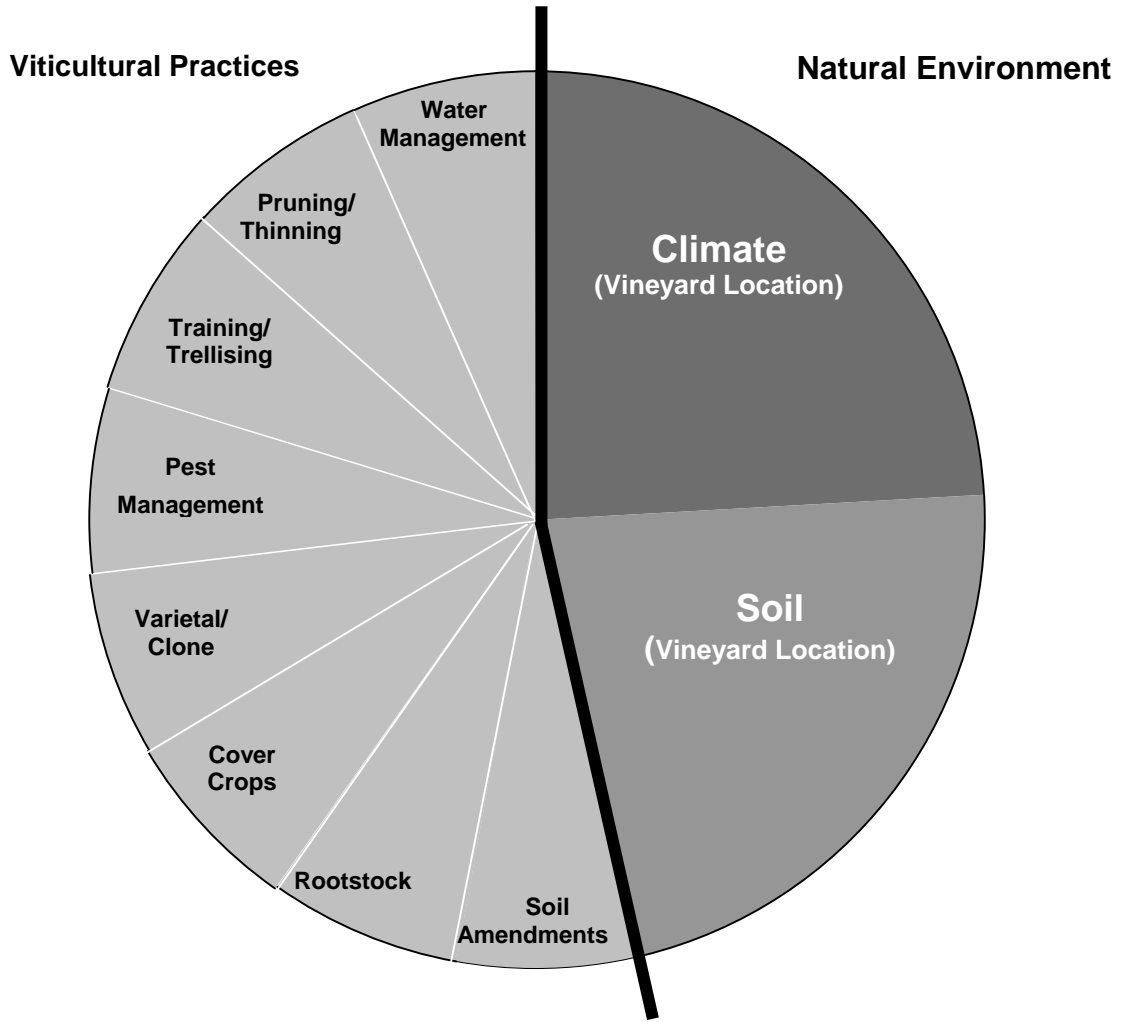
Specifically, balanced growth adds more of the elements that are considered necessary for fine wines. You may not understand all of these elements now, but they include sugar level, tannin, color, tartaric acid, varietal character, and other aspects of overall wine quality. At the same time, balanced growth can decrease undesirable elements such as bunch rot, vegetal characteristics, Potassium and malic acid.

We believe that the highest quality fruit is produced when a vineyard manager is able to manage the balanced growth of the vine. To accomplish this balance, numerous critical decisions need to be made in each and every phase of cultivation, from choosing the proper site, to planting the vines, to managing the vineyard year round.

The E. & J. Gallo Winery's Quality Circle Of Grape Growing summarizes the many aspects of managing balanced growth. Any vineyard manager is faced with these same issues. What distinguishes Gallo is the absolute thoroughness we practice at each and every step of the process. We utilize the most advanced viticultural procedures and equipment, combined with decades of personal experience in our Sonoma County vineyards.

In this chapter we're going to look at each of the elements of the Quality Circle. We're going to begin with the natural elements: Climate and Soil. Then we'll consider the cultural practices. As we do, keep in mind that all of these elements are interrelated. And all of these elements must be managed together in order to produce the balanced growth that is essential for fine wine grapes.

Gallo Quality Circle



Climate

Climate – especially temperature – is the single most important factor in grape cultivation. As you read in Chapter 2, climate determines the specific locations in the world where wine grapes can be grown successfully. In addition, climate also plays a critical role in determining the quality and balance of the diverse components of a grape. These components, which include sugar, acid, tannin, color, pigments, flavors, and aromas, each impact the character of the resulting wine.

In Chapter 2, you also learned that the same grape variety will exhibit different characteristics depending on the region where it is grown. That's because the *hang time* – the length of time that grapes actually hang on the vine – varies depending on the average temperature of the region.

The chart below summarizes the impact of climate on when the grapes will reach maturity and on some key characteristics of the grapes at the moment of harvest.

	Cooler Growing Region	Warmer Growing Region
Hang Time	It takes longer for grapes to mature.	Shorter growth time required to maturity.
Acidity	In cooler regions, grapes will have more total acid than the same variety grown in warmer areas.	In warmer climates grapes respire (lose) a higher percentage of their acid.
Color And Tannin	More red pigment and tannin.	Less red pigment and tannin.
Varietal Fruit Character	Fruitier and more tart.	Sweeter, but more "flat."

As you read in Chapter 3, Sonoma County is characterized by *warm days and cool nights* that produce grapes with exceptional complexity and varietal character. Sonoma County is also remarkable for its *diversity within proximity* – a wide range of mesoclimates located in a relatively small geographic area.

The E. & J. Gallo Winery has taken full advantage of the diversity of Sonoma County growing conditions by establishing a portfolio of seven vineyards in four different American Viticultural Areas.

Four of the vineyards are located in the warmer, inland parts of Sonoma County that are farther from the cooling effects of the Pacific Ocean:

Dry Creek Valley:

- Frei Ranch Vineyard
- Stefani Vineyard
- Chiotti Vineyard

Alexander Valley:

- Barrelli Creek Vineyard

Based on the Heat Summation Method Of Classification, these vineyards are located in Region III mesoclimates. (If you're not entirely comfortable with the Heat Summation Method Of Classification you may want to review pages 2-22 to 2-28). Here we are growing grapes that are conducive to warmer climates, such as Cabernet Sauvignon, Zinfandel, Merlot, and Sangiovese.

The other three vineyards are in the cooler, coastal areas of Sonoma County.

Russian River Valley:

- Laguna Vineyard
- Our New Russian River Valley Vineyard (unnamed when this manual went to press)

Sonoma Coast

- Two Rock Vineyard

Based on the Heat Summation Method Of Classification, these vineyards are located in Region I and Region II mesoclimates. Here we are growing grapes that thrive in cooler climates, such as Pinot Noir, Chardonnay, and Pinot Gris.

The unique climate of each vineyard produces grapes with distinctive flavors and aromas. By itself, each of these individual vineyards has the potential to produce some of the world's finest grapes and wines. Taken together as a portfolio, these vineyards provide a wide range of flavors and aromas that our wine makers can craft into varietal wines of extraordinary complexity and depth.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What are two reasons why climate is the single most important factor in grape growing?
2. What are some of the ways that grapes of the same variety may differ based on the climates where they are grown?
3. What are two climate characteristics that make Sonoma County an ideal location for growing fine wine grapes?
4. How does Gallo take advantage of the varieties of mesoclimates available in Sonoma County?

Soil

After climate, the second most important factor in growing fine wine grapes is locating the vineyard in an area that has suitable soil. Soil supplies the vines with water and nutrients, anchors the vines in place, and hosts a diverse array of flora and fauna that live symbiotically with the grapevines.

In Chapter 2 you read about the general soil conditions that are most favorable for growing fine wine grapes:

- No single aspect of the soil can explain the character or quality of a vineyard's wines. In fact, within any particular winegrowing region, the best vineyards have a wide variety of soils, both in terms of texture and chemical make-ups.
- Grapevines can adapt well to almost any soil that drains well, even one that is not particularly fertile.
- Soils in the best vineyards are neither too fertile, nor too depleted. If the soil is too fertile, the grapevines have very high vigor and strive to grow as many branches and leaves as possible. This is not the kind of balanced growth that leads to high quality grapes.
- Soils in the best vineyards seem to work in conjunction with the prevailing weather conditions to ensure that the vines are supplied with enough water but not too much.

In other words, the key to consider is how the soil contributes to the overall balanced growth of the vine.

Soil Selection At Gallo's Fine Wine Vineyards

Based on the most current scientific research – and generations of experience – Gallo viticulturists firmly believes that *the most effective way to promote balanced growth is to plant vineyards in soil that limits access to nutrients and to water*. Nearly all of the roughly 3,000 acres in our Sonoma vineyards are located in sites with soil profiles that promote balanced vine growth and enhance the complexity of fruit character in the grapes.

While each of our vineyard sites has a unique soil profile, there is one unifying theme – their elevation. We purposely try to avoid valley floors with deep, rich soil and excessive reserves of water. Instead, we search for *benchland* areas – well-drained, sloping hillsides where the soil is filled with rocks, and the water table is out of reach for the grapevine's root system.

This is the special "Gallo Signature Soil." Julio Gallo searched intently for this soil, often walking throughout an entire proposed site with a shovel, digging holes as he went to examine the profile of each shovel full of topsoil. And today, the Gallo family still searches for this soil profile when they assess proposed sites for new vineyards.

We believe that "Gallo Signature Soil" provides our vineyard managers with three important benefits:

Low fertility. After hundreds of thousands of years of topsoil erosion, the benchlands are filled with rocks. And because rocks are inert, non-organic materials, they provide no nutrients to the vine.

Limited access to water. Vineyards located on the valley floor are normally very close to the water table – which is often no more than 20-25 feet below the soil's surface. Because grapevines have particularly long root systems, the vines' roots can reach water in just a few years of normal growth. From that point on, the vine has access to a nearly limitless supply of ground water, and it becomes much more difficult for vineyard managers to control the vigor of the vine. By contrast, the benchlands may be 200-500 feet above the valley floor. So it's unlikely that the vines' root system will ever reach the water table.

Better drainage. On the valley floor soils tend to be very dense. So they can store large amounts of water. Rocky benchland soils, on the other hand, are more porous. Water that falls on the surface percolates nicely through the soil and away from the vines' root system. If the benchland soil profile is optimal, it will retain just enough moisture to support the vine through the growing season, but not too much to promote unbalanced growth.

Check Your Understanding

1. What are the characteristics of the "best" soil for growing high quality grapes? Why?
2. What is Gallo Signature Soil? What benefits does it provide to our vineyard managers?

Viticultural Practices

There is an old saying that “Climate and soil are what nature gives you. What you then do in the vineyard are cultural practices.”

The remaining parts of the Gallo Quality Circle focus on viticultural practices – all the critical decisions that must be made from the time the vines are planted through each phase of their year-to-year production. These decisions include:

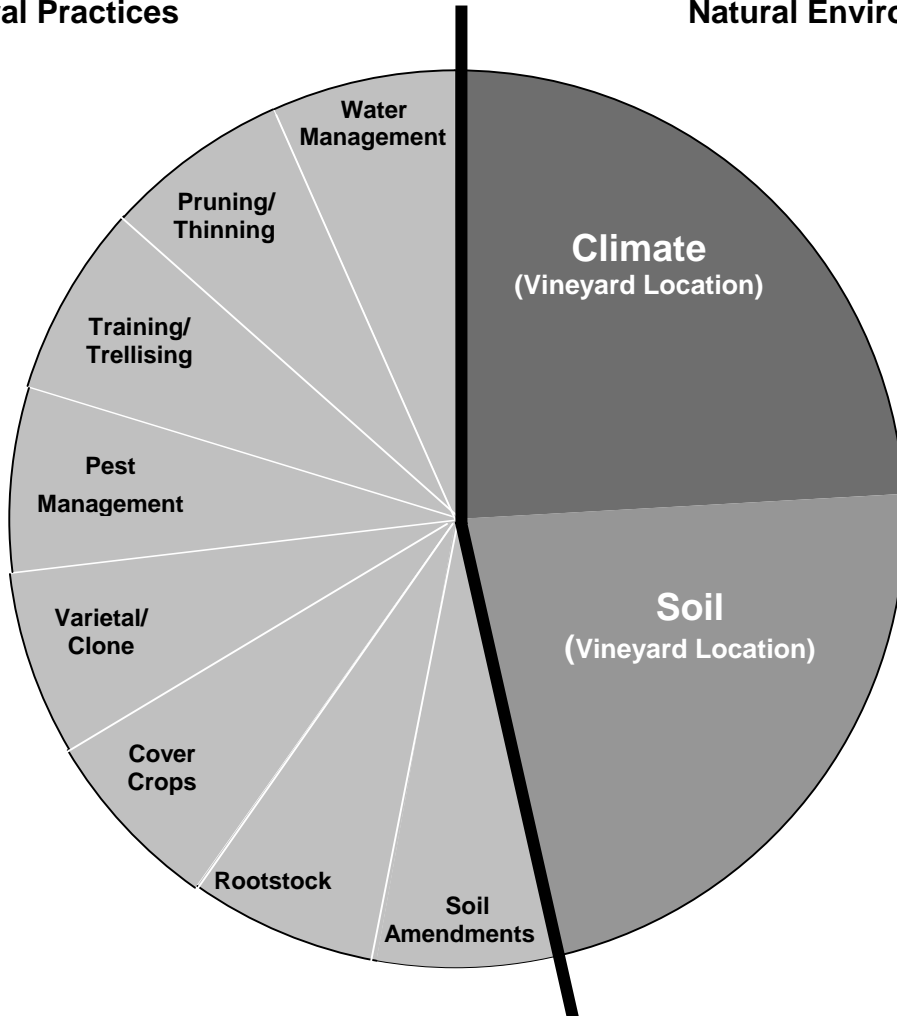
- Soil Amendments
- Rootstock
- Cover Crops
- Varietal/Clone
- Pest Management.
- Training/Trellising
- Pruning/Thinning
- Water Management

But at Gallo of Sonoma we don't make a sharp distinction between "nature" on the one hand and "viticultural practices" on the other. Instead, we take a more integrated approach to this entire process. We believe that viticultural practices have an impact on both the soil profile and local climate (*mesoclimate*) of the vineyard and on the specific *microclimate* of each grape cluster. So we consider that the entire Quality Circle must be viewed as a fully integrated cycle. Each component of *terroir* has a tremendous impact upon the next.

Gallo Quality Circle

Viticultural Practices

Natural Environment



Soil Amendments

As you read in Chapter 2, viticulturists may employ a variety of soil amelioration techniques to:

- Overcome problems related to acidity or alkalinity.
- Improve the structure of the soil.
- Overcome mineral nutrient deficiencies.
- Enhance the vine's ability to take up soil nutrients.

Soil Amendments At Gallo Of Sonoma

The Gallo family has long believed that it has an obligation to protect the land on which the vines are planted. Ernest and Julio Gallo always insisted on farming the family's vineyards in ways that ensured the long-term, healthy maintenance of the land and its surrounding environment. The goal has been to do nothing today that would have a negative impact on the land in the future – even 5, 10, or 50 years from now.

Today, Matt Gallo and his team of viticulturists and vineyard managers work together to ensure the healthy maintenance of the vines and to avoid doing anything that will have a negative impact on either the land or surrounding environment. The result of this commitment to the environment is a unique method of vineyard management referred to as "Gallo Sustainable Practices."

The first principle of Gallo Sustainable Practices is a concept that Bob Gallo, Julio's son, refers to as the family's "50-50 Formula," or "Give-Back Plan." Whenever a new Gallo vineyard site is being planned, key consideration is given to the areas of property that will not be planted. These acres are left untouched, so that they can continue to provide natural watershed and habitat for native wildlife. As a result, less than half of the total acreage owned by Gallo in Sonoma County is actually planted with grape vines. So the land continues to serve as a natural home to breeding populations of deer, fox, wild turkeys, wood ducks, mallards, herons, black bass, squirrels, Canadian geese, otters, osprey, pheasants, quails, turkey vultures and other animals native to Sonoma.

The second governing principle of Gallo Sustainable Practices is a commitment to minimize the use of synthetic chemicals – including fertilizers. In fact, at one point in the early 1990's, all Gallo of Sonoma Vineyards were actually Organically Certified, meaning that no synthetic chemicals had been used for more than five years!

Unfortunately, we found that the constant tilling and plowing required to maintain a completely organic vineyard was actually causing increased erosion and damage to the soil. Today, we continue to search for natural replacements for synthetic chemicals, but we also spend a great deal of time looking for ways to improve the effectiveness of those chemicals so that we can reduce the quantities that are required.

For example, we are researching the impact of using organic soil amendments at planting time to enhance young vine growth. Currently we are studying the use of humic and fulvic acids, beneficial microbes, and micorrhizae (root-colonizing fungi). We are also studying ways to apply fertilizers through the drip irrigation system, a process known as "fertigation." This method allows us to target fertilizers directly to the roots of the vine so they can be absorbed immediately without waste. To double check the effectiveness of this process, we obtain samples of vine tissue each year and analyze them for their mineral content.

Check Your Understanding

1. What is the philosophy behind Gallo Sustainable Practices? What are some of the specific sustainable practices that Gallo has undertaken in our vineyards?
2. What is the "50-50 Formula," or "Give-Back Plan?"
3. What are some of the natural approaches that Gallo of Sonoma is using to minimize the need for synthetic chemical fertilizers.

Rootstock

Rootstocks are vital to the overall growth and fruit production of the vine because they provide an anchor for the vine to grow. They are also the conduits for water and minerals in the soil to reach the vine and they produce hormones that regulate vine growth and fruit development.

As you read in Chapter 2, selection of the proper rootstock is critical for two reasons: to provide resistance to soil pests and to manage the vigor (growth) of the vine.

Rootstock Selection At Gallo Of Sonoma

In Gallo of Sonoma vineyards we rely predominantly on six different types of rootstocks. But we are conducting a number of on-going rootstock experiments. We have grafted eight different grape varieties to 17 types of rootstocks and we are currently assessing over 100 distinct combinations.

The Winery is already reaping the benefits of this research. Back in the mid-1980s, the Winery stopped using the popular AXR #1 rootstock in its vineyards – several years before the discovery of "bio-type B" Phylloxera. Since that time more than 2,000 acres of our vineyards have been planted on new rootstocks. These rootstocks were originally selected for their overall impact on wine quality. Fortunately, they have also turned out to be resistant to the new strain of Phylloxera.

Rootstock Selection And Vine Spacing

We're continually experimenting with rootstock selection and vine spacing as ways to increase resistance to soil pests and manage the vigor of the vine.

Currently we're conducting ongoing research to match rootstocks to the prevailing soil conditions at each of our vineyards. By studying information about vine growth, yield, and physiology, we will determine which rootstocks can minimize harmful stress and promote optimal balanced growth.

We're also conducting a long-term research project to determine the optimal vine spacing for various soil types, varieties, and trellis types. As a result of our past experiments we utilize an approach of planting vines at higher density in weaker soils, where there is less chance of overgrowth. And we utilize lower density vine spacing in stronger soils where the vines have a natural tendency to want to grow larger.

As you can see, decisions about rootstock selection and vine spacing overlap with all of the other aspects of vineyard management. By controlling the vigor of the vine, the viticulturist can affect the specific microclimate of each vine and each grape cluster.

Check Your Understanding

1. What are the two principal reasons why rootstock selection is important?
2. How has Gallo already reaped the benefits of our research in rootstocks?
3. How does the fertility of the soil in a particular vineyard affect the spacing of the vine rows?

Cover Crops

Cover crops have been used in vineyards for centuries to aid in soil management. After each harvest, growers seeded the rows between the vines with other crops to prevent soil erosion during the winter and spring rainy season. But after the rainy season ended, these cover crops were traditionally removed.

Gallo's Use Of Cover Crops

At Gallo's Sonoma vineyards, cover crops are being used increasingly to control weeds and provide a favorable environment for beneficial insects. Cover crops are also proving to be a useful method for promoting balanced growth within vineyards that are either too low or too high in vigor.

For example, some cover crops are known to compete with a vine for moisture and nutrients. These crops can be planted in areas where the vigor of a vine needs to be reduced. Other cover crops are known to enhance vine growth by improving water infiltration or increasing the level of organic matter in the soil. These crops can be used productively in areas of low vigor.

Today, Gallo vineyard managers are examining how cover crops that are left in the ground throughout the year will influence a grape vine's intake of water and nutrients. Through these studies we've determined that permanent, non-tilled native grasses can be used effectively to guard against soil erosion, improve water infiltration and soil aeration, control excessive vine growth, and reduce overall soil compaction. As a result, we've established permanent cover crops in all of our mature vineyards.

Currently in Gallo of Sonoma vineyards we're experimenting with more than two dozen varieties of cover crops to better understand these complex relationships. So far, we've obtained the best results with two different multi-seed combinations. One blends California Brome, Blue Wild Rye, and California Barley. The other includes Molate Fescue, Idaho Fescue, and Tuolumne Fescue.

Check Your Understanding

1. Traditionally, how have cover crops been used in vineyards?
2. What is different about the way we use cover crops at our Gallo of Sonoma vineyards?
3. What are some of the benefits that Gallo has been able to achieve through our experiments with the use of cover crops?

Varietal/Clone

Once the viticulturist has decided to cultivate a particular varietal, he or she must select a specific *clone*. As you read in Chapter 2, a clone is a specific version of a varietal that has its own unique characteristics but retains its genetic similarity to other clones of that variety. For example, a clone may provide greater resistance to rot, higher yield, or unique flavor characteristics. In practical terms, a clone is simply a cutting that is taken from a *mother vine* to retain the characteristics of that vine.

The specific clonal selection generally does not have the same degree of impact on quality as factors like climate, soil, or rootstock selection. But it is one further step that can be taken to optimize each section of a vineyard.

Clonal Selection At Gallo's Fine Wine Vineyards

Over the course of more than 60 years as a wine maker and grape grower, Julio Gallo developed preferences for particular clones of Chardonnay, Zinfandel, and Cabernet Sauvignon based on the taste and structure of the wines they consistently produced. These clones remain the primary choices for Gallo's fine wine vineyards today.

Even so, Gallo's viticulturists continue to conduct ongoing experiments with different clones of several key varieties. Since specific clones do have different growth rates and canopy dimensions, their selection does impact the *microclimate* of the vine.

Ongoing Research

At Gallo's Sonoma vineyards we have learned that the best way to determine how a specific varietal or vine will perform in any given location is to create a test plot. Consequently, we are testing nearly 200 varieties and clones in test plots at our Barrelli Creek, Stefani, Frei Ranch, Two Rock, and our New Russian River Valley Vineyards. These plots include clones of common varieties that may have specific, subtle traits. And they also include rare and unusual Old World varieties, as well as varieties not typically cultivated in this growing region.

Then we utilize these grapes to make experimental wines in our research facilities. Winemakers and viticulturists evaluate the wines to determine the impact of different clones and to guide new plantings in each vineyard.

Check Your Understanding

1. What is a clonal selection?
2. What are some of the factors that would lead a grower to select a particular clone?
3. Describe the approach Gallo takes to researching specific clones.

Pest Management

Vineyard managers would like to promote the growth of only those organisms that have a positive impact on grape quality and eliminate those that have a negative impact. In reality, a vineyard is an ecologically diverse that includes beneficial elements and harmful pests. Even so, many growers have taken steps to reduce or eliminate the use of chemical pesticides and herbicides. And again, Gallo is taking the lead in this important area..

Pest Management At Gallo's Fine Wine Vineyards

A few moments ago you read about the Gallo family's commitment to the long-term, healthy maintenance of vineyard land and its surrounding environment. You saw that the result of this commitment to the environment is a method of vineyard management referred to as "Gallo Sustainable Practices." And along with the "50-50 Formula" or "Give-Back Plan," another key principle of Gallo Sustainable Practices is a commitment to minimize the use of synthetic chemicals. So we continue to search for natural replacements for synthetic chemicals, and we also spend a great deal of time looking for ways to improve the effectiveness of those chemicals so that we can reduce the quantities that are required.

The Gallo Winery is conducting ongoing research on the benefits of maintaining biological diversity within the ecosystem of the vineyard. By emphasizing natural ways to control weeds, insects, and diseases, we are able to reduce the use of artificial chemicals. This commitment, in fact, dates back to the earliest days of the Winery.

Our company had always sought to minimize chemical use, especially commercial fertilizers and herbicides. As a hobby I had long enjoyed gardening at home. I needed no convincing that fruits and vegetables grown naturally tasted much better.

– Julio Gallo

Matt Gallo adds: "Ecology and economics have finally merged here in the fine wine business. Sustainable farming practices reduce costs because you don't put so much machinery into the fields. Happily, the economics are supported by the resulting increase in quality. You get better grapes . . ."

Today we are able to minimize the use of synthetic chemicals in pest management by utilizing a variety of natural approaches. For example:

Disease. By carefully timing our pruning we help to control the spread of fungus that can cause disease.

Insects. We promote the growth of Anagrous Wasps to feed upon Grape Leaf Hoppers and Sharpshooters that damage leaves and spread disease to the vines.

Weeds. We eliminate unwanted weeds by planting permanent "no-till" cover crops or using a variety of mechanical tilling and cutting devices.

Animals. Over the years we have experimented with a variety of natural techniques for reducing damage caused by animals. For example, at one time we used to hang bars of hand-soap on grapevines to prevent deer from feeding on the young shoots. (Unfortunately, as deer became accustomed to the scent of soap this technique grew to be less effective.)

As a result of these natural pest control techniques, chemical controls are our last line of defense. And they are specifically selected and targeted to have minimal impact on the environment.

Constant monitoring for pests is an essential component of our sustainable practices. We are currently researching the use of Global Positioning System (GPS) dataloggers to map pest or disease severity, which enables us to reduce overall pesticide use by zeroing in on only those areas of the vineyard that need treatment. Our network of weather stations also includes software models that track weather conditions favorable to disease growth. This information allows us to reduce the number of times we apply preventative fungicides during the growing season.

Check Your Understanding

1. What are some of the natural approaches that Gallo of Sonoma is using to minimize the need for synthetic chemicals in pest management?
2. What are some of the ways we are utilizing technology to maximize the effectiveness of any pesticides or fungicides that we do apply?

Training/Trellising

As you read in Chapter 2, the grower must actively manage the vine's growth in a number of ways to assure the highest quality fruit. And you read about the general training and trellising techniques that are an important part of effective "canopy management" in the vineyard.

As you've already read, the factors of climate, soil, rootstock selection, and clonal selection all impact the amount of foliage the grapevine produces. In addition, the vineyard manager uses various techniques to control both the direction of growth and the final amount of vine foliage in order to provide for optimal ripening of the fruit. These practices typically include trellising systems to "train" the vines and different ways of thinning or pruning the vines.

Training/trellising practices have two principal objectives:

- **Sunlight exposure.** Grapes ripen as photosynthesis in the leaves forms sugar in the grapes. So the vine must be an efficient solar collector and the fruit must have the right amount of direct sunlight exposure.
- **Air circulation.** To reduce the chance of mold or mildew, the vine must also be grown in a way that allows regular air circulation to the fruit.

Training/Trellising At Gallo's Fine Wine Vineyards

To maximize the quality of our fruit, Gallo of Sonoma viticulturists employ a variety of trellising systems.

Since 1990, we have been researching the best trellis systems for each of our vineyards. Currently we're conducting ongoing experiments to evaluate seven different types of trellising systems with three varieties of grapes.

Based upon the results of this research, we have abandoned the standard "TEE" trellis that was used extensively in California during the 1970s and 1980s. Vertical trellising has proven to have the greatest positive impact on wine quality. So we're using Vertical Shoot Positioning, Geneva Double Curtain, and Lyre trellis systems in our new plantings, and we're retrofitting these systems in some of our older plots. (Don't worry – we don't expect you to learn the specific names of these different trellising systems!)

The ultimate choice of which trellis system to install depends on soil conditions, the grape variety, and even the specific clone. By utilizing the optimal trellising system to physically support the vine and the fruit we are able to gain these benefits:

- Achieve appropriate crop load.
- Improve sunlight exposure.
- Improve air circulation.

Check Your Understanding

1. What are the two principal objectives of training/trellising?
2. What have been the beneficial results of our experiments with trellis systems?

Pruning/Thinning

As you read a moment ago, proper training and trellising is essential to assuring that the vines receive the proper exposure to sunlight and air circulation. During the growing season, thinning techniques may be used in conjunction with training and trellising to assure that these objectives are achieved.

In addition, keep in mind that a grapevine is a perennial plant. It does not die at the end of the growing season. Left unattended, the vine will continue to increase in size. In a vineyard, this unchecked growth leads to shady, overcrowded conditions that have a negative impact on the quality of the grapes. Thus, the vine must be "pruned back" each year to a size that will yield the highest quality fruit.

Pruning And Thinning At Gallo's Fine Wine Vineyards

To maximize the quality of our fruit, Gallo of Sonoma viticulturists employ many thinning and pruning practices. Our research has shown that these practices can be successfully applied on a site-specific basis to promote balanced vines in both weak and strong soil regions within a vineyard block.

Thinning. Our leaf removal trials with white varieties reduced bunch rot, enhanced ripening, and increased flavors in the resulting wines. Leaf removal in red varieties improved color, enhanced ripening, and lowered pH. As a result of these studies, we have adopted leaf removal as standard practice under certain conditions.

Pruning. At Gallo's Sonoma vineyards, decisions about pruning are based on more than 50 years of experience the Gallo family has acquired in working with grapevines in these sites. These decisions always consider the individual needs of each plot and varietal type.

Ongoing Research

As with other viticultural practices in the Gallo Quality Circle of Grape Growing we are conducting ongoing research on the most effective pruning and thinning techniques. For example, we are currently evaluating eight pruning systems utilizing a variety of combinations of spur and bud counts. Our research into pruning and thinning has shown us that these practices can promote balanced vines in both weak and strong soil regions within a vineyard block.

Check Your Understanding

1. What are the two principal objectives of pruning and thinning?
2. What have been the beneficial results of our experiments with leaf removal?

Water Management

Providing the proper amount of water to a vine is critical to growing high quality wine grapes. Too little water will stunt the growth of the vine and prevent its fruit from maturing properly. Too much water will cause a vine to grow too vigorously, which may decrease the quality of the grapes.

So a grower's principal concern is to provide the vineyard with *the right amount of water at the right time*. Most fine wine vineyards that rely on irrigation use a drip system. Each vine has its own emitter, which isolates the water supply to the individual vine's rootstock. Through historical tracking and constant measurement of the water content in the soil, a grower can manage the irrigation system to match the needs of the vine.

Water Management At Gallo's Fine Wine Vineyards

As you read earlier, the E. & J. Gallo Winery promotes balanced growth by planting vineyards in hillside benchland areas that do not have excessive soil moisture. And from April to October, Sonoma County typically receives very little rain. As a result, during the growing season our viticulturists must make water management decisions on a daily basis. So they need up to the minute information on the water profiles in their vineyard soils.

Optimizing soil moisture levels is achieved through the use of three measuring devices:

Neutron Probe. The Neutron Probe allows the vineyard manager to measure the amount of water in the soil at any given time.

Water-mark Sensors. The Water-mark Sensor help to determine how much, if any, of that soil moisture is available to the grape vines.

Pressure Chamber. The Pressure Chamber allows us to measure how much water the wine needs at any one time.

This three-part process may sound redundant, but it really isn't. You see, depending on their composition, different soils have varying capacities to retain or surrender moisture to plants. For example, clay soils tend to "cling" to water, limiting the amount that is available to plants. Sandy soils, on the other hand, freely allow water to flow through them. And different vines on different rootstocks have different water needs at any given time of the growing season.

The soil profiles of our Gallo of Sonoma vineyards are a combination of rocks, sand, clay, and loam. And within each vineyard no two sections are exactly the same. The result is that we are really managing many "vineyards within a vineyard." For this reason, water-monitoring stations with Neutron Probes and Water-mark Sensor devices have been installed throughout each vineyard. (For example, at Frei Ranch there are 32 of these water monitoring stations strategically positioned throughout the vineyard.) The Pressure Chamber is a mobile device that the viticulturist can carry to test each specific location.

At Gallo's Sonoma vineyards we're also researching irrigation practices and experimenting to determine the optimal level of soil moisture in different vineyard plots. Currently we are conducting irrigation trials with Merlot, Zinfandel and Cabernet Sauvignon. Preliminary findings suggest that wine quality can be dramatically improved with targeted reductions in watering. However, restricting water too much at certain periods of fruit development can reduce both yield and quality.

Check Your Understanding

1. Why must Gallo of Sonoma viticulturists make water management decisions on a daily basis?
2. Why do we use three different measuring devices to optimize the moisture level of the soil?
3. What are the preliminary findings of our research with irrigation practices and water restriction?

Review

In this chapter we have provided a great deal of information about the Gallo Quality Circle Of Grape Growing and about our approach to growing fine wine grapes. And we've also tried to introduce you to the range of innovative practices that Gallo of Sonoma is utilizing at our fine wine vineyards in Sonoma County.

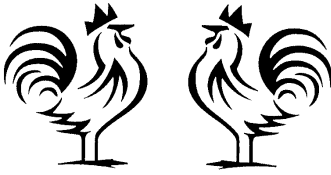
We're continuing our research in this area with the help of new "space age" technologies like Remote Sensing, Geographical Information Systems (GIS) and Global Positioning Systems (GPS). GPS satellite locators are used to pin down the corners of individual wine groups on our vineyards. These establish registration marks for photometric scans of the landscape by other sets of satellites. And all of the resulting information is recorded in computer data bases so we can compare sugar content, leaf conditions, yield per acre, and other indicators on an historical basis.

Matt Gallo summarizes our extensive experiments in the vineyard by noting: "This is definitely not ivory tower research. We are learning about better ways to irrigate, ways to make lesser demands on the environment in cultivation and pest control, even new ways to prune our vines. These all seem like basic chores until you see the difference it makes when you really do it right. Experience is important, and so are experiments."

As you know, it's up to you to control your own learning. Here are some suggestions so you can check to see how well you've learned the material in this chapter.

- Provide a general summary of the different elements of The Gallo Quality Circle Of Grape Growing.
- Explain the characteristics and benefits of Gallo Signature Soil.
- Explain some of the innovative practices that Gallo is utilizing in soil amendments, rootstock selection, cover crops, clonal selection, pest management, training and trellising, pruning and thinning, and water management.
- Describe Gallo Sustainable Practices and the "50-50 Formula" or "Give-Back Plan."

If you can talk comfortably about each of these topics then you have mastered the material in this chapter. Congratulations! If not, take some time to reread this chapter and to gain a greater familiarity with these topics.



Chapter 5

Making Fine White Wine At Gallo Of Sonoma

In just a few short years the wines produced at our Gallo of Sonoma Winery near Healdsburg, California have garnered an impressive number of the most prestigious national and international honors.

Judges, wine and food critics, restaurateurs, and wine lovers the world over have discovered that something special is truly happening at Gallo of Sonoma. With more than 3,000 acres of the finest Sonoma County vineyards, a state-of-the-art winery, and a dedicated and innovative team of winemaking professionals, Gallo is producing an extraordinary array of exceptional white wines – from the three tiers of our Gallo of Sonoma brand to the wines we market under the Marcelina, Frei Brothers Reserve, Rancho Zabaco, Turning Leaf Coastal Reserve, Anapamu, and Indigo Hills labels.

In this chapter you'll learn how Gallo of Sonoma makes these outstanding white wines.

Overview

In *Chapter 1: Introduction To Fine Wines* we briefly reviewed the eight steps that are typically involved in winemaking. They are:

1. **Grape Harvest.** You've already seen that fine wines must be made with fine grapes that are picked at the optimal time to ensure the appropriate flavor characteristics. During this critical first step, ripe grapes are picked and delivered to the winery.
2. **Crush And De-Stem.** Traditionally, the grape clusters are passed through a mechanism that crushes the berries and removes their skins. In this chapter, and again in Chapter 6, you'll read about how Gallo has eliminated this step in order to preserve more varietal freshness and avoid extracting bitter tannins from the seeds and stems.
3. **Grape Pressing.** The grape juice is separated from the skins, seeds, and pulp of the fruit.
4. **Alcohol Fermentation.** Yeast is added to the juice (or, in red wines, to the *must*) to convert the grape sugars into alcohol.
5. **Malolactic Fermentation.** With some wines there is another fermentation process as *malic acid* (the acid found in apples) is converted into *lactic acid* (the acid found in milk). (This is an optional step in the winemaking process.)
6. **Aging And Blending.** Once the fermentation steps are complete, the wine is aged to allow the aromas and flavors to mature. Then the winemaker determines the final characteristics of the wine by blending together wines from different lots (barrels or tanks) that may have been made, stored, or aged differently.
7. **Stabilization And Clarification.** Suspended solids may be removed from the wine to improve clarity and prevent spoilage in the bottle. (This is an optional step in the winemaking process.)
8. **Bottling And Bottle Aging.** The wine is transferred into its final package and then bottle aged (or *binned*) until the winery releases it.

In Chapter 3 we considered some of the ways that Gallo of Sonoma has married traditional Old World winemaking methods and state-of-the art New World technology to produce fine quality wines on a relatively large scale. And you learned why we believe that a Gallo of Sonoma wine in any price category is truly superior to any other comparably-priced wines on the market.

In this chapter we're going to take a closer look at the winemaking process with a special focus on how we make fine white wines at Gallo of Sonoma. Although we've organized the chapter in terms of the traditional eight steps that are involved in the process of making fine wines, you'll learn that Gallo has implemented a variety of new practices, advanced technologies, and state-of-the-art equipment. These innovations typify Gallo's commitment to *continuous improvement*. They provide our winemakers with the highest degree of control over every aspect of the winemaking process, and enable them to produce wines of exceptional quality and value.

As you read through this chapter, keep in mind that our goal is not just to improve your wine knowledge. Of course, we want you to understand what we do at Gallo of Sonoma to impart distinctive qualities and characteristics to our wines. But our ultimate goal is to enable you to talk confidently with knowledgeable wine retailers and, of course, to sell our full line of fine white wines.

Objectives

After completing this chapter you should understand and be able to explain:

- The process of making fine white wines.
- The specific ways that the Gallo of Sonoma Winery utilizes both traditional and state-of-the-art techniques to produce fine white wines of exceptional quality and value.
- Specific decisions our winemakers may make during the winemaking process and how these decisions impact the resulting appearance, smell, taste, and mouthfeel of the wine.
- Key terms used in the process of making fine white wines at the Gallo of Sonoma Winery.

Note: As you read through this chapter you'll see that winemaking is a complex process. At the end of the chapter we've included an illustration that summarizes the process we use to produce fine white wines at Gallo of Sonoma. If you'd like to have a visual overview of the process before you read the chapter we suggest that you turn to that page and take a few moments to look it over now.

Key Terms

As you read this chapter keep an eye out for these terms. Some of the terms have appeared in earlier chapters, but by the end of the chapter you should understand all of them. More importantly, you should be able to explain how each of these characteristics or processes affects the sensory characteristics of the resulting white wine.

- Alcohol Fermentation
- Binning
- Cold Stabilization
- Cultured Yeast
- Diacetyl
- Filtering
- Fining
- Fining Agent
- First Press
- Free Run
- Indigenous Yeast
- Lactic Acid
- Malic Acid
- Malolactic Fermentation
- Membrane Press
- Pomace
- Racking
- Residual Sugar
- Sur Lie Aging

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. Grape Harvest

In Chapter 2 and Chapter 4 you learned that to make fine wines, grapes should be harvested when they reach "optimal ripeness." Of course, "optimal ripeness" depends on the winemaker's personal preferences and the style of wine that he or she plans to make. And, as you know, winemakers actually taste the fruit and use objective measurements to determine the ideal time to harvest.

We'll consider three specific aspects of harvesting white wine grapes at Gallo of Sonoma:

- Determining the optimal time to harvest.
- The harvesting process itself.
- Transporting the grapes to the winery.

Determining The Optimal Time To Harvest

At Gallo of Sonoma, the winemaking process actually begins very early in the growing season. Our winemakers meet with our vineyard managers and independent growers prior to pruning in order to discuss the specific wine styles they are targeting. As a result, every action taken in the vineyard during the growing season can reflect the ultimate goal of the winemakers.

As the season progresses, our winemakers continue to visit the vineyards to monitor the grape clusters. Then, as the grapes approach maturity, random samples from all blocks are taken to the winery for analysis. The exact moment of harvest is determined by a combination of three methods:

- Tasting.
- Scientific measurement of the grape's sugar/acid balance.
- Visual inspection of color characteristics. (Although this method is of lesser importance with white wines than with red wines.)

As you've already seen, only by using all three methods of evaluation can our winemakers be sure that the grapes have the flavor and color characteristics they are looking for.

The Harvesting Process

Our goals for the harvest are:

- To pick only evenly ripened, quality fruit.
- To avoid premature juicing and the premature, spontaneous fermentation that can result.

To achieve these goals:

- We pick when the clusters are as cool as possible. Often we begin the harvest day at sunrise, while fog still enshrouds the vineyard.
- Our winemakers are often present in the vineyards during the harvest.

With our Estate bottled wines the meticulous process of hand crafting begins right at the harvest. Our winemakers assist in cluster selection to assure that only the finest grapes are included in the vintage. And as the workers painstakingly select only the finest clusters they carefully trim away any damaged berries.

Transporting The Grapes To The Winery

Once the grapes have been harvested they need to be transported to the winery quickly and carefully. The goal is to avoid possible damage to the grapes and to prevent any spontaneous fermentation that would reduce the winemaker's control or introduce undesirable flavor characteristics.

At Gallo of Sonoma vineyards, clusters are picked and then placed in a box called a *lug*. When the lug is full it's emptied into a metal carrier called a *gondola* that is on wheels or fits on the back of a truck. When the gondola, in turn, is full, it's pulled by tractor to a central location in the vineyard. Here, the grapes are transferred to a truck for delivery to the winery.

For our Estate programs, the grapes are handled even more gently. Clusters are picked and then placed in the lug. And the lugs themselves are placed gently on a flatbed and transported directly to the winery. That way, the weight of the clusters will not crush any of the delicate grapes.

Regardless of whether the grapes were picked in Gallo vineyards or bought from independent growers, their first stop is a weigh station. Accurate weighing is important for two reasons:

- Our growers are paid for the weight of delivered grapes.
- Our winemakers need to know how many tons of grapes from a specific vineyard – or with specific characteristics – are being delivered.

The next stop is at an inspection station. Here, inspectors from the state of California and Gallo of Sonoma personnel obtain and analyze multiple samples from each load of grapes. The grapes are also visually evaluated to be sure they are, in fact, the specific variety listed on the delivery documents (for example, Chardonnay or Sauvignon Blanc) and that they are not infected with any organisms that could spoil the wine.

The grapes are analyzed with the aid of a sophisticated computer called a *multi-parametric station* to determine their sugar content (as measured on the Brix scale), titratable acidity, and temperature. All of this information is essential to the winemaker in controlling the subsequent steps of the winemaking process.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What are three methods used at Gallo of Sonoma to determine the optimum time for harvesting white wine grapes?
2. What are two goals we try to achieve during the harvest itself?
3. What do we do to achieve these goals?
4. Why is it important to avoid premature juicing?

2. Receiving And Preparation For Fermentation

In the traditional process of making fine wine, the next step is to crush the grapes. When you hear the word "crush" in relation to winemaking you probably have a vision of people stomping barefooted in a huge wooden tub of freshly picked grapes. And, for many years during the long history of winemaking, that image was probably fairly accurate. In order to make wine you have to extract the juice from the grapes and separate it from the stems, skins, seeds, and pulp. The traditional way to do this was, literally, to "crush" the grapes in one way or another.

That's not what we do at Gallo of Sonoma. In fact, we don't crush or de-stem any of our white wine grapes.

Here's why. In order to separate juice from the other components of the grape, the grapes must be pressed in some way. In general, as more pressure is applied to the grapes, more tannins are extracted from the seeds and the skins. And we've found that even with the most advanced crusher-destemmers available, some of the stems and seeds are crushed along with the berries. This adds bitterness to the wines and contributes to the presence of "stemmy," "weedy," or "green" characteristics that can overpower the natural fruit character of the delicate white grapes.

So at Gallo of Sonoma we don't "crush" any of our white wine grapes. Instead, the grapes are taken immediately to the press by a proprietary process we call *Belt Assisted Whole Cluster Direct To Press*. Here's how it works:

- The trucks or gondolas are pulled up adjacent to a receiving hopper. Here, whole bunches of grapes – just like the bunches you can see in a supermarket or grocery store – are gently tipped onto a synthetic rubber (neoprene) conveyor belt. The grapes for our Estate and Single Vineyard wines are transported directly from the lug to a small separate hopper.
- This conveyor belt transports the whole grape clusters to a second conveyor.
- The second conveyor feeds the clusters into *membrane presses*. (You'll learn about these in just a moment.)

By using conveyors instead of the more traditional system of pipes, pumps, and augers, we're able to deliver an extremely high percentage of whole grape clusters intact to the presses. This prevents premature juicing – and premature fermentation. It also prevents the possibility of seeds and stems being ground up (macerated) – which can cause bitterness in the wine.

Gina Gallo explains: "The process of crushing and destemming used by a lot of commercial wineries crushes a lot of stems and seeds, and that can put a lot of bitter flavors into the juice. We want the natural fruit character to shine brightly. We even move the juice through pipes with large radius curves rather than angles and corners."

Check Your Understanding

1. What are the potential problems associated with crushing and de-stemming white wine grapes?
2. What is the impact of these problems on the taste of the resulting wine?
3. What is the proprietary process we use to avoid these problems?

3. Grape Pressing (Juice Extraction)

Today, a winemaker may choose from a variety of methods for extracting the juice from the grapes. The winemaker's choice of technique has a significant impact on the sensory characteristics of the resulting wine – particularly with white wines.

As you read a moment ago, as more pressure is applied to the grapes, more tannins are extracted from the seeds and the skins. A certain amount of tannin is a desirable element in many red wines. However, tannin can cause a white wine to taste bitter, and can also contribute to the presence of "stemmy," "weedy," or "green" characteristics in the wine.

At Gallo of Sonoma we preserve the varietal character of the delicate white wine grapes by utilizing a state-of-the-art, gravity-fed *membrane press*. This allows us to slowly squeeze the juice from whole grape clusters just about as gently as if they were being squeezed by hand.

The membrane press is an extremely sophisticated and costly piece of equipment. In simplest terms, it's a giant cylinder with a thick, inflatable bladder inside of it. You can think of it as a heavy balloon within a confined cylinder. Here's how it works:

- When the bladder is deflated, the cylinder is filled with grapes.
- Once filled, the cylinder is rotated to distribute the grapes evenly.
- Then the bladder is slowly inflated, gently squeezing the juice from the grapes.
- The juice is quickly drained before it has a chance to pick up bitter flavors or lose any of its fragrant varietal character.

From "Free Run" To "Third Pressing"

The pressing process actually occurs in several cycles.

When grapes are first loaded into the press, the weight of the clusters upon themselves causes a noticeable amount of berry breakage. This *free run* portion of the juice is highly prized because it best represents the natural delicate fruit characteristics of the varietal.

Once the free run juice has been collected, the bladder is slowly and gently inflated. This first, light pressure yields what's called the *first pressing*. Like the free run, this juice typically displays the best fruit characteristics of the varietal.

The pressing process doesn't stop after this first press. In order to extract the full amount of juice, there are two additional pressings. The bladder is deflated and the cylinder is rotated to evenly distribute the grapes. The bladder is reinflated with slightly more pressure to produce a *second pressing*. Then the cycle is repeated – deflate, rotate, reinflate – to yield a *third pressing*. The juice from each of these subsequent pressings is kept separate from the free run and first press juice so that their potential bitterness does not become a factor in the final wine.

At the time this manual was published in 2002, the Gallo of Sonoma Winery has 24 presses that range in capacity from 350 gallons to 5,200 gallons (1.5 tons to 23 tons). As a result, we are able to process many small lots very quickly. And the juice collected at each stage in the process – free run, first pressing, second pressing, and third pressing – can be moved to separate holding tanks. So the winemaker has total control over how to use each juice to develop a specific program or desired wine style.

For example, the free run and first pressing from our estate lots might be reserved for our Estate wines. We may use the free run and first pressing from specific vineyards in our Single Vineyard programs. Juice from subsequent pressings may be blended with the free run and first pressing juice to impart desired characteristics for our other fine wine programs. And the juice from the third pressing is generally transported to our Modesto and Livingston wineries where it's blended with other juice for our MPC programs. But depending on availability and cost, the prized free run and first press juice could be used in any of our various programs.

As the grape clusters are pressed it is possible that small amounts of solid material – skins, seeds, stems, or pulp – may remain with the juice. To prevent these solids from reaching the next stage of the winemaking process, the juice may be held in a *settling tank* overnight at approximately 45° F. The fine solids settle and the clear juice is siphoned off to a fermentation vessel.

This process of separating clear juice from solid material is called *racking*. Winemakers utilize a wide variety of racking techniques – everything from manually decanting juice from one barrel to another to highly sophisticated mechanical pumping systems. But in each case the principle is the same. Over time, gravity causes solid material to *precipitate* or settle to the bottom of the storage tank. Then the clear juice above can be carefully removed without stirring up the precipitated solids. If necessary, the process can be repeated.

At Gallo of Sonoma, pressing the white wine grapes without crushing leads to purer juices. In fact, the process has reduced the amount of solids in the resulting juice from a range of 6-10% to about 1%. In many cases, this has eliminated the need to rack and settle the wines in stainless tanks before going to the fermentation step.

Eliminating most of the solids also makes the wines more aromatic and reduces the presence of *phenols*, a large and complex group of compounds that may affect the appearance, taste, mouth-feel, and fragrance of the wine. (Although phenols are particularly important in determining the quality and characteristics of red wines, they have a lesser – but still significant – impact on white wines. During the winemaking process phenols may result from several sources, including fruit and vine stems, yeast metabolism, and extraction from wood barrels.)

The whole pressing cycle takes about two hours. Once the pressing is complete, the solids in the press are emptied onto a conveyor belt and transported to a truck. These solids are known as *pomace* and are used as composting material in our vineyards. In this way, each year's vintage contributes to the next.

Check Your Understanding

1. In general, what is the impact of pressure on the taste of the resulting juice? Why?
2. What is the name of the sophisticated, state-of-the-art equipment that Gallo of Sonoma uses to press white wine grapes?
3. Explain the difference between free run, first pressing, second pressing, and third pressing juice.

4. Alcohol Fermentation

Alcohol fermentation is the process of converting natural grape sugars to alcohol. During the alcohol fermentation the winemaker generally has three principal concerns:

- To convert the natural grape sugars into alcohol.
- To influence the aromas and flavors of the wine.
- To influence the extraction of color, body, and structure.

This third concern is primarily of importance in making red wines, so we'll focus our attention on the other two. And we'll consider three critical decisions that Gallo of Sonoma winemakers need to make at this stage of the winemaking process:

- The selection of yeast.
- The selection of wood or steel as the fermentation vessel.
- The temperature of the fermentation process.

Let's look at each of these.

The Selection Of Yeast

Alcohol fermentation is the process of using yeast to convert sugar to alcohol. Yeast are microscopic one-celled fungi. They take sugar into their cells, use it for growth and reproduction, and produce ethyl alcohol and carbon dioxide as waste products. The fermentation process continues until the yeast have depleted all of the sugar contained in the juice or the winemaker consciously chooses to stop their activity by chilling or filtering the juice.

In Chapter 2 you learned that the Brix scale measures the amount of sugar in a grape. Degrees Brix provides a measure of the percentage of alcohol that will result from fermenting grape juice. If a wine is fermented until it is "dry" – that is, until it contains less than 0.5% residual sugar – then the amount of alcohol produced will equal approximately 55% of the amount of sugar that was contained in the juice. The exact percentage varies somewhat on a sliding scale, and different yeasts and different juices have varying rates of conversion. But, in general, if the grape juice measured 22° Brix (contained 22% sugar), the resulting wine would contain approximately 12% alcohol

Current winemaking techniques use either *cultured* or *indigenous* yeast to conduct the fermentation:

- When winemakers use cultured yeast, an appropriate amount of a single yeast type is added to the juice.
- When winemakers use indigenous yeast the juice is not inoculated with a known yeast type. Instead, the juice is fermented with yeast picked up from contact with the skins of the grapes or the processing equipment.

Both types of yeast can produce high quality wine. At Gallo of Sonoma we do not use cultured yeast for most of our white wines. Instead, we allow the juice to ferment with the indigenous yeasts. Our research has shown that these yeasts produce a lower temperature and a slower fermentation rate, leading to excellent retention of each vineyard's unique varietal character. We have also found that the texture of the wines can be richer and more refined. However, under certain conditions – for example, if there is not enough yeast on the skins – we may choose to add a cultured yeast.

The Selection Of Wood Or Steel As The Fermentation Vessel

Grape juice can be fermented in almost any vessel that holds liquid. But today most commercial wineries use vessels made from *stainless steel* or *oak*. These two materials are practically opposites in terms of their key characteristics.

Stainless steel is impervious, inert, and long-lasting. Stainless steel preserves the natural varietal fruitiness without adding anything to the smell or taste of the wine. Stainless steel tanks are more easily cleaned and are well-suited to all kinds of temperature control. They tend to yield the wines with the purest varietal character.

Oak barrels are not impervious or inert. Oak can contribute to a richer mouthfeel and can impart smells and tastes of oak, spice, and smoke. Oak barrels are not easy to clean and can not be sanitized, and it's more difficult to control their temperature. They also have a more limited useful life.

Depending on the varietal and the program we use both stainless steel and oak for fermenting white wines at Gallo of Sonoma. However, nearly all of our Chardonnay is barrel fermented in oak.

Barrels typically range in capacity from 60 to 70 gallons. A 60 gallon barrel holds about 25 cases of wine. As the barrels are filled they're actually left with about 10 gallons of "headspace" – 10 gallons of capacity with no juice. The purpose of this headspace is to allow space for the foam that forms during fermentation. Otherwise, the fermenting wine would foam out of the barrel.

Once the fermentation process is completed, the barrels are "topped" – that is, they are filled to capacity with the same type of wine. If the barrels were not topped, the presence of air inside the barrel could lead to oxidation of the wine and the formation of vinegar.

The Temperature Of The Fermentation Process

The temperature of fermentation is also important. Cooler fermentation temperatures (between 55 degrees and 70 degrees) tend to enhance the fresh varietal fruitiness of the wine. Warmer fermentation temperatures (between 70 degrees and 90 degrees) may contribute to a richer, rounder mouthfeel but may also reduce varietal fruitiness.

When yeast cells convert sugar to ethyl alcohol and carbon dioxide, they also produce heat. Unless the temperature inside the fermenting vessel is controlled it can increase from 70 degrees to 90 degrees or higher in just a few hours. This kind of temperature increase can have several negative impacts:

- As the temperature increases, so does the rate of fermentation. As carbon dioxide is rapidly produced, the escaping gases can remove aroma and flavor compounds and reduce the overall complexity and concentration of the finished wine.
- In addition, the higher temperature can "cook" the wine and cause the aromas and flavors to change in subtle or obvious ways.
- Finally, if the temperature gets too high the heat can actually kill the yeast cells. This results in what's called an incomplete or "stuck" fermentation.

For all of these reasons it's important for the winemaker to monitor and control the fermentation temperature.

Temperature control is relatively easy with a stainless steel fermenting tanks. Most tanks can be equipped with a cooling jacket. On the other hand, oak barrels are difficult to jacket. So the only way to maintain the proper fermentation temperature is to control the ambient temperature of the wine cellar.

At Gallo of Sonoma, this is exactly what we've done. White wine juice from above ground holding tanks is gravity fed to barrels in our cellar. We have a 130,000 square foot underground cellar that can accommodate over 60,000 barrels – each containing 60-70 gallons of wine. The temperature is maintained between 60° F – 65° F year round with a relative humidity of 85%. So conditions are ideal for fermenting in oak barrels.

Check Your Understanding

1. What are two general types of yeast that are used in alcohol fermentation? Which of these do we generally use at Gallo of Sonoma? Why?
2. What is the impact of using stainless steel as the fermenting vessel?
3. What is the impact of using oak as the fermenting vessel?
4. Why is it important to control the temperature of the fermentation process? How do we do this at Gallo of Sonoma?

5. Malolactic Fermentation

Malic acid is a strong, sharp tasting acid contained in many fruits, including grapes and apples. As a grape ripens, the amount of malic acid decreases. Alcohol fermentation also reduces the amount of malic acid. However, some malic acid is still contained in the resulting wine.

Malolactic fermentation (sometimes called ML) is a biochemical process that transforms the sharp-tasting malic acid into softer tasting *lactic acid* and carbon dioxide. Winemakers sometimes refer to this as "softening the acid structure of the wine."

(Note: Occasionally you may hear malolactic fermentation called "secondary fermentation," as opposed to alcohol fermentation which is sometimes referred to as "primary fermentation." We generally stay away from this terminology to avoid confusion with the secondary fermentation process that is used to produce champagne and other sparkling wines. You'll have a chance to review the production of champagne in [Chapter 8: Fine Wines Of The Old World, Part 1](#). In any case, you may hear some people who are knowledgeable about wine refer to malolactic fermentation as "secondary fermentation.")

Malolactic fermentation has no impact on the alcohol fermentation process. However, it does change both the "body" and "flavor" of the resulting wine. (You'll learn more about these characteristics in [Chapter 7: Evaluating Fine Wine](#).) One of the by-products of the malolactic fermentation process is *diacetyl*, which imparts the smell and taste to butter. This compound can also give the wine a "buttery" bouquet and flavor.

In order to guarantee that malolactic fermentation will occur, specific bacteria must be present. These bacteria exist naturally on grape skins or can be introduced by the winemaker. In addition to the nutrients supplied by the grape, the bacteria also need a relatively warm temperature, a low level of sulfur dioxide (SO₂), and a pH (acidity) ranging between 3 and 4.

(You may remember that pH is a measure of acidity. A pH of 7 is considered neutral. A pH above 7 is called alkaline. A pH below 7 is acidic. Most wines have a pH of between 2.8 and 3.8 – well in the acidic range. Wines with lower pH tend to have brighter color. And the acidity itself helps to prevent spoilage.)

At Gallo of Sonoma we experiment with each vineyard's fruit to determine from vintage to vintage – and from wine to wine – the impact of malolactic fermentation. Currently, we do perform malolactic fermentation on the majority of our white wines. There are several reasons for this decision:

The nature of the fruit itself. Our white wines are predominantly from the cooler coastal AVAs of Sonoma County. As a result, they tend to have somewhat higher levels of malic acid.

To increase the complexity of the wine. We generally like the buttery complexity that malolactic fermentation imparts to our white wines, particularly to our Chardonnays. However, we are careful to ensure that the buttery character is not so strong that it would mask the varietal character of the grapes. We do this in two ways:

- By selecting specific bacteria strains that produce lower levels of diacetyl during Malolactic fermentation.
- By inducing malolactic fermentation during the alcohol fermentation, thus allowing some of the diacetyl to be blown off by the carbon dioxide that is produced during alcohol fermentation.

Wine stability. If malolactic fermentation is not specifically induced and controlled it can still happen spontaneously at some point during the winemaking process or after bottling. This can result in spoilage. By performing complete malolactic fermentation on our wines we have the option of bottling them with little or no filtration.

Check Your Understanding

1. What is malolactic fermentation? What impact does it have on the taste of a white wine?
2. At Gallo of Sonoma what do we do to ensure that malolactic fermentation does not overpower the varietal characteristics of the grapes?
3. How does malolactic fermentation enhance the stability of the finished wine?

6. Aging And Blending

Once the alcohol fermentation and malolactic fermentation are complete, the white wine is aged to allow the aromas and flavors to develop and mature before the wine is bottled. The effects of this aging process depend on the type and size of the vessel and the length of aging time.

White wines can be aged in virtually any vessel that holds liquid. Today, most commercial wineries use either stainless steel or oak.

Aging In Stainless Steel

As we mentioned earlier, stainless steel is inert and preserves the existing character of the wine. It is also airtight. If the winemaker feels that the wine has already achieved the characteristics he or she is looking for, the wine can be aged in stainless steel. In that way, the character is preserved until the wine is blended or bottled.

Aging In Oak Barrels

Oak barrels, on the other hand, can impart additional aromas and flavors to the wine. If the winemaker wants to enhance a wine's character, the winemaker may choose to age the wine in oak.

Aging in oak barrels may have a wide variety of effects. For example, oak aging can impart a sweet, vanilla-like flavor. It can also allow the wine to extract aromas and flavors of "oak," "smoke," and "spice." Unlike steel, oak is not airtight. So, as a wine ages in oak, slight oxidation occurs, which further affects the wine's color, aromas, and flavors. In addition, tannins in the oak can interact with various wine compounds, resulting in a change in the overall tannin structure of the wine. The specific type of interaction depends on the type of wine and the type of oak that are used.

Winemakers may choose from a wide variety of oak barrels. Today, barrels are made from oak that comes from the United States, France, Yugoslavia, Hungary, Russia, and other countries. The origin of the wood itself has a distinct impact on the character of the barrel and on any wine that is fermented or aged in it.

There are also many different *coopering* (barrel making) techniques that further impact the characteristics imparted to the wine. One example is *toasting*. In order to make any barrel the oak must be heated so it can be curved and shaped. But, in addition, sometimes the oak can be *toasted* to varying extents – that is, heated over an open fire to color or char the wood. There are a variety of different toasting techniques, and the extent of the process is generally characterized as "light toasting," "medium toasting," and "heavy toasting." The toasting process helps to impart a vanilla, roasted, or smoky character to the wine and may also reduce the impact of some of the tannins in the oak.

Toasting is a relatively recent innovation in barrel production, dating back only to the middle of the 19th century.

The size of the barrel is also an important factor. A smaller barrel (for example 60-70 gallons) allows a greater percentage of the wine to be in contact with the wood at any one time. So there is a faster extraction of aromas and flavors. In larger barrels and casks (100 gallons up to 10,000 gallons) the wine is not in contact with the oak surface to such a high degree. So the extraction of aromas and flavors occurs much more slowly.

Oak aging can make a significant contribution to the sensory characteristics of the resulting wine. But the process also adds to the complexity and the cost of the winemaking process. Oak aging is a labor-intensive process, and a single barrel can cost \$800 or more. As a result, aging wine in relatively small (60-70 gallons) barrels can add about \$2.00 per bottle to the cost of producing the wine!

At Gallo of Sonoma, nearly all of our Chardonnay is fermented – and aged – in oak barrels. Depending on the wine, barrel aging generally lasts between 6 and 14 months. This allows the winemaker sufficient time to assure that the flavor extraction from the barrel is in balance with the concentrated fruit characteristics of the wine.

Barrels for most of our Sonoma programs are used only twice. Then they are "retired" to our Modesto cellars for use in other wine programs.

Sur Lie Aging

If a winemaker wants to achieve a richer texture accompanied by a yeasty bouquet or flavor, the winemaker may choose what's called *sur lie aging*. "Sur Lie" is a French term that means "on the lees" and refers to the process of aging a wine in contact with the dead yeast cells that result from the fermentation process.

Here's how it works. After a wine has completed alcohol fermentation, the yeast cells die and settle to the bottom of the barrel where they slowly begin to break down. A winemaker may choose to remove these dead yeast cells immediately. Or the winemaker may choose to let the dead yeast remain in the aging vessel so that they can influence the wine's aroma, body, and flavor. This is called *sur lie* aging. To intensify this effect, the winemaker may stir the barrels periodically so that the dead yeast has increased contact with the wine.

Sur lie aging can contribute a "yeasty" aroma or flavor to the wine as well as a "creamy" mouthfeel. (This doesn't mean that the wine tastes like cream but, rather, that it has the heavier consistency that is characteristic of cream.)

Once the winemaker determines that a specific wine has gained the desired characteristics from sur lie aging, the wine is *racked*. This means that the wine (but not the dead yeast cells) is transferred to a clean barrel to complete the aging process.

Blending

Near the end of the aging process the winemaker may choose to blend together wines from different barrels or tanks to achieve specific desired style characteristics. Here is where Gallo's investment in technology pays real dividends.

As you've seen, at Gallo of Sonoma our winemakers have the ability to control virtually every aspect of the winemaking process on a barrel by barrel basis. The resulting wine may differ – slightly or substantially – from one barrel to another. And the winemakers can select wines from different lots to create a variety of distinctive styles.

As an analogy, you may find it helpful to think of the different lots of wine as a winemaker's "spice rack." Winemakers experiment with small lots until they find the desired characteristics. Then they replicate this blend on a larger scale prior to bottling.

For example, in blending our fine white wines, Gallo of Sonoma winemakers might want to start with a particular lot that was made from grapes grown in a specific vineyard. And they might impart additional flavor characteristics by blending that lot with wine that was aged in French oak. Or they might add wine from barrels that were lightly toasted. In this way the winemakers can achieve a final blend with the desired sensory characteristics and complexity.

Of course, you should keep in mind that there are several limitations to the "spice rack" analogy:

- The process of blending to achieve desired style characteristics is extremely complicated. And there's no "recipe book" that will produce a consistent result from one year to the next.
- A chef can draw on a virtually limitless array of spices that can significantly alter the taste of the final food. The same resources are not available to a winemaker. For example, the winemaker can consider:
 - Different varietals
 - Different clones of the same varietal
 - Different vineyards
 - Fermentation in oak or steel
 - Aging in oak or steel
 - Oak from different geographic origins
 - Barrels made by different coopers
 - Different degrees of toasting
- And within these limitations, the winemaker must also consider the restrictions that must be met to comply with Appellation or AVA labeling requirements.
 - In order to be labeled as a specific varietal, a wine must consist of at least 75% of the designated varietal grapes. In other words, in order to be labeled as a Chardonnay, a wine must contain at least 75% Chardonnay grapes.
 - In order to be labeled as a Sonoma County wine, at least 75% of the grapes used to make the wine must come from Sonoma County.
 - In order for a wine to carry a specific AVA designation such as "Russian River Valley," at least 85% of the grapes used to make that wine must have been grown in the legally designated area.
 - In order for a wine to be designated as a specific vineyard such as "Laguna Ranch," at least 95% of the grapes used to make that wine must have been grown in that vineyard.

Check Your Understanding

1. How is the flavor of white wine impacted by aging in stainless steel?
2. What is the impact of aging a white wine in oak barrels?
3. What are some of the factors that determine how an oak barrel will affect the characteristics of the finished wine?
4. What is sur lie aging? Why would a winemaker choose this approach?
5. How do we generally age Chardonnay at Gallo of Sonoma?

7. Stabilization And Clarification

At the conclusion of the aging process a wine may not appear hazy or cloudy to the naked eye. Nonetheless it may contain suspended particles that could cause the wine to cloud or spoil after it has been bottled. These particles can be removed in several ways:

- Racking
- Cold stabilization
- Fining
- Filtration

Let's look at each of these.

Racking. Racking is the most common process of separating clear wine from its sediment (the dead yeast cells or *lees* that are present at the end of the fermentation process). As you read earlier in this chapter, the racking process can be performed in a variety of ways – from simply decanting the wine from one barrel into another to utilizing a highly sophisticated automated process. In any case, the process must be done very gently to avoid stirring up the sediment that has settled out of the wine. This step can be repeated several times as the wine becomes increasingly clear and leaves less and less of a deposit.

Cold stabilization. *Cold stabilization* is the process of reducing the temperature of the wine in order to remove materials that have the potential to precipitate (settle) after bottling. In particular, this process is often used to remove *potassium bitartrate*, a white crystalline solid. If the concentration of this material is not sufficiently reduced prior to bottling, it may precipitate in the bottle. After chilling, the wine may be either racked or filtered to remove the potassium bitartrate that has precipitated.

Fining. *Fining* is the process of using materials that combine with suspended solids and cause them to settle. Fining is normally performed after alcohol fermentation. But the process can also be used with fresh grape juice prior to fermentation. Here's how it works:

- The particles suspended in wine carry an electrical charge – either positive or negative.
- The winemaker selects a *fining agent*, which has an electrical charge opposite to that of the suspended material.

- The fining agent is added to the wine. It attracts the oppositely charged particles, forming larger particles that settle to the bottom of the storage vessel.
- At that point the wine may be *racked* or *filtered* to separate it from the sediment.

There are a variety of fining agents available for different specific purposes and winemakers tend to have their own personal preferences. Commonly used fining agents are egg whites, gelatin, casein, bentonite clay, and isinglass.

Filtration. *Filtration* is the process of clarifying wine by passing it through a filter to physically remove suspended solids. The winemaker may select a filter with large pores to remove visible particles or with smaller pores to remove even microscopic particles.

The Impact Of These Processes

By subjecting a wine to racking, cold stabilization, fining, or filtration, it's possible to improve the color and clarity, reduce unwanted tannins, and remove "off" aromas and flavors. However, if these processes are done too aggressively they do have the potential to strip a wine of its complexity and character. In particular, both fining and filtration must be done very carefully so that the processes do not also eliminate desirable color, aromas, flavors, and body.

At Gallo of Sonoma our winemakers generally prefer not to fine and filter any of our fine wines unless there is a compelling reason to do so. And we're able to minimize the extent of fining and filtering without risking that something might "go wrong" in the bottle. Our white wines are typically fermented dry (that is, to a residual sugar level of less than 0.5%), allowed to complete the process of malolactic fermentation, and aged in newer oak barrels.

Even so, fining and filtration processes can be used in a wide variety of ways to improve the character of a wine. So our winemakers will conduct trials on each of our wines to determine if these processes can further improve their quality.

Traditionally, we have bottled our Estate Chardonnay and selected Single Vineyard wines unfiltered and unfined in order to allow all of the wine's characteristics to remain in the bottle. These wines are targeted at a very small population of well-educated wine consumers. So the potential for slight cloudiness is acceptable.

On the other hand, with some of our other fine wine programs we are targeting wine consumers who may not be as forgiving of the wine's appearance. These wines are sometimes lightly fined and filtered for clarity before they are bottled.

Check Your Understanding

1. What is racking?
2. What is cold stabilization?
3. What is fining?
4. What is filtering?
5. What are the potential benefits of these processes?
6. What are the potential drawbacks of these processes?
7. How do we use fining and filtering at Gallo of Sonoma?

8. Bottling And Bottle Aging

After all of these processes there is still one last step that must be completed before a white wine is ready to be sold to a consumer – bottling.

During the bottling process the winemaker's primary concern is to transfer the white wine from the aging vessel into the final package without having a negative impact on any of the characteristics that he or she has worked so hard to develop. The key is to prevent oxidation by minimizing the wine's exposure to air. In addition, at the time of bottling, a small amount of sulfur dioxide (SO₂) is added to the wine. Sulfur dioxide is an *anti-oxidant* and *anti-microbial agent* that suppresses the possible growth of undesirable bacteria and slows the process of oxidation, thereby prolonging the life of the wine in the bottle.

Once the wine is bottled, the winemaker may want to "bin" the wine (age it on the cork) for a period of time before the wine is released for sale. Wine continues to develop and mature in the bottle through a process of slow oxidation. (The oxygen comes from the wine itself, not from outside the bottle. That's because once the bottle has been properly sealed with a cork or screw top it is air tight.)

This process of binning allows the tannins to soften and the aromas and flavors of the wine to "marry" or come together. Depending on the style of the wine, a winemaker may release it for immediate consumption or bin it for later release.

At Gallo of Sonoma, all of our wines are bottled on site at the winery. We utilize a modern, state-of-the-art bottling line. In this way we can minimize the exposure to oxygen and reduce the amount of handling and transportation that the wine is subjected to as it is moved from barrel to bottle.

After bottling, our white wines are immediately transported to Modesto. Here they are stored in our temperature-controlled warehouses until they are released for sale. Some delicate white wines are bottle aged for approximately two months. Most Gallo of Sonoma fine wines continue the aging process from 6-12 months. Our Estate Chardonnay is typically bottle aged for over a year.

Check Your Understanding

1. Why is sulfur dioxide added to wine during the bottling process?
2. What are the possible benefits of binning (aging on the cork)?
3. At Gallo of Sonoma, what do we do with our white wines after they are bottled?

Review

In this chapter we have introduced you to the processes and methods that we use for making fine white wines at the Gallo of Sonoma Winery. We have examined the eight steps that are involved in making white wines. And, for each step, we have explained some of the innovative ways that Gallo has combined "old world" craftsmanship with "new world" technology to produce wines of extraordinary quality and value.

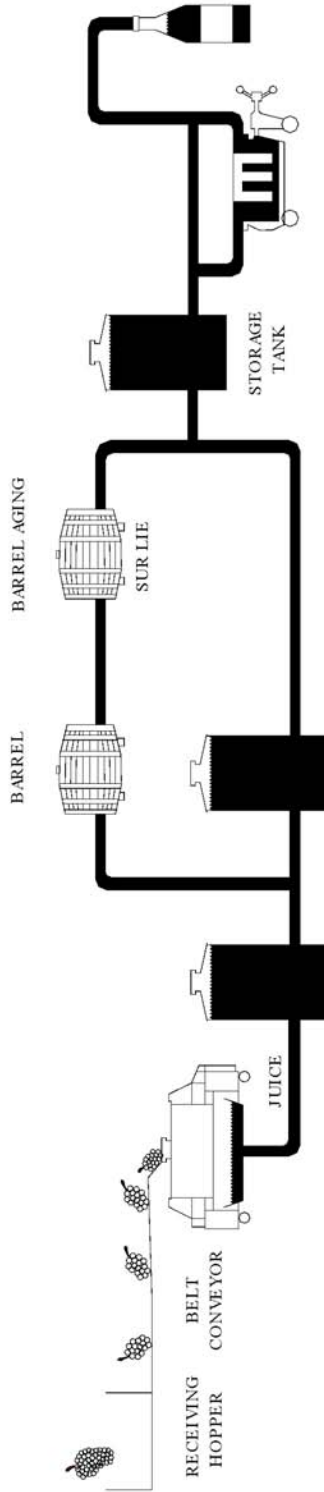
On the next page we've provided a chart that summarizes the process we use to produce fine white wines at Gallo of Sonoma. Now is an ideal time to take a few minutes to review that chart. Make sure you understand the sequence of the steps and the critical decisions our winemakers have to make at each point in the process.

As you know, it's up to you to control your own learning process. Here are some suggestions so you can check to see how well you've learned the material in this chapter:

- Provide a general overview of the eight steps involved in the process of making fine white wines.
- Explain some of the specific ways that the Gallo of Sonoma Winery utilizes both traditional and state-of-the-art techniques to produce fine white wines of exceptional quality and value.
- Describe some of the specific decisions our winemakers may make at each step during the winemaking process and how these decisions impact the resulting appearance, bouquet, taste, and mouthfeel of the wine.
- Define and explain the key terms used in the process of making fine white wines at the Gallo of Sonoma Winery.

You should be able to speak confidently and knowledgeably about each of these topics. If you are comfortable with your ability to discuss these areas then you are well on your way to mastering the material in this chapter. Congratulations! If you're not yet comfortable, take some time to reread this chapter and to gain a greater familiarity with these topics.

WHITE WINEMAKING



RECEIVING AND PREPARATION FOR FERMENTATION

Receiving Hopper: Ripe grapes -- determined by analysis, taste and visual inspection -- are gently unloaded into the receiving hopper.

Belt Conveyor: The grapes are then moved on a continuous belt and are gravity fed into a membrane press.

MEMBRANE PRESS

Membrane Press: A membrane press gently squeezes the grapes, separating the juice from the skins and stems.

Settling Tank: Any fine solids remaining in the juice settle to the bottom of the tank. The juice is then racked and moved to the fermentation vessel --either a stainless steel tank or an oak barrel.

SETTLING TANK

GRAPE PRESSING AND JUICE CLARIFICATION

A selected yeast is added to the juice to start the alcohol fermentation.

Malolactic Fermentation (Optional): After the alcohol fermentation is completed, the wine may also undergo malolactic fermentation. This process converts malic acid to lactic acid, producing a smoother wine with complex flavors and aromas.

FERMENTATION TANK

ALCOHOL FERMENTATION

Aging: The wine may be aged "Sur Lie" -- on the yeast sediment -- which adds flavor complexity from the yeast and a smooth mouthfeel. Or the wine may be separated from the yeast sediment and stored in stainless steel tanks in order to retain a fresh fruitiness.

Blending: The winemaker may choose to blend wines from different barrels or tanks to achieve specific desired style characteristics.

AGING AND BLENDING

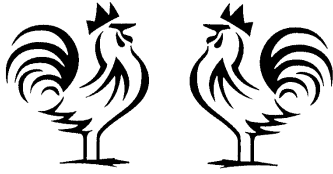
STABILIZATION & CLARIFICATION (OPTIONAL)

Fining/Clarification (Optional): The wine may be fined (clarified) by adding a small amount of inert material to remove any harsh flavors or suspended particles. The materials settle to the bottom of the tank. Then the wine may be either racked or filtered.

Filtration (Optional): The wine may be passed through a thin pad to remove fine particles.

BOTTLING AND BOTTLE AGING

Once bottled, the wine is aged ("binned") for a period of time to soften the tannins and allow the flavors and aromas to "marry".



Chapter 6 Making Fine Red Wine At Gallo Of Sonoma

A rich, complex wine with concentrated flavors of black cherries, currant, and spice. Excellent structure from the tannins and appealing depth from the months of aging in American and French oak barrels.

A complex wine with elegance and style. Pinot Noir grapes predominately from the renowned Russian River Valley were used to produce this silky wine with bright flavors of raspberries and cherries enhanced by aromas of sweet vanilla and toasty oak and accompanied by a soft, supple mouthfeel.

Meticulously aged in French and American oak barrels. The result is a well-balanced wine with a spicy black pepper finish. Fruit from the renowned Dry Creek Valley was used to produce this wine, teeming with aromas of raspberry jam and a touch of vanilla and oak.

As you can tell by reading the wine descriptions above, nowhere is the romance of the grape – or the art and science of winemaking – more evident than in the making of fine red wines. In this chapter you'll learn how we make outstanding red wines at the Gallo of Sonoma Winery near Healdsburg, California. And you'll see further evidence to support our belief that, in any price category, the wines of Gallo of Sonoma and our other fine wine brands are truly superior to any other comparably priced wines on the market today.

Overview

In this chapter we're going to examine the eight step process of making fine red wines at Gallo of Sonoma:

1. Grape Harvest.
2. Receiving And Preparation For Fermentation.
3. Alcohol Fermentation.
4. Must Pressing.
5. Malolactic Fermentation.
6. Aging And Blending.
7. Stabilization And Clarification.
8. Bottling And Bottle Aging.

You probably noticed right away that this process is very similar to the eight-step process we use to make fine white wine. However, there are some specific differences about the eight steps that you should be aware of.

In step 2 we utilize a different process to prepare red wine grapes for fermentation. In Chapter 5 you learned that we don't "crush and destem" any of our white wine grapes. Instead, our white wine grapes are taken immediately to the press by a proprietary process we call *Belt Assisted Whole Cluster Direct To Press*. As you'll see, the process of preparing red wine grapes for fermentation is somewhat different. And although we do not "crush" any of our red wine grapes, we do utilize various destemming processes.

Second, steps 3 and 4 happen in a different order. And we've changed "Grape Pressing" to "Must Pressing." In making white wines, the grapes are pressed to separate the juice from the skins prior to fermentation. As you already know, red wine juice is not actually "red." The color comes from prolonged contact with the skins of the grapes. So, in making red wines, the skins of the grapes remain in contact with the juice during the process of alcohol fermentation. The stems are removed from the grape clusters prior to fermentation. But the juice, skins, and seeds (which together are called "must") remain together until after fermentation, at which point the juice is separated.

Finally, although it's not evident from the descriptive titles of the eight steps, we utilize a different fermentation process. Because of the need for continuous contact with the grape skins, the fermentation process itself is different for red wines. And, as you'll see, at Gallo of Sonoma we utilize several different types of fermenting equipment to provide for the optimal amount of skin contact during this stage of the process.

As you read through this chapter you will also notice that a lot of the information is very similar to what you read in Chapter 5. This similarity is intentional for two reasons:

- The process of making wine fine is complex, and we recognize that you may not yet be entirely familiar with many of the details. We want to help you to learn and remember this important information.
- We want to make it easier for you to compare and contrast the similarities and differences involved in making fine red wines and fine white wines at Gallo of Sonoma.

And throughout the chapter we will continue to highlight the ways that Gallo of Sonoma has integrated traditional Old World winemaking practices with innovative, state-of-the-art New World technology.

If winemaking were not a business – and if money were no object – there are many processes we might perform exclusively by hand, just like the smallest wineries in the world. Instead, at Gallo of Sonoma we've focused on how to use technology to achieve the benefits of handcrafting on a larger scale and at a lower cost. Two areas where we've been particularly effective are *preparation for fermentation* and *alcohol fermentation*. So, as you read this chapter, pay particular attention to those sections. These are two areas where we believe that Gallo of Sonoma has significant advantages over other wineries that are producing fine red wines today.

These innovations typify Gallo's commitment to *continuous improvement*. And they are excellent examples of how Gallo has implemented a variety of new practices, advanced technologies, and state-of-the-art equipment. These innovations provide our winemakers with the highest degree of control over every aspect of the winemaking process and enable them to produce wines of exceptional quality and value.

Finally, as you read through this chapter, remember that your goal is not just to improve your wine knowledge. Of course, we want you to understand what we do at Gallo of Sonoma to impart distinctive qualities and characteristics to our wine. But the ultimate goal is to enable you to talk confidently with knowledgeable wine retailers and, of course, to sell the fine wines crafted at Gallo of Sonoma.

Objectives

After completing this chapter you should understand and be able to explain:

- The process of making fine red wines at Gallo of Sonoma.
- The specific ways that Gallo of Sonoma utilizes both traditional and state-of-the-art techniques to produce fine red wines of exceptional quality and value.
- The specific options and decisions our winemakers may consider during the winemaking process and how they impact the resulting appearance, smell, taste, and mouthfeel of the wine.
- Key terms used in the process of making fine red wines at Gallo of Sonoma.

Note: As you read through this chapter you'll see that winemaking is a complex process. At the end of the chapter we've included an illustration that summarizes the process we use to produce fine red wines at Gallo of Sonoma. If you'd like to have a visual overview of the process before you read the chapter we suggest that you turn to that page and take a few moments to look it over now.

Key Terms

As you read this chapter keep an eye out for these terms. Some of these terms may already be familiar to you from your readings in previous chapters. By the end of the chapter you should have a basic understanding of all of them. More importantly, you should be able to explain how each of these characteristics or processes affects the taste of the resulting red wine.

- Alcohol Fermentation
- Binning
- Cold Stabilization
- Diacetyl
- Filtering
- Fining
- Fining Agent
- First Press
- Free Run
- Horizontal Rotary Fermenter
- Lactic Acid
- Maceration
- Malic Acid
- Malolactic Fermentation
- Must
- Pomace
- Pump Over
- Punch Down
- Racking
- Residual sugar
- Sur Lie Aging

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. Grape Harvest

In Chapter 5 we considered three specific aspects of harvesting white wine grapes at Gallo of Sonoma:

- Determining the optimal time to harvest.
- The harvesting process itself.
- Transporting the grapes to the winery.

These same considerations apply to the harvesting of grapes for fine red wines.

Determining The Optimal Time To Harvest

For red wines – as for white wines – the winemaking process at Gallo of Sonoma actually begins very early in the growing season. Our winemakers meet with our vineyard managers and independent growers prior to pruning to discuss targeted wine styles. That way, every action taken in the vineyard during the growing season can reflect the ultimate goal of the winemakers.

As the season progresses, our winemakers continue to visit the vineyards to monitor the clusters. Then, as the grapes approach maturity, random samples from all blocks are taken to the Winery for analysis.

The character of the finished wine depends on the character of the grapes. The sugar/acid ratio and physiological maturity of the grapes determine the varietal fruit character, overall depth of flavor, and eventual alcohol and acid levels in the finished wine. For red wines, the winemaker must also consider the level of tannin development and the color pigmentation in the skins.

Ideally, grapes are harvested when they have reached “optimal ripeness.” What constitutes “optimal” will depend upon the winemaker’s personal preferences, experience, and the style of wine he or she plans to make. What constitutes “ripeness” is a function of the grape’s sugar/acid balance and its flavor characteristics, tannins, and color pigments.

Just as with white wine grapes, the exact moment of harvest is determined by:

- Scientific measurement of the grape's sugar/acid balance.
- Visual inspection of color characteristics.
- Tasting.

As you've already seen, only by using all three methods of evaluation can our winemakers be sure that the grapes have the flavor and color characteristics we are looking for. Then, just as you saw with our white wines, the grapes grown for red wines must be harvested and transported to the winery in a manner that supplies the winemaker with fruit in the best possible condition.

The Harvesting Process

Our goals for the harvest are:

- To pick only evenly ripened, disease-free fruit.
- To avoid premature juicing and the premature, uncontrollable fermentation that can result.

For centuries, grape picking has been done by hand. And this method is still widely practiced today. As you saw with our white wine grapes, our winemakers are often in the vineyard during the harvest. This is especially true during the harvesting of grapes for our Estate bottled wines. The winemakers assist the workers in cluster selection to assure that only the finest grapes are included in the vintage.

We have also experimented with mechanical harvesting of some red varieties. Surprisingly, we have found that the machines actually help to reduce some bitterness. Because the machines dislodge the berries from the stems during picking, contact with the stems is eliminated during transport to the winery. And it's possible to pick at night, when cool conditions make the grapes less susceptible to damage and spoilage.

As a result, constantly improving mechanical harvesting devices are being employed on an increasing basis.

The decision to utilize mechanical harvesting equipment is based on consideration of these factors:

- The specific grape varietal.
- The contour of the land in the vineyard.
- The trellising system.
- Specific program requirements.

Transporting The Grapes To The Winery

Once the grapes have been harvested they need to be transported to the winery quickly and carefully. The goal is to avoid possible damage to the grapes and prevent any spontaneous fermentation. Proper handling during picking and transportation to the winery is essential to preserve the important characteristics of the grapes.

Just as with white wine grapes, the grapes for our fine red wines must be weighed and inspected. Our winemakers need to know how many tons of grapes from a specific vineyard – or with specific characteristics – are being delivered. In addition, the grapes are visually evaluated to be sure that they are the varietal listed on the delivery documents and that they are not infected with any organisms that could spoil the wine.

The grapes are also analyzed with the aid of a sophisticated computer called a *multi-parametric station* to determine sugar content (as measured on the Brix scale). This information is essential to the winemaker in controlling the subsequent steps of the winemaking process.

As you know, heat and premature breakage are the enemies of freshly harvested grapes. Our Gallo of Sonoma Winery is equipped with a large and efficient receiving area so that we can move the grapes quickly to the next step of the winemaking process.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What are the factors that go into a determination of "optimal ripeness?"
2. What are three methods used at Gallo of Sonoma to determine the optimum time for harvesting red wine grapes?
3. What is a potential benefit of mechanical harvesting in terms of the sensory impact of the resulting wine?

2. Receiving And Preparation For Fermentation

In Chapter 5 you learned that after ripe grapes are transported to the winery, the second step in the process of making fine white wines is to gently press the grapes to separate the juice from the skins. The process of making red wines is different. Red wines are fermented with the juice in contact with the skins. So when red wine grapes arrive at the winery the next step is to prepare them for fermentation.

Three different techniques are currently used in the industry:

- Destemming And Crushing.
- Destemming Only, With Partial Whole Berry Fermentation (the approach favored by Gallo).
- Whole Cluster Fermentation.

Let's consider each of these techniques.

Destemming And Crushing

Traditionally, the process of making red wine has involved crushing and destemming the grapes. This step has two objectives:

- To gently break the berries, resulting in the release of some juice
- To separate the fruit from the stems so that the bitter “green” tannins of the stems are not extracted into the juice.

Modern mechanical crusher/destemmers operate in a much gentler fashion than either the traditional “foot-stomping” or the earlier generations of mechanical processors. So less bitterness is extracted into the juice. Even so, it is still possible to detect a small amount of bitter tannin in juice (and, ultimately, in wine) that has been made from clusters that were crushed and destemmed. That's why we don't use this approach at the Gallo of Sonoma Winery.

Destemming Only, With Partial Whole Berry Fermentation

A second approach – and one that we favor at Gallo of Sonoma – is to forego crushing and go straight to the destemming process.

We believe this approach has two benefits:

- Destemming without crushing reduces the potential for grinding the skins and seeds. So it reduces the potential for any bitterness in the must and the resulting juice.
- Sending the grape clusters directly to the destemmer yields a high percentage of whole berries for fermentation. And whole berry fermentation enhances the overall varietal character of the wine.

Whole Cluster Fermentation (No Crushing or Destemming)

For some red wines the winemaker may choose to bypass both the crushing and destemming steps. Instead, whole clusters – berries and stems intact – are sent directly to the fermenter. This is known as “whole cluster fermentation.”

The presence of stems in the fermenter vessel and the very high ratio of whole berries in the must has a significant impact on the rate and temperature of fermentation. As a result, whole cluster fermentation can produce a dramatically different style of red wine. The wine tends to be lighter bodied with fresh berry character and may be slightly “green” or “stemmy.” The Beaujolais Nouveau from France is a popular example of a red wine made in this style.

To review, there are three major approaches used in the wine industry today:

- Crushing And Destemming.
- Destemming Only, With Partial Whole Berry Fermentation.
- Whole Cluster Fermentation.

Each approach has a different impact on the resulting wine. The winemaker's choice of whether or not to crush and/or destem the fruit prior to fermentation impacts the level of tannin, aroma, and flavor extracted from the stems, skins, and seeds. Ultimately, this contributes to the wine's body and level of bitterness and the presence – or absence – of "stemmy," "weedy," or "green" characteristics in the wine. So the winemaker can choose one or more styles of preparing the fruit depending on the type of wine he or she wishes to produce.

Our Approach At Gallo Of Sonoma

At Gallo of Sonoma, we no longer crush any of our red wine grapes. Instead, we have installed a proprietary red wine grape receiving system to assist us in our fine winemaking.

As trucks arrive at our red grape receiving area their lug boxes and gondolas are gently emptied into a stainless steel receiving hopper. A neoprene conveyer belt moves the grapes laterally to another, inclined conveyer. This second conveyer lifts the grapes and tumbles them into an ultra modern destemmer. Here the grape clusters pass over and through a series of rotating rods that separate the grapes from the stems. Then the grapes, skins, and juice pass through a perforated screen and fall into a collection tub.

This system has two unique aspects: the neoprene conveyor belts and the destemmers.

Neoprene conveyor belts. Neoprene conveyor belts – rather than metal augers – are used to move the grape clusters into and from the receiving hoppers. This gentle method of transporting the grape clusters ensures that grape skins are not broken prematurely and that the stems and seeds are not ground up (“macerated”) and added to the fermenting juice.

Destemmers. We use only "destemmers" rather than the crusher-destemmers that have been prevalent in the industry for many years. We believe that our destemmers provide us with two important advantages:

- We have found that even the most modern crusher-destemmers can grind stems and seeds and add bitterness to the resulting wines.
- Through experimentation, we have also learned that during the fermentation process we prefer to have a high percentage (40% or more) of whole berries. We've found that this high percentage of whole berries enhances the overall varietal character of most red wines.

Check Your Understanding

1. When white wine grapes arrive at the winery they are pressed to separate the juice from the skins, stems, and seeds. Why is the process of preparation for fermentation different for making red wines?
2. What are the three techniques that may be used to prepare red wine grapes for fermentation?
3. What are two key elements of the proprietary system we use to prepare red wine grapes for fermentation at Gallo of Sonoma?
4. What are the benefits in terms of sensory impact of the approach we use at Gallo of Sonoma?

3. Alcohol Fermentation

The process of alcohol fermentation represents the most substantial difference between the techniques for making fine red wines and the techniques for making fine white wines.

In Chapter 5 you learned that in the process of making white wine the juice is separated from the skins prior to alcohol fermentation. And at Gallo of Sonoma, our white wines are typically fermented in oak barrels – although we sometimes also use stainless steel tanks.

In the process of making red wine, however, the grape skins remain in contact with the juice during alcohol fermentation. This process gives the wine its red color, its body, and much of its aroma and flavor. And the actual pressing – the separation of the wine from the must – doesn't take place until after all or most of the alcohol fermentation.

To begin the process of alcohol fermentation, must (the combination of grapes, juice, skins, and seeds) is pumped into the fermenter and is inoculated with a selected yeast culture. As you saw in Chapter 5, the winemaker generally has three principal concerns:

- To convert the natural grape sugars into alcohol.
- To influence the aromas and flavors of the wine.
- To impart colors and tannins to the wine.

In the process of making red wine, the winemaker has to make three critical decisions:

- The temperature of the alcohol fermentation.
- The method of extracting color, flavor, and body from the grape skins.
- The length of time that the juice/wine will spend in the fermenter in contact with the skins.

We'll consider each of these.

The Temperature Of The Alcohol Fermentation

As you've already learned, alcohol fermentation is the process of using yeast to convert sugar to alcohol. Yeast are microscopic one-celled fungi. They take sugar into their cells, use it for growth and reproduction, and produce ethyl alcohol, carbon dioxide, and heat. Ideally, the fermentation process continues until the yeast have depleted all of the sugar contained in the juice.

As we mentioned a moment ago, when yeast cells convert sugar to ethyl alcohol and carbon dioxide, they also produce heat. Unless the temperature inside the fermenting vessel is controlled it can increase from 70 degrees to 100 degrees or higher in just a few hours. This kind of temperature increase can have several negative impacts:

- As the temperature increases, so does the rate of fermentation. As carbon dioxide is rapidly produced, the escaping gases can remove aroma and flavor compounds and reduce the overall complexity and concentration of the finished wine.
- In addition, higher temperatures can "cook" the wine and cause the aromas and flavors to change in subtle or obvious ways.
- Finally, if the temperature gets too high the heat can actually kill the yeast cells. This results in what's called an incomplete or "stuck fermentation."

For all of these reasons it's important for the winemaker to monitor and control the fermentation temperature. Most stainless steel tanks can be equipped with a cooling jacket to facilitate the cooling process. The temperature of fermentation impacts the wine in these ways:

- Cooler fermentation temperatures (60°-80°) help to maintain more varietal fruitiness.
- Warmer fermentation temperatures (80°-90°) tend to yield a richer, rounder mouthfeel and body.

So in selecting the fermentation temperature the winemaker must make a trade-off between varietal fruitiness and a richer, rounder mouthfeel. Keep in mind that later in the winemaking process (during Step 6: Aging And Blending) the winemaker has the option of blending together wines that have been fermented or aged in different ways in order to achieve a final wine with the desired characteristics.

The Method Of Extracting Color, Flavor, And Body From The Grape Skins

The process of alcohol fermentation produces a large quantity of carbon dioxide gas. This gas naturally rises to the surface of the fermenting wine and escapes through vents in the top of the tank.

However, remember that during the production of red wines the grape skins are present in the fermenter. In this situation, the carbon dioxide gas can easily become trapped under or inside of the skins, causing them to rise to the surface of the fermenting wine and form a "cap." As more and more skins rise to the top of the tank, the resulting upward pressure may actually cause the cap of skins to be lifted up and out of the fermenting wine. In fact, depending on the size of the fermenter, the cap may actually be many feet above the level of the wine!

In the process of making red wine, it's essential to maintain contact between the fermenting juice and the grapes skins to provide for the extraction of color, flavor, aroma, and body into the wine. To make sure that the juice gets sufficient exposure to the skins during the 5-10 day fermentation period, the winemaker needs to find a way to provide the juice with maximum exposure to the skins.

A number of different technologies are available. At Gallo of Sonoma we utilize these three:

- Pump Over
- Punch Down
- Horizontal Rotary Fermenters

Let's take a closer look at each of these.

Pump Over

The *pump over* technique ("remontage" in French) is typically used in the standard upright fermenters that are commonly seen at wineries around the world.

This technique works the same way as a coffee percolator (but, of course, without the heat!). As the cap forms at the top, fermenting wine is periodically pumped from the lower part of the tank through hoses to a spreader or rotating spraying device located at the top of the tank. This thoroughly soaks the cap, resulting in extraction of the color, varietal flavor, and tannins that contribute to the body and the mouthfeel in the wine.

This technique is easily automated and can be utilized for even the largest fermenting vessels. However, because the wine is pumped from the lower part of the tank, there is always the possibility that seeds or pieces of skin might inadvertently be sucked through the pump. As the seeds and skins disintegrate, they release tannins and introduce unwanted bitterness into the wine.

Punch Down

The vertical *punch down* fermenter is one of the oldest fermenting technologies. This process – which may be performed either manually or mechanically – utilizes a tool or device to punch down from above, break up the cap, and stir the skins with the wine.

In the past this was a labor-intensive technique most often used on smaller lots of wine. However, since the process was typically performed by hand, it was relatively gentle and did not result in excess extraction of bitter tannins from the skins and seeds.

Now, modern equipment allows us to practice this method on a larger, more economical scale. The cap is "punched down" from the top on a pre-determined basis by a mechanical rod system. This ensures that the skins remain in adequate contact with the juice throughout fermentation.

Horizontal Rotary Fermenter

The final method utilized at Gallo of Sonoma is a relatively new innovation in winemaking known as a *horizontal rotary fermenter*. In recent years, much of our experimentation at Gallo of Sonoma has been devoted to finding ways to reduce the tannins in red wines, so that they can be smoother and less bitter. And we have begun working extensively with horizontal rotary fermenters.

Instead of standing upright, these tanks are laid on their side on a rail that allows them to revolve 360 degrees. Once the horizontal tank is filled to the desired level and the must has been inoculated with a selected yeast culture, the fermenter is rotated periodically. This causes the must to be gently stirred by baffles on the inside wall of the fermenter. As the tank is rotated, the cap formed from the grape skins is continuously mixed with the juice.

This revolving action is somewhat analogous to the way clothes tumble in a dryer, but it's much slower and gentler. In fact, it's almost as gentle as mixing by hand!

During fermentation, gases are vented through a spring-loaded valve located on the side of the cylinder. When the valve is at the 12:00 position it opens to release any gases. Then, as the cylinder continues to rotate, the valve closes so that nothing can spill.

At press time in 2002, at Gallo of Sonoma we had 23 temperature-controlled rotary fermenters, helping us to produce fine wines with hand-made precision. The rotation of the fermenters is like hand stirring and can be customized to provide complete and gentle mixing of the juice and the skins. This process results in the complete extraction of the best colors, aromas, and flavors from the fruit and leads to wine that is smooth and full-bodied without the taste of bitter tannins.

Three Techniques To Choose From

At Gallo of Sonoma, we are fortunate to be one of the few fine wine facilities in the world that can utilize all three of these techniques for mixing juice and skins during fermentation. Depending upon the style of wine being produced, these three red wine fermentation techniques give our Gallo of Sonoma winemakers a wide range of options to choose from when crafting our fine wines.

Check Your Understanding

1. What are three reasons why it's important to control the temperature of the fermentation process?
2. What is the impact of cooler (60°-80°) or warmer (80°-90°) fermentation temperatures on the sensory characteristics of the resulting wines?
3. Why is it important to circulate the must during the process of alcohol fermentation?
4. What are three techniques for circulating the must that we utilize at Gallo of Sonoma? What are the benefits of using the most recent technique?

4. Must Pressing

During the pressing stage of the red winemaking process the objective is to separate the newly created wine from the must (skins, seeds and fruit pulp) by a slow pressing or squeezing action. The winemaker closely monitors two critical factors: timing and pressure.

Timing. Keep in mind one of the critical differences between the processes for making white wines and red wines. With white wines, the pressing occurs prior to fermentation. With red wines, the skins are retained during alcohol fermentation to provide color, flavor and body. So the pressing step is typically timed to occur at the end of the alcohol fermentation.

In order to intensify the color and flavor characteristics of the wine, the winemaker may choose to keep the wine on the skins for an extended period of time after the fermentation is complete. This technique is called *extended maceration*, and is used in the production of our Gallo of Sonoma Estate Cabernet Sauvignon.

Pressure. Everything that you've already learned about pressure still applies at this stage of the winemaking process. Specifically, the harder the must is pressed, the more tannins that are extracted from the skins and seeds and the more bitter the wine becomes. With red wines the winemaker is particularly concerned with controlling the amount of tannin extracted into the wine. Depending on the style of wine being produced, a certain amount of tannin may be desirable since it contributes to the body of the wine. But too much tannin can lead to unpleasant bitterness.

During the fermentation process, most of the juice will already have been released from the berries. When the must is first transferred into the press this *free run* wine naturally separates from the must without the addition of any pressure. This free run is the least tannic overall and the winemakers generally separate it from the *press wine* that is extracted next.

At Gallo of Sonoma we utilize only gentle *bladder presses*. And we generally designate only the free run and light press wine for our fine wine programs.

After the wine has been extracted, the remaining product (pressed skins, seeds and pulp) is known as *pomace*. As you saw with our white winemaking process, we use much of this pomace as composting material in our vineyards. So each year's vintage really does contribute to the next.

As you also saw with the making of white wines, once the fermentation process is completed, the tanks and barrels are "topped" – that is, they are filled to capacity with the same type of wine. If the tanks and barrels were not topped, the presence of air inside could lead to oxidation of the wine and the formation of vinegar.

Check Your Understanding

1. How is the timing of the pressing process different for red wines than for white wines?
2. In general, what is the impact of pressure on the characteristics of the resulting wine?
3. What is free run wine?

5. Malolactic Fermentation

As we discussed in Chapter 5, *malic acid* is a strong, sharp tasting acid contained in many fruits, including grapes and apples. As a grape ripens, the amount of malic acid it contains decreases. Alcohol fermentation also reduces the amount of malic acid. However, some malic acid is still contained in the resulting wine.

Malolactic fermentation (sometimes called ML) is a biochemical process that transforms the remaining sharp tasting malic acid into softer tasting *lactic acid* and carbon dioxide. Winemakers sometimes refer to this process as "softening the acid structure of the wine."

Malolactic fermentation has no impact on the alcohol fermentation process. However, it does change both the "body" and "flavor" of the resulting wine. One of the by-products of Malolactic fermentation is a compound called *diacetyl*, which gives butter its aroma and flavor. In white wines, this buttery character may be very pronounced. But in red wines, the other aromas and flavors subdue the diacetyl and make it difficult to detect.

In order to guarantee that malolactic fermentation will occur, specific bacteria must be present. These bacteria exist naturally on grape skins or can be introduced by the winemaker. If complete ML fermentation does not occur, the wine may become unstable in the bottle and, ultimately, may spoil.

At Gallo of Sonoma, nearly all of our red wines undergo malolactic fermentation. This process provides us with four benefits. Specifically, we are able to:

- Soften the wine's acid structure.
- Add complexity to the wine's aroma and flavor.
- Ensure wine stability in the bottle.
- Reduce the need for fining and filtration.

Malolactic fermentation normally begins during the alcohol fermentation stage. But the alcohol fermentation usually only takes about five to ten days for our red wines, and the malolactic fermentation often takes longer than that. So the process of malolactic fermentation doesn't actually conclude until after the pressing, when the wine is in the barrels for aging.

Check Your Understanding

1. What is malolactic fermentation?
2. What is diacetyl? What impact does it have on the taste of a white wine? On the taste of a red wine?
3. What can happen if complete malolactic fermentation does not occur?
4. What are four reasons why our red wines undergo malolactic fermentation at Gallo of Sonoma?

6. Aging And Blending

Once the alcohol fermentation and malolactic fermentation are complete, the red wine is aged to allow the aromas and flavors to develop and mature before the wine is bottled. As you saw with white wines, the effects of this aging process depend on the type and size of the vessel and the length of aging time.

Red wines can be aged in virtually any vessel that holds liquid. Today, most commercial wineries use either stainless steel or oak.

Aging in stainless steel. Stainless steel is inert and airtight and it prevents oxidation. In this way it preserves the character that the wine has developed during fermentation. If the winemaker feels that the wine has already achieved the characteristics he or she is looking for, the wine can be aged in stainless steel until it is blended or bottled.

Aging in oak barrels. Oak barrels permit some oxidation to occur and enable the wine to extract additional aromas and flavors from the wood. If the winemaker wants to change a wine's character, the winemaker may choose to age the wine in oak.

The Impact Of Oak

Aging in oak barrels may have a wide variety of effects. In her book [Great Wine Made Simple](#), Andrea Immer explains that aging a wine in oak barrels affects several sensory characteristics:

Color:	Makes white wines look darker
Aroma:	Makes red and white wines smell stronger
Flavor:	Makes red and white wines taste richer
Body/texture:	Makes red and white wines feel fuller

Oak aging can also impart a sweet vanilla-like flavor to the wine. The wine may also extract aromas and flavors of "oak," "smoke," and "spice."

Similarly, over prolonged aging periods the tannins in the wood can interact with tannins in the wine resulting in an increase, decrease, or exchange of total tannins in the wine. Andrea Immer describes the impact of tannin in this way:

Low tannin:	Hardly noticeable; the wine feels silky.
Medium tannin:	Noticeable dry, tacky feeling, but smooth rather than harsh. (A waitress I once worked with told me, upon tasting this style, that it felt as though the inside of her mouth has been wallpapered in velvet and suede – the entire room agreed.)
High tannin:	Ouch! Your tongue feels very puckered, dried out, and leathery.

The specific type of interaction depends on the type of wine and the type of oak that are used.

Winemakers may choose from a wide variety of oak barrels. Today, barrels are made from oak that comes from many different countries of origin. As you saw with white wines, the source of the wood itself has a distinct impact on the character of the barrel and the wine that is aged in it. Different *coopering* (barrel making) techniques – such as toasting the oak lightly or heavily – further impact the characteristics imparted to the wine.

Keep in mind that the potential impact of oak also depends to a significant degree on the aging time, size, and condition of the barrel:

- As you would expect, longer aging produces more intense changes while shorter aging has a more limited effect.
- A smaller barrel (60-70 gallons) allows a greater percentage of the wine to be in contact with the wood at any one time. So there is a faster extraction of aromas and flavors. In larger barrels and casks (100 gallons up to 10,000 gallons) the wine is not in contact with the oak surface to such a high degree. So, the extraction of aromas and flavors occurs much more slowly.
- A newer barrel will have a more significant impact than a barrel that has been used many times.

Aging At Gallo Of Sonoma

At Gallo of Sonoma we age our red wines an average of 8-26 months in small oak barrels. Most of our barrels are made of wood that was grown in France or the United States. But we continue to experiment with barrels made of oak from many other countries around the world, including Yugoslavia, Russia, Hungary, Romania, Poland, and China.

A Note On Sur Lie Aging

As you read earlier, in the process of making red wines the pressing step occurs after alcohol fermentation is complete. When the wine is pressed it is also separated from most of the dead yeast cells. So *sur lie aging* is generally not an option with red wines. However, at Gallo of Sonoma we are conducting research to determine if the process of *sur lie aging* can have a beneficial impact on red wines.

Blending

Near the end of the aging process the winemaker may choose to blend together wines from different barrels or tanks to achieve specific desired style characteristics. As you read in Chapter 5, the process of blending different lots of wines is somewhat analogous to cooking with a variety of spices. At Gallo of Sonoma our winemakers experiment with small lots until they find the blend that produces the desired characteristics. Then they replicate that blend on a larger scale prior to bottling.

Remember that the blending process is subject to several limitations:

- In order to be labeled as a specific varietal, a wine must consist of at least 75% of the designated varietal grapes. In order to be labeled as a "Cabernet Sauvignon," a wine must contain at least 75% Cabernet Sauvignon grapes.
- In order to be labeled as a "Sonoma County" wine, at least 75% of the grapes used to make the wine must come from Sonoma County.
- In order for a wine to carry a specific AVA designation such as "Dry Creek Valley," at least 85% of the grapes used to make that wine must have been grown in the legally designated area.
- In order for a wine to be designated with a specific vineyard such as "Stefani," at least 95% of the grapes used to make that wine must have been grown in that vineyard.
- In order for a wine to be designated as "barrel aged" (without any additional qualifying statements) at least 95% of the wine must have been in the barrel for at least two months. If more than 75% of the wine but less than 95% was aged in the barrel at least two months, the wine may be labeled: "a portion of this wine was barrel aged." A winery can always choose to be more precise, but the label must be accurate. For example: "88.6% of this wine was barrel aged for at least 4 months."

Check Your Understanding

1. What is the impact of aging a wine in stainless steel?
2. What is the impact of aging a wine in oak barrels?
3. What are some of the factors that determine how an oak barrel will affect the characteristics of the finished wine?
4. Is sur lie aging an option with red wines? Why – or why not?
5. What is the requirement for a wine to be labeled as a specific varietal?
6. What is the requirement for a wine to be labeled as a Sonoma County wine?
7. What is the requirement for a wine to be labeled with a specific AVA designation such as Alexander Valley or Sonoma Coast?
8. What is the requirement for a wine to be labeled a single-vineyard designate such as Laguna Vineyard Pinot Noir?
9. What is the requirement for a wine to be labeled as “barrel aged?”

7. Stabilization And Clarification

At the conclusion of the aging process a wine may not appear hazy or cloudy to the naked eye. Nonetheless it may contain suspended particles that could cause the wine to cloud or spoil after it has been bottled. The processes for removing these particles from red wine are the same as the processes for removing them from white wine:

- Racking
- Cold stabilization
- Fining
- Filtration

You're already familiar with these processes. Even so, let's take a moment to review the information that you read in *Chapter 5: Making Fine White Wine At Gallo Of Sonoma*.

Racking. As you know, racking is the most common process of separating clear wine from its sediment (or *lees*). The racking process can be performed in a variety of ways – from simply decanting the wine from one barrel into another to utilizing a highly sophisticated automated process. In any case, the process must be done very gently to avoid stirring up the sediment that has settled out of the wine. This step can be repeated several times until the wine is brilliantly clear.

Cold stabilization. *Cold stabilization* is the process of reducing the temperature of the wine in order to remove materials that have the potential to precipitate (settle) after bottling. In particular, this process is often used to remove *potassium bitartrate*, a white crystalline solid. If the concentration of this material is not sufficiently reduced prior to bottling, it may precipitate in the bottle. After chilling, the wine may be either racked or filtered to remove the potassium bitartrate that has precipitated.

Fining. *Fining* is the process of using materials that combine with suspended solids and cause them to settle. Fining is normally performed after alcohol fermentation. But the process can also be used with fresh grape juice prior to fermentation. Here's how it works:

- The particles suspended in wine carry an electrical charge – either positive or negative.
- The winemaker selects a *fining agent*, which has an electrical charge opposite to that of the suspended material.

- The fining agent is added to the wine. It attracts the oppositely charged particles, forming larger particles that settle to the bottom of the storage vessel.
- At that point the wine may be *racked* or *filtered* to separate it from the sediment.

There are a variety of fining agents available for different specific purposes and winemakers tend to have their own personal preferences. Commonly used fining agents are egg whites, gelatin, casein, bentonite clay, and isinglass.

Filtration. *Filtration* is the process of clarifying wine by passing it through a filter to remove suspended solids. The filter is simply an inert material that will not react with the wine. Cellulose is a typical example.

The winemaker may select a filter with large pores to remove visible particles or with smaller pores to remove even microscopic particles.

The Impact Of These Processes

By subjecting a wine to racking, cold stabilization, fining, or filtration, it's possible to improve the color and clarity, reduce unwanted tannins, and remove "off" aromas and flavors. However, if these processes are done too aggressively they do have the potential to strip a wine of its complexity and character. In particular, both fining and filtration must be done very carefully so that the processes do not also eliminate desirable color, aromas, flavors, and body.

Just as with our white wines, at Gallo of Sonoma our winemakers prefer to bottle the wine so that the taste from the bottle is as similar as possible to the taste from the barrel. Therefore, we generally choose to minimize the use of fining and filtration. There are three reasons why, in general, we're able to minimize fining and filtration without risking that something might "go wrong" in the bottle:

- Our red wines are typically fermented dry, to a residual sugar level of less than 0.1%. (Our white wines are also fermented dry, but to a residual sugar level of less than 0.5%.) This precludes the possibility of any additional alcohol fermentation occurring in the bottle.
- The wines are allowed to complete the process of malolactic fermentation.
- The wines are aged in newer oak barrels.

Even so, our winemakers will conduct trials on all of our red wines to determine if any of these stabilization and clarification processes can further enhance the character of the wine.

Check Your Understanding

1. What are the four processes that may be used to enhance stabilization and clarification?
2. What are the potential benefits of these processes?
3. What are the potential drawbacks of these processes?
4. What are three reasons why Gallo of Sonoma can generally minimize the use of these processes without risking that something will go wrong in the bottle?

8. Bottling And Bottle Aging

After all of these processes are completed the wine must be bottled before it can be sold to a consumer.

During the bottling process the winemaker's primary concern is to transfer the red wine from the aging vessel into the final package without damaging any of the characteristics of the wine. The key is to prevent oxidation by minimizing the wine's exposure to air.

In addition, at the time of bottling, a small amount of *sulfur dioxide* (SO₂) is added to the wine. Sulfur dioxide is an *anti-oxidant* and *anti-microbial agent* that suppresses the possible growth of undesirable bacteria.

Once the wine is bottled, the winemaker may want to bin the wine (age it on the cork) for a period of time before the wine is released for sale. Wine continues to develop and mature in the bottle through a process of slow aging. That's because the wine itself contains a small amount of oxygen and, over time, oxidation occurs. By allowing time for this natural process of aging to occur, binning allows the tannins to soften and the aromas and flavors of the wine to "marry" or come together. Depending on the style of the wine, a winemaker may release it for immediate consumption or bin it for later release.

We bottle all of our Gallo of Sonoma red wines on site at the winery. And we utilize a modern, state-of-the-art bottling line that minimizes the wine's exposure to oxygen.

After bottling, our red wines are immediately transported to Modesto. Here they are stored in our temperature-controlled warehouses for 6-24 months before they are released for sale. Although many of our fine wines will continue to improve with age, most can be enjoyed immediately upon release. And because our wines are aged under temperature-controlled conditions, you can be sure that your retailers – and their customers – will purchase wines that have maintained the very highest quality.

Check Your Understanding

1. Why is sulfur dioxide added to wine during the bottling process?
2. What are the possible benefits of binning (aging on the cork)?
3. At Gallo of Sonoma, what do we do with our red wines after they are bottled? As a salesperson who represents fine Gallo wines, why is this important to you?

Review

In this chapter you read about how we make outstanding red wines at the Gallo of Sonoma Winery north of Healdsburg, California. And we highlighted the ways that Gallo of Sonoma has integrated traditional Old World winemaking practices with innovative, state-of-the-art New World technology.

On the next page we've provided a chart that summarizes the process we use to produce fine red wines at Gallo of Sonoma. Now is an ideal time to take a few minutes to review that chart. Make sure you understand the sequence of the steps and the critical decisions our winemakers have to make at each point in the process. Also, make sure you're clear on the specific ways that the process of making red wines is different than the process of making white wines.

It's up to you to control your own learning process. Here are some suggestions so you can check to see how well you've learned the material in this chapter.

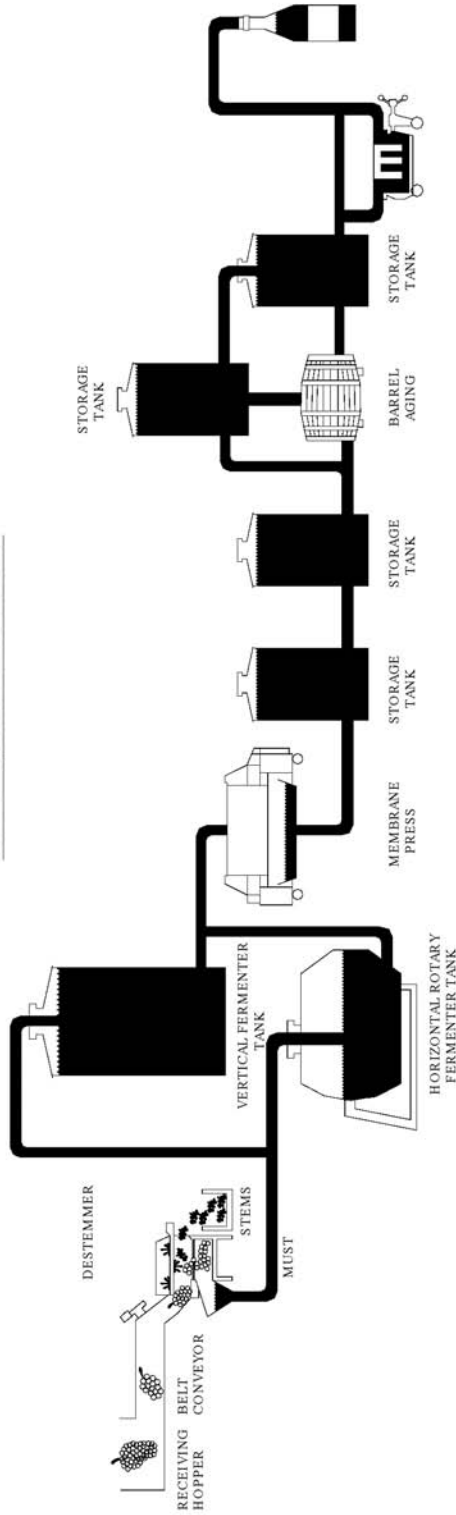
- Explain the process of making fine red wines at Gallo of Sonoma.
- Describe some of the specific ways that Gallo of Sonoma utilizes both traditional and state-of-the-art techniques to produce fine red wines of exceptional quality and value.
- Summarize the specific options and decisions our winemakers may consider during the winemaking process and how they impact the resulting appearance, smell, taste, and mouthfeel of the wine.
- Define and explain the key terms used in the process of making fine red wines at Gallo of Sonoma.

You should be able to speak confidently and knowledgeably about each of these topics. If you are comfortable with your ability to discuss these areas then you are well on your way to mastering the material in this chapter. Congratulations! If you're not yet comfortable, take some time to reread this chapter and to gain a greater familiarity with these topics.

Looking Ahead

To work through Chapter 7 you'll need a nice chilled bottle of fine wine. We recommend Gallo of Sonoma Chardonnay. **Put a bottle in the refrigerator now, so it will be ready when you decide to work on that chapter!**

RED WINEMAKING



RECEIVING AND PREPARATION FOR FERMENTATION

Receiving Hopper: Ripe grapes -- determined by analysis, taste and visual inspection -- are gently unloaded into the receiving hopper.

Belt Conveyor: The grapes are then moved on a continuous belt into the destemmer.

Destemmer: The grapes are gently removed from the stems. The mixture of skins, pulp, juice and seeds ("must") is moved to fermenter tanks.

ALCOHOL FERMENTATION

Vertical Fermenter Tank: The must is inoculated with a selected yeast to start the alcohol fermentation. The carbon dioxide gas produced during the fermentation raises the grape skins, or "cap", to the top of juice. With a "pump Over" technique, the cap is continually soaked with fermenting juice, resulting in extraction of color and varietal flavor. With the "Punch Down" technique, a rod is used to break up the cap and stir the skins with the wine.

Horizontal Rotary Fermenter Tank:

After filling the tank, a selected yeast is added to the must. Extraction of color and flavors from the skins is achieved by gently rotating the tank and mixing the skins and juice.

MALOLACTIC FERMENTATION (OPTIONAL)

Aging: The wine is aged in oak barrels or stainless steel tanks. Oak barrels soften the wine and impart aromas and flavors described as "woody" or "vanilla". Stainless steel preserves the varietal character of the grapes.

AGING AND BLENDING

Blending: The winemaker may choose to blend wines from different barrels or tanks to achieve specific desired style characteristics.

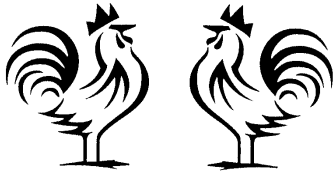
STABILIZATION & CLARIFICATION (OPTIONAL)

Fining/Clarification (Optional): The wine may be fined (clarified) by adding a small amount of inert material to remove any harsh flavors or suspended particles. The material settle to bottom of the tank. Then the wine may be either racked or filtered.

BOTTLING AND BOTTLE AGING

Filtration (Optional): The wine may be passed through a thin pad to remove fine particles.

Once bottled, the wine is aged ("binned") for a period of time to soften the tannins and allow the flavors and aromas to "marry".



Chapter 7 Evaluating Fine Wine

STOP!

This chapter is different than the other chapters in this Introduction To Fine Wine manual. To work through this chapter you'll need a nice chilled bottle of fine wine. We recommend Gallo of Sonoma Chardonnay. If you haven't already put a bottle in the refrigerator, get a bottle now and put it in the freezer so it will chill. We'll get to it in a little while.

All right, then. Welcome back!

Over the past few weeks you have been able to supplement your on-the-job experience with the additional information you've acquired by completing Chapters 1-6 in this manual. So you are already quite knowledgeable about how grapes are grown and made into fine white and red wines. And you're also aware of how the E. & J. Gallo Winery has combined traditional viticultural and winemaking practices with modern technology and innovative processes at our Sonoma vineyards and our state-of-the-art winery near Healdsburg, California.

All of this information should help you feel more confident when you talk with fine wine retailers about our outstanding portfolio of fine wines. But, in a sense, we could have begun this manual with this chapter. Because when it comes to making fine wines, the proof is really in the glass.

So please don't be put off by the title of this chapter. Although we decided to call the chapter "Evaluating Fine Wines" we could have just as easily called it "Experiencing Fine Wines" or "Tasting Fine Wines" or even "Enjoying Fine Wines." Because that's what this chapter is about – the process of experiencing, tasting, and (hopefully) enjoying fine wines.

To help you get the most out of this chapter we're going to suggest that you participate actively in the evaluation process. The best way to do this is, not surprisingly, with a glass of wine. And that's why you have a bottle of Gallo of Sonoma Chardonnay chilling in your refrigerator or freezer right now.

So, without further ado, let's get started.

Overview

The term “sensory evaluation” sounds complex and scientific. Yet, in reality, it’s not that complicated. Translated into everyday language it simply means “drinking a wine and describing what you see, smell, taste, and feel.”

Most of us have had plenty of experience in tasting a wide variety of food and beverages. But we may not have had a lot of experience in trying to communicate our experiences in words. So it’s easy to be intimidated by the wine tasting process. And it’s easy to assume that only “experts” can accurately judge a wine.

So it’s important to begin by facing two facts:

- There are many people in our business who have been tasting wine for quite some time and have developed very good skills at evaluating and describing what they taste.
- Taste is a highly personal experience. Each of us may experience taste sensations differently. And each of us may communicate about our taste experiences in a different way. No one has a monopoly on the ability to taste wine and communicate about it “accurately.”

A “Sobering” Discovery

In their book Wine For Dummies, Ed McCarthy and Mary Ewing-Mulligan write:

Once, we engaged in a humbling yet fascinating exercise. Several wine writers were given a wine to taste, along with eight published tasting notes from other writers. (Only one tasting note corresponded to the wine we were tasting – the others described similar wines.) We were asked to identify the tasting note that corresponded to the wine we were tasting as well as the note that seemed the most inappropriate for the wine. The description we all voted *least* appropriate for the wine turned out to be the description taken from the back label of the wine bottle! Not one of us had correctly matched the description’s words to our taste experience. Again, with another wine, we each discovered that *our* taste and *their* words failed to correspond.

These comments underscore the fact that, just as “beauty is in the eye of the beholder,” it might also be said that “taste is in the mouth and nose of the imbiber.” And the process of tasting and describing wine is very subjective – even for wine professionals.

So Relax And Enjoy!

Tasting, evaluating, and describing fine wine is a skill. And, as with any skill, there are a few people who are “naturals” and are able to learn that skill with what seems like very little effort. On the other hand, almost anyone can learn it. And with practice and patience almost anyone can do it consistently and well.

So let's get started.

Objectives

After completing this chapter you should understand and be able to:

- Explain and demonstrate the proper techniques for presenting a bottle of fine wine. Specifically, you should be able to:
 - Make sure that the wine is at an appropriate serving temperature.
 - Open the wine bottle with a cork puller or corkscrew.
 - Select an appropriate wine glass.
- Explain and demonstrate the five-step process for evaluating any fine wine. Specifically, you should be able to:
 - Evaluate the color and clarity of a wine.
 - Evaluate the smell of the wine.
 - Evaluate the taste of the wine.
 - Evaluate the body and mouthfeel of the wine.
 - Form an overall impression of the wine.
- Explain the basic strategy for pairing wine with food.

Key Terms

As you read this chapter keep an eye out for these terms. Some of these terms may already be familiar to you from your readings in previous chapters. By the end of the chapter you should have a basic understanding of all of them. More importantly, you should be able to apply these characteristics to any wine that you are tasting and evaluating.

Aftertaste

Aroma

Aroma Wheel

Body

Bouquet

Brilliant

Buttery

Clarity

Clear

Cloudy

Color

Corked

Finish

Fruit Forward

Fruity

Herbaceous

Mouthfeel

Nose

Oaky

Oxidation

Palate

Residual Sugar

Spicy

Structure

Tannin

Vegetative

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

Important: Sales practices such as conducting wine tastings may not be legally permissible in some markets. Even if these practices are legally permissible, they may not be consistent with your distributor's policies.

Please keep in mind that this chapter describes the mechanics you would follow when you are evaluating fine wine on your own or in those markets where tastings are appropriate and applicable. All direction regarding any of the practices or activities outlined in this chapter must come from your distributor.

Presenting A Bottle Of Fine Wine

The process of storing and serving wine is steeped in tradition. However, for those who simply want to enjoy wine with their food, there are only two major rules: don't spill it, and don't drink too much.

To speak intelligently about wine with your retailers and their customers, it is important that you understand the basics about the etiquette of wine. And if you're serving wine at home or enjoying it in the company of friends, there are some traditions that will enhance your enjoyment.

The following section is based on material that you originally read in [The Gallo Sales Manual](#). This section offers some practical guidelines for serving wine. These guidelines will help you get the maximum enjoyment when you serve wine in your home.

As you gain experience (and as permitted by the laws of each state or municipality), you may conduct tastings in your accounts and with trade or consumer groups. The same general guidelines will help you conduct tastings or samplings. However, keep in mind that your distributor will provide specific instructions for these situations.

Selecting A Wine Glass

There are many different wine glasses available. Here are a few general guidelines about glassware.

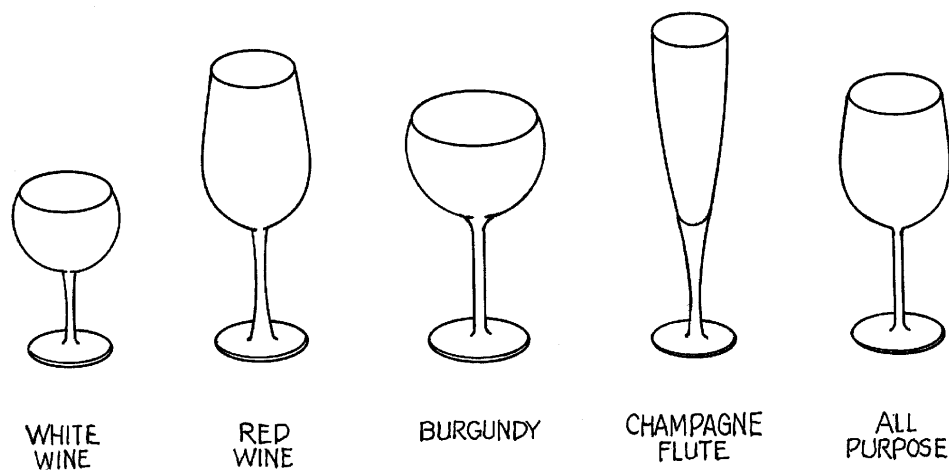
Use only glasses with stems. There are two reasons why wine glasses have stems. When you're holding the glass by the stem, light can enter from all directions, enhancing the color of the wine. The stem also enables you to hold the glass without warming the wine from the heat of your hand.

Use clear glasses without facets. You don't want to use a colored or cut glass that would distort the color of the wine.

Use glasses with a tapered bowl. The mouth of the glass should be slightly smaller than the bowl. This shape helps to trap and enhance the smells of the wine.

Use glasses that are large enough to swirl the wine. As you'll see later in this chapter, in order to be able to inspect the appearance of the wine and savor its aromas, you need to be able to swirl the wine in your glass. So be sure the glass is large enough to swirl comfortably without spilling the wine.

The picture below illustrates a variety of acceptable wine glasses.



Serving Temperatures

Wines taste very different depending on their temperature. In order to enjoy the flavor characteristics of a wine, it is very important to serve that wine at the proper temperature. So, which temperature is ideal? Well, there are actually three ideal temperatures:

Room temperature. 65°F (18°C) is considered “room temperature” and is appropriate for medium to full bodied red wines. Keep in mind, however, that most of the retailers you call on do not actually maintain their stores at this temperature. In fact, the term “room temperature” is slightly misleading. You need to pay attention to the actual temperature of the room and the impact of that temperature on your wines. If you find that your wines are too warm because of the temperature of the room, you may need to slightly chill your red wines in advance of a tasting. (However, if you keep all of your wines – including your red wines – in an insulated wine bag, you should be able to avoid this “extreme” measure.)

Cellar temperature. 57°F (14°C) is considered “slightly chilled” or “cellar temperature.” This temperature is appropriate for full bodied white wines and light bodied red wines. So if a bottle has been chilling in the refrigerator you may need to let the bottle stand at room temperature for about 30 minutes to achieve desired temperature.

Chilled. 52°F (11°C) is considered “chilled.” This temperature is appropriate for light to medium bodied white wines. However, please note that this is not the temperature of a refrigerator. In fact, most refrigerators are set at 40°F (4°C). So if a bottle has been chilling in the refrigerator you may need to let the bottle stand at room temperature for 10-15 minutes to achieve the desired temperature.

Opening The Wine Bottle

There are many different devices on the market for removing corks from bottles. The traditional corkscrew is still quite popular, but there are many variations. For example, you may have seen openers with thin prongs that slide down the sides of the cork, suction devices that extract the cork by the force of the suction, and air pumps or gas injectors that use pressure to expel the cork from the bottle. All of these devices are appropriate. Use the device that you feel most comfortable with.

When you're serving wine at home, you can always open the bottle in the kitchen before pouring the wine for your guests. However, this option is not available to you when you are conducting tastings for retailers. In fact, in a tasting situation, style may be extremely important. And you need to be able to open the wine bottle with flourish and confidence.

Tradition has dictated that if you're serving red wine it's generally a good idea to open the bottle at least an hour or so before the meal to let the wine "breathe." As the wine "breathes," air comes in contact with the surface of the wine. The resulting oxidation process causes the flavors of the wine to "open up" and the tannin structure of the wine to "soften."

More often than not, red wines do benefit from this "breathing." However, simply pulling the cork from the bottle does not really allow much "breathing" to take place. Only a small amount of wine at the top of the bottle actually comes into contact with any air. So, in a tasting situation, most of the "breathing" takes place as the wine is swirled in the glass.

The steps for uncorking a bottle of wine with the traditional corkscrew – sometimes called the "wine key" or the "waiter's friend" – are summarized in the table on the next page.

Opening A Wine Bottle With The Waiter's Corkscrew

Action	Notes
1. Resting the blade on the "foil" (typically aluminum or plastic) just below the rim of the bottle, rotate the bottle to cut the foil. Remove the foil and throw it away.	If there's not a convenient place to throw the foil, just place it in your pocket.
2. Insert the point of the corkscrew "worm" in the center of the cork.	As you screw in the "worm," it will continue to center itself in the cork.
3. Screw in the "worm." Stop when one loop remains above the cork.	Avoid pushing the tip of the "worm" through the cork. That can cause cork debris to fall into the wine.
4. Place the notch on the tip of the lever onto the lip of the bottle. Make sure that the entire tip of the lever is touching the bottle.	If the tip of the lever is not properly seated, the bottle may get chipped.
5. Hold the tip of the lever against the lip of the bottle. Use the same hand to stabilize the bottle.	Prevent the tip of the lever from sliding off the lip.
6. Lift the lever to slowly ease the cork about two-thirds of the way out of the bottle. Then grab the cork with your thumb and forefinger, and remove it from the bottle.	The corkscrew acts as a lever to help pull out the cork. By only pulling the cork two-thirds of the way out, you help to prevent the cork from breaking.
7. Use a napkin to wipe off the top of the bottle.	Remove any cork residue.

Identifying A Bottle That Is "Corked"

Occasionally, you may open a bottle of wine and discover that the wine is "corked." This happens because of a flaw in the cork closure. Corks sometimes contain minute amounts of a particular chemical. And if this chemical dissolves into the wine it may spoil the flavor of that bottle.

How do you know if a bottle is "corked?"

Andrea Immer, in Great Wine Made Simple, describes it as "a wine with a musty smell of wet newspaper or wet cardboard that overpowers the fruit character."

Once a bottle has become "corked" there's nothing to do except open another bottle. This means that, in a sales situation, you should always carry a second, ready to taste bottle for every wine you are tasting. That way you always have a back-up in case the first bottle is "corked" or otherwise damaged.

Decanting

Decanting is the act of pouring wine from a wine bottle into a serving container. There are several reasons why someone might choose to decant a wine:

- To transfer the wine from a large bottle into a smaller, more convenient serving container.
- To expose the wine to air and allow it to "breathe." Decanting is often used with very young red wines to help the flavors open and mellow.
- To serve the wine without any unsightly sediment that may be in the original bottle. This is particularly useful with older wines that may have deposited noticeable sediment in the bottle as they have aged.
- To display the wine in a more elegant manner or in a fancier container.
- To avoid displaying the label of the wine bottle.

Most of the fine wines that you'll generally encounter do not need to be decanted.

Estimating How Much Wine You'll Need

If you're planning a dinner party that will include a full meal served in several courses, you should estimate that you'll need about six to eight ounces of wine per person.

Food and wine connoisseurs devote considerable attention to selecting the wines that will be the perfect complements to the foods they serve. In fact, "wine pairing" is becoming a subject of increasing interest amongst many wine aficionados. We'll provide an introduction to this subject at the end of this chapter.

Even so, keep in mind that there are no strict rules for serving specific wines with different meals. Traditionalists recommend red wines with red meat and hearty dishes, and white wine with chicken, fish, and lighter meals. But the main consideration in selecting a wine for a meal is to choose a wine that you enjoy.

When it comes to using wine in sales situations you should estimate that you'll pour one or two ounces for each customer who participates in a presentation and tasting. This means that one bottle will typically be enough for all of your sales presentations in a single day – unless, of course, you are tasting a larger buying group or the entire floor staff of an account.

As you plan the amount of wine you will need for your presentations, keep in mind these two additional guidelines:

- Do not try to make a bottle last for more than one day of presentations. As you read above, the wine will "breathe" as it is exposed to oxygen. And as the bottle becomes increasingly empty, the remaining wine will be exposed to more and more oxygen. So the taste of the wine on the second day will be noticeably different than it was on the first day. Although the taste may not be "bad," it will be different enough to not be appropriate for presenting to accounts.
- As you read a moment ago, you should always carry a second, back-up bottle for each bottle that you are planning to taste. That way, you are prepared if a bottle turns out to be "corked" or otherwise damaged.

Serving Wine

When you are in a social situation and you pour the wine for your guests, it's generally considered polite to serve women first, then men. Normally, the host fills his or her own glass last. (However, the savvy host will have already poured a small amount of wine into his or her glass to taste the wine and pour off any cork particles.)

In a sales situation, when you open a bottle of wine in front of a client you should always pour yourself the first taste. That way you can ensure that the bottle is not "corked" or otherwise damaged.

When you pour the wine, be careful not to overfill the glass. Leave enough room in each glass so your guests will be able to swirl the glass and smell the wine.

- If you're pouring for people who are real wine aficionados, fill each guest's glass about one-third full.
- For a normal social occasion you can generally fill each glass about one-half to two-thirds full.
- In a selling situation you should pour a smaller amount – generally just one or two ounces for each taster. If the customer wants more, you can always pour additional wine later. But with most customers, more than two ounces will just be a waste of wine.

In any case, you should never fill a wine glass more than two-thirds full. And, as you finish pouring each glass, turn the bottle slightly to avoid spilling any lingering drops.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What are four guidelines you should follow in selecting an appropriate wine glass?
2. In general, what is the ideal temperature for serving medium to full-bodied red wines? What is the ideal temperature for serving light-bodied red wines? What should you do in advance to assure that a bottle of red wine is served at the proper temperature?
3. In general, what is the ideal temperature for serving medium to full-bodied white wines? What is the ideal temperature for serving light-bodied white wines? What should you do in advance to assure that a bottle of white wine is served at the proper temperature?
4. Describe the procedure you should follow to open a wine bottle with a traditional corkscrew.
5. What does it mean to say that a bottle of wine is "corked?" How can you tell?
6. If you're planning a dinner party, how much wine should you estimate that you'll need for each guest?
7. What guidelines should you follow when you actually pour wine for your guests?

The Process Of Evaluating Fine Wine

You probably remember that when you were young you learned about the five senses:

- Sight
- Smell
- Taste
- Touch
- Hearing

Of these, the first four are involved in the sensory evaluation of wine. (And hearing is involved, too, if we consider talking about the wine to be part of the experience!) So it's fair to say that evaluating fine wine is the process of "describing what you see, smell, taste, and feel."

To fully utilize these senses in a way that produces consistent wine tasting results, we organize them into a five-step Process of Tasting.

On the next page we've included a copy of our Fine Wine Tasting Form. This form summarizes the five steps that are involved in tasting and evaluating fine wine. Before you continue, please make a photocopy of this page to use while you work through this chapter.

Now we'll provide an overview of the five steps in the Process of Tasting, and then we'll examine each of the steps in more detail.

Fine Wine Tasting Form

GALLO of SONOMA



© A.C. Noble. To purchase a plastic laminated Aroma Wheel, go to: <http://wineserver.ucdavis.edu/acnoble/home.html>

Wine:

Vintage:

Wine:

Vintage:

Wine:

Vintage:

Wine:

Vintage:

Wine:

Vintage:

Five Step Process Of Tasting

Sight	Smell	Taste	Touch	Overall Impression
<p>Color and clarity.</p> <p>Color:</p> <ul style="list-style-type: none"> - The wine's "hue" <p>Clarity:</p> <ul style="list-style-type: none"> - Brilliant, Clear, or Cloudy 	<p>Traditionally called "aroma" and "bouquet."</p> <p>Aroma:</p> <ul style="list-style-type: none"> - The grape <p>Bouquet:</p> <ul style="list-style-type: none"> - The winemaking process <p>Refer to the Aroma Wheel for terms.</p>	<p>Both the mouth and rear nasal passage.</p> <p>Sweetness:</p> <ul style="list-style-type: none"> - Bone dry, Dry, Off Dry, Sweet <p>Acidity:</p> <ul style="list-style-type: none"> - Sharp, Tart, Acidic, Flat, Smooth, Soft <p>Bitterness:</p> <ul style="list-style-type: none"> - Astringent, Bitter <p>Refer to the Aroma Wheel for terms.</p>	<p>Body, tannin, and finish.</p> <p>Body:</p> <ul style="list-style-type: none"> - Light-, Medium-, or Full-bodied <p>Tannin:</p> <ul style="list-style-type: none"> - Silky, Tacky, or Puckery <p>Finish (Aftertaste):</p> <ul style="list-style-type: none"> - Short, Medium, or Long - Clean or Unpleasant 	<p>Combine all the steps. Consider "balance."</p>

Here's an overview of the five steps involved in the process of tasting.

What do you see? The first step is to evaluate the "sight" of a wine. Specifically, we look at the qualities of color, intensity, and clarity.

- In the broadest sense, *color* refers to whether the wine is red or white. But it also relates to the specific hue of the wine. For example, a white wine might be described as "almost clear" or "pale straw" or "golden yellow."
- *Clarity* is the term that relates to the absence or presence of sediment in the wine. In this regard, a wine may be described as being either *brilliant*, *clear*, or *cloudy*.

What do you smell? As you'll discover, a significant portion of the wine "tasting" experience actually relates to the smell or "*nose*" of the wine. Traditionally, wine aficionados have made a distinction between two aspects of the smell: *aroma* and *bouquet*.

- The term *aroma* technically refers to the specific scents of the wine that come from the varietal grape itself.
- The term *bouquet* technically refers to those scents that derive from the process in which the wine was made.

For our purposes we'll focus on the overall *nose* of the wine without worrying too much about whether the smell is coming primarily from the varietal grapes or from the winemaking process. And we'll use the term *aroma* to describe all of the sensations that we perceive through the nose. We're taking this "poetic license" because of a tool you'll learn about later called the Aroma Wheel.

What do you taste? The third step involves actually tasting the wine. But it turns out that what we experience at this step of the process is actually a combination of smell and taste. The tongue itself can only perceive four tastes: sweet, bitter, tart, and salty. (And salty is a taste that we rarely experience when we're tasting wine!) All of the "flavors" that we perceive when we "taste" wine are really smells that come to us through our rear nasal passage.

How does the wine feel? The fourth step is to evaluate the feel of the wine. Normally we associate touch or feeling sensations with our fingertips. But this aspect of touch deals with how the wine feels in our mouths.

- The *body* or *mouthfeel* of the wine relates to the overall impression of weight or size in the mouth. At first, it may seem strange to talk about one wine feeling “fuller” or “heavier” than another. But you’ll quickly find that this is the case!
- *Tannin* is generally perceived as a texture, a puckery feeling, or a dryness on the tongue and inside the mouth.
- The *finish* or *aftertaste* is the final impression that the wine makes after you’ve swallowed it.

What is your overall impression of the wine? The fifth and final step in our Process of Tasting combines steps one through four to produce your overall impression of the wine. After evaluating the sight, smell, taste, and feel of a wine, consider how you liked it overall? Did all of the aspects of the experience combine in a favorable and balanced way? Did your senses wake up and say “Wow?”

A Few Tips Before We Begin

To help you get the most out of this chapter – and out of your wine tasting experience – we do have two important suggestions.

Take your time. Wine tasting is a sensory experience. And, like any sensory experience, it’s more enjoyable when you slow down. You wouldn’t rush through a massage or a fine meal. So give yourself time to savor every aspect of the experience.

Notice what you’re experiencing. Although we are used to tasting, most of us are not accustomed to describing – or remembering – what we taste. If you pay attention to every aspect of the tasting experience you’ll be in a better position to describe it and remember it.

Check Your Understanding

1. Of our five senses, which four are involved in evaluating fine wine?
2. What are the five steps in the Process of Tasting?
3. What are two tips that can help you get the most out of this chapter and out of the wine tasting experience?

Now let's take a closer look at each of the five steps in the Process of Tasting.

What Do You See?

As you read just a few moments ago, a wine glass meets several criteria:

- It has a stem.
- It is made of clear glass without any facets.
- It has a bowl that is narrower at the top than it is at the bottom.
- It is large enough so you can swirl the wine without spilling it.

Once you've poured a few ounces of the wine into an appropriate glass you're ready to evaluate its appearance. Make sure there's enough light for you to see clearly. Then, here are three tips that can help you.

Look at the wine against a white background. That way, you can be sure that the color of the background does not alter the color of the wine. A white table cloth or piece of white paper will do fine.

Look down into the glass. If you're tasting and comparing several wines together, stand up and look down into the wineglasses. Hold your finger (or some other object) below the bowl to find out whether you can see through the wine. As you do, keep in mind that darker colored wines are generally fuller in body.

Pick up the glass by the stem. Tilt the glass and look through the thinnest edge of the wine. You may be able to isolate some of the colors that contribute to the overall visual impression of the wine.

Then answer these questions.

What Is The Color Of The Wine?

On the most basic level, consider whether you're examining a white wine or a red wine. Then try to put a name to the color you see.

For example, a white wine might range in color from nearly clear to pale yellow to straw or gold. A red wine may range in color from blushing pink to ruby red to deep garnet or inky purple.

What Is The Clarity Of The Wine?

Clarity is the term that relates to the absence or presence of sediment in the wine. In this regard, a wine may be described as being either *brilliant*, *clear*, or *cloudy*.

You probably remember that many wines are fined or filtered in order to remove any visible sediment. And you would understandably expect these wines to appear clear or brilliant.

On the other hand, wines that have been *sur lie* aged without fining or filtering (like our Gallo Estate Chardonnay) may have a slightly cloudy appearance due to the presence of the *lees* in the finished wine.

What Can You Learn From Looking At The Wine?

Actually, quite a lot! Here are some factors you should consider:

Body. In general, deeper colors indicate wines that are fuller bodied. If you're comparing two or more different wines made from the same varietal grape (such as, for example, three bottles of Cabernet Sauvignon made by different producers, or made in different years, or from different geographic areas), a deeper color may be due to grapes that were grown in a moderate climate where they were able to slowly mature to full ripeness. The more intense color comes from properly matured color pigments in the grape skins, and indicates that the wine will also be more intense in overall body.

Tannin. For red wines, a deeper color may also suggest that there was longer contact with the skins during the fermentation process. Since the "good tannins" in a wine come from contact with the skins, you would expect more tannins in the wine. The tannins in the wine have a direct impact on mouthfeel. We'll discuss that later in this chapter when we consider step four of the Process of Tasting.

Freshness. The appearance of brown tones may indicate that the wine has lost some of its freshness. If you're wondering why, consider this experiment. Take an apple and cut it into pieces. Then leave the pieces out on a plate for a few minutes. What happens? The pieces of the apple turn brown. Why? The apple has combined with oxygen in the air. This process is called *oxidation* and it means that the apple is starting to age and spoil.

Wines behave in a similar way. They change color as they age. White wines get darker and eventually turn brown. Red wines get lighter in color and turn brown. If the wine looks brown, oxidation may have occurred because of poor storage conditions or a faulty cork.

Sur Lie Aging. In the previous two chapters you read about a variety of fining and filtering techniques that are available to remove sediment from wine prior to bottling. Modern winemaking technology has advanced to the point where you will rarely encounter a bottle that has undesirable sediment. Almost every glass of wine you drink will be "brilliant" or at least "clear" in appearance.

So if you do detect some cloudiness in the glass it may be as a result of a conscious decision by the winemaker.

For example, in Chapter 5 you read about the process of *sur lie aging*. If a winemaker wants to achieve a richer texture accompanied by a yeasty smell or flavor, the winemaker may choose to age the wine in contact with the dead yeast cells that result from the fermentation process. Sur lie aging can contribute a "yeasty" bouquet or flavor to the wine as well as a "creamy" mouthfeel. And, of course, the process of sur lie aging would also result in some sediment that would be suspended in the wine.

Many winemakers choose to remove this sediment through a process of filtering and fining. At Gallo of Sonoma, we sometimes do this, too. But we have traditionally bottled our Estate Chardonnay and selected Single Vineyard wines unfiltered and unfined in order to allow all of the wine's barrel characteristics to remain in the bottle. These wines are targeted at a very small population of well-educated wine consumers. So the potential for slight cloudiness is acceptable.

Check Your Understanding

1. What are three tips you should follow when you want to evaluate the appearance of a wine?
2. In general, what does the color of a wine suggest about its body?
3. For a red wine, what does a deeper color suggest about the amount of tannin that may be present in the wine? Why?
4. What would the presence of brown colors suggest about a wine?
5. Why is it unusual to detect any cloudiness in a glass of wine?
6. If you do detect some cloudiness in a glass of white wine, what might it suggest about the winemaking process? What characteristics would you look for in the wine?

Your Wine Evaluation Experience

If you're ready to begin your personal tasting experience, open the bottle of wine you've selected. Pour a few ounces into a suitable wine glass. Then, following the tips and techniques you've learned, take a close look at the wine:

- How would you describe the color you see? There's not necessarily a right or wrong answer, but try to put your experience into words.
- How you describe the clarity of the wine? Is it brilliant, clear, or cloudy?

Write your responses on the photocopy of the Fine Wine Tasting Form that you made a few minutes ago.

You maybe tempted to drink some of the wine now. But we're going to suggest that you wait until later in this section. If you've just taken the wine out of the refrigerator it's probably much cooler than the 57°F that is considered ideal for a full-bodied white wine such as Gallo of Sonoma Chardonnay. So put down your glass and continue with this chapter. Your patience will be rewarded!

What Do You Smell?

Of the five steps in the Process of Tasting, smelling the wine is probably the one that seems strangest to new wine drinkers. After all, wine tasters seem to make such a big deal out of smelling the wine. And we rarely make a show of smelling our food!

But it turns out that your sense of smell is absolutely critical to your experience of tasting a wine. The human taste buds can only detect four sensations: sweet, tart, bitter, and salt. But our sense of smell is much more sensitive and we can, in fact, distinguish between thousands of different odors. Much of the sensory experience that we call wine “tasting” is actually the result of what we smell through our rear nasal passages as we approach, sip, and swallow the wine.

As you read a moment ago, the smell of wine is called the "nose." And the "nose" actually consists of two distinct components: "aroma" and "bouquet."

Aroma. The aroma comes from the characteristics of the grape, and is most noticeable in young wines. All of the factors included in the Gallo Quality Circle Of Grape Growing that we described in Chapter 4 may have an impact on the aroma of the wine.

Bouquet. The bouquet is the complex fragrance developed by the winemaker's influence and the aging of the wine. The bouquet may be influenced by the winemaker's specific decisions related to pressing the grapes, alcohol fermentation, malolactic fermentation, aging, blending, and all the other factors we described in detail in Chapters 5 and 6. Bouquet also develops from natural chemical changes which take place as the wine ages. However, the wine does not have to be old or of a particular vintage to have a bouquet. Usually, some bouquet will begin developing right after the wine is first made, even before it is bottled.

Together, these two components provide the overall smell sensations that are available. When you're first starting out, though, it's probably a good idea just to focus on the variety of smells you're experiencing without worrying too much about whether they're due to the grapes themselves or the winemaking process.

As we mentioned earlier, we're going to use the term *aroma* to describe all of the sensations that we perceive through the nose – regardless of whether the smell is coming primarily from the varietal grapes or from the winemaking process.

The main difficulty with smelling wine is that your sense of smell can be reduced over time. If you take three whiffs of a wine close together, the first is likely to be fairly accurate, the second may be slightly distorted, and the third will possibly be of little value.

The key, therefore, is in paying close attention to the first smell and in considering it for a few seconds while your sense of smell "rests." "Resting" your senses will be especially important when you get to the tasting stage. But even though your sense of smell is less prone to fatigue than your sense of taste, it's still worthwhile to pause for a few seconds between sniffs of wine.

Smelling the wine actually involves three key steps:

- Swirl the glass.
- Sniff the wine.
- Concentrate on the smells you're experiencing.

We're going to take you through the process of each of these steps. For now, just concentrate on what you're reading and don't worry about actually following the steps. We'll give you an opportunity to do that in a few moments at the end of this section.

Swirl the glass. With your wine glass on the table, slide the stem of the glass between your first and second fingers. Pressing down on the base of the glass with your two fingers, you should begin by swirling the wine in your glass in a circle parallel to the floor so that you coat the inside surface of the glass with wine. In wine tasting jargon this is called "volatilizing the esters."

(Don't be put off by this scientific-sounding expression. "Esters" are organic compounds that contribute to the perceived smell of the wine. "Volatizing" means to vaporize a liquid. When you swirl the wine you increase the surface area from which the esters of the wine can evaporate. As the esters vaporize, it becomes easier for you to smell them. So when you "volatize the esters" all you're doing is making it easier for your sense of smell to perceive the various flavors of the wine.)

Sniff the wine. Now put your nose as far into the glass as possible and take several short, quick breaths.

As you attend more wine tastings you'll notice that some very experienced tasters follow a somewhat more elaborate process. They prefer to take a long deep sniff with the nose four or five inches from the glass. They consider the scent, then let the sense of smell rest for a little while before swirling the glass again, placing the nose well down into the glass and sniffing deeply. However, most tasters proceed more directly and simply begin by sniffing with their noses well inside the glass.

In either case, breathe in at a moderate pace and fill the lungs. Then exhale slowly.

Concentrate on the smells you're experiencing. What really improves with practice is not really your sense of smell, but your ability to concentrate on what you are smelling and remember the words to describe the sensation you're experiencing. Closing your eyes may help your concentration.

In smelling a wine, you want to evaluate the positive sensory smells that constitute a good bottle of wine. In addition, you want to detect any negative characteristics that may detract from the enjoyment of the wine.

As you begin to smell the wine you will find characteristic aromas of certain grape varieties. You may also detect smells that suggest fruits other than grapes. You may sense flowers, spices, herbs, oak, smoke, or vanilla. And perhaps you'll even pick up some subliminal suggestions of aromas that have nothing directly to do with wine, like a pine forest or a sea breeze.

So, as you smell the wine, ask yourself these questions:

- Do you notice any characteristics that you find enjoyable?
- Does the wine have a huge smell, or is the smell faint and delicate?
- What kind of grapes do you smell? With practice you may be able to identify the principal varieties.
- What other kinds of fruit do you smell? If it's a white wine, does it smell like citrus or tropical fruit? If it's a red wine, does it smell like berries? Or perhaps like a dried fruit such as a prune or fig?
- Besides the smell of fruit, do you detect any other aromas? Vanilla? Oak? Smoke? Grass or herbs?

Each time, pause for a second to register your thoughts. Are there any smells that you recognize? How would you describe or label them?

In all cases, however, the main question is whether the smell in sum is pleasing and complementary to the occasion. And remember – the answers to all of these questions are subjective. You – and your nose – get to decide what "nose" you like.

The Aroma Wheel

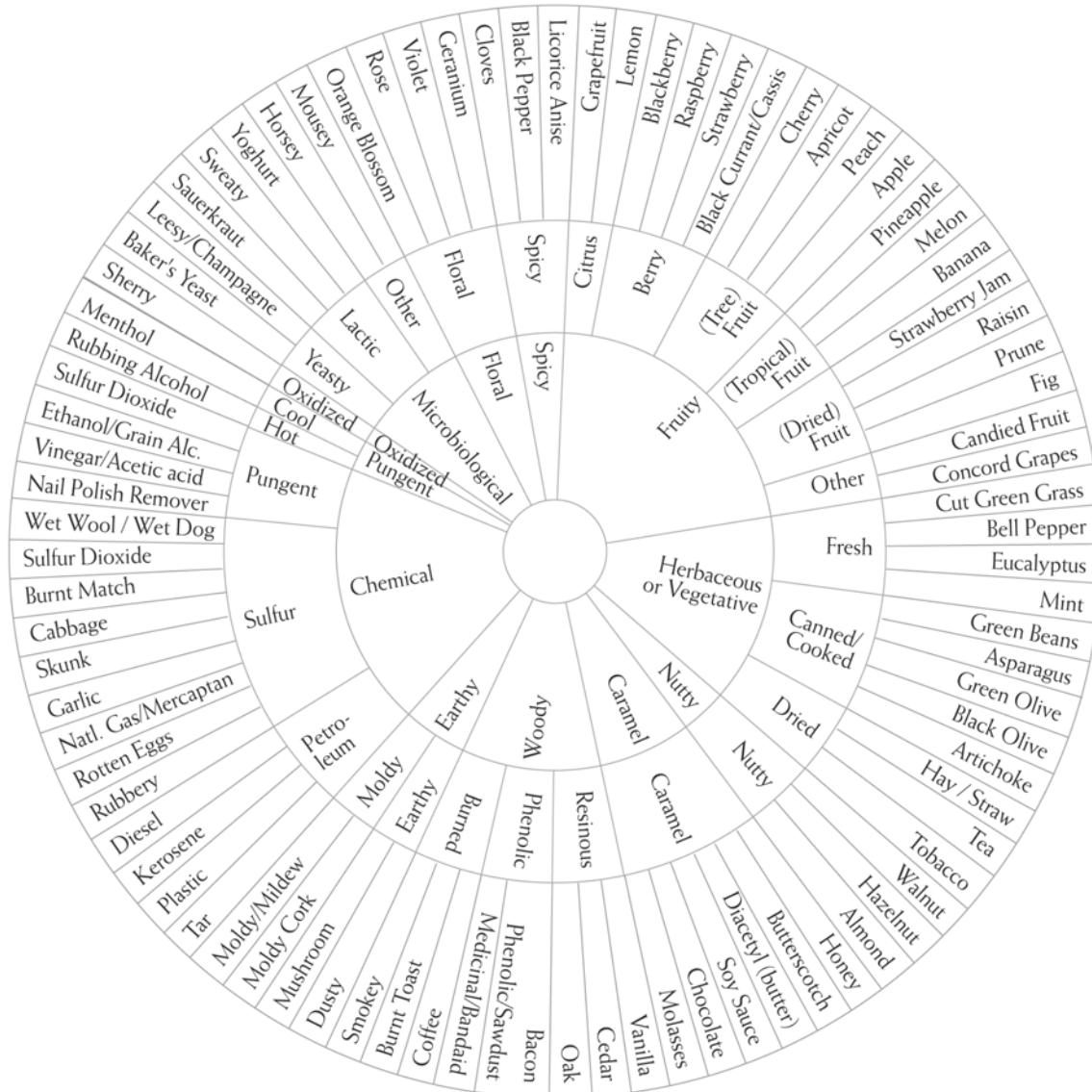
The sense of smell is very subjective. People often do not interpret smells in the same way. To assist us in organizing our vocabulary of the various smells and tastes we experience in wine, one prominent wine sensory specialist, Dr. Ann Noble of the University of California at Davis, has created “The Wine Aroma Wheel.” It comprises nearly 100 terms that are most often associated with the aromas and flavors of wine.

Trying to identify 100 different aromas can be a daunting task. But the Wine Aroma Wheel organizes these aromas into major groups. Starting at the top of the wheel and continuing clockwise, these groups include:

- Fruity
- Herbaceous or Vegetative
- Nutty
- Caramel
- Woody
- Earthy
- Chemical
- Pungent
- Oxidized
- Microbiological
- Floral
- Spicy

And some of the larger groups are further divided into a number of categories. For example, in the Fruity category you’ll find categories such as Citrus, Berry, Tree Fruit, Tropical Fruit, and Dried Fruit. So you can refer to The Aroma Wheel on an ongoing basis to help you make progressively finer distinctions about the wines you’re tasting. At first, you may be able to identify an aroma as “Fruity.” Then, with practice, you may be able to specify the fruity smell as “Citrus.” And as you develop additional proficiency you may be able to isolate “Lemon” or “Grapefruit.”

Take a moment now to review the Aroma Wheel on the next page.



© A.C. Noble. To purchase a plastic laminated Aroma Wheel, go to:
<http://wineserver.ucdavis.edu/acnoble/home.html>

Let's quickly consider some of the major categories:

Fruity. Grapes are a fruit and you could say that, by definition, wine will always be somewhat "fruity." As you gain experience in tasting, you'll also be able to identify the subtle flavors of other fruits.

White wines are often characterized by the flavors of *tree fruits* such as apples and pears, *citrus fruits* such as lemons, limes, or grapefruits, or *tropical fruits* such as melons and pineapples.

Red wines are often characterized by the flavors of *berries* such as cranberries, cherries, or blackberries, and *dried fruits* such as raisins, prunes, and figs.

Herbaceous or vegetative. These are terms that are used to describe wines where the smell or taste seems to reflect freshly cut grass or vegetables. Wines made from the Sauvignon Blanc grape are often characterized in this way.

Woody. In Chapters 5 and 6 you read about how we may ferment and/or age our wines in oak barrels. Fermenting or aging in oak barrels imparts a characteristic flavor that you'll find relatively easy to identify. Depending on the specific coopering techniques that are used, you may also detect a degree of toastiness. And, as you'll remember, oak often contains *vanillin* which may impart a sweet smell or taste of vanilla to the wine.

Spicy. White wines made from the Gewürztraminer grape and red wines made from Zinfandel or Syrah grapes (called Shiraz in Australia) are often characterized by a distinctive spiciness. You may be able to detect the smells and tastes of black pepper, anise, cloves, or cinnamon.

If you want to develop your ability to experience and describe the smells of a wine you should get into the habit of paying attention to what you can smell on a daily basis. When you cook, smell every ingredient. When you shop at the supermarket, smell the fresh fruits and vegetables. And when you're out at the mall, stop by a store that sells scented soaps or candles.

In any case, keep in mind that The Aroma Wheel is only a guide. It can help you develop a vocabulary you can use to match descriptive terms with your actual experience. But when it comes to describing the multifaceted nose of a fine wine there's really not one "correct" answer. Even the most experienced wine tasters may provide different descriptions of the same wine. Enjoying the rich smells of a fine wine is more important than labeling them!

To gain more experience with the Aroma Wheel we strongly suggest that you access the Turning Leaf web site at: www.turningleaf.com.

Once you enter the site, go to the heading Appreciating Wine. There, you'll find three outstanding learning opportunities:

1

What is the Aroma Wheel?

This section uses an interactive learning tool to introduce the Aroma Wheel and provide an overview of the aroma categories.

2

Experience the Aroma Wheel

You can interact with the Aroma Wheel and use it to guide the process of tasting. Pour yourself a glass of wine and walk through the steps to identify different aromas.

3

Traditionally found Aromas & Tastes

You can see a visual representation of the aromas and flavors that are typically associated with a number of common varietals. We've also provided a copy of these profiles at the end of this chapter.

Check Your Understanding

1. Why is smelling the wine such an important part of our overall “taste” experience?
2. Why do experienced wine tasters swirl the wine in their glass before they smell it?
3. What are some of the major categories that are included in The Aroma Wheel?
4. What does the term “fruity” mean in relation to the taste of a wine?
5. What does the term “herbaceous” or “vegetative” mean in relation to the taste of a wine?
6. What does the term “woody” mean in relation to the taste of a wine?
7. What does the term “spicy” mean in relation to the taste of a wine?

Your Wine Evaluation Experience

Now let’s continue with your personal tasting experience. Swirl the wine in your glass so that it mixes with the air. Then bring the glass quickly to your nose. Be bold – stick your nose right inside the glass and smell. Then consider:

- What kinds of fragrances are you able to detect?
- If you were to free-associate, what comes to mind? Do you think of fruits? Woods? A spice rack? Fresh vegetables?
- What words best communicate the variety of smells that you’re experiencing?

After a few seconds your nose will become less sensitive. Move away from the wine and then come back to try it again.

Write your responses on the photocopy of the Fine Wine Tasting Form that you made a few minutes ago.

You may also find that it helps you to share the tasting experience with some friends so you can hear their comments, too. But remember that there are no “right” or “wrong” answers.

What Do You Taste?

The next step in the Process of Tasting is to actually taste the wine. Of course, you've been tasting food and beverages for many years. But to savor all the taste sensations that are available in a glass of fine wine requires a little more deliberate effort and concentration. As we describe the process of tasting, don't worry about actually following the steps. We'll give you an opportunity to do that in a few moments at the end of this section. For now, just concentrate on what you're reading.

To actually taste the wine you would follow these steps:

- Take a medium-sized sip and roll the wine on your tongue. Notice any perceptions of sweetness, tartness, or bitterness.
- Next, tilt your head forward slightly, and pucker your lips just enough to allow you to inhale through your mouth without dribbling any wine. Begin breathing in, drawing air over the wine that's sitting in your mouth. You are now volatilizing the esters in your mouth, so that your sense of smell can assist you in tasting the wine. Notice any additional flavors you perceive.
- Swish the wine around in your mouth and swallow it. (Or, if you're going to taste a lot of wines, you may want to spit it out.) Just don't let the wine remain in your mouth too long – otherwise you'll greatly increase your perception of the acids and tannins. Then consider how what you just tasted compares to what you smelled in the last step of the Process of Tasting.

This may seem like a somewhat elaborate ritual. But there's actually a reason for each of these steps. What we perceive as "taste" is based on sensations that are transmitted by tiny receptors called taste buds that are located on the surface and the sides of the tongue and the roof and back of the mouth. Remember, the taste buds themselves can only perceive four tastes: sweet, tart (sour), bitter, and salty.

- Sweetness in wine is based on the amount of residual sugar that has not been fermented into alcohol.
- The sensation of tartness (sourness) is based on the amount of acidity in the wine. Tartness is a tingly sensation that makes the mouth water.
- Bitterness may be a subtle element in some red wines, principally because of the presence of tannin.
- Saltiness is a sensation that you will probably never encounter in tasting wine.

We're going to consider the perception of tannin when we talk about how the wine feels. So, of the four basic tastes, sweetness and tartness are most important for our evaluation of how a wine tastes. Let's take a closer look at them and also consider some of the additional flavor perceptions that are available when we taste a fine wine.

Sweetness

As you may remember from the [Gallo Sales Manual](#), wines are typically classified as *dry*, *off-dry*, or *sweet* based on the amount of residual sugar that is present in the wine.

- A *dry* wine has no perceptible taste of sugar. Wines fermented to dryness have 0.2% residual sugar or less. In other words, all – or nearly all – of the sugar that was present when the grapes were harvested has been fermented into alcohol. Most wine tasters begin to perceive the presence of sugar at levels of 0.5% to 0.7%. For our purposes, we use the term "dry" for any wine with residual sugar of up to 0.5%. However, the term "dry" is often used more loosely on wine labels.
- *Off-dry* means that the wine is slightly sweet. White Zinfandel is a good example of an off-dry or slightly sweet wine.
- Some *sweet* wines are highly prized. Port and Sauternes are examples of sweet wines.

In general, you don't have to worry about evaluating the sweetness of wine. Nearly all of the fine table wines that you will taste are dry.

On the other hand, it will be important for you to learn to distinguish between sweetness and fruitiness. A wine is considered to be *fruity* because it has smells and flavors that are characteristic of fruits. (After all, keep in mind that grapes are fruits!) However, the fact that a wine is *fruity* does not necessarily mean that the wine is *sweet*. If you're not sure of the difference, try holding your nose. Your tongue is able to perceive sweetness even without the presence of any smells. The perception of fruitiness depends on the sense of smell.

Tartness (Acidity)

Most people don't think of wine as being "sour." Yet all wines contain acid. And acidity is a key component in what we actually experience as the taste of a wine – especially a white wine. In fact, when the term *structure* is applied to a wine it refers specifically to the balance between the alcohol, sweetness, acid, and tannin in the wine.

The acidity of a wine may be perceived as a certain crispness or firmness of taste. Acid imparts a tangy zest, a vibrancy, a mouthwatering quality to the wine.

Acidity in wine depends on the varietal grape, the climate where it was grown, and the winemaking process.

The type of varietal. Some grapes have a higher acid level than others. For example, white wine grapes tend to have higher acidity than red wine grapes. And among white wines, Riesling and Sauvignon Blanc are generally higher in acid than Chardonnay.

The climate. As grapes ripen, the amount of sugar increases and the amount of acid decreases. So, in general, a grape that is grown in a cooler region will be higher in acidity than the same varietal grown in a warmer region.

The winemaking process. In Chapters 5 and 6 you read about malolactic fermentation, a process that converts the sharp tasting malic acid into softer tasting lactic acid. A winemaker could choose to utilize malolactic fermentation in order to soften the acid structure of a wine.

Additional Flavor Sensations

What we consider to be the taste or “palate” of a fine wine is actually a combination of what our taste buds experience and the smells that we what we perceive through the rear nasal passages at the back of the mouth. As you can tell from The Aroma Wheel, we are capable of perceiving many different families of flavors.

Just remember that the entire process of experiencing a fine wine is a personal experience rather than an exact science. And even though we're describing a five step Process of Tasting, it can be difficult to draw a firm line between the sensations that you perceive at each step. Certainly the "flavors" that you perceive when you smell the wine through your nose will overlap somewhat with the "tastes" you perceive when you experience the wine through your tongue, gums, and cheeks. And, in turn, these "tastes" will overlap somewhat with the "textures" you'll perceive during the next stage of the Process of Tasting.

Check Your Understanding

1. What determines the sweetness of a wine? Why, in general, are nearly all the fine wines that you'll taste considered to be "dry?"
2. How can you tell the difference between sweetness and fruitiness?
3. What does the term "structure" mean when it is applied to a wine?
4. What are some words that are commonly used to describe the perception of acidity in a wine?
5. What are three factors that determine the amount of acidity in a wine?

Your Wine Evaluation Experience

By now your wine should be at the proper temperature for you to taste it. Take a small sip of the wine, and roll it on your tongue. Tilt your head forward slightly, purse your lips, and begin breathing in over the wine. Then swish the wine around in your mouth. But don't let the wine remain in your mouth too long. Go ahead and swallow it.

- How does what you just tasted compare to what you smelled in the last step?
- How would you describe the sweetness of the wine?
- How would you describe the acidity of the wine?
- What other flavor characteristics are you able to detect?

Write your responses on the photocopy of the Fine Wine Tasting Form.

How Does The Wine Feel?

After assessing the smells and flavors of the wine, the next step in the Process of Tasting is to evaluate the "feel" or "touch" of the wine. Wine drinkers often refer to these sensations as the "mouthfeel" of the wine.

Take another small sip. This time, focus on how the wine feels as it enters your mouth, flows across your tongue, and finishes at the back of your mouth. Note also the length of time that these sensations remain in each area of your mouth.

We'll consider three aspects of the feel of the wine: body, tannin, and finish or aftertaste.

Body

The *body* of the wine has nothing to do with how the wine tastes. It relates to how the wine feels in your mouth and to the sensations of richness, thickness, and heaviness that the wine creates. The fact is that some wines just seem fuller, or heavier, or "bigger" when they're in your mouth.

Wine tasters generally refer to wine as being light-bodied, medium-bodied, or full-bodied. And these terms are easy to understand by using the analogy of milk.

Light-bodied. You can think of a light-bodied wine as being analogous to *non-fat milk*. The feeling is runny or watery. And the taste goes away quickly – it doesn't linger in your mouth. Among white wines, Riesling is a good example of a light-bodied wine. Among red wines, Pinot Noir is typically light-bodied.

Medium-bodied. You can think of a medium-bodied wine as being analogous to *whole milk*. The wine feels richer and thicker. It coats your mouth to a greater extent and the flavor lasts longer. Sauvignon Blanc is a good example of a medium-bodied white wine, and Merlot would generally be considered a medium-bodied red wine.

Full-bodied. You can think of a full-bodied wine as being analogous to *half and half*. The wine feels heavier, denser, and thicker. The wine really coats your mouth and the flavor lingers for a long time. Among white wines, Chardonnay is the full-bodied wine you'll probably encounter most often – especially if the wine was *sur lie* aged. Cabernet Sauvignon is the most popular full-bodied red wine.

There are many factors that influence our perception of body in a wine. The chart below summarizes the impact of the major factors.

Characteristic	Impact On Body
Acid	Acid tends to make a wine taste thin or light. Wines that are higher in acidity will be perceived as lighter in body than wines of the same varietal that are lower in acidity.
Sweetness	Sweetness tend to make a wine taste heavy or full. Wines that have a touch of sweetness will be perceived as fuller or heavier in body than drier wines of the same varietal.
Alcohol	Alcohol tends to make a wine taste heavy or full. Wines that are higher in alcohol will be perceived as fuller or heavier in body than lower alcohol wines of the same varietal.
Sur Lie Aging	Sur lie aging tends to impart a creamy fullness to the body of the wine.
Malolactic Fermentation	Malolactic fermentation softens the acid structure of a wine. Since higher acidity tends to make a wine feel lighter in body, wines that have undergone malolactic fermentation will generally be perceived as fuller in body.
Barrel Aging	Aging in oak barrels tends to impart a richness to the texture or feel of the wine. Oak aging can also increase the tannins in the wine, and tannins increase a wine's body.
Extended Skin Contact	Wines that have had longer contact with the grape skins tend to be perceived as fuller in body because they have extracted more skin tannins.
Ripeness Of The Grapes	Ripeness increases the amount of sugar in the grapes, and therefore increases the amount of alcohol in the wine. Since alcohol tends to make wines feel heavy or full, ripeness generally increases the body of the wine.

Tannin

Tannin is another characteristic that is felt rather than tasted. Tannin is generally perceived as a texture, a feeling of dryness on the tongue and inside the mouth:

- **Low tannin.** A wine that is low in tannin generally feels smooth and silky.
- **Medium tannin.** The wine may still be perceived as smooth, but there is also a sensation of dryness after you swallow.
- **High tannin.** The wine may make your mouth pucker and your tongue feel leathery or dried out. Extremely high tannin can also make a wine taste bitter.

As you probably remember, tannin is a naturally occurring substance that is part of the skins, stems, and seeds of grapes. Tannin is also a component of the oak that may be used during the processes of fermenting and aging the wine. The amount of tannin in the resulting wine depends on six factors:

- The characteristics of the grape.
- The pressure that was used to extract the juice.
- The length of time that the juice is in contact with the skins, stems, and seeds.
- Fermentation in oak vessels.
- The length of time that the wine is aged in oak vessels.
- The age of the wine.

The characteristics of the grape. In general, the amount of tannin is proportional to the thickness of the skin of the grape. Cabernet Sauvignon is a thick-skinned grape with a high proportion of tannin. Pinot Noir is a thin-skinned grape with much less tannin.

The pressure used to extract the juice. As more pressure is applied to the grapes a higher percentage of the tannins are extracted. You'll recall that when we produce white wines at Gallo of Sonoma we utilize advanced state-of-the-art processes to minimize the pressure that's used to extract the juice and to minimize the contact between the juice and the skins, stems, and seeds. That way, we're able to preserve the pure varietal character of the grapes without the harsh tannins.

The length of time that the juice is in contact with the skins, stems, and seeds. It's easy to understand this principle if you think about tea. Tannin occurs naturally in tea. And you've probably noticed that as you allow a teabag to steep for a longer period of time the tea becomes darker and the amount of tannin increases. The same principle applies in winemaking. If you leave the juice in contact with the skins, stems, and seeds for a longer period of time you will produce a wine that is higher in tannin.

For example, Zinfandel grapes can be used to make White Zinfandel blush wine or the traditional Zinfandel that is a medium-bodied red wine. With the making of White Zinfandel there is only a relatively short contact with the skins, stems, and seeds. The resulting wine is low in tannin. On the other hand, as you already know, red wines are "red" because the juice is fermented along with the skins, stems, and seeds. With the making of the traditional Zinfandel red wine, this longer period of contact also results in a wine that is higher in tannin. (Please keep in mind that this example is for illustration purposes only. Obviously, White Zinfandel would not be considered a "fine wine.")

Fermentation in oak vessels. Oak contains tannins. And when wine is fermented in oak barrels or casks, the wine will dissolve a percentage of the tannins that are close to the surface of the wood.

The length of time that the wine is aged in oak vessels. As you can imagine, wines that are aged in oak for longer periods of time tend to absorb more oak character (aromas, flavors, and possibly oak tannins). Similarly, wines that are aged in small (60-70 gallons) barrels tend to absorb more oak character than wines aged in large oak casks, since there is a higher ratio between the surface area of the barrel and the volume of the wine. Finally, new barrels tend to have a more aggressive impact on the wine than barrels that have been used one or more times previously.

For these reasons, white wines are generally aged in oak for shorter periods of time and are often aged in older barrels. With red wines, on the other hand, more time in the barrel generally results in greater integration and softening of the overall tannic structure of the wine. So red wines are generally aged for longer periods of time and are often aged in newer barrels.

The age of the wine. Many fine wines are meant to be consumed immediately or shortly after they are released. However, there are many wines – such as a Cabernet Sauvignon – that benefit from some bottle aging. And there are even some classic wines (such as French Bordeaux, or the Barolo and Barbaresco wines from the Piedmont region of Italy) that require many years of aging. Over time, the tannins in these wines soften and may combine with the color pigments in the wine to settle as a sediment in the bottom of the bottle. These wines become smoother and more enjoyable with age.

Finish Or Aftertaste

The *finish* or *aftertaste* is the final impression that the wine makes after you've swallowed it. (Or, if you're tasting a number of wines, after you've spit it out!)

Wine tasters typically describe both the length and characteristics of the finish. For example, how long did the taste linger after you swallowed the wine? The aftertaste is often described as being "short" or "long." Was the aftertaste clean? Pleasant? Or did you experience some taste sensations that limited your enjoyment of the wine?

Check Your Understanding

1. How would you describe the term “body” in relation to wine?
2. What are the characteristics of a light-bodied wine? Name a white wine and a red wine that are generally considered to be light-bodied.
3. What are the characteristics of a medium-bodied wine? Name a white wine and a red wine that are generally considered to be medium-bodied.
4. What are the characteristics of a full-bodied wine? Name a white wine and a red wine that are generally considered to be full-bodied.
5. How is the presence of tannin generally perceived?
6. What are six factors that influence the amount of tannin in a wine?
7. In evaluating the finish or aftertaste of a wine, what factors should you consider?

Your Wine Evaluation Experience

Now you're ready to continue your personal tasting experience. Take another sip of the wine. This time, hold it in your mouth for a few seconds and pay attention to the sensations of body and tannin. After you swallow, note the finish and aftertaste:

- How would you describe the body of the wine? Is it light-bodied, medium-bodied, or full-bodied?
- Were you able to detect the presence of any tannin in the wine?
- Finally, how would you describe the finish and aftertaste? Was it short, medium, or long? Did you detect any additional taste sensations after you swallowed?

Write your responses on the photocopy of the Fine Wine Tasting Form.

What Is Your Overall Impression Of The Wine?

The last step in the Process of Tasting is combine your experiences during steps one through four into an overall impression of the wine. Ask yourself these questions:

Is this wine complex? As you certainly know by now, fine wines are crafted to provide pleasurable sensory experiences. Richness or complexity is a major element in that pleasure. Does the wine seem to be layered with interesting smells and flavors? If so, that's a plus. A wine that seems flat or one-dimensional would never be considered a "fine" wine.

Is this wine balanced? Earlier we said that the term *structure* refers to the balance between alcohol, sweetness, acidity, and tannin. Wines with higher levels of acid and tannin are generally described by knowledgeable wine people as "firmer" in structure. Wines with higher levels of alcohol and sweetness (if present) are generally described as "softer" in structure.

The wine industry has advanced to the point where today, most commercially produced popular priced wines will seem "balanced" to most people. On the other hand, with a true "fine wine" a winemaker may make specific winemaking decisions that will produce a style that appears less "balanced" and may purposefully emphasize one or more distinctive elements of style.

For example, you've probably heard the term "fruit forward" (or, occasionally, "forward fruit"). This term refers to a style of winemaking that emphasizes the natural varietal fruitiness of the grape rather than the artistry of the winemaker. As you'll read in Chapter 10, Australian winemakers have been very successful at promoting wines that are very fruit-forward. This style of wine has proven to be very accessible to many of today's younger wine drinkers. And yet it might not be considered "balanced" by wine drinkers who prefer more traditional styles.

So keep in mind that regardless of how much a wine costs, the fact that it seems "balanced" to the winemaker or to other tasters doesn't necessarily mean that a particular wine is "balanced" for you. If you find that there's too much tannin or not enough acid for *your* taste then that's the reality of the wine for you.

Is this wine a good representative of its varietal or type? As you gain experience in tasting wines you'll discover that certain wines are typically made in certain ways. For example, a Sancerre wine from the Loire Valley in France is typically a very crisp Sauvignon Blanc with a flinty, almost metallic taste and a noticeably grassy or herbaceous style. Sauvignon Blanc from the United States or Australia is more often characterized by the taste of citrus fruits such as limes or grapefruits. With practice you'll be able to recognize wines that have been made to reflect a particular tradition or style.

Is this wine enjoyable? This is probably the ultimate question for the typical wine buyer or drinker. And, ultimately, it is a question of personal preference. But with the extensive wine knowledge you've already acquired and the tasting experience that you (hopefully!) will acquire, you should be able to explain *why* you feel the way you do.

Check Your Understanding

1. Why is complexity considered to be important in a fine wine?
2. What are the four elements that comprise the structure or balance of a wine? Which of these elements tend to make a wine taste firmer? Which of these elements tend to make a wine taste softer?

Your Fine Wine Evaluation

Now you're ready to complete your personal tasting experience. Repeat steps one through four of the Process of Tasting, noting your perceptions and experiences at each step. Then consider your overall impression of the wine you've just tasted:

- Is the wine complex? What were some of the smells and flavors that you were able to detect? Did each taste bring you a different experience?
- Is the wine balanced – for you? If not, why not?
- Is this a wine that you enjoy? Would you have another glass? Would you buy it again? Why or why not?

Write your responses on the photocopy of the Fine Wine Tasting Form.

Pairing Wine With Foods

At this point, you've had a chance to taste, experience, and evaluate a fine wine. Now let's take this process to the next level – enjoying fine wines with food.

Pairing wine with food is an exciting topic that offers almost limitless opportunities for further exploration. And this subject has recently begun to receive a lot of attention on television and in newspapers and magazines. It's not unusual to find articles where specific wines are described as the ideal choice to complement a particular food – or where specific recipes are presented to complement particular wines.

As you'll discover, food and beverage professionals can devote considerable time and effort to the process of creating the perfect wine and food combination. In fact, in many restaurants the menus will recommend specific wines to complement the entrees. Some restaurants even offer a tasting menu that features particular wines for each course of the meal.

Just like the sensory evaluation of wine, the pairing of wines with foods is one of those topics that many people fear, believing it to be somehow complex and difficult. But in reality, it isn't very difficult at all. You already have the basic tools you need – your senses of smell, taste, and touch. And you already know how to use them.

In this section we're only going to take a brief look at the basic concepts behind pairing wine with food. It turns out that there are only two important guidelines you should follow at this time:

- Determine the weights of the wine and food, and ensure that they are as similar as possible. (This concept of "weight" may, at first, seem confusing. However, as you'll see in just a moment, it turns out to be quite intuitive.)
- Identify the primary flavors of the wine and food, and then blend them together on the basis of complementary or contrasting textures and flavors.

Of course, these guidelines are just a beginning. After all, you wouldn't expect to become a gourmet chef by following just two rules! But they can help you get started with the very enjoyable process of discovering which wines taste best with your favorite foods, and which foods taste best with your favorite wines. Let's take a closer look at the two guidelines.

**Guideline 1:
Determine The Weights Of The Wine And Food,
And Ensure That They Are As Similar As Possible**

To begin, you can forget about the common misconception that white wine should go with fish or poultry and red wine should go with beef or lamb. The first step to improving a wine and food pairing is to *try to match the weight of the food with the weight of the wine.*

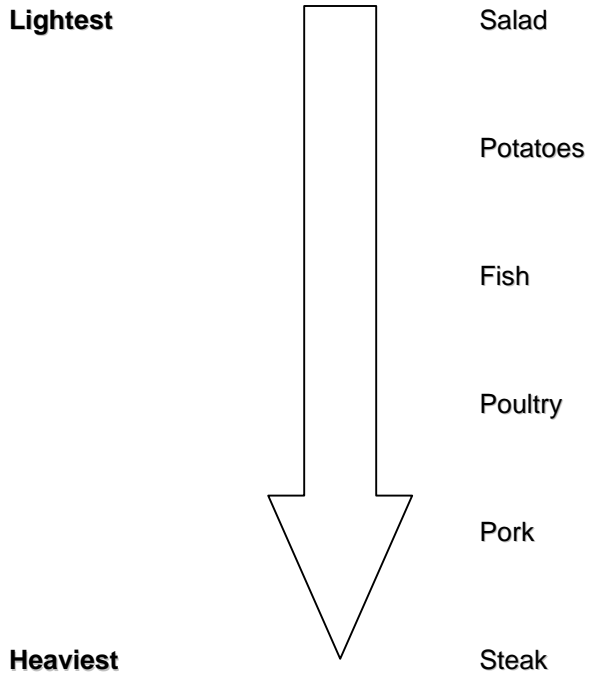
At first, this concept may seem strange. After all, you might ask how much does a food “weigh?” And how much does a wine “weigh?” But it turns out that this concept is easy to grasp on an intuitive level.

For example, consider the relative weights of these six foods and rank them from the “lightest” to the “heaviest.”

Fish Pork Potatoes Poultry Salad Steak

When you’re ready, take a look at the next page.

Chances are that your ranking was probably similar to this one:



So there does seem to be something intuitive about the “weight” of a food. Now let’s take this analysis a step further and consider how the “weight” of a food may change with the addition of different ingredients:

- Take the salad, for example. And consider two possible dressings: a blue cheese dressing and a vinaigrette dressing. Which one will make the salad heavier?
- Or think about the potatoes. If you were to add margarine or sour cream, which one will make the potatoes heavier?
- Or imagine that you broiled the fish. Would you consider it to be lighter or heavier than if the fish were fried and served with tartar sauce?

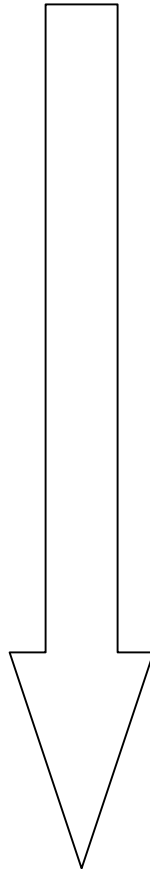
If you considered the blue cheese dressing on the salad, the sour cream on the potatoes, and the fried fish to be “heavier” then – congratulations! You have the same perception of “weight” as nearly everyone else.

It probably won't surprise you, then, to consider that wine also has a "weight." This "weight" is due to what's often called the *structure* of the wine – the balance between alcohol, sweetness, acidity, and tannin. For example:

- As you've already seen, the perception of body is based largely on the amount of alcohol in the wine. Wines that are higher in alcohol tend to be perceived as fuller bodied.
- Higher residual sugar will increase the "weight" of any wine, especially White Zinfandel.
- For white wines, fermentation or aging in oak barrels and *sur lie* aging will increase the overall "weight."
- And for red wines, the intensity of the fruit character, barrel aging, and increased skin contact during fermentation can all increase the "weight" of the wine.

In the table below we've listed some common wines in order from the "lightest" to the "heaviest." Keep in mind that the specific ranking could vary somewhat based on the characteristics of individual bottles.

Lightest



Riesling
Sauvignon Blanc
Pinot Gris/Pinot Grigio
Pinot Blanc/Pinot Bianco
Chardonnay
Pinot Noir
Merlot
Sangiovese
Zinfandel
Syrah
Cabernet Sauvignon

Heaviest

So, by knowing the “weight” of the food and the “weight” of the wine, you should, in theory, be able to match them fairly closely.

But what’s the best way to determine those “weights?”

If you know enough about how the wine was made and how the food was prepared you may be able to make an educated guess. But in reality, there’s really no substitute for experience. In other words, you should actually taste the food with the wine you’re considering.

Guideline Two: Identify The Primary Flavors Of The Wine And Food, And Then Blend Them Together On The Basis Of Complementary Or Contrasting Textures And Flavors.

After matching weights, it is time to look at the primary flavors of the wine and food, and blend them together by either complementing or contrasting the textures and flavors of the two.

- As you've already seen, most of what we perceive as the “flavor” of a wine depends on what we perceive through our rear nasal passages during step two in our five-step Process of Tasting. Just be sure to focus on the dominant flavor of the dish as opposed to the main ingredient. For example, chicken may be the main ingredient in Chinese Garlic Chicken, but garlic is clearly the dominant flavor.
- “Texture” refers to what your mouth *feels*. In other words, it's what you experience through your tongue, gums, and cheeks during steps three and four in our five-step Process of Tasting.
- “Complementary” is when the wine and food have similar flavors and/or textures.
- “Contrasting” is when the wine and food have different flavors and/or textures.

On the next page you'll find four combinations showing the same wine (Sauvignon Blanc) and the same main ingredient (broiled snapper). The weight of the wine and the weight of the food are similar. You can see that by adding new seasoning elements to the main ingredient it's possible to put together complementary and contrasting flavor and texture combinations.

Sauvignon Blanc served with Broiled Snapper With Lemon Dill Sauce. In this case, both the flavors and textures are complementary:

- The citrus/herbal flavor of the wine complements the citrus/herbal flavor of the food.
- The tart texture of the wine complements the tart texture of the food.

Sauvignon Blanc served with Broiled Snapper With Lemon Dill Cream Sauce. In this case, the flavors are complementary and the textures are contrasting:

- The citrus/herbal flavor of the wine complements the citrus/herbal flavor of the food.
- The tart texture of the wine contrasts with the smooth texture of the food. The cream sauce contains fat that cuts the acidity in the wine.

Sauvignon Blanc served with Broiled Snapper In Tomato/Caper Sauce. In this case, the flavors are contrasting and the textures are complementary:

- The citrus/herbal flavor of the wine contrasts with the tomato flavor of the food.
- The tart texture of the wine complements the tart texture of the food.

Sauvignon Blanc served with Broiled Snapper In Diced Tomato/Caper Cream Sauce. In this case, the flavors and the textures are both contrasting:

- The citrus/herbal flavor of the wine contrasts with the tomato flavor of the food.
- The tart texture of the wine contrasts with the smooth texture of the food. The cream sauce contains fat that cuts the acidity in the wine.

As you can see, these two guidelines are general enough to give you plenty of room for experimentation. The whole field of pairing wine with food is emerging as a new area of interest for food and beverage professionals and for the many people who just enjoy cooking, entertaining, and tasting wine. If you take a look at current food and wine magazines you'll find an abundance of suggestions and recipes to help you pursue this subject in more detail.

Finally, just remember that when it comes to wine and food, there are really no “wrong” pairings. You'll find some combinations that really work and some that are less satisfying. But as long as you eat food that you like and drink wine that you enjoy you really can't go wrong. Bon appetit!

Check Your Understanding

1. What two guidelines should you follow to pair food items with an appropriate wine selection?
2. What are some of the factors that can contribute to the perceived “weight” of a wine?
3. Is there a “wrong” combination of wine and food? Explain your answer.

Review

In this chapter you read about the five-step Process of Tasting that we use to evaluate (and, hopefully, enjoy!) a fine wine.

If you've learned the material in this chapter then you should be able to explain and demonstrate the five step Process of Tasting. Specifically, you should be able to describe and demonstrate how to:

- Evaluate the color, intensity, and clarity of a wine.
- Evaluate the aroma and bouquet ("nose") of the wine.
- Evaluate the taste ("palate") of the wine.
- Evaluate the body and mouthfeel of the wine.
- Form an overall impression of the wine.

In addition, you should also understand and be able to explain the basic strategy for pairing wine with food.

If you are comfortable with your ability to discuss and demonstrate these skills then you are well on your way to mastering the material in this chapter. Congratulations! If you're not yet comfortable, take some time to reread this chapter and to gain a greater familiarity with these topics.

As a special Appendix to this chapter we've included copies of the Aroma Wheel that illustrate the aromas and tastes typically associated with well-known varietal wines. Keep in mind that you can access the Aroma Wheel on line. Go to the Turning Leaf web site at www.turningleaf.com. If you go to the heading Appreciating Wine you'll find three outstanding learning opportunities:

1. What is the Aroma Wheel?
2. Experience the Aroma Wheel
3. Traditionally found Aromas & Tastes

Appendix:

Aroma And Flavor Profiles Of Well-Known Varietals

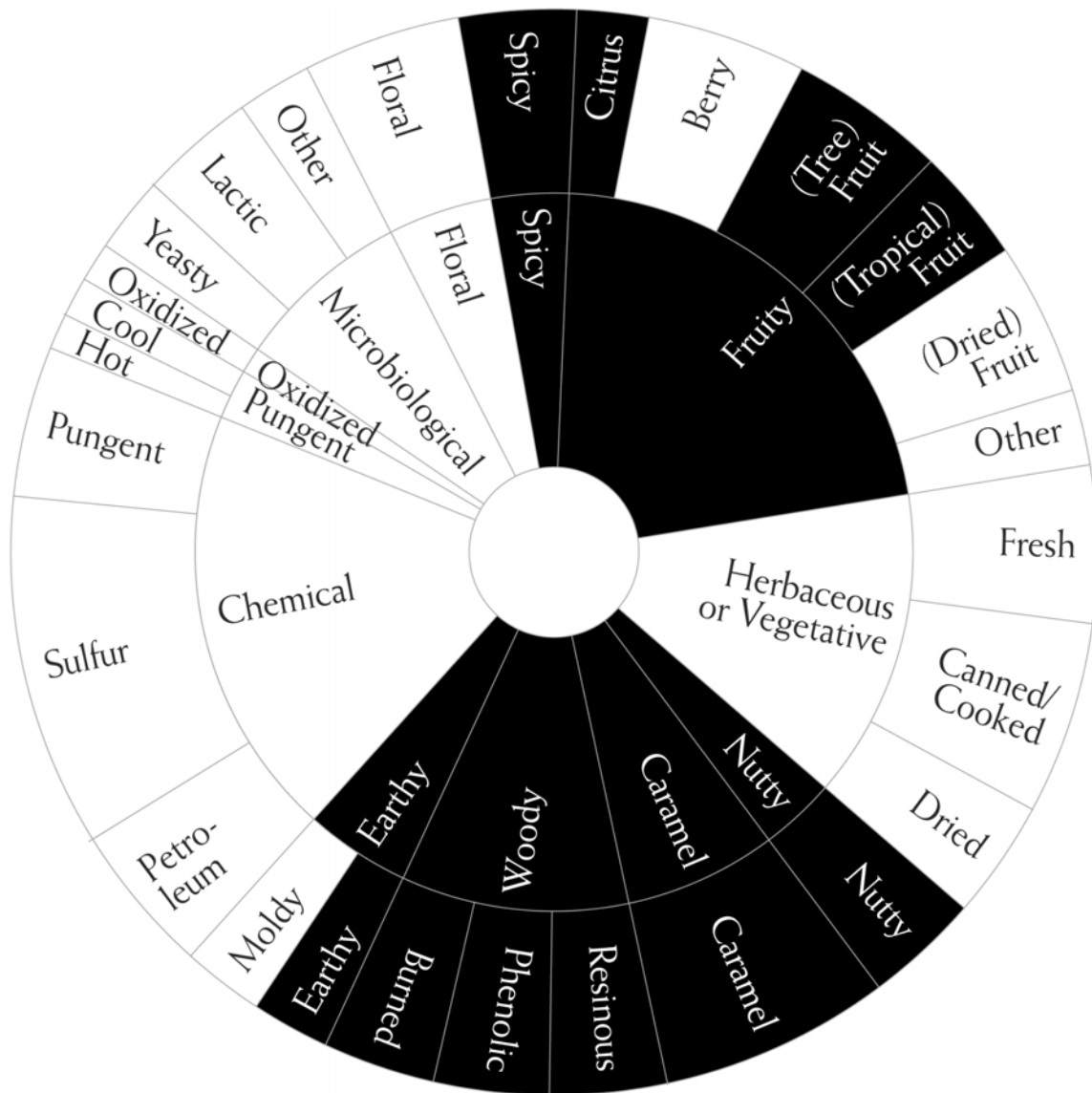
On the pages that follow we have provided copies of the Aroma Wheel that illustrate the aromas and flavors typically associated with these well-known varietal wines:

- Cabernet Sauvignon
- Chardonnay
- Merlot
- Pinot Gris
- Pinot Noir
- Riesling
- Sauvignon Blanc
- Shiraz
- Zinfandel

Cabernet Sauvignon



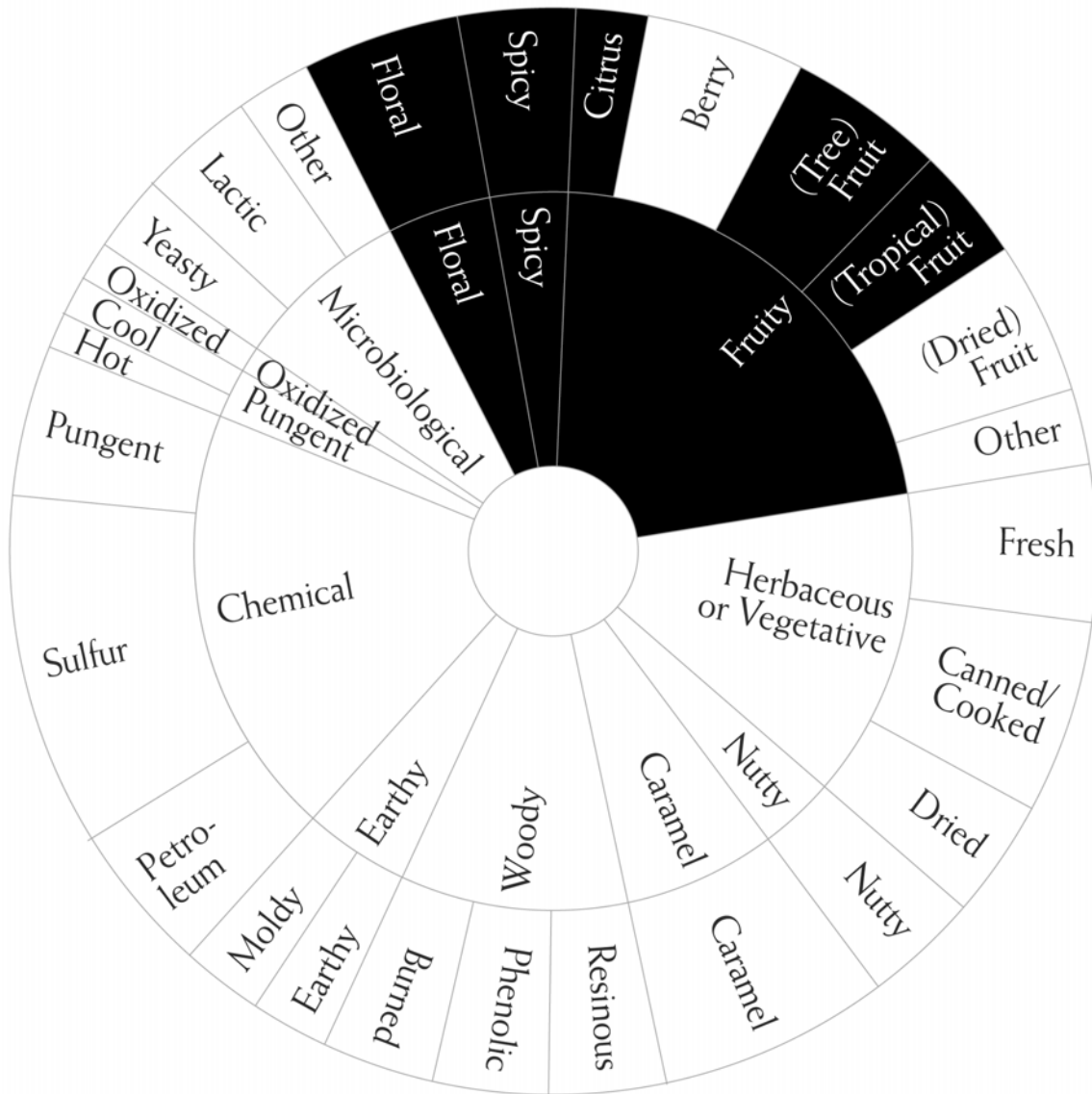
Chardonnay



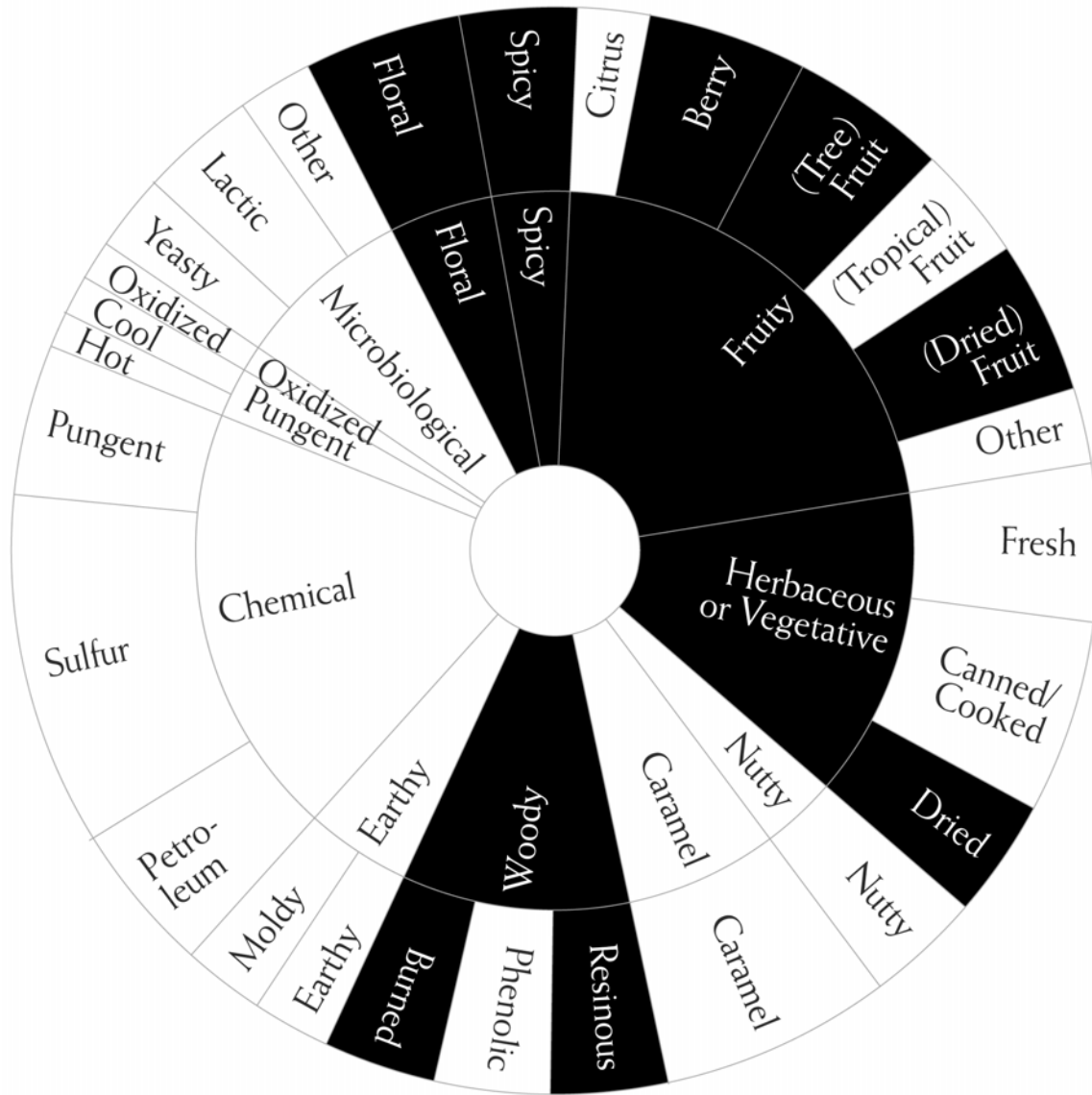
Merlot



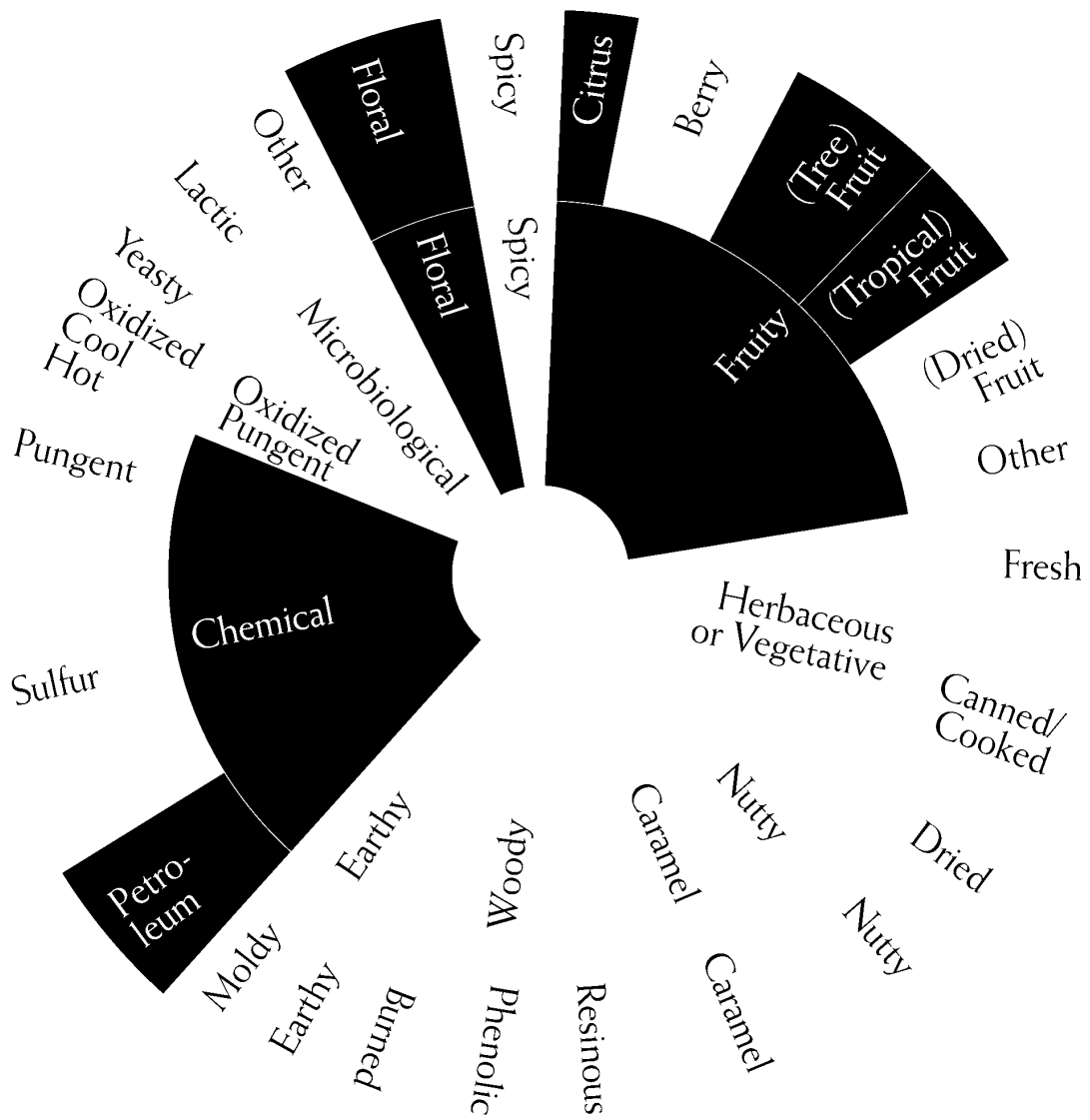
Pinot Gris



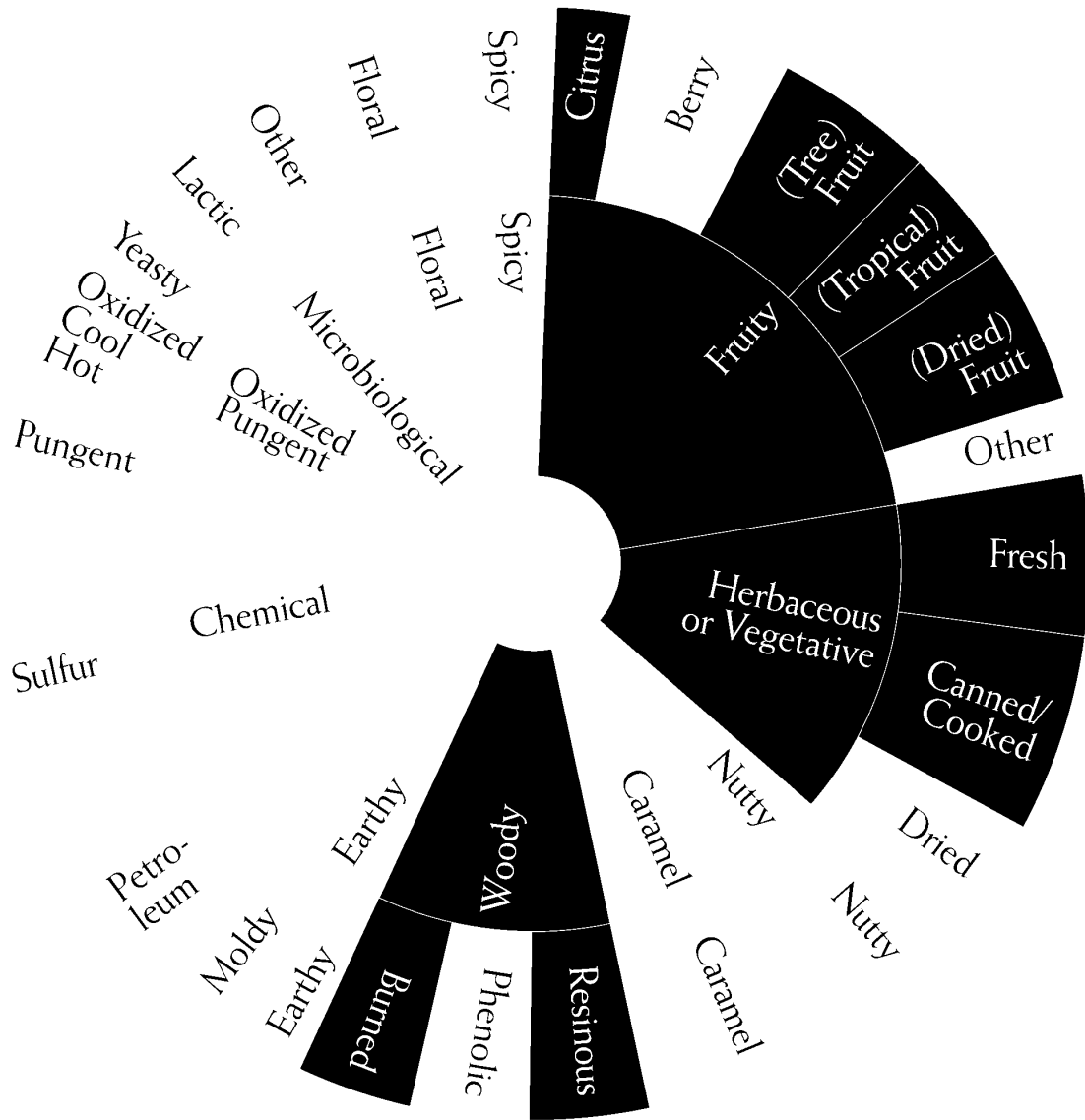
Pinot Noir



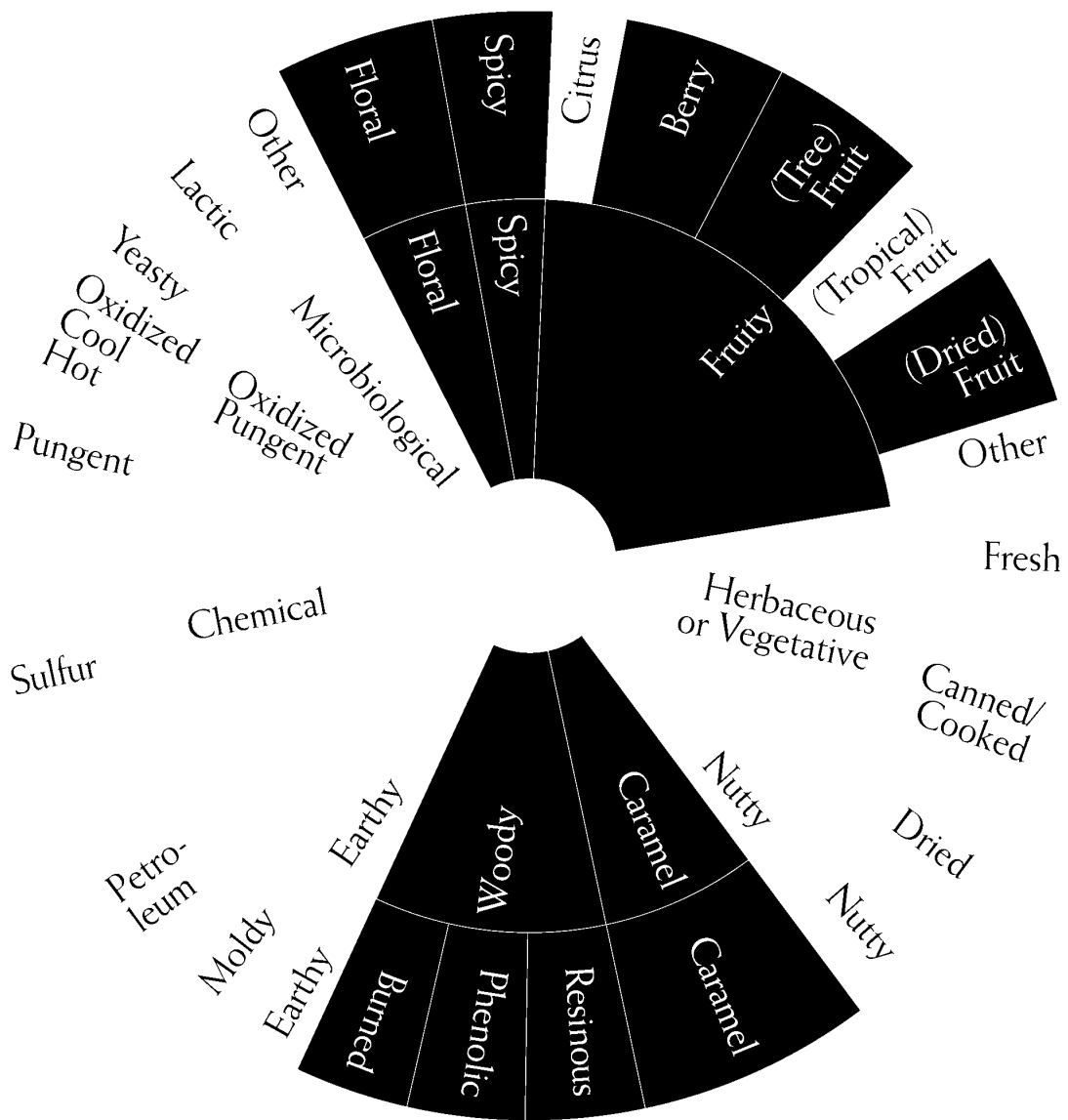
Riesling



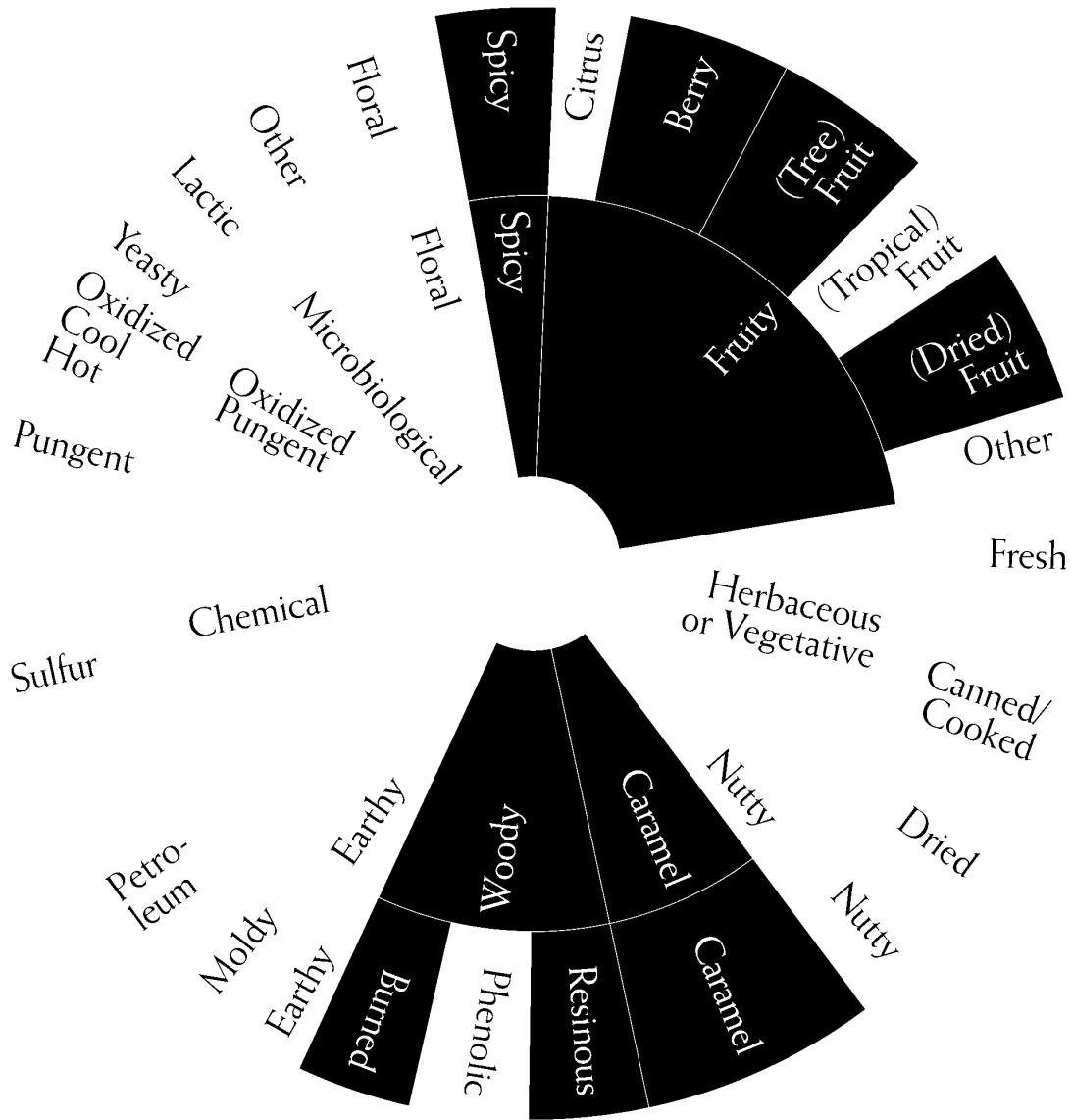
Sauvignon Blanc

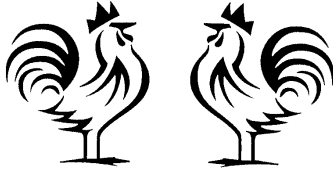


Shiraz



Zinfandel

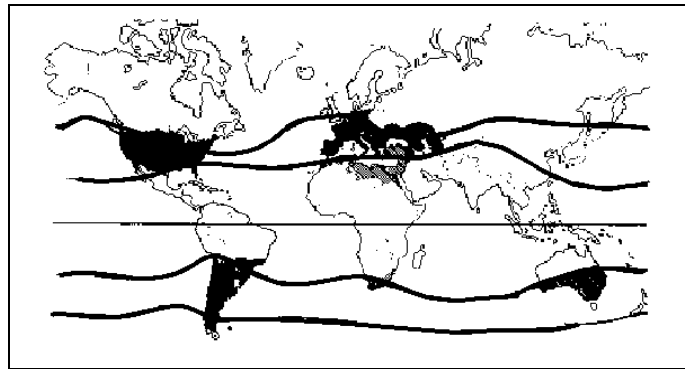




Chapter 8 Fine Wines Of The Old World, Part 1

In Chapter 2 you learned that climate – specifically, the length of the growing season, the average temperature, and the extent of temperature changes – limit the growing of grapes for commercial-scale wine production to two loosely defined "belts" of latitudes. Within these two belts of latitude there are generally enough warm days between the last frost of spring and the first frost of fall for wine grapes to develop and mature. And throughout the year the temperatures are not too cold for the vines to survive or too hot for the vines to stay healthy.

In the Northern Hemisphere the belt includes the United States, parts of Europe, and the Mediterranean area. In the Southern Hemisphere it includes Australia, New Zealand, Chile, Argentina, and South Africa. Of course, even within these belts of latitude there are a wide range of climatic differences. And just because an area is located within one of these belts does not guarantee that it has the potential to produce fine wine grapes.



So far in this manual we've focused most of our attention on California and on Gallo's fine wine vineyards and operations in Sonoma County. But winemaking today is truly a global industry. This means that to an increasing extent:

- Wine producers and consumers all over the world are becoming more knowledgeable and more sophisticated.
- Fine quality wines are produced in – and exported from – many countries that are located in the latitudes where commercial quantities of fine wine grapes can be grown.

- Wine consumers in many countries are considering – and purchasing – wines produced anywhere in the world.
- Like other sectors of the beverage industry, the wine industry is becoming increasingly influenced by powerful companies that are expanding quickly through a host of marketing arrangements, alliances, and investments.

The next three chapters will provide a brief introduction to fine wines that are currently produced around the world. In Chapters 8 and 9 we'll begin by considering the "Old World" – the traditional European wine-producing countries of France, Italy, Germany, Spain, and Portugal. Then, in Chapter 10, we'll look at the "New World" countries that are becoming an increasingly powerful force in the global wine industry: the United States, Australia, New Zealand, Chile, Argentina, and South Africa.

You may be wondering why you should invest the time and effort to become familiar with fine wines that are produced around the world. That's an excellent question and there are two important answers.

First, as a sales person who represents fine wine offerings from Gallo of Sonoma, you may need to compete directly against many of these wines. By gaining familiarity with these wines you'll be able to position your own products more effectively. And you'll be better able to address the perspectives and concerns of the fine wine retailers who are your customers.

Second, as the wine industry becomes increasingly global in scope, Gallo continues to expand and diversify our own portfolio. (For example, you're already familiar with the wines from Italy in our Ecco Domani line.) During the years ahead we may enter into alliances and marketing agreements with wine producers from anywhere in the world. And, in the future, we may become more directly involved in the production of wines in other countries. So by learning about the fine wines produced by leading exporting countries you'll be better equipped to speak knowledgeably and credibly about some of the types of wines that may be part of your Gallo portfolio in the future.

A Few Limitations

Although winemaking is truly a global industry we have – by necessity – been selective in choosing which countries to highlight. Our focus is on those countries that *export fine wine* and are *truly part of the international wine industry*. So as you read the next two chapters please keep in mind these limitations to our scope:

Most wine is not "fine wine." There is a lot of wine produced in the world that is not really "fine wine" as described in Chapter 1. And in these chapters we're not going to consider countries that do not produce and export a substantial quantity of "fine wine." For example, countries such as Romania, Yugoslavia, and Greece all have sizable wine industries that produce more than 100 million gallons of wine annually. However, most of that production cannot be considered to be "fine wine."

Many fine wines are not exported to the United States. Some countries produce wine that is intended primarily for local consumption rather than for export. Switzerland, for example, produces some excellent wines. But these wines are rarely exported beyond the borders of Switzerland. Other countries have had little success in entering the American market. Bulgarian wines, for example, are gaining popularity in the United Kingdom but are still relatively unavailable in the United States.

So the fact that we have not featured a particular country in this chapter or the next chapter is not meant in any way to imply that the country does not produce any fine wine. It just means that the country does not export sufficient quantities of fine wine to be a factor in the United States market.

Even if we restrict our discussion to the major exporting nations, the global wine industry is a subject of enormous scope and complexity. For example, many excellent books have been written about the wines of France or Italy – or even about wines from a single region of those countries. Our goal is simply to provide a brief introduction and to whet your appetite for more detail. We encourage you to pursue this subject on your own, and at the end of Chapter 10 we've provided a list of additional sources you can consider.

We have done our best to present all of this material to you in a clear and straightforward way. But there is a lot of information here for you to absorb and assimilate. Since some of this material is probably new to you, you may find it helpful to read some parts of the chapter two or three times.

Overview

Chapters 8 and 9 are divided into sections that focus on each of the major Old World international wine-exporting countries. These are the European countries that have traditionally been considered to be the world's leading wine producers.

In this chapter, we'll focus on the wines of France.

In this next chapter, we'll examine the wines of Italy, Germany, Spain, and Portugal.

To help you gain some perspective on the relative importance of these wine producing countries, consider these facts about table wine production:

- In the year 2001, imported wines accounted for nearly 23% of all table wine sales in the United States. Imported table wines represented about 46 million cases out of a total volume of approximately 203 million cases.
- Wines from these five Old World countries together accounted for about 65.3% (a little less than two thirds) of the imported table wines sold in the United States. Here's a breakdown by country:

Italy	37.7%
France	20.4%
Germany	3.0%
Spain	3.0%
Portugal	1.2%

- Projections suggest that in the year 2005, imported wines will account for more than 24% of all table wine sales in the United States. Imported wines are expected to represent about 57 million cases out of an estimated total volume of 233 million cases.
- In the year 2005, the table wines of Italy are still expected to represent about 38% of total imports. However, the table wines of the other Old World countries are expected to decline in popularity relative to New World wines, especially the wines of Australia.

The Impact Of The European Union

Wines have been produced in the Old World for many hundreds of years. During this long history, generations of winemakers have planted different varieties of grapes and applied different viticultural techniques and winemaking practices in an effort to determine how to produce the best wine from each plot of ground. Over the years, many of these practices have become codified in law. This means that *the location where the grapes are grown determines which grapes may be planted and how those grapes may be cultivated, harvested, and turned into wine*. As a result, the wine-producing countries of the Old World consider geography – that is, the specific location where the grapes were grown – to be an absolutely critical determinant of the quality of a wine.

In recent years, the European Union ("EU") has created a significant amount of standardization in the labeling requirements for European wines. And it's probably not surprising that the EU's labeling requirements are closely tied to a system of place-names.

Here's a broad overview of the EU system.

All wines are divided into two large categories: a lower category that is called "Table Wine" and a higher category that the EU calls "Quality Wine Produced In A Specific Region" or QWPSR. And within each of these categories there are two sub-categories, with the result that all wines produced in Europe are labeled with one of four quality designations:

- Higher designations are more specific about the particular geographic origin of the grapes and the particular viticultural practices and winemaking techniques that may be used with those grapes.
- Lower designations are less specific about the particular geographic origin of the grapes and the particular viticultural practices and winemaking techniques that may be used with those grapes.

The chart on the next page summarizes the names of these four classifications for the wines of France, Italy, Germany, Spain, and Portugal.

	Quality Wine Produced In A Specific Region		Table Wine	
	Highest Status	Somewhat Lower Status	With Specific Geography	Without Specific Geography
France	Appellation D'Origine Contrôlée (AOC)	Vin Délimité de Qualité Supérieure (VDQS)	Vin de pays	Vin de table
Italy	Denominazione di Origine Controllata e Garantita (DOCG)	Denominazione di Origine Controllata (DOC).	Indicazione di Geografica Tipica (IGT)	Vino da Tavola
Germany	Qualitätswein mit Pradikat (QmP)	Qualitätswein bestimmter Anbaugebiete (QbA)	Landwein	Deutcher tafelwein
Spain	Denominación de Origen Calificada (DOCa)	Denominación de Origen (DOC)	Vino de la tierra	Vino de mesa
Portugal	Denominação de Origem Controlada (DOC)	Indicação de Proveniencia Regulamentada (IPR)	Vinho de mesa regional	Vinho de mesa

The French system of *Appellation D'Origine Contrôlée* really serves as the basis for all of the EU's wine classifications. You'll learn more about this system later in this chapter when we examine the wines of France.

The Old World And The New World

Wine experts are often hesitant to make generalizations. But, as you'll soon discover, the global wine industry is a vast subject and it's easy to be overwhelmed by the details. So to help provide a framework for your understanding we're going to take a risk and offer some generalizations about the Old World and New World wine producing countries.

On the next page there's a chart that summarizes some of the major differences between the wines of these two worlds.

Old World Generalizations	New World Generalizations
<p>The countries of Europe:</p> <ul style="list-style-type: none"> • France • Italy • Germany • Spain • Portugal 	<p>The countries of the Americas, the Pacific, and Africa:</p> <ul style="list-style-type: none"> • United States • Australia • New Zealand • Chile • Argentina • South Africa
<p>Tradition. The experience of many generations has led to conclusions (sometimes codified by law) about the combination of grapes, viticultural practices, and winemaking techniques that will produce the finest wine from each plot of land.</p>	<p>Innovation. There is ongoing experimentation with different grape varieties, viticultural techniques, winemaking processes, and new technologies.</p>
<p>Convention of using the place name of the vineyard – a region, district, town, vineyard area, or specific estate – to identify the wine rather than the variety of the grape.</p>	<p>Wines are typically identified by both the variety and the geographic location of the vineyards.</p>
<p>The appellation system is designed to support the European Union's two tier hierarchy of "quality wine" and "table wine." Fine wines meet the EU criteria for "Quality Wines Produced in a Specific Region."</p>	<p>Each country has its own system of appellation and quality control.</p>
<p>Multiple grape varieties thrive and reach the consumer.</p>	<p>Tend to have one or two varieties that drive their growth in export markets.</p>
<p>Wines tend to be subtler, more understated. Stronger emphasis on "earthy" or "mineral" characteristics. Tend to have a higher level of acidity.</p>	<p>Wines tend to be bolder, more intense, more "fruit-forward." They tend to accent the variety character of the grape more than the impact of the winemaking process.</p>
<p>These wines often complement the subtle flavors of the local cuisine from their region.</p>	<p>These wines have a bolder style that goes well with simple foods or foods that have strong flavors.</p>

Now, of course, these are just generalizations. And, like any generalizations, they should be regarded with a degree of skepticism. But we believe there's enough general validity to help you as you learn more about the wines from each of the great wine-producing countries of the world.

Objectives

After reading this chapter you should understand and be able to explain:

- The major differences between the wines of the Old World and the wines of the New World.
- The impact of French winemaking on the prevailing international styles of fine wines that are produced for export to the world market.
- The primary winegrowing regions of France.
- The principal wines of each of these famous winegrowing regions.

Key Terms

As you read this chapter you will encounter many new terms including the names of appellation laws, winemaking regions, specific wines, and winemaking processes. By the end of the chapter you should recognize and understand all of these key terms. To help you become more comfortable with these terms we've included a phonetic guide to pronunciation in the parentheses.

Alsace (*ahl-SAHSS*)

Appellation D'Origine Contrôlée (*ap-peh-lah-see-OHN dor-ee-JHEEN cohn-troll-AY*)

Blanc De Blancs (*blahnk duh blahnk*): "white from white"

Blanc De Noirs (*blahnk duh nwahr*): "white from black"

Bordeaux (*bor-DOH*)

Burgundy (*BUR-gun-dee*)

Champagne (*shom-PAHNye*)

Cru (*crew*)

Cuvée (*coo-VAY*)

Grands Cru (*grahn CREW*): "Great Growth"

Grands Crus Classés (*grahn crew clas-SAY*): "Great Classified Growth"

Languedoc-Roussillon (*lahn-ga-DOC roo-see-YON*)

Loire (*lwahr*)

Méthode Champenoise (*may-TUDD cham-pay-NWAHZ*)

Pouilly-Fuissé (*pwee-ee fwee-SAY*)

Pouilly-Fumé (*pwee-ee foo-MAY*)

Premier Cru (*prem-yay CREW*): "First Growth"

Provence (*pro-VAHNCE*)

Quality Wine Produced in a Specific Region

Rhône (*rohn*)

Sancerre (*sahn-SAYR*)

Terroir (*terr-WAHR*)

Vins de Pays (*vehn de pay-EE*)

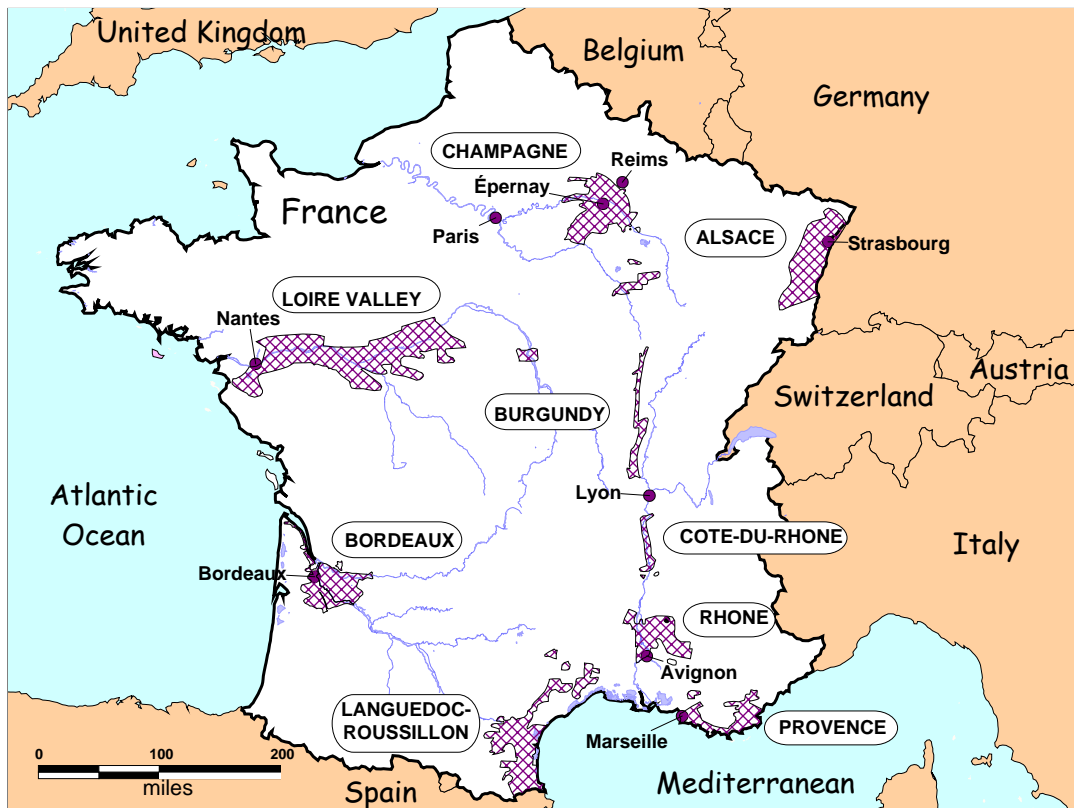
Vins de Table (*vehn de TAH-bla*)

Vins Délimités de Qualité Supérieure (*vehn day-lee-mee-TAY de cal-ee-TAY soo-pear-ee-UR*)

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

France



France produces about 1.4 billion gallons of wine each year and accounts for about 20% of all table wine imports into the United States. So in terms of both overall quantity of wine production and volume share of the U.S. wine market, France ranks second to Italy. Nonetheless, we're going to begin our examination of the Old World with the wines of France. And, as you'll see, we're going to consider France in greater detail than the other wine-producing countries of the Old World. There are several reasons for this emphasis:

- In terms of quality and reputation, France has been the traditional leader among the world's wine-producing countries. The very best French wines continue to be highly prized by connoisseurs and are among the most expensive wines in the world.
- The classic wines of France have set the style for many of the fine wines that are produced in other countries of the world. At first, nearly all of the New World wines that you'll read about in Chapter 10 were compared to – and benchmarked against – their French counterparts. However, new international standards are now emerging, to the point where there is no longer just one international style of winemaking.

- The French system of appellation laws has been the basis for most of the appellation laws in other European countries. In Chapter 9, you'll see that Italy, Germany, Spain, and Portugal have all adopted appellation systems that are patterned after the laws of France.
- There are more world-famous winegrowing regions in France than in any of the other Old World countries. As you'll see, French winemaking is closely tied to geography. As a result, the French wine industry can appear to be bewilderingly complex. We want to demystify French wine so that you can feel comfortable and confident as a true fine wine professional.

So there are many valid reasons for the emphasis we're putting on French wines. At the same time, we don't want you to misinterpret this emphasis. We're not saying or implying in any way that French wines are better than the fine wines from other Old World or New World countries. And from a business standpoint it's certainly fair to say that French winemakers have lost ground in the international market because of the complex and fragmented nature of their industry and the lack of leading brand names. Even though French wines continue to enjoy a worldwide reputation for high quality, there is a perception among many consumers that these wines are too expensive and too hard to understand.

With this background in mind, let's begin with some general comments about French wines.

Grape vines do not grow everywhere in France. If you look at a map of the world you'll see that France is located at about the same latitude as northern New England – in other words, quite a bit farther north than California. And the climate in France is correspondingly cooler. To some extent, the climate is moderated by the presence of the Mediterranean Sea to the south and the Gulf Stream current of the Atlantic Ocean to the west. But, even so, there are many areas of France where fine wine grapes will not ripen to maturity. The great wine-producing regions of France are generally located in river valleys where the shelter provided by the valley and the added reflectivity of the river help to raise the temperature sufficiently for the grapes to mature.

The concept of “terroir” is central to understanding the French wine industry. In *Chapter 2: Growing Fine Wine Grapes*, you learned about the many factors that lead to balanced growth and produce the finest wine grapes. In the process, you were introduced to the French concept of *terroir*.

You may remember that in the introduction to James E. Wilson's book *Terroir, The Role of Geology, Climate, and Culture in the Making of French Wines*, Hugh Johnson refers to terroir as: “... the whole ecology of the vineyard: every aspect of its surroundings from bedrock to late frosts and autumn mists, not excluding the way the vineyard is tended, nor even the soul of the vigneron.”

Writing in the same book, Wilson himself takes a more straightforward approach, defining *terroir* as “a French term meaning total elements of the vineyard.” And in his book *Wine Science*, Ron S. Jackson explains the term as “the combined influences of vineyard atmospheric, soil, and cultural conditions on vine growth and fruit ripening.”

In their book The Vintner's Art, Hugh Johnson and James Halliday quote French winemaker Bruno Prats as he explains the this elusive concept:

The very French notion of terroir looks at all the natural conditions which influence the biology of the vinestock and thus the composition of the grape itself. The terroir is the coming together of the climate, the soil and the landscape. It is the combination of an infinite number of factors: temperatures by day and night, rainfall distribution, hours of sunlight, slope and drainage, to name but a few. All these factors react with each other to form, in each part of the vineyard, what French growers call a terroir.

The French believe that each vineyard has a unique terroir – a specific combination of natural elements and viticultural practices (in other words, all of the elements of the Gallo Quality Circle Of Grape Growing!). This terroir will impact the character and quality of the grapes that are cultivated there and the wine that is made from those grapes. *So in France – more than in any other country in the world – wine is made according to a strict system of rules and regulations based on the specific location of the vineyard where the grapes are grown.*

The French system of defining and regulating winegrowing regions is called *Appellation d'Origine Contrôlée (AOC)*. This system can be translated as “controlled name of origin.” The French system has been the model for most of the other appellation laws in Europe.

Under AOC regulations, France’s winegrowing areas are divided into:

- Regions
- Districts
- Villages, towns, or communes (a single parish or township within a district)

And even within individual villages, towns, or communes there is a further division into *crus* (“growths” or individual vineyards). These geographic designations serve as the basis for labeling French wines.

Most French wines are designated and labeled according to where the grapes were grown, not according to varietal from which they were made. The French appellation laws govern which grapes may be cultivated in any particular area. So, from that perspective, there’s no reason to have to indicate the grape varietal. And, traditionally, the French have not included varietal information on their labels. This means that in order to develop a knowledge of French wines you have to develop a knowledge of French geography. (Of course, with the increasing globalization of the wine industry, some French producers are beginning to include varietal information on their wine labels.)

In general, the "quality" of a French wine is considered to be tied to the specificity of the geographic area where the grapes were cultivated. Wines made from grapes that were cultivated within a very small area are generally considered to be of higher quality than wines made from grapes cultivated within a larger area. As you saw in the chart on page 8-6, within the European Union system all wines are designated by one of four possible rankings.

The first two rankings of French wines fall within the European Union's lower quality tier for wines:

- **Vins de Table (table wine).** These are ordinary wines that may be made from grapes that were grown anywhere in France. (You may already be familiar with the term "vin ordinaire" which means, literally, "ordinary wine.") By law, these wines carry no information about the geographic origin of the grapes, the varietal, or the vintage.
- **Vins de Pays (country wine).** These wines are labeled with a place name that indicates where the grapes were cultivated. This place name generally refers to a large geographic region – a much larger region, for example, than would be indicated for wines of higher quality.

The two higher rankings meet the requirements for the European Union's higher quality tier:

- **Vins Délimités de Qualité Supérieure ("superior quality wines from designated areas").** These wines are qualified to be characterized in the European Union's higher quality tier, Quality Wines Produced in a Specific Region. You'll sometimes see this designation abbreviated simply as VDQS.
- **Appellation d'Origine Contrôlée ("controlled name of origin").** Through the centuries, French winemakers have drawn very clear lines between the great wines and those that are more ordinary. In modern times, the French government has attempted to formalize these distinctions through the use of the designation Appellation d'Origine Contrôlée (AOC).

Historically, most of the fine wines produced in France meet the requirements to be designated as Appellation d'Origine Contrôlée. But today, some innovative French winemakers are rebelling against this tradition. In fact, as you'll see later in this chapter, there are some excellent wines that are produced today as Vins Délimités de Qualité Supérieure or even as Vins de Pays.

On the other hand, it is fair to say that the AOC designation appears only on the labels of the best French table wines. The French government awards the right to bear the AOC designation only to those wines that are made in accordance with a strict series of regulations. These regulations govern many specific practices that affect the quality of the wine, such as:

- The precise boundaries of each designated growing area.
- Which grape varietal may be grown in the specific area.
- The maximum allowed yield. (In New World countries like the United States, yield is typically measured in terms of the amount of grapes that are harvested from an area of a given size – for example, tons per acre. In France and other European countries, yield is measured in terms of the amount of wine that is produced from an area of a given size – for example, hectoliters per hectare. A hectoliter is 100 liters, or approximately 26.5 gallons. A hectare is 10,000 square meters, or approximately 2.47 acres.)
- The minimum allowed alcohol content.
- Some viticultural practices – for example, irrigation.
- Specific winemaking or aging requirements. For example, a winemaker in the United States may choose whether to age a wine on the lees or in oak barrels. In France, these stylistic considerations are often inherent in the AOC regulations.

Even within the very strict Appellation d’Origine Contrôlée (AOC) category there are further divisions of quality and specificity. For an AOC wine, the label always includes the name of the place where the grapes were grown. That place name usually appears between the two words “Appellation” and “Contrôlée.” The specific place name may be a region, a specific district within a region, or a specific town, village, or commune within a district. And, in general, the laws and regulations about viticultural practices and winemaking techniques typically become more restrictive as the geographic division becomes smaller.

For example, let’s consider three designations that might appear on a label of French wine from the Bordeaux region:

- **Appellation Bordeaux Contrôlée.** This designation means that the grapes were grown within the region of Bordeaux. And all aspects of grape cultivation and winemaking were in accordance with the laws governing the region of Bordeaux.
- **Appellation Haut-Médoc Contrôlée.** This designation means that the grapes were grown within the district of Haut-Médoc, a smaller area within the Bordeaux region. And all aspects of grape cultivation and winemaking were in accordance with the laws governing the district of Haut-Médoc. Wines designated in this way would generally be considered higher quality than wines with only a regional Appellation.
- **Appellation Pauillac Contrôlée.** This designation means that the grapes were grown within the commune of Pauillac, a township within the Haut-Médoc district. And all aspects of grape cultivation and winemaking were in accordance with the laws governing the commune of Pauillac. Wines designated in this way would generally be considered higher quality than wines with only a district Appellation.

The French Wine Industry

As you can tell, geography plays an enormous role in the French wine industry. However, it's important to keep in mind that even with strict adherence to the laws and traditions of each area there are still important differences – in both style and quality – between the wines produced by individual winemakers.

In France, wines may be produced by individual grower-winemakers, négociants, or cooperatives.

Individual grower-winemakers. The French wine industry has traditionally been characterized by a large number of individual grower-winemakers who produce relatively small amounts of wine. Consider this comparison. In the state of California, about 850 different wineries produce about 193 million cases of wine annually. In the Bordeaux region of France annual wine production is about 30 million cases – and there are more than 13,000 different wine producers!

Négociants. A négociant is a French wine merchant who purchases grapes, must, or individual lots of wine from grower-winemakers and then blends them to produce a wine that is bottled under his or her own label. Négociants play a particularly important role in the Burgundy region where there are a large number of growers who produce very small quantities of wine.

In the past, the profession labored under a cloud of suspicion, as there were many opportunities for fraud. However, beginning in the late 1980s, the French government has taken considerable steps to improve enforcement of the Appellation d'Origine Contrôlée laws. Since then, leading négociants have begun to establish brand-name recognition along with a reputation for outstanding quality.

Cooperatives. A cooperative is a business venture that is jointly owned by a number of members. In France, many individual wine producers have formed cooperatives in an effort to share winemaking and marketing costs. Currently cooperatives own about half of all the vineyard land in France and produce about half of all the wine. They are particularly strong in the regions of Provence, Languedoc, Roussillon, and the Rhône Valley.

Traditionally, the cooperatives have been a dominant force in the *vin de pays* category – country wine that is a step in quality above the most basic *vin de table*. But they currently produce about half of all the Appellation d’Origine Contrôlée (AOC) wines. Since the 1990s, many French cooperatives have also begun forming partnerships with *négociants* to improve their presence in export markets.

Check Your Understanding

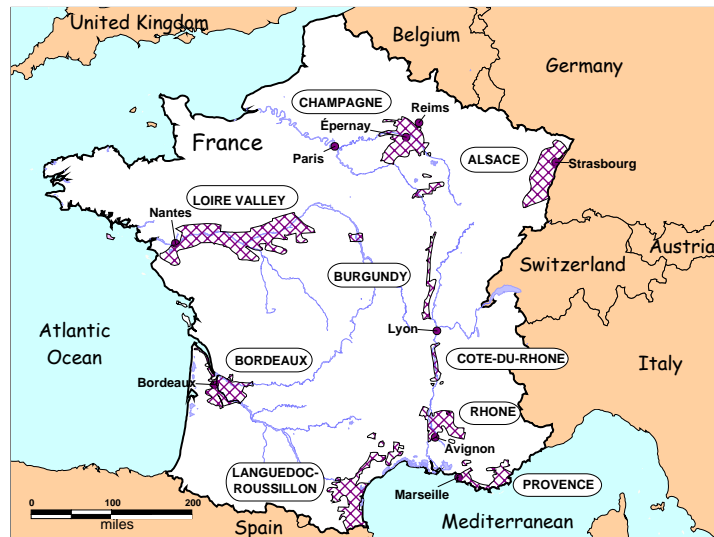
Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. Fine wine grapes do not grow everywhere in France. In general, where are the great winegrowing regions of France located? Why is this the case?
2. What does the term "terroir" refer to? How is this concept central to an understanding of the French wine industry?
3. Why are French wines generally labeled according to their geographic origin rather than by the grape varietal?
4. Within the French system all wines are designated by one of four possible rankings. From lowest to highest, what are they?
5. Identify the three different kinds of producers that comprise the French wine industry.

The Winegrowing Regions Of France

Now we're going to consider these great winegrowing regions of France:

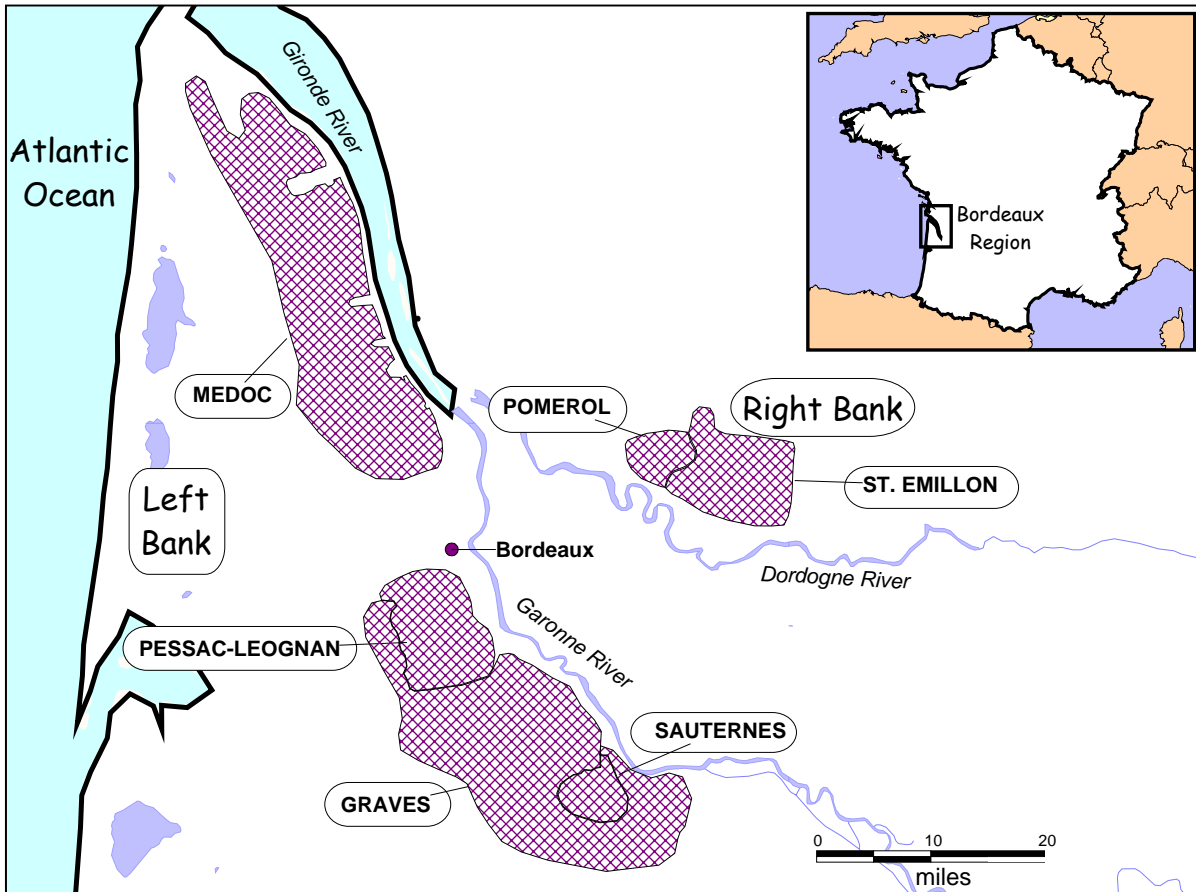
- Bordeaux
- Burgundy
- Rhône
- Loire
- Alsace
- Languedoc-Roussillon
- Provence
- Champagne



As we consider each region we'll examine the principal winegrowing districts and appellations, the major grape varieties, and the distinctive styles of the most famous wines. But please keep in mind that this is only a cursory introduction to an area of enormous complexity. We encourage you to pursue this subject in more detail on your own and have provided a list of reference materials at the end of Chapter 10.

Bordeaux (*bor-DOH*)

The Bordeaux region in southwestern France is widely considered to be one of the world's finest winemaking areas. Named after the seaport city of Bordeaux, this immense region includes 346,000 acres of vineyards and produces an average of 30 million cases of wine each year.



Two rivers – the Garonne and the Dordogne – meet just north of the town of Bordeaux, forming the Gironde River that continues northwest to the Atlantic Ocean. Together, these rivers create a pattern that looks like the letter Y upside down.

These rivers effectively divide the region into three principal areas: the land to the west (left) of the Garonne and Gironde Rivers, the area between the Garonne River and the Dordogne River, and the area to the east (right) of the Dordogne River.

The region is primarily known for its red wines, which are popularly referred to as *clarets*. However, Bordeaux also makes a variety of white wines.

The chart on the next page provides an overview of the wines of Bordeaux.

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Bordeaux (Gironde River, Garonne River Dordogne River)	<u>West (Left) Bank</u> <ul style="list-style-type: none"> • Haut-Médoc: <ul style="list-style-type: none"> – Saint-Estephe – Pauillac – Saint-Julien – Margaux • Graves/Pessac-Léognan • Sauternes <u>Between The Rivers</u> <ul style="list-style-type: none"> • Entre-Deux-Mers • Premières Côte de Bordeaux <u>East (Right) Bank</u> <ul style="list-style-type: none"> • Pomerol • Saint Emilion 	Cabernet Sauvignon Merlot Cabernet Franc Malbec Petit-Verdot	Sauvignon Blanc Sémillon

Any discussion of the wines of Bordeaux quickly becomes a detailed lesson in the geography and history of the region. Without attempting to turn you into an expert on either of these challenging topics, let's take a brief look at each of them.

The Geography Of Bordeaux

As you read a moment ago, the Garonne, Gironde, and Dordogne Rivers divide the Bordeaux region into three principal areas:

- The land to the west (left) of the Garonne and Gironde Rivers
- The area between the Garonne River and the Dordogne River
- The area to the east (right) of the Dordogne River

Let's look briefly at each of these three areas.

The West (Left) Bank

The area to the west (left) of the Garonne and Gironde Rivers includes the famous wine districts of Médoc, Haut-Médoc, Pessac-Léognan, Graves, and Sauternes. The soil on the left bank is primarily gravel. And the predominant grape varietal is Cabernet Sauvignon.

Of these various left bank districts, the most famous is Haut-Médoc. This district, in turn, is made up of four towns (communes). From north to south they are:

- Saint-Estephe
- Pauillac
- Saint-Julien
- Margaux

These appellations are among the most prized in all of France.

Between The Rivers

The area between the Garonne and Dordogne River includes the districts of Entre-Deux-Mers and Premières Côte de Bordeaux. This area is better known for white wines than for reds.

The East (Right) Bank

The area to the east (right) of the Dordogne River includes the districts of Saint-Emilion and Pomerol. The soil in this area is primarily clay. The predominant varietals are Merlot and Cabernet Franc.

The Châteaux Of Bordeaux

No discussion of Bordeaux would be complete without explaining the French term *château* (the plural is *châteaux*).

To most Americans, the term "château" conjures images of a palatial estate adorned with a towering castle of classical design. And though the term "château" does mean castle, the fact is that many châteaux are not very castle-like.

In the Bordeaux region, the term "château" is commonly used to designate a particular winegrowing and winemaking estate. The term encompasses the vineyards, the wine cellars, and any buildings on the property – regardless of whether or not these buildings bear the slightest resemblance to a castle.

The term "château" only came into popular usage since the second half of the 19th century. For example, the 1855 classification of Grands Crus Classés only included five wine estates that were designated as châteaux. Now there are more than 7,000 châteaux in the Bordeaux region!

According to French law, the term château may only be used in conjunction with specific plots of land. But regardless of whether that plot of land is owned by a family winery, a cooperative, or a huge global corporation, the wine produced from grapes grown on that land may be named a château wine.

You may have heard of some of the well-known châteaux such as Château Lafite-Rothschild, Château Latour, and Château Margaux. Today their wines are still considered to be among the most prestigious fine wines produced anywhere in the world.

The History Of Bordeaux

In 1855 the Bordeaux Chamber of Commerce developed a system for classifying their very best red wines. Working with wine brokers who bought and sold the wines of the area, they identified 61 top red wines and divided them into five categories called *crus*. (The term *cru* means "growth.") Together, these 61 estates (or "châteaux" as they are called in France) are considered to be *Grands Crus Classés* (literally, "great classified growths").

The categories, from highest to lowest, are:

- First Growth (Premier Cru): 5 châteaux
- Second Growth (Deuxième Cru) 14 châteaux
- Third Growth (Troisième Cru) 14 châteaux
- Fourth Growth (Quatrième Cru) 10 châteaux
- Fifth Growth (Cinquième Cru) 18 châteaux

This system of classification is still in effect today. And these "classified growths" continue to enjoy remarkable prestige among wine drinkers. Here are a few additional points to keep in mind:

All of the "classified growths" come from a relatively small area. All 61 estates are located on the west (left) bank of the of the Garonne and Gironde Rivers. 60 of the estates are located in the district of Médoc, 1 in the district of Graves.

This system of classification is highly selective. Only 61 estates – out of more than 13,000 wine producers in Bordeaux – have the honor of being considered Grands Crus Classés.

Since 1855 there has been only one change in the system of ranking Grands Crus Classés. In 1973 – after waging a campaign that lasted nearly 50 years – the late Baron Philippe de Rothschild succeeded in persuading the French Minister of Agriculture to upgrade Château Mouton-Rothschild from second growth to first growth. No other change has ever been made in the rankings of the "classified growths."

Knowledgeable wine drinkers may argue that some of the Grands Crus Classés have not continued to live up to their rankings while other, deserving properties, have never been properly recognized. However, as you can probably tell, the French wine industry is steeped in tradition and there are not likely to be any additional changes in the foreseeable future.

A Final Word On The Wines Of Bordeaux

The wineries in the left bank area rely primarily on the Cabernet Sauvignon grape. These wineries generally produce full, elegant, and very tannic wines that may require years to soften and develop.

On the right bank, the wineries rely more heavily on the early-ripening Merlot grape. They generally produce softer, scented red wines that are more easily accessible to less sophisticated wine drinkers.

Cabernet Franc, Malbec and Petit-Verdot are the other grape varieties used in the making of this region's red wines.

Customarily, most red Bordeaux wines are made from a blend of all these grape varieties, depending on the soil and region where they are grown and the character of the vintage.

Bordeaux also has a reputation for making quality white wines. The famous whites of Graves are very dry. The Sauternes and Barsac regions are known as well for their sweet wines.

The Sauvignon Blanc and Sémillon grapes are the primary varieties used to make the crisp, dry whites of Graves or the rich, sweet whites of Sauternes. The principal difference is that the sweet wines are made from grapes that are affected by *botrytis cinerea* ("noble rot"), a fungus that dehydrates the grapes, shriveling them into raisins. According to Jancis Robinson in The Oxford Companion To Wine, the resulting grapes "may look disgusting but have undergone such a complex transformation that they are capable of producing the world's finest, and certainly the longest-living, sweet wines."

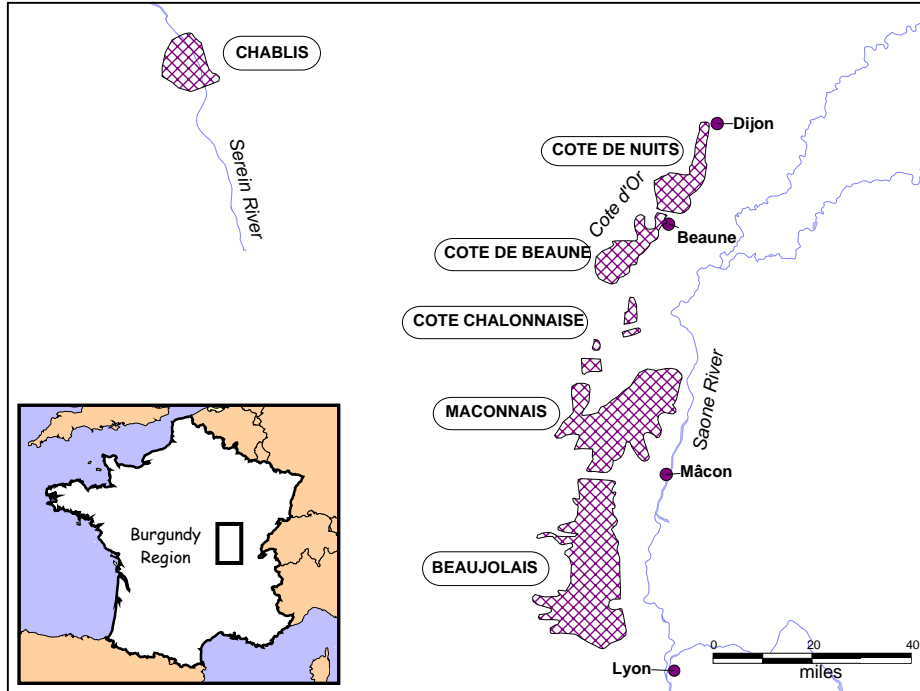
The climate of Sauternes is ideally suited to the development of noble rot. Five communes are located close to the Garonne River and its tributary, the Ciron. In the autumn, evening mists typically cover the vineyard, creating damp conditions that encourage the development of the fungus. In the late morning and afternoon the sun burns the mist away and keeps the fungus from developing too rapidly.

Check Your Understanding

1. What are three of the principal wine districts located in the left bank area of Bordeaux? What is the predominant type of soil in that area? What is the predominant grape varietal?
2. What are the two principal wine districts located on the right bank area of Bordeaux? What is the predominant type of soil in that area? What is the predominant grape varietal?
3. Describe the system of Grands Crus Classés.
4. What are the principal differences between the red wines of the left bank and the red wines of the right bank?
5. Which two varietals are used to make the dry white wines of Bordeaux?
6. Which two varietals are used to make the sweet white wines of Bordeaux? What special condition makes these wines possible?

Burgundy (*BUR-gun-dee*)

To many Americans, "Burgundy" is a generic term for red wine, just as "Chablis" is a generic term for white wine. French winemakers are appalled by this usage. To the French, the English language term "Burgundy" refers to Bourgogne (*bour-GUN-ya*), a specific wine-growing region along the Saône River in the area north of Lyon. And "Chablis" is a specific district within this region.



The Burgundy region includes about 76,600 acres of vineyards that are divided between five principal districts. The region produces world-famous red wines that are made primarily from Pinot Noir grapes and world-famous white wines that are made primarily from Chardonnay.

Here is a quick overview of the wine-growing districts of Burgundy:

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Burgundy (Saône River)	Chablis Côte d'Or <ul style="list-style-type: none"> • Côte de Beaunes • Côte de Nuits Côte Chalonnaise Maconnais Beaujolais	Pinot Noir Gamay	Chardonnay

Chablis. (*shah-BLEE*) Burgundy's most northerly district is Chablis, which is famous for its white wines.

Côte d'Or. (*coat-DOR*) The central area of Burgundy is the Côte d'Or (literally, "Golden Slope"), which extends to the north and south of the city of Beaune. This region produces some of Burgundy's most famous wines.

- The northern section, the Côte de Nuits, makes fine red wines.
- The southern section, the Côte de Beaunes, produces both red and white wines.

Côte Chalonnaise. (*coat sha-law-NAZE*) This district, also known as the Chalonnais, is located to the south of the Côte d'Or, and is named for the city of Chalon-sur-Saone.

Mâconnais. (*mah-co-NAZE*) This district, also known as the Mâcon, is south of Côte Chalonnaise. It produces one of the most famous of the fine white wines of Burgundy, Pouilly-Fuissé (*pwee-ee fwee-SAY*), and the popular Mâcon Villages (*mah-COHN vee-LAHJ*).

Beaujolais. (*bo-jho-LAY*) Burgundy's southernmost border is marked by the vineyards of Beaujolais, which are located just north of the city of Lyon. In the Beaujolais district red wines are produced primarily from the Gamay grape.

The Appellations Of Burgundy

The wine-growing areas of Burgundy are characterized by many tiny vineyards, each with its own distinct soil and climate conditions. Because the terroir of each vineyard is considered to be so unique, the Appellation d'Origine Contrôlée system is even more specific than in Bordeaux.

Wines are categorized in terms of

- **Regional Appellation – for example, Appellation Bourgogne Contrôlée.** This designation means that the grapes were grown within the region of Burgundy. And all aspects of grape cultivation and winemaking were in accordance with the laws governing the region of Burgundy.
- **District Appellation – for example, Appellation Côte de Beaune Contrôlée.** This designation means that the grapes were grown within the district of Côte de Beaune, a smaller area within the Burgundy region. Wines designated in this way would generally be considered higher quality than wines with only a regional Appellation.

These two categories – wines designated with region and district appellations – account for about two-thirds of all the wines of Burgundy.

- **Town or Commune Appellation – for example, Appellation Puligny-Montrachet Contrôlée.** This designation means that the grapes were grown within the commune (town) of Puligny-Montrachet, a smaller area within the Côte de Beaune district. Wines designated in this way would generally be considered higher quality than wines with only a district Appellation. Wines designated with a town or commune appellation account for a little more than 20% of all the wines of Burgundy.
- **Premier Cru ("first growth") – for example, Appellation Puligny-Montrachet Les Pucelles Contrôlée.** Within the Burgundy region there are Appellation d'Origine Contrôlée designations that refer to individual vineyards. More than 500 individual vineyards – producing about 10% of the wines of Burgundy – are entitled to the Premier Cru designation. On the label of these wines you will find the name of the commune, the name of the vineyard, and the designation *Premier Cru* which is sometimes abbreviated as *1er cru*.

[NOTE: The designation "Premier Cru" does not mean the same thing in Burgundy as it does in Bordeaux. In Bordeaux, *Premier Cru* refers specifically to five top chateaux. In Burgundy, the *Premier Cru* designation applies to more than 500 different vineyards which together produce about 10% of the wine of the region.]

- **Grand Cru ("great growth") – for example, Appellation Bâtard-Montrachet Contrôlée.** Within the Burgundy region there are about 30 individual vineyards – producing only about 1% of the wines of Burgundy – that are entitled to the Grand Cru designation. These wines are labeled with the name of the vineyard and the designation *Grand Cru*.

A Final Word On The Wines Of Burgundy

Within the Burgundy region nearly all of the red wines are produced from Pinot Noir grapes and nearly all of the white wines are produced from Chardonnay. (The notable exception is the Beaujolais district which produces lighter, fruitier red wines from the Gamay grape.) Yet within the region there is an enormous variety of flavor styles. Wines vary significantly from one district to the next and even from one vineyard to another.

Many of these wines are also quite expensive. Wines bearing a *Premier Cru* appellation are rarely available in the United States for less than \$35 a bottle. And wines with the *Grand Cru* designation may begin at \$70 per bottle or more.

The most famous of Burgundy's wines are the red (Pinot Noir) wines from the Côte d'Or district and the white (Chardonnay) wines from Chablis and the Côte de Beaunes. Most of the *Grand Cru* and *Premier Cru* vineyards are located within these two districts.

The Red Wines Of Côte d'Or. Côte d'Or ("golden slope") is divided into two halves. The northern half – the Côte de Nuits (*coat-da-NWEE*) – is named for the town of Nuits St. Georges and is the source of the world's most famous Pinot Noir wines. These classic wines are generally aged in oak and are considered to be the most powerful and full-bodied red wines of the region.

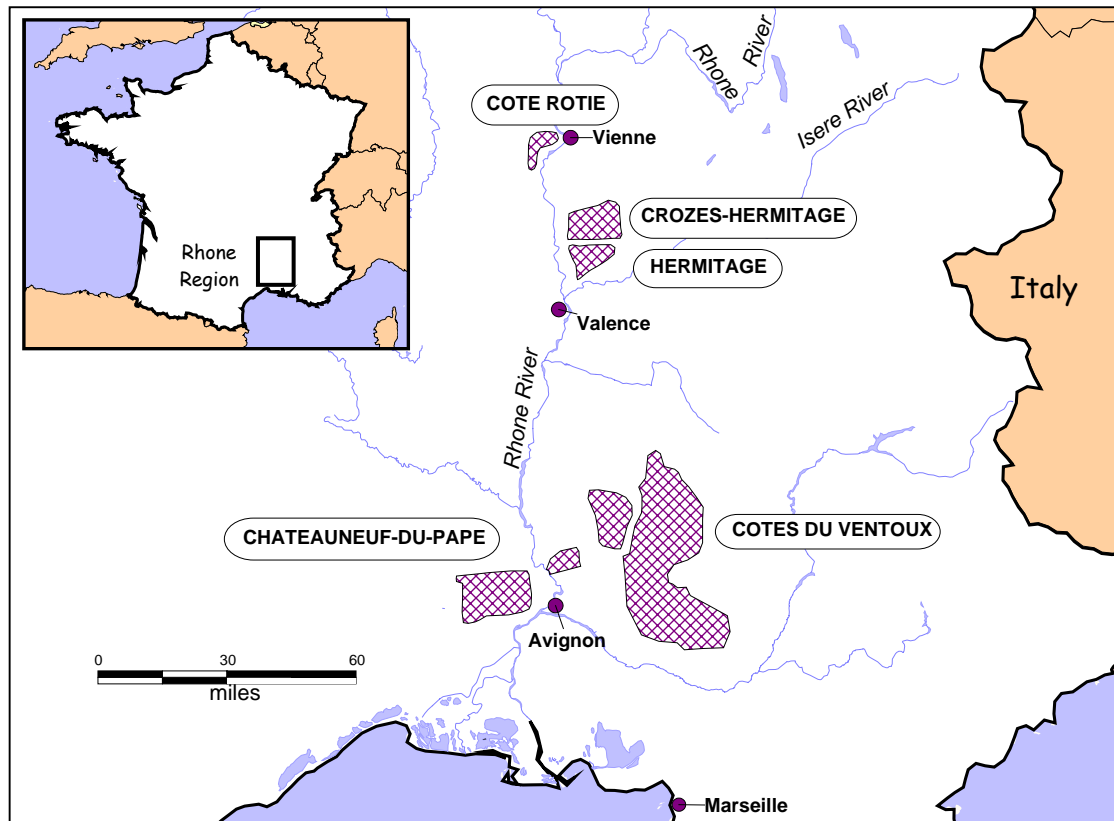
The White Wines Of Chablis And Côte De Beaune. The Chablis district is farther to the north and is somewhat cooler than the other districts of Burgundy. The relatively cool temperatures produce wines that are high in acidity, lower in ripeness and body. The white wines of Chablis are generally not aged in oak barrels. Farther south, in the Côte de Beaune (*coat-da-BONE*) area of the Côte d'Or, the white wines are generally barrel fermented and barrel aged. So they tend to taste more intense and full-bodied.

Check Your Understanding

1. Name at least three of the five principal wine districts of Burgundy.
2. What is the principal red wine grape that is grown in Burgundy? What is the predominant white wine grape?
3. In the Burgundy region the system of Appellation d'Origine Contrôlée provides five different designations. What are they?
4. Describe the most famous red wines of the Burgundy region.
5. Describe the most famous white wines of the Burgundy region.

Rhône (*rohn*)

The Rhône (*rohn*) winegrowing region draws its name from the Rhône River. The region is located just south of Burgundy, stretching from Lyon to the towns of Nîmes and Avignon in the southern area of France known as Provence.



The Rhône region is known primarily for its red wines, but it also produces white and rose wines. There are 96,370 acres of vineyards located in nearly 120 different communes. All of the wines of the region may be designated as Côtes du Rhône. There are more specific appellations, but they don't use the *Grand Cru* and *Premier Cru* designations we saw in Bordeaux and Burgundy.

Here is an overview of the region:

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Rhône (Rhône River Durance River)	Southern Rhône: <ul style="list-style-type: none"> • Châteauneuf-du-Pape • Côtes du Ventoux • Côtes du Rhône-Villages Northern Rhône: <ul style="list-style-type: none"> • Cornas • Côte-Rôtie • Crozes-Hermitage • Hermitage • St. Joseph 	Grenache Mourvèdre Syrah Cinsault Syrah	Roussanne Viognier Marsanne Roussanne

All of the wines produced in the Rhône region are full-bodied. The red wines are robust and generally need several years of aging. The white wines are powerful and long-lived and may also benefit from more aging than is typical for a white wine. Although rosé wines are not generally considered to be "fine wines," the rosé wines of the Rhône region are stylish and quite lively and are considered among the best in France.

In the Rhône River valley the weather is hot and dry. So the grapes receive a maximum amount of sunlight and, as a result, there is less variety from one vintage to another than in other areas of France. However, there are distinct differences between the wines of the southern Rhône and the wines that are produced farther north.

The Wines Of The Southern Rhône

The wines of the southern Rhône are generally full-bodied red wines made from the Grenache grape. These wines are typically high in alcohol and relatively low in tannin. They are drinkable and affordable, but are usually not considered to be particularly remarkable. For example, a red Côtes du Rhône is often available as a modestly priced "house wine" in a typical Parisian café.

The principal districts of the southern Rhône are:

- Châteauneuf-du-Pape
- Côtes du Ventoux
- Côtes du Rhône-Villages

Of these, the most famous is Châteauneuf-du-Pape, located near the city of Avignon. The name Châteauneuf-du-Pape means literally "the new house of the Pope" and dates back to the year 1309 when Pope Clement V moved the seat of the papacy from Rome to Avignon. Some of the red wines of Châteauneuf-du-Pape are quite distinguished. These wines are blended from more than thirteen different varieties including Mourvedre, Syrah, Cinsault, and – of course – Grenache.

The Wines Of The Northern Rhône

In the Rhône region only about 10% of the wine is produced in the northern part of the valley. But the wines from the north are generally regarded as the wines of highest quality in this region. Two districts are usually considered to produce the finest wines: Côte-Rôtie and Hermitage.

The Red Wines Of The Northern Rhône. In both districts the red wines are made primarily from the Syrah grape, although they may be blended with other varieties. These full-bodied wines are intense, flavorful, and tannic. Typically they are aged in oak.

The White Wines Of The Northern Rhône. In the Hermitage district white wine is made from the Marsanne and Roussanne grapes. This is traditionally a very heavy and earthy wine that may need to age for up to 10 years to reach its peak.

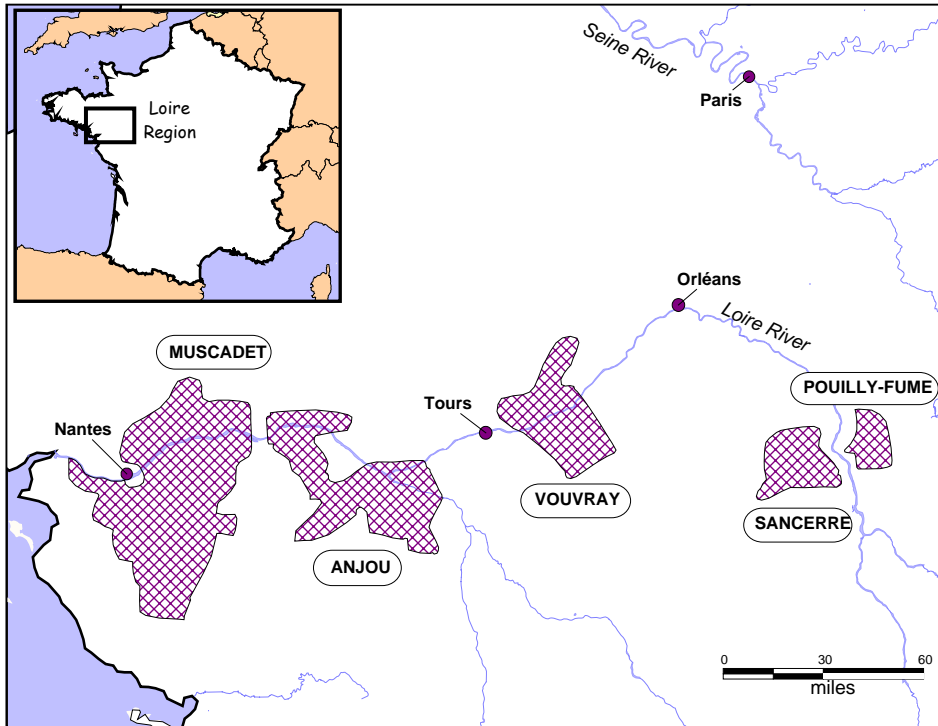
In the Côte-Rôtie district the Viognier grape is used to make the white wines of two appellations: Condrieu and Chateau Grillet. These wines feature exotic, floral flavors. They are rare – and expensive.

Check Your Understanding

1. Describe the red wines of the southern Rhône region.
2. What is the most famous district of the southern Rhône region? What is unusual about the red wine that is produced there?
3. What are considered to be the two finest districts of the northern Rhône region?
4. What is the principal red wine grape of the northern Rhône region?

Loire (*Iwahr*)

The Loire region is named after the Loire River. The river originates near the Burgundy region in eastern France and snakes its way westward for nearly 600 miles to the Atlantic Ocean.



The Loire River valley is an immense vineyard area known for its scenery and history. The climate of the region is relatively cool, producing wines that are typically lighter in body. Although some red and rose wines are cultivated, the region is most famous for its crisp white wines.

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Loire (Loire River Cher River)	Sancerre Pouilly-Fumé Vouvray Coteaux du Layon Savennières Muscadet Sèvre-et-Maine	Cabernet Franc Gamay	Sauvignon Blanc Chenin Blanc Muscadet de Bourgogne (Melon de Bourgogne)

The Loire River valley is divided into three principal areas: upper, middle, and lower.

The Upper Loire. Near its eastern end the Loire Valley is just south of the city of Paris. Here, in the areas surrounding the towns of Sancerre and Pouilly-sur-Loire, world famous white wines are made from the Sauvignon Blanc grape. The wines – Sancerre (*sahn-SAYR*) and Pouilly-Fumé (*pwee-ee foo-MAY*) – share several important characteristics:

- Both are relatively acidic and light in body due to the cool growing climate.
- Unlike the white wines of Bordeaux, both are 100% Sauvignon Blanc with no Sémillon blended in.
- Both wines are generally made in stainless steel or in large oak vats that do not impart oak flavor. So they accentuate the fresh crispness of the Sauvignon Blanc grape.
- Both wines may have a flinty, mineral-like flavor.

NOTE: Don't confuse *Pouilly-Fumé* with the similar-sounding but much different *Pouilly-Fuissé*. *Pouilly-Fumé* is a Sauvignon Blanc from the Loire Valley, while *Pouilly-Fuissé* is a Chardonnay from the Mâcon district in Burgundy. As you would expect, the *Pouilly-Fuissé* is more full-bodied. The *Pouilly-Fumé* is lighter-bodied and more acidic.

The Middle Loire. The Middle Loire includes the area surrounding the city of Tours. This area produces some of the Loire's best red wines, including *Chinon* and *Bourgueil*, from the Cabernet Franc grape.

What is most distinctive about the Middle Loire is that it produces the world's foremost wines made from the Chenin Blanc grape. Elsewhere in the world this grape produces wines that are relatively ordinary. But in the districts of Vouvray, Coteaux du Layon, and Savennières, the Chenin Blanc grape produces white wines that many consider to be among the best white wines in the world. Because of their high acidity these wines generally require several years to develop. And, unlike most white wines, they can preserve their freshness and flavor for many years after bottling.

The Lower Loire. The Lower Loire is the western area of the valley near the city of Nantes, where the Loire River flows into the Atlantic Ocean. The Lower Loire – particularly the area of Sèvre-et-Maine – is home to *Muscadet*, one of France's most famous dry white wines.

The wines of the Old World are often crafted to complement the local cuisine, and Muscadet is no exception. This light, crisp wine is an excellent accompaniment to the local seafood, clams, and fresh oysters. By the way, Muscadet is often enhanced through *sur lie* aging.

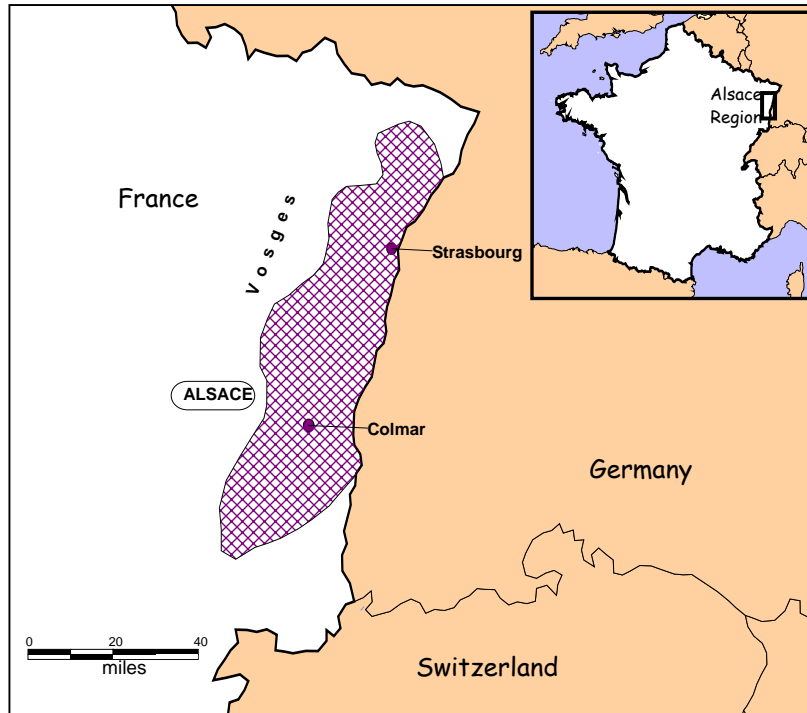
The Lower Loire area is also famous for fine rosés and sweet white wines.

Check Your Understanding

1. What is the principal white wine grape of the Upper Loire valley? What are the two famous white wines that are produced in this area?
2. What is distinctive about the fine white wines produced in the Middle Loire valley?
3. What is the principal white wine of the Lower Loire valley?

Alsace (*ahl-SAHSS*)

The province of Alsace is located in eastern France, just across the Rhine River from Germany. Its vineyards are located on the eastern slope of the Vosges Mountains, stretching from Strasbourg in the north about 70 miles south to Mulhouse along the *route du vin* ("wine road").



At several points in its history the province of Alsace was actually part of Germany. Today, consumers sometimes confuse the wines of Alsace – particularly Riesling and Gewürztraminer – with their German counterparts. To avoid this confusion keep in mind that most of the wines of Alsace are generally dry, while the wines of Germany are often medium-dry or sweet.

Although Alsace does produce some Pinot Noir, the region is famous for its white wines. Compared with the other fine wines of France, the wines of Alsace are unique in several ways:

- The wines of Alsace are packaged in a tall, flute-shaped bottle. Don't be put off by this shape – it does not mean that the wine is sweet (it isn't). Rather the shape of the bottle is a holdover from the region's German heritage.
- The wines are always identified on the label by the grape varietal.
- By law, the wine must contain 100% of the designated varietal grape.

- There are no complicated appellations. Wines from Alsace are simply designated Appellation Alsace Contrôlée.
- The wines of Alsace are characterized by a distinctive "spicy" quality.

The chart below provides an overview of Alsace:

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Alsace (Rhine River)		Pinot Noir	Riesling Pinot Blanc Gewürztraminer Pinot Gris

The Grapes Of Alsace

Growers in Alsace cultivate a variety of white wine grapes. However, four varietals account for about two-thirds of all the wine produced in the region. Currently, Riesling and Pinot Blanc each account for about 20% of annual grape production. Gewürztraminer is also widely planted, but annual harvests can fluctuate significantly from one year to the next. And Pinot Gris is increasing in popularity and currently accounts for about 10% of all harvests.

An interesting footnote is that for many years the Alsatian name for Pinot Gris was *Tokay d'Alsace*. The name dates back to the 16th century when the grapes were brought back to Alsace from a military expedition against the Turks in Hungary. The grapes were erroneously named "Tokay" after the most famous wine of Hungary. To avoid confusion on the world market, European lawmakers are now proposing to call the grape *Tokay Pinot Gris* as a step toward eventually eliminating the name Tokay from the grapes of Alsace.

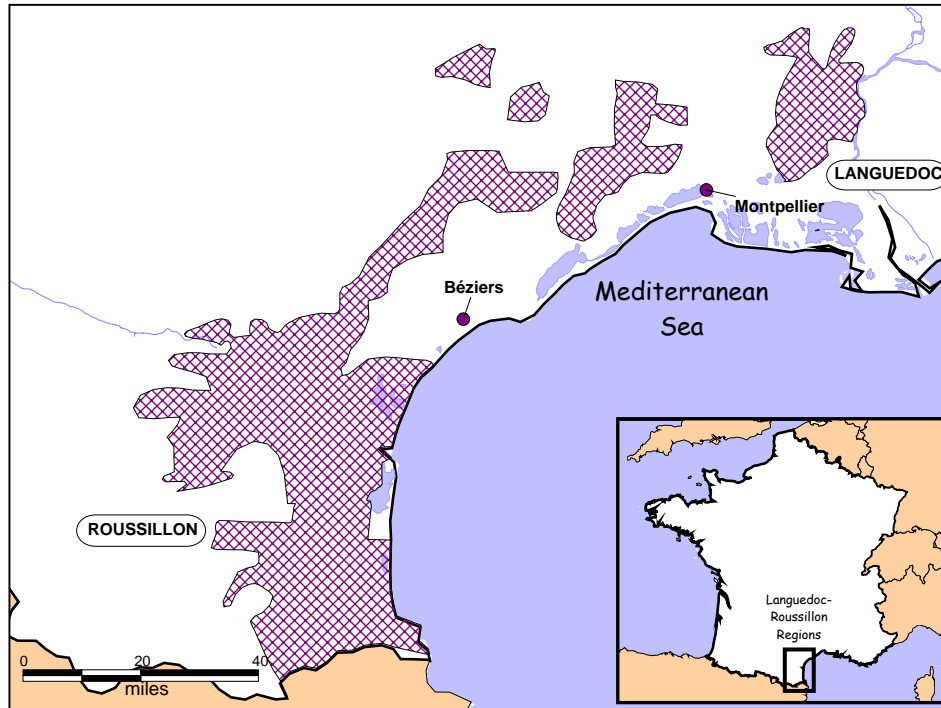
Check Your Understanding

1. What are the principal white wine grapes of the Alsace region?
2. How do the white wines of Alsace differ from the white wines of Germany?
3. Name three characteristics of the wines of Alsace that are unique among the fine wines of France.

Languedoc-Roussillon

(lahn-ga-DOC roo-see-YON)

Languedoc and Roussillon are two regions in the southern part of France. Although they are often grouped together as a hyphenated wine region, the two areas are actually quite different in almost every regard.



The chart below provides an overview of the wines of these regions:

Region	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Languedoc	Corbières Minervois Fitou Costières de Nîmes	Syrah Gamay Grenache Cabernet Sauvignon Merlot	Chardonnay Sauvignon Blanc Viognier
Roussillon	Côtes du Roussillon Côtes du Roussillon-Villages	Carignane Syrah Mourvèdre	Grenache Blanc Marsanne Roussanne

Languedoc

In terms of volume, Languedoc is the largest winegrowing region in France. It includes about 750,000 acres of vineyards and produces about a third of all French wines.

Despite the region's long heritage of winemaking and the size of the local wine industry, Languedoc has, until recently, been somewhat overlooked in terms of fine wine production. In fact, the region produces only about 10% of France's AOC wines. And, until recently, it was best known for producing simple, affordable, everyday wines of undistinguished quality.

In the last 20 years the region has undergone a renaissance in terms of fine winemaking. And the region has overturned many of the French traditions becoming, in effect, the New World of winemaking in France:

- Growers pulled out many of the traditional Carignane vines and vineyards were replanted with Syrah, Gamay, and Grenache, along with Cabernet Sauvignon and Merlot.
- Despite limited capital for investment, local cooperatives have begun to adopt new winemaking processes and equipment.
- Many winemakers now choose to operate outside of the AOC regulations. Instead, they focus on producing high-quality country wine (vin de pays) with the Pays d' Oc designation.
- Local winemakers have learned from the success of their New World counterparts and have begun to craft very drinkable, accessible wines with strong fruit flavors.

As a result, the red wines of Languedoc represent some of the best values of any French wines that are available in the United States.

Roussillon

The region of Roussillon is located just to the south of Languedoc. And although the two winemaking regions are often discussed together they are distinctly different.

Unlike other winegrowing regions of France, the climate of Roussillon is sunny, warm, and dry. Drought is a principal concern, and low yields are characteristic of the area. In that regard, Roussillon is more similar to the winegrowing regions of northern Spain.

The wine styles of the region are also more similar to Spain than to France. The local red wines are generally blended from the Carignane grape and though they are robust and of good value, they are not considered particularly subtle or refined.

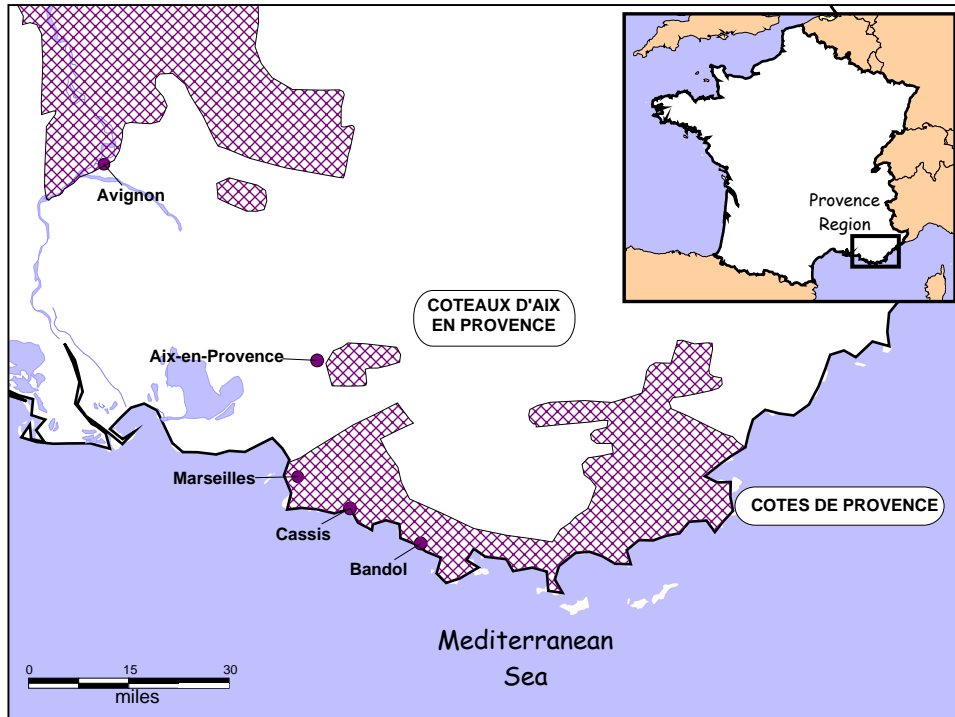
The warm climate yields white wine grapes that are low in acid, making it difficult for local winemakers to produce exceptional white wines.

Check Your Understanding

1. Why is Languedoc sometimes considered the New World of France's winemaking regions?
2. Why are some of Languedoc's best wine values not AOC wines?

Provence (*pro-VAHNCE*)

The Provence region is located in the southeastern corner of France. Although the region has been known traditionally for its dry rosé wines, it currently shows considerable promise in producing fine red wines.



The climate of Provence is considered "Mediterranean," which is to say that it is sunny, warm, and dry. One unusual climatic factor is the *mistral*, a cold wind that blows down from the northern plateau.

About 80% of Provence's wine production is directed toward the dry rosé wines for which the region is noted. But here's a summary of the emerging fine wines of the area:

Region	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Provence	Côtes de Provence Coteaux Varois	Syrah Cabernet Sauvignon Cinsaut Grenache Mourvèdre	Ugni Blanc (Trebbiano) Sémillon

AOC regulations are in the process of changing the blend of red wine grapes that is permitted in the Côtes de Provence appellation. As we saw in Roussillon, the traditional Carignane grape is increasingly being replaced by Syrah and Cabernet Sauvignon. There is also an emerging interest in cultivating fine white wines, particularly in the cooler coastal areas.

Check Your Understanding

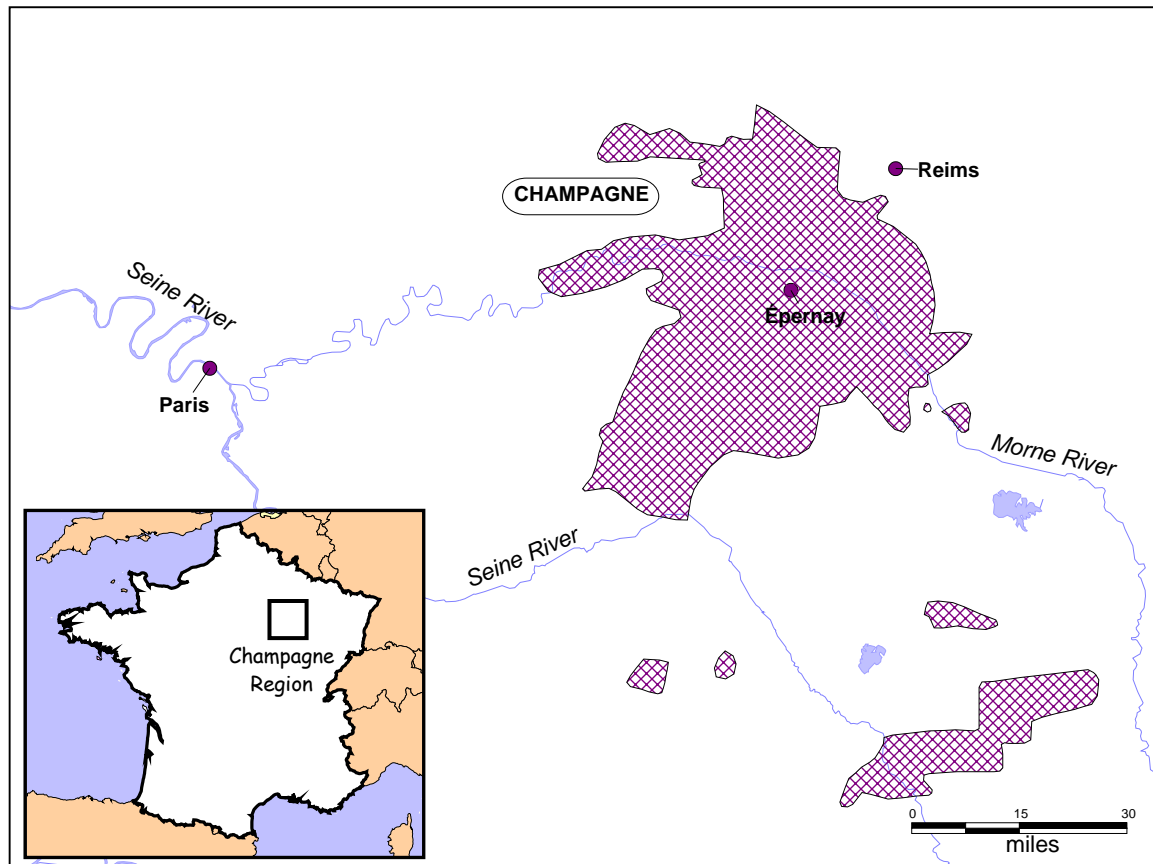
1. What kind of wines account for about 80% of Provence's overall production?
2. Which grapes are playing an increasingly important role in the region's attempts to produce fine red wines?

Champagne (*shom-PAHNye*)

As you know, the focus of this manual is on fine table wines. And though sparkling wine is a fascinating and delicious subject, it is beyond the scope of our work. But in order to provide you with a balanced understanding of the great winemaking regions of France we must include at least a brief look at Champagne.

By now you have probably developed a strong feeling for the French concept of *terroir*. So it will probably not come as a surprise to learn that, to the French, all sparkling wine is not "Champagne." Rather, the term "Champagne" refers to a particular winegrowing region in northeastern France and to the sparkling wines that are produced there in accordance with a slow, methodical process known as "méthode champenoise."

NOTE: Sparkling wines made in other regions of France are known as "vins mousseux" which means, literally, "sparkling wines." If these are made using the same process that is followed in the Champagne region, they may be identified as "méthode champenoise." But, to the French, only sparkling wines made in the Champagne region are ever considered to be "Champagne."



The Champagne region does produce some red and white table wine, as well as some pink sparkling wine. However, nearly all Champagne is sparkling white wine that is produced from a traditional blend of three different kinds of grapes: two red varieties (Pinot Noir and Pinot Meunier) and one white variety (Chardonnay). As Jancis Robinson notes in The Oxford Companion To Wine: "Common wisdom has it that, as an ingredient in the traditional three-variety champagne blend, Meunier contributes youthful fruitiness to complement Pinot Noir's weight and Chardonnay's finesse."

Some Champagnes are made exclusively from red wine grapes (Pinot Noir and Pinot Meunier). The grapes are pressed immediately after harvesting in order to extract the white juice, which is known as *Blanc De Noirs* ("white from black").

And some Champagnes are made exclusively from white wine grapes (Chardonnay). These sparkling wines are lighter and more delicate and are known as *Blanc De Blancs* ("white from white").

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Champagne (Marne River)	Côte des Blancs Montagne de Reims Valleé de la Marne	Pinot Noir Pinot Meunier	Chardonnay

The Méthode Champenoise

The méthode champenoise is a time-consuming and labor-intensive process that involves a second fermentation in each individual bottle. Here's a brief summary of the process:

- Different grape varieties are fermented (in the usual way) and the resulting wines are kept separately.
- The winemaker blends these wines in the precisely desired proportions to create a *cuvée*, or base wine. It's not unusual for a winemaker to blend a hundred or more wines together into a single *cuvée*.
- Each bottle is filled with this *cuvée*, along with a mixture of sugar and yeast. The bottles are stored in a cool cellar. (Beneath the Champagne towns of Epernay and Reims there are literally miles of corridors that have been carved out of the chalky ground.)

- Inside the bottle, a second process of fermentation takes place. However, since the bottle is capped the carbon dioxide that results from the fermentation cannot escape. So it remains inside the wine in the form of bubbles.
- Meanwhile, as the second fermentation continues, the yeast cells die and produce lees that impart a yeasty, caramel flavor to the wine.
- After a period of time the bottles are turned upside down and put through a process of shaking and turning that is called *remuage* or, in English, *riddling*. This action causes the lees to fall to the neck of the bottle. (This process is extremely labor intensive and may eventually be replaced by a mechanical alternative.)
- The neck of the bottle is then frozen. When the cap of the bottle is removed, the frozen lees are expelled.
- Then the bottle is topped and corked.

Vintage And Non-Vintage Champagne

Champagne is the farthest north of any of the winegrowing regions of France. And the climate – cold in the winter and not too warm in the summer – is barely adequate to ripen the grapes. So, as you would expect, the quality of the grape harvest varies significantly from one year to another. This situation has three major impacts on the production of "vintage" Champagne:

- In some years the harvest is so exceptional that a winemaker may declare a "vintage year" during the process of blending the *cuvée*. But, because only a few years produce vintage Champagnes, only truly superior wines carry a vintage date.
- There is a more lenient standard for what can legally be considered a "vintage" Champagne. By law, a specific vintage year may legally contain up to 20% of wine from other years.
- Even with this more lenient standard, about 85% of all Champagnes are bottled without a vintage year on the label. And wines from three or more harvests are typically blended together to create these nonvintage Champagnes.

However, keep in mind that all Champagnes – vintage and nonvintage – are blended from grapes that came from many different vineyards. For that reason, vintage years are not as important to Champagnes as they are to wines in other regions.

Check Your Understanding

1. What, exactly, is the correct use of the term "Champagne?"
2. What are the principal grapes used to make the sparkling wines of the Champagne region?
3. What is the "méthode champenoise?"
4. What is "blanc de noir?"
5. What is "blanc de blanc?"
6. How does vintage Champagne differ from other vintage French wines?

You've learned a great deal about French wines and the traditions of the French winemaking industry. On the next three pages we've included a chart that summarizes all of the winemaking regions we've examined. Take a few minutes to review the chart and refresh your memory about the regions of France.

The Wine Regions Of France

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Bordeaux (Gironde River, Garonne River Dordogne River)	<u>West (Left) Bank</u> <ul style="list-style-type: none"> • Haut-Médoc: <ul style="list-style-type: none"> – Saint-Estephe – Pauillac – Saint-Julien – Margaux • Graves/ Pessac-Léognan • Sauternes <u>Between The Rivers</u> <ul style="list-style-type: none"> • Entre-Deux-Mers • Premières Côte de Bordeaux <u>East (Right) Bank</u> <ul style="list-style-type: none"> • Pomerol • Saint Emilion 	Cabernet Sauvignon Merlot Cabernet Franc Malbec Petit-Verdot	Sauvignon Blanc Sémillon
Burgundy (Saône River)	Chablis Côte d'Or <ul style="list-style-type: none"> • Côte de Beaunes • Côte de Nuits Côte Chalonnaise Maconnais Beaujolais	Pinot Noir Gamay	Chardonnay

The Wine Regions Of France (Continued)

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Rhône (Rhône River Durance River)	Southern Rhône: <ul style="list-style-type: none"> • Châteauneuf-du-Pape • Côtes du Ventoux • Côtes du Rhône-Villages Northern Rhône: <ul style="list-style-type: none"> • Cornas • Côte-Rôtie • Crozes-Hermitage • Hermitage • St. Joseph 	Grenache Mourvèdre Syrah Cinsault Syrah	Roussanne Viognier Marsanne Roussanne
Loire (Loire River Cher River)	Sancerre Pouilly-Fumé Vouvray Coteaux du Layon Savennières Muscadet Sèvre-et-Maine	Cabernet Franc Gamay	Sauvignon Blanc Chenin Blanc Muscadet de Bourgogne (Melon de Bourgogne)
Alsace (Rhine River)		Pinot Noir	Riesling Pinot Blanc Gewürztraminer Pinot Gris
Languedoc Roussillon	Corbières Minervois Fitou Costières de Nîmes Côtes du Roussillon Côtes du Roussillon- Villages	Syrah Gamay Grenache Cabernet Sauvignon Merlot Carignane Syrah Mourvèdre	Chardonnay Sauvignon Blanc Viognier Grenache Blanc Marsanne Roussanne

The Wine Regions Of France (Continued)

Region (River Valley)	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Provence	Côtes de Provence Coteaux Varois	Syrah Cabernet Sauvignon Cinsaut Grenache Mourvèdre	Ugni Blanc (Trebbiano) Sémillon
Champagne (Marne River)	Côte des Blancs Montagne de Reims Valleé de la Marne	Pinot Noir Pinot Meunier	Chardonnay

Review

This chapter has been an introduction to the fine wines of the Old World. And we've focused on the major winegrowing regions of France and the most famous wines that are produced there.

Take a moment to look again at the generalized summary we provided at the beginning of the chapter:

Old World Generalizations	New World Generalizations
<p>The countries of Europe:</p> <ul style="list-style-type: none"> • France • Italy • Germany • Spain • Portugal 	<p>The countries of the Americas, the Pacific, and Africa:</p> <ul style="list-style-type: none"> • United States • Australia • New Zealand • Chile • Argentina • South Africa
<p>Tradition. The experience of many generations has led to conclusions (sometimes codified by law) about the combination of grapes, viticultural practices, and winemaking techniques that will produce the finest wine from each plot of land.</p>	<p>Innovation. There is ongoing experimentation with different grape varieties, viticultural techniques, winemaking processes, and new technologies.</p>
<p>Convention of using the place name of the vineyard – a region, district, town, vineyard area, or specific estate – to identify the wine rather than the variety of the grape.</p>	<p>Wines are typically identified by both the variety and the geographic location of the vineyards.</p>
<p>The appellation system is designed to support the European Union's two tier hierarchy of "quality wine" and "table wine." Fine wines meet the EU criteria for "Quality Wines Produced in a Specific Region."</p>	<p>Each country has its own system of appellation and quality control.</p>
<p>Multiple grape varieties thrive and reach the consumer.</p>	<p>Tend to have one or two varieties that drive their growth in export markets.</p>
<p>Wines tend to be subtler, more understated. Stronger emphasis on "earthy" or "mineral" characteristics.</p>	<p>Wines tend to be bolder, more intense, more "fruit-forward." They tend to accent the variety character of the grape more than the impact of the winemaking process.</p>
<p>These wines often complement the subtle flavors of the local cuisine from their region.</p>	<p>These wines have a bolder style that goes well with simple foods or foods that have strong flavors.</p>

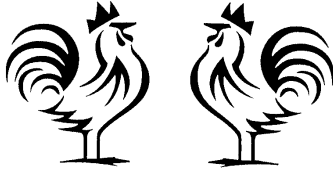
Here are some suggestions so you can check to see how well you've learned the material in this chapter.

- Explain the major differences between the wines of the “Old World” and the wines of the “New World.”
- Identify the impact of French winemaking on the prevailing international styles of fine wines that are produced for export to the world market.
- Describe the primary winegrowing regions of France..
- Describe the principal wines of each of these famous winegrowing regions.

If you find that you can't remember everything you've read, don't worry. There is a tremendous amount of information! You may want to take some time to reread this chapter several times – especially those portions of the chapter that are most applicable to your current market. You should also consider this chapter to be a reference that you can return to in the future.

You may also find it helpful to review selected portions of the chapter in conjunction with visits to fine wine retailers. For example, you might read about the wines of Bordeaux and then visit a store that has a good selection of wines from that region. By reading the wine labels, reviewing the appellations, and talking with wine retailers you'll be able to continually improve your understanding of the geography of each region, and the grapes, winemaking processes, and styles of its fine wines.

Despite the amount of information in this chapter we've only scratched the surface of a topic that is as fascinating as it is complex. If you're interested in learning more about the wines of the Old World, you'll find list of resources at the end of Chapter 10.



Chapter 9

Fine Wines Of The Old World, Part 2

In Chapter 8 you were introduced to the fine wines of the Old World. And you learned specifically about the impact of France on the styles and traditions of the international wine industry. You reviewed the French system of *Appellation D'Origine Contrôlée* that serves as the basis for classifying French wines. You examined the major growing regions of France, along with the predominant varietal grapes that are cultivated and the most famous fine wines that are produced. And you began to learn how – despite a worldwide reputation for high quality – French wine producers have struggled in the world market because of the fragmentation of their industry, the perceived complexity of their products, and the lack of any major leading brands.

This chapter and the next chapter will continue your introduction to the fine wines that are currently produced around the world. In this chapter we'll consider the other traditional European wine-producing countries of Italy, Germany, Spain, and Portugal. Then, in the next chapter, we'll look at the New World countries that are becoming an increasingly powerful force in the global wine industry: the United States, Australia, New Zealand, Chile, Argentina, and South Africa.

As you work through the next two chapters keep in mind the two important reasons why you should invest the time and effort to become familiar with the fine wines that are produced around the world.

First, as a sales person who represents fine wine offerings from Gallo of Sonoma, you may need to compete directly against many of these wines. By gaining familiarity with these wines you'll be able to position your own products more effectively. And you'll be better able to address the perspectives and concerns of the fine wine retailers who are your customers.

Second, as the wine industry becomes increasingly global in scope, Gallo continues to expand and diversify our own portfolio. (For example, you're already familiar with the wines from Italy in our Ecco Domani line and our Bella Sera MPC brand, and our Australian HPC entry McWilliams' Hanwood Estates.) During the years ahead we may enter into alliances and marketing agreements with wine producers from anywhere in the world. And, in some cases, we may become involved directly in the production of wines in other countries. So by learning about the fine wines produced by leading exporting countries you'll be better equipped to speak knowledgeably and credibly about some of the types of wines that may be part of your Gallo portfolio in the future.

A Few Limitations

Although winemaking is truly a global industry we have – by necessity – been selective in choosing which countries to highlight. Our focus is on those countries that export fine wine and are truly a major part of the international wine industry. So, the fact that we have not featured a particular country in this chapter or the next chapter is not meant in any way to imply that the country does not produce any fine wine. It just means that the country does not export sufficient quantities of fine wine to be a factor in the United States market.

We have done our best to present all of this material to you in a clear and straightforward way. But there is a lot of information here for you to absorb and assimilate. Since some of this material is probably new to you, you may find it helpful to read some parts of the chapter two or three times.

Overview

This chapter is divided into sections that focus on each of these major Old World international wine-exporting countries:

- Italy
- Germany
- Spain
- Portugal

To help you gain some perspective on the relative importance of these wine producing countries, let's review some of the facts that you learned in Chapter 8:

- In the year 2001, imports accounted for nearly 23% of all table wine sales in the United States. Imported wines represented about 46 million cases out of a total volume of approximately 203 million cases.
- Table wines from five Old World countries together accounted for about 65.3% (a little less than two thirds) of the imported wines sold in the United States:

Italy	37.7%
France	20.4%
Germany	3.0%
Spain	3.0%
Portugal	1.2%

- Projections suggest that in the year 2005, imported wines will account for more than 24% of all table wine sales in the United States. Imported wines are expected to represent about 57 million cases out of an estimated total volume of 233 million cases.
- In the year 2005, the table wines of Italy are still expected to represent about 38% of total table wine imports. However, the wines of the other Old World countries are expected to decline in popularity relative to New World wines, especially the wines of Australia.

[NOTE: The next four pages repeat information that you've already seen in Chapter 8. Although you may already be somewhat familiar with this material, the information is important for your understanding of this chapter. We suggest that you take the time to read these pages again now.]

The Impact Of The European Union

Wines have been produced in the Old World for many hundreds of years. During this long history, generations of winemakers have planted different varieties of grapes and applied different viticultural techniques and winemaking practices in an effort to determine how to produce the best wine from each plot of ground. Over the years, many of these practices have become codified in law. This means that the location where the grapes are grown determines which grapes may be planted and how those grapes may be cultivated, harvested, and turned into wine. As a result, the wine-producing countries of the Old World consider geography – that is, the specific location where the grapes were grown – to be an absolutely critical determinant of the quality of a wine.

In recent years, the European Union ("EU") has created a significant amount of standardization in the labeling requirements for European wines. And it's probably not surprising that the European system is closely tied to an elaborate system of place-names.

Here's a broad overview of the EU system.

All wines are divided into two large categories: a lower category that in English is called "Table Wine" and a higher category that the EU calls "Quality Wine Produced In A Specific Region" or QWPSR. And within each of these categories there are two sub-categories, with the result that all wines produced in Europe are labeled with one of four quality designations:

- Higher designations are more specific about the particular geographic origin of the grapes and the particular viticultural practices and winemaking techniques that may be used with those grapes.
- Lower designations are less specific about the particular geographic origin of the grapes and the particular viticultural practices and winemaking techniques that may be used with those grapes.

The chart on the next page summarizes the names of these four classifications for the wines of France, Italy, Germany, Spain, and Portugal.

	Quality Wine Produced In A Specific Region		Table Wine	
	Highest Status	Somewhat Lower Status	With Specific Geography	Without Specific Geography
France	Appellation D'Origine Contrôlée (AOC)	Vin D�limit� de Qualit� Sup�rieure (VDQS)	Vin de pays	Vin de table
Italy	Denominazione di Origine Controllata e Garantita (DOCG)	Denominazione di Origine Controllata (DOC).	Indicazione di Geografica Tipica (IGT)	Vino da Tavola
Germany	Qualitatswein mit Pradikat (QmP)	Qualitatswein bestimmter Anbaugebiete (QbA)	Landwein	Deutcher tafelwein
Spain	Denominaci�n de Origen Calificada (DOCa)	Denominaci�n de Origen (DOC)	Vino de la tierra	Vino de mesa
Portugal	Denomina�o de Origem Controlada (DOC)	Indica�o de Proveniencia Regulamentada (IPR)	Vinho de mesa regional	Vinho de mesa

You're already familiar with the French system of *Appellation D'Origine Contr l e*. That system serves as the basis for all of the European Union's wine classifications.

The Old World And The New World

Wine experts are often hesitant to make generalizations. But, as you've already seen in Chapter 8 and will soon discover again in Chapters 9 and 10, the global wine industry is a vast subject and it's easy to be overwhelmed by the details.

To help provide a framework for your understanding we've reprinted the chart that you saw in Chapter 8. This chart on the next page summarizes some of the major differences between the wines of the Old World and the New World. Keep in mind that the chart is based on broad generalizations about the Old World and New World wine producing countries.

Old World Generalizations	New World Generalizations
<p>The countries of Europe:</p> <ul style="list-style-type: none"> • France • Italy • Germany • Spain • Portugal 	<p>The countries of the Americas, the Pacific, and Africa:</p> <ul style="list-style-type: none"> • United States • Australia • New Zealand • Chile • Argentina • South Africa
<p>Tradition. The experience of many generations has led to conclusions (sometimes codified by law) about the combination of grapes, viticultural practices, and winemaking techniques that will produce the finest wine from each plot of land.</p>	<p>Innovation. There is ongoing experimentation with different grape varieties, viticultural techniques, winemaking processes, and new technologies.</p>
<p>Convention of using the place name of the vineyard – a region, district, town, vineyard area, or specific estate – to identify the wine rather than the variety of the grape.</p>	<p>Wines are typically identified by both the variety and the geographic location of the vineyards.</p>
<p>The appellation system is designed to support the European Union's two tier hierarchy of "quality wine" and "table wine." Fine wines meet the EU criteria for "Quality Wines Produced in a Specific Region."</p>	<p>Each country has its own system of appellation and quality control.</p>
<p>Multiple grape varieties thrive and reach the consumer.</p>	<p>Tend to have one or two varieties that drive their growth in export markets.</p>
<p>Wines tend to be subtler, more understated. Stronger emphasis on "earthy" or "mineral" characteristics. Tend to have a higher level of acidity.</p>	<p>Wines tend to be bolder, more intense, more "fruit-forward." They tend to accent the variety character of the grape more than the impact of the winemaking process.</p>
<p>These wines often complement the subtle flavors of the local cuisine from their region.</p>	<p>These wines have a bolder style that goes well with simple foods or foods that have strong flavors.</p>

Now, of course, these are just generalizations. And, like any generalizations, they should be regarded with a degree of skepticism. But we believe there's enough general validity to help you as you learn more about the wines from each of the great wine-producing countries of the world.

Objectives

After reading this chapter you should understand and be able to explain:

- The major differences between the wines of the Old World and the wines of the New World.
- The major wine-producing countries of the Old World that produce and export fine wines for the world market.
- The primary winegrowing regions of each of these countries.
- The principal wines of each of these famous winegrowing regions.

Key Terms

As you read this chapter you will encounter many new terms including the names of appellation laws, winemaking regions, specific wines, and winemaking processes. By the end of the chapter you should recognize and understand all of these key terms. To help you become more comfortable with these terms we've included a phonetic guide to pronunciation in the parentheses.

Apulia (*a-POO-lee-ah*)

Denominazione di Origine Controllata

(*day-no-mee-nah-tsee-OH-nee dee OH-ree-jheen con-troh-LA-tah*)

Denominazione di Origine Controllata e Garantita (DOCG).

(*day-no-mee-nah-tsee-OH-nee dee OH-ree-jheen con-troh-LA-tah ee gahr-ahn-TEE-ta*)

Friuli-Venezia Giulia (*free-OO-lee va-NAYTS-ee-ah JOO-lee-ah*)

Halbtrocken (*HALB-troh-ken*)

Kabinett (*KAB-ee-net*)

Piedmont (*PEED-mahnt*)

Qualitätswein (*KAL-ee-tates-vine*)

Quality Wine Produced in a Specific Region

Rioja (*ree-OH-ha*)

Sicily (*SIH-sa-lee*)

Spätlese (*SHPATE-lay-za*)

Tre Venezie (*tray va-NAYTZ-ee-ay*)

Trentino-Alto Adige (*tren-TEE-noh AHL-toh AH-dee-jhay*)

Trocken (*TRO-ken*)

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

The Wines Of Italy



Italy's heritage of winemaking dates back two thousand years. And today, Italy is without question the world's largest producer – and foremost exporter – of wine. The country produces about 1.4 billion gallons of wine annually and in the year 2001 accounted for about 38% (by volume) of all foreign table wines imported into the United States.

Unlike France, where grapes can only be cultivated in selected regions, Italy produces wine literally everywhere in the country. With climates ranging from the arid barrenness of Sicily in the south to the hills of Tuscany to the slopes of the Alps in the north, the variety of growing conditions is truly dazzling. And numerous varieties of grapes are cultivated, including many indigenous varieties that are grown commercially only in Italy.

Although wine is considered a natural part of everyday Italian life, an emphasis on fine wine has been relatively slow to develop. For many Italians, wine has been – and continues to be – a product that is consumed and enjoyed right away. And despite a long tradition of winemaking, Italy has never shared the French emphasis on terroir and the resulting codification of viticultural and winemaking practices.

However, in 1963 Italy became a member of the Common Market (the precursor to today's European Union). At this time, Italy's wine industry faced two significant challenges: continual overproduction and declining domestic consumption. To help the industry become more competitive in the global market, the Italian government enacted a series of laws to organize and improve the country's wine production. These laws took such steps as outlining specific place names and delimiting the country's best wine producing districts. And they triggered a rapid development effort that embraced modern wine science to improve quality. As a result, Italy's wine industry has grown rapidly to a leading position in the worldwide export market.

To date, Italy has not yet adopted the French system of designating in law the best vineyard sites. But, as in France, all wines are designated by one of four possible rankings. The first two fall within the European Union's lower quality tier for wines:

- **Table Wines.** These are ordinary wines that may be made from grapes that were grown anywhere in Italy. By law, the label provides no information about the geographic origin of the grapes, the varietal, or the vintage.
- **Indicazione di Geografica Tipica (IGT).** These are table wines are labeled with a place name that indicates where the grapes were cultivated. As in France, this place name generally refers to a large geographic region – a much larger region, for example, than would be indicated for wines of higher quality. These wines may only be labeled with a geographic designation that has been specifically approved by the Italian government.

The other two rankings fall with the European Union's higher quality tier:

- **Denominazione di Origine Controllata (DOC).** This label means that the wine was grown and produced within a regulated location. These wines meet the requirements for the European Union's higher quality tier, Quality Wines Produced in a Specific Region. And, as you saw in France, government regulations control a variety of grape growing and winemaking processes that are intended to ensure the quality of the resulting wine. These processes may include:
 - The precise boundaries of each designated area
 - Which grape varietal may be grown in the specific area
 - The maximum allowed yield
 - The minimum allowed alcohol content
 - Some viticultural practices – for example, irrigation
 - Specific winemaking or aging requirements

- **Denominazione di Origine Controllata e Garantita (DOCG).** This is the highest and most restrictive of the Italian appellations and is currently reserved for a relatively small number of Italy's finest wines. The DOCG designation means that the place of origin is "regulated and guaranteed." In addition, DOCG wines must adhere to the most precise requirements, including:
 - Strict yield limitations. As in most of the European countries, yield is determined by the quantity of wine produced from an area of a specific size. The common European measure is hectoliters/hectare. (A hectoliter is 100 liters, or approximately 26.5 gallons. A hectare is 10,000 square meters, or approximately 2.47 acres.)
 - Longer minimum aging requirements
 - The approval of tasting control boards that guarantee the stylistic authenticity of the wine
 - Other controls designed to produce wines of only the highest quality

There have always been fine wines produced in Italy. But as a result of these DOC laws, the quality and consistency of Italian exports has improved greatly over the past few years. These quality efforts – coupled with substantial investments in new winemaking facilities and an innovative approach to experimenting with different grape varieties – have made Italy the world's preeminent wine exporting country.

The Italian Wine Industry

As in France, wine production is divided between three types of organizations: individual winemaking properties, wine merchants (négociants), and cooperative wineries. And, to an even greater extent than in France, the Italian wine industry is dominated by merchants and, especially, cooperatives. To some degree this industry structure results from the small size of the typical Italian vineyard. Approximately 40% of the country's agricultural properties cultivate grapes, but the average vineyard comprises only about 2 acres!

In any case, cooperatives have emerged as the dominant force in the Italian wine industry. Some of these cooperative ventures – particularly those in northern Italy – have proven to be very responsive to changing consumer tastes and have successfully created and marketed very successful products. In recent years there has also been an emerging emphasis on quality rather than on quantity. With the increasing globalization of the wine industry and the widespread popularity of Italian cuisine, Italy's wine producers are in a strong position to capture an increased share of the world market.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What event triggered a new focus on standardization and quality in the Italian wine industry?
2. As you saw in France, the wines of Italy are now designated by one of four possible rankings. From lowest to highest, what are they?
3. What are some of the restrictions that accompany the two highest rankings?
4. What are the three types of producers in the Italian wine industry? Which is the dominant force today?

An Overview Of The Fine Wines Of Italy

Wines are produced all over Italy. But in this chapter we're going to focus on seven of the great wine-growing regions. They are:

- Tuscany
- Trentino-Alto Adige
- Friuli-Venezia Giulia
- Veneto
- Piedmont
- Apulia ("Puglia")
- Sicily

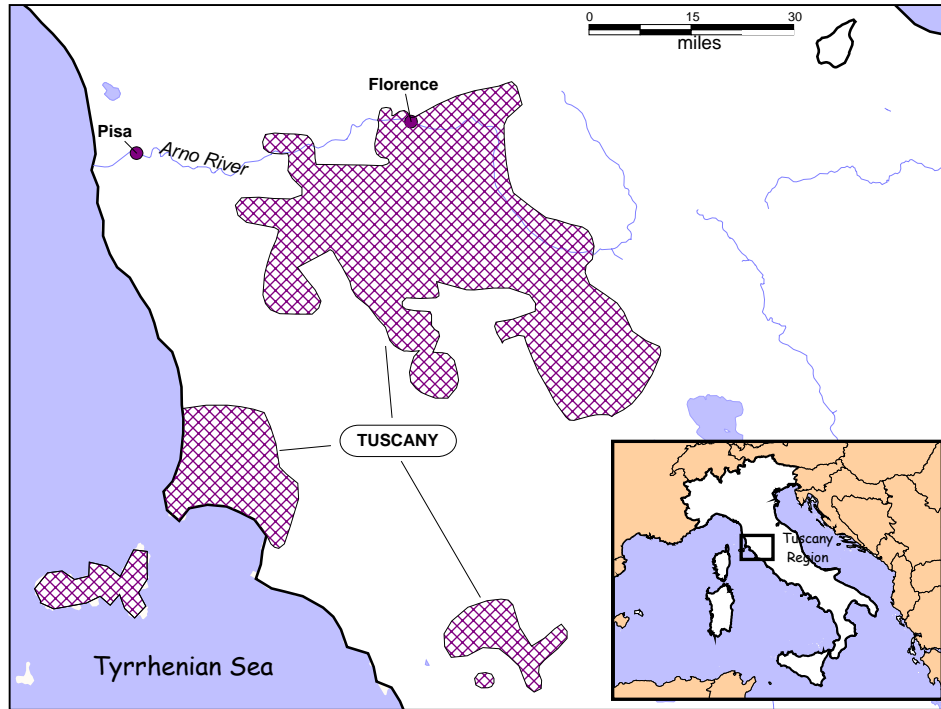
As we consider each region we'll examine the major grape varieties and the distinctive styles of the most famous wines. But, again, please keep in mind that this is only a cursory introduction to an area of enormous complexity. Remember that we encourage you to pursue this subject in more detail on your own, and we have provided a list of resources at the end of the chapter.

On the next page there's a chart that summarizes some essential information about each of these seven wine-growing regions.

Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Tuscany	Chianti Chianti Classico Brunello di Montalcino Vino Nobile Di Montepulciano Galestro Super Tuscans	Sangiovese Brunello Canaiole	Trebbiano Malvasia Vernaccia
Friuli-Venezia Giulia		Cabernet Franc Merlot Refosco	Sauvignon Blanc Tocai Friuliano Pinot Grigio Traminer
Trentino-Alto Adige	Vino Santo Spumante Lagrein	Teroldego Schiava Lagrein Cabernet Sauvignon Merlot Marzemino Pinot Noir	Chardonnay Pinot Grigio Pinot Bianco Müller-Thurgau
Veneto	Amarone della Valpolicella Bardolino Valpolicella Soave Bianco di Custoza	Corvina Rondinella Molinara Merlot	Trebbiano Tocai Chardonnay Pinot Grigio Garganega
Piedmont	Barolo Barbaresco Gavi Asti Spumante Dolcetto	Nebbiolo Barbera	Cortese Moscato
Apulia	Salice Salentino	Primitivo Nero d'Avola Uva di Troia Negroamaro Malvasia Nera	
Sicily	Duca Enrico Rosso del Conte	Nero d'Avola	Catarratto Inzolia

Tuscany (*TUS-ca-nee*)

Tuscany is located in the rolling hills of central Italy and includes the area surrounding the cities of Florence and Siena. With over 560,000 acres under vine, Tuscany is best known for *Chianti*, a wine that is probably exported more widely than any other Italian wine.



Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Tuscany	Chianti Chianti Classico Brunello di Montalcino Vino Nobile Di Montepulciano Galestro Super Tuscans	Sangiovese Brunello Canaiole	Trebbiano Malvasia Vernaccia

The Wines Of Tuscany

Chianti is the principal regional wine of Tuscany. If you mention Chianti many people still think of a drinkable but undistinguished red wine served in a wicker-covered bottle. And although that image may have been accurate in the past, it no longer reflects the reality of this very well-known wine.

Let's begin with some background information about Chianti.

The Traditional Chianti

First, the name "Chianti" actually refers to a specific geographic region of Tuscany. However, winemakers in a significantly larger geographic region are actually permitted to call the wine that they produce "Chianti." This is one of the major reasons why, in the past, the wine did not develop a reputation for exceptional quality.

Second, although the wine itself is red in color, it was traditionally blended from several varieties of red and white grapes. The white grapes were added to make the wine less astringent and ready to drink sooner. The proportions were normally in this range:

- Sangiovese (red wine grapes): 75%
- Canaiolo (red wine grapes): 15%.
- Trebbiano or Malvasia (white wine grapes): 10%

Finally, in years past, Chianti was often bottled in a distinctive round wicker-covered bottle called a *fiasco*.

The Contemporary Chianti

Today, Chianti is still produced in a large area between the cities of Florence and Siena. The DOC region of Chianti covers 66,500 acres and includes the areas of Montalbano, Rufina, Colli Fiorentini, Colli Senesi, Colline Pisane, and Colli Arentini.

However, the central part of the Chianti region (and, from a winemaking perspective, the best part) is known as *Chianti Classico*. The Chianti Classico district has more than 31,200 acres under vine.

Quality levels have improved significantly since Chianti Classico was granted DOCG status in 1984. Today, for example, winemakers must comply with strict yield limitations. There have also been changes in the traditional formulation of the wine. The need to include white wine grapes has been eliminated, with the result that Chianti is more often being produced from 100% Sangiovese grapes. Winemakers have also been experimenting with blending Chiantis that include small amounts of red wine grapes that have not traditionally been used in this wine, particularly Cabernet Sauvignon, Merlot, and Syrah.

There has also been a greater emphasis on the production of *Chianti Classico Riserva*, a wine that requires three years of aging before it may be released for sale. Although not required by law, aging in small oak barrels is becoming increasingly popular, producing a wine that is more international in style.

In addition, most Chianti producers have discontinued the use of the old *fiasco* flask, in part because of the trend away from the traditional image of the wine but also because of higher production costs and the fact that the flask cannot be stored easily on its side.

As a result of these changes in production and marketing, the popularity of Chianti has soared in recent years. In the year 2000 alone, sales of Chianti in the United States increased 27% to a total of about 1.7 million cases.

Other Notable Wines Of Tuscany

In addition to Chianti, the Tuscany region also produces two other red wines that are among Italy's finest:

- *Brunello Di Montalcino* is a DOCG wine produced from the Brunello grape, a clone of Sangiovese. This celebrated red wine is made around the town of Montalcino, just south of the Chianti district. It is an intense, concentrated wine with high tannins and generally requires many years of aging.
- *Vino Nobile Di Montepulciano* is a DOCG wine made near the hilltop town of Montepulciano. This wine is produced from the Prugnolo Gentile grape, another clone of Sangiovese.

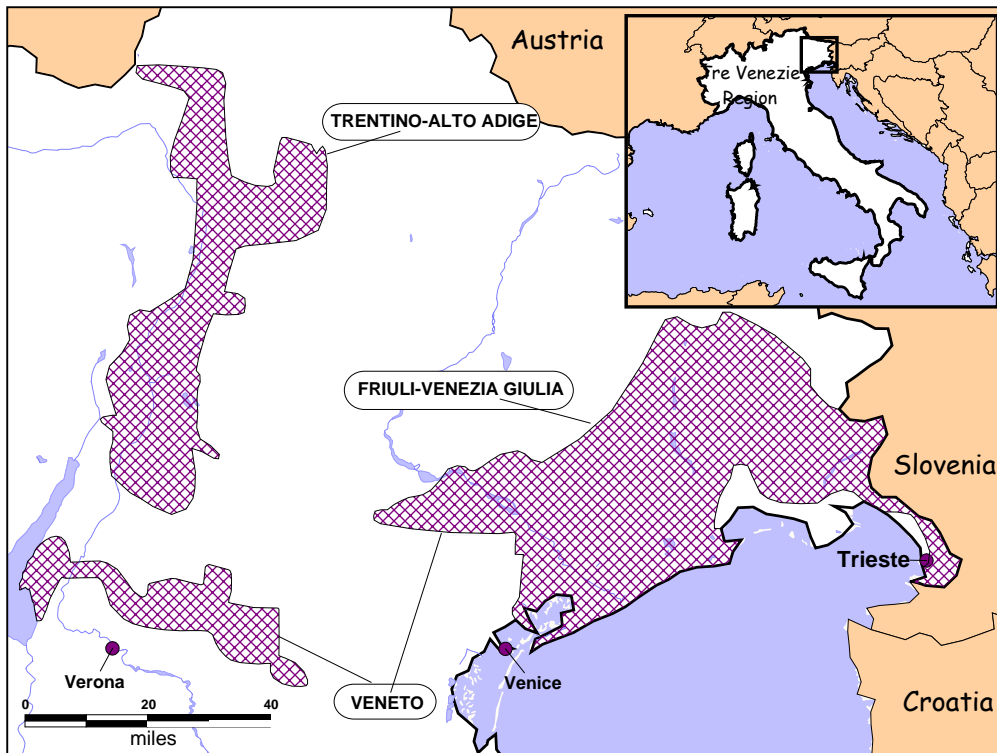
Finally, no discussion of Tuscany would be complete without mentioning the *Super Tuscan*s. This is the English language name given to a new class of high quality wines that are becoming increasingly popular with wine drinkers around the world. In the Tuscany region, innovative winemakers have been experimenting with varietals and blends that are outside of those permitted by DOC regulations. The *Super Tuscan* wines are made from traditional French varietals like Cabernet Sauvignon and Merlot, and are produced in an international style with aging in small oak barrels.

Check Your Understanding

1. What is the principal red wine produced in Tuscany? What is the principal district that produces this wine?
2. Traditionally, which grapes were used to produce this wine?
3. Describe the differences between the current and traditional ways of making this well-known wine.
4. Name two other well-known red wines from Tuscany.

Tre Venezie (*tray va-NAYTS-ee-ay*)

Tre Venezie ("Three Venices") is the name of an area in northeastern Italy. It encompasses three regions that were once under the control of the Venetian Empire: Friuli-Venezia Giulia, Trentino-Alto Adige, and Veneto.



Together, these regions produce more classified (DOC) wines than any other area of Italy. Wine producers in the Tre Venezie regions are also the nation's leaders in terms of the application of new winemaking technology. And in recent years the wines of these regions have increased dramatically in quality and in international presence.

We'll look at each of the three regions of the Tre Venezie.

Friuli-Venezia Giulia

(free-OO-lee va-NAYTS-ee-ah JOO-lee-ah)

Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Friuli-Venezia Giulia	Varietals and local blends	Cabernet Franc Merlot Refosco	Sauvignon Blanc Pinot Grigio Pinot Bianco Chardonnay Tocai Friuliano Ribolla Gialla

The northeastern region of Friuli-Venezia Giulia shares borders with Austria, Slovenia, and Croatia.

This region produces some of Italy's finest white wines. These wines include varietal offerings as well as blends of Sauvignon Blanc, Pinot Grigio, Pinot Bianco, and Chardonnay grapes along with two local varieties: Tocai Friulano and Ribolla Gialla. The prevailing style is very contemporary, with an emphasis on fresh fruitiness and clear varietal character. For the most part these white wines are produced without oak aging.

Trentino-Alto Adige

(tren-TEE-noh AHL-toh AH-dee-jhay)

Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Trentino-Alto Adige	Vino Santo Spumante Lagrein	Teroldego Schiava Lagrein Cabernet Sauvignon Merlot Marzemino Pinot Noir	Chardonnay Pinot Grigio Pinot Bianco Müller-Thurgau

Trentino-Alto Adige is Italy's northernmost region, a mountainous area that extends into the Alps. It actually comprises two areas that are quite different in character.

Alto Adige. To the north, Alto Adige (South Tyrol) is primarily a German-speaking area that was part of the Austro-Hungarian empire as recently as World War I. This area produces some of Italy's finest white wines from Chardonnay, Pinot Grigio, and Pinot Bianco grapes.

Trentino. To the south, Trentino is an area that is more traditionally Italian in character. In this area the vineyards are located primarily on steep hillsides, limiting grape production to relatively small quantities. As a result, growers and winemakers have focused on quality. About 60% of Trentino's wine production is DOC classified, and 35% is exported – Italy's highest rates for each of these categories. The area produces some notable white wines, primarily from Pinot Grigio and Chardonnay grapes.

Among red wines, *Lagrein* – made from the grape of the same name – is one of the most distinctive of the region. The character of this wine can, at times, be somewhat bitter and tannic. However, the introduction of more modern winemaking techniques has enabled producers to develop wines that are softer and more rounded.

Veneto (VEN-a-toh)

Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Veneto	Amarone della Valpolicella Bardolino Valpolicella Soave Bianco di Custoza	Corvina Rondinella Molinara Merlot	Trebbiano Tocai Chardonnay Pinot Grigio Garganega

Veneto is the name of the region that surrounds the town of Verona (the setting for Shakespeare's Romeo and Juliet). Veneto is also the source of some of Italy's popular export wines: Soave, Valpolicella, and Bardolino. Although these are not really "fine wines" all are well-known in the United States and the international market.

- Soave is a white wine made from the Trebbiano and Garganega grapes.
- Valpolicella is a red wine that is produced primarily from Corvina grapes.
- Bardolino, a lighter-bodied red wine that is sometimes served chilled, is also gaining in popularity.

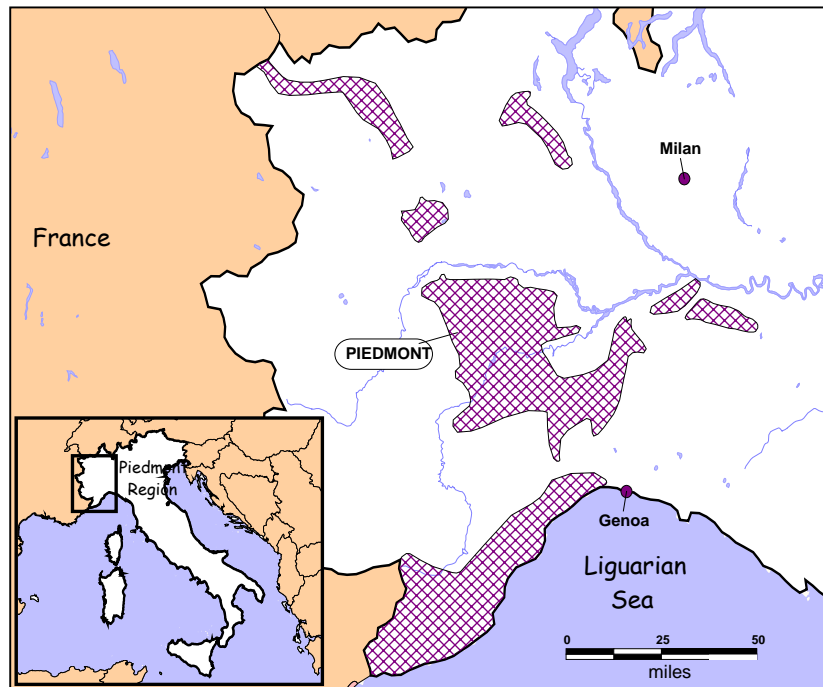
One of the most notable fine wines from the Veneto region is *Amarone della Valpolicella* (also called just *Amarone*). Amarone is produced from the same Corvina grape that is used to make Valpolicella. However, prior to fermentation the ripe grapes are dried for several months in special drying rooms. This process concentrates their sugars and flavors. After the drying process is completed, the grapes are pressed and fermented and the resulting wine is aged in wooden casks. Amarone is extremely rich, flavorful, and relatively high in alcohol (15% or more).

Check Your Understanding

1. What is Tre Venezie?
2. What are the most notable characteristics of the wines of Friuli-Venezia Giulia?
3. What are the principal white wine grapes grown in the regions of Friuli-Venezia Giulia and Trentino-Alto Adige?
4. What are the two popular export wines produced in the Veneto region?
5. What is Amarone della Valpolicella?

Piedmont (*PEED-mahnt*)

In Italy, the Piedmont region is called Piemonte (*pee-a-MON-tay*). This hilly region – known as much for its food as for its wine – produces wine in two principal areas. The largest, and most important area, is central Piedmont. The second area lies to the north in the Novara Hills near Milan, just below the southern edge of the Italian Alps.



Region	Principal Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Piedmont	Barolo Barbaresco Gavi Asti Spumante Dolcetto	Nebbiolo Barbera	Cortese Moscato

Piedmont is known for fine red wines made from the *Nebbiolo* grape, a variety that up until now has produced outstanding wines only in this area of Italy. The two best-known wines are *Barolo* and *Barbaresco*, named for the villages near Alba where they are produced. These wines, described as heady, robust, and aristocratic, compare well with the world's best. They are dry and full-bodied, and high in alcohol, tannin, and acidity. Both wines may require lengthy aging to reach their fullest potential.

Another important variety is *Barbera*, which – after *Sangiovese* – is one of the most widely planted of all the Italian red wine grapes. Barbera makes a robust red wine with high acidity and soft tannins. The best Barberas are rated DOC and are made near the towns of Alba, Asti, and Monferrato.

Dolcetto – produced from the grape of the same name – is another popular red wine from the Piedmont region. Unlike wines made from the Barbera or Nebbiolo grapes which may require substantial aging, Dolcetto is generally meant to be consumed within the first few years after it's made. The wine is characteristically light, fruity, and softly rounded, and is typically the first red wine served at a meal in the Piedmont region.

Piedmont is also known for its white wine production. *Gavi* is a very dry wine with crisp acidity produced from the *Cortese* grape. The sparkling *Asti Spumante* of the Asti region, one of Italy's best-known wines, is made from the sweet *Moscato* grape. Finally, much of the white wine produced in Piedmont is used in the making of Vermouth, which is a specialty of Turin.

Check Your Understanding

1. What are the two outstanding red wines produced in Italy's Piedmont region? From which grape are they produced?
2. What are two other red wine grapes that produce fine wines in this region?
3. Name two well-known white wines from Piedmont.

A Look To The South Of Italy

As you read earlier, Italy produces wine literally everywhere in the country. So far we have focused our attention on the principal northern winemaking regions of Tuscany, Piedmont, and the Tre Venezie (Friuli-Venezia Giulia, Trentino-Alto Adige, and Veneto). But to round out your understanding of Italian wines we'd like to take a quick look south to two other regions that are rapidly gaining prominence in the worldwide market.

Apulia (*a-POO-lee-ah*)

Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Apulia	Salice Salentino	Primitivo Nero d'Avola Uva di Troia Negroamaro Malvasia Nera	

Apulia – known in Italian as Puglia (*POO-lee-ah*) – is a long and fertile area in southeastern Italy that borders the Adriatic Sea. If you think of the shape of Italy as resembling a "boot," then Puglia represents the "heel."

Both the climate and the soil of the region are well suited for cultivating grapes – though not necessarily "fine wine" grapes. Approximately 470,000 acres of land are dedicated to grapevines. And Apulia produces more wine than any other region of Italy. In recent years production has decreased as part of a concerted effort throughout the European Union to improve quality. But at the height of productivity in the 1980s, the area produced about 340 million gallons of wine a year.

Today, Apulia's wine production focuses primarily on red wines. The region's finest wines are produced in the actual "heel" of the "boot" – an area known as the Salento peninsula. Here the cooling influences of the Adriatic Sea and the Ionian Sea help to produce the climate of "warm days and cool nights" that is ideal for cultivating fine wine grapes. The full-bodied red wines produced from the Negroamaro grape have been compared to Châteauneuf-du-Pape from the southern Rhône region in France. Salice Salento is one of the principal DOCs where this wine is produced.

Sicily (*SIH-sa-lee*)

Region	Regional Wines	Predominant Red Wine Grapes	Predominant White Wine Grapes
Sicily	Duca Enrico Rosso del Conte	Nero d'Avola Nerello Mascalese	Catarratto Inzolia

If Apulia represents the "heel" of Italy's "boot," then Sicily may be described as the island located off of the "toe." And Sicily is second only to Apulia as Italy's most productive wine region. The island has even more area devoted to vineyard land – about 494,000 acres. Annual wine production is more than 260 million gallons.

In terms of wine production, the island enjoys a number of natural advantages. The climate is sunny, hot, and dry. The land is hilly and mountainous and the soil is relatively poor. And a range of elevations provide a wide variety of microclimates.

Since the 1970s a number of Sicilian wine producers have focused on utilizing these natural advantages to improve the quality of the local wines. Current production emphasizes white wine varieties like Catarratto and Inzolia. However, red varieties like Nero d'Avola and Nerello Mascalese are also emerging. For example, in The Oxford Companion To Wine, Jancis Robinson writes that: "Nero d'Avola is undoubtedly a red variety of very high potential, capable of giving wines of great richness, texture, and longevity, in addition to aromas of some complexity; aging in oak, which has largely replaced the traditional chestnut casks of the past, has given wines that can compete with the best southern Italian wines . . ."

Other Old World Producers

So far in this chapter and the last chapter we've completed our look at France and Italy. Together, these two international wine leaders produce more than 2.8 *billion* gallons of wine annually – about five times the production of the United States. And together they account for more than 50% of the cases of table wine that are imported into the U.S. market.

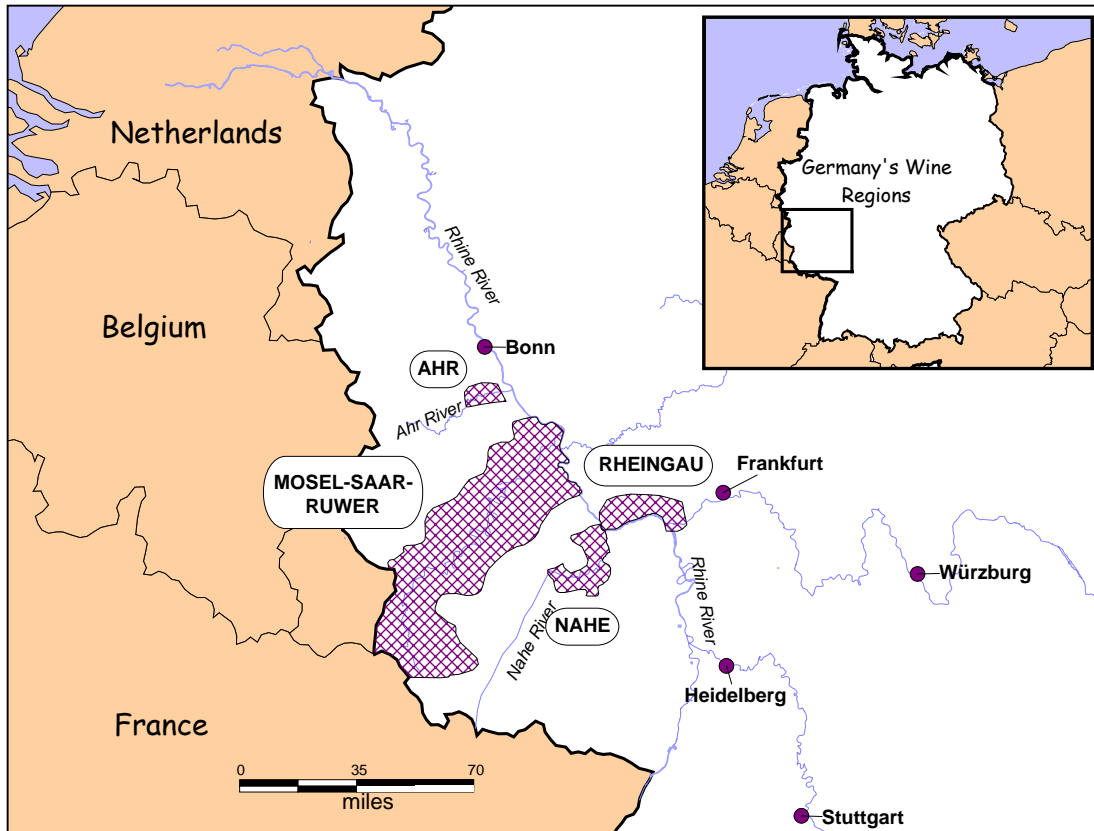
Now, to round out your understanding of the Old World, we're going to look briefly at Germany, Spain, and Portugal. Each of these countries has a long and proud tradition of winemaking. And Spain alone produces about 50% more wine than the United States. However, you should bear in mind that these countries currently have a relatively small presence in the U.S. wine market. Consider these facts:

- In the year 2001, table wines from these three countries accounted for about 3.3 million cases sold in the United States – in other words, about 7.2% of imported cases and only about 1.6% of all case sales.
- Projections for the year 2005 suggest that overall sales of table wines will increase to about 3.7 million cases. However, this volume will represent only about 6.4% of imported cases of table wines and only about 1.5% of all case sales of table wines.

Moreover, fine wines account for only a fraction of those overall sales.

Nonetheless, to further your education and development as a sales person who represents fine wines, we do want to provide you with a perspective on the wine industry in these three countries. We'll begin with Germany.

The Wines Of Germany



Germany has produced notable quality wines since the days of the Roman Empire. Today, German wines are known around the world for both quality and variety. Nationwide there are about 220,000 acres of vineyards.

Germany is located near the northern limit of the areas where fine wine grape vines are still able to grow and mature. This precarious location impacts the German wine industry in several ways:

- Vintages may vary quite a bit from one year to another.
- White wines account for 85% of the wine produced in Germany. The growing season is simply not long enough for most red wine grapes to develop to maturity.

- Although a few light red wines are produced, these wines are generally intended for local consumption rather than for export.
- Most of Germany's best vineyards are located near rivers. As you saw in France, the rivers help to reflect sunlight and moderate extreme shifts in temperature. In addition, most German vineyards are planted with a southern exposure to maximize the amount of sunshine received each day.
- Some of Germany's wine laws are quite different than the laws in France and Italy. For example, Germany has a unique ranking system that is based on the amount of sugar present in the grapes at the time of harvest.
- Many of Germany's most notable wines are not fine table wines in the tradition of France and Italy. Rather, they are sweet dessert wines that can be produced because the *botrytis cinerea* ("noble rot") fungus thrives in the cool German climate. (This is the same fungus that is responsible for the sweet wines of Sauternes.)

The Grapes Of Germany

As you can imagine, only a few varieties of grapes can consistently reach ripeness and maturity in Germany's cool climate. The distinctive character of German wines results from the unique combination of the country's climate and the specific varieties of grapes that are planted there. Here are the most common:

Riesling. The Riesling grape produces the best (and most expensive) German wines. In good vintage years the wines achieve an excellent balance of fruit and acid and have an attractive aroma of apples, peaches, and tropical fruits.

Gewürztraminer. In German this name translates to "spicy grape." This grape, which thrives in the Alsace region of France, also produces some outstanding German wines.

Silvaner. The Silvaner grape is another important variety that grows well in the southern regions of the country.

Spätburgunder. This is the German name for the Pinot Noir grape. It is the only red wine grape that is cultivated with any degree of success in Germany.

The Wine Regions Of Germany

Germany's most famous winegrowing regions are all located near the Rhine River. Here is a brief summary of the principal winegrowing regions:

Rheingau. The Rheingau region, is one of four regions that border the Rhine River. This is probably the most famous of Germany's wine regions. The Rheingau produces wines, mostly from Riesling grapes, that are considered ripe and full-flavored.

Nahe. Just south of the Rheingau region there is a tributary of the Rhine called the Nahe River. The surrounding district produces wines that are very similar to the wines of Rheingau, although they are not as well known in the United States.

Mosel-Saar-Ruwer. The Mosel River is an important tributary of the Rhine, which has two tributaries of its own, the Saar and Ruwer. All three rivers support important wine districts. (Mosel-Saar-Ruwer is the name of the designated *Anbaugebiet* or wine-growing region). These districts produce delicate white wines known for their scent.

Ahr. The Ahr River is a northern tributary of the Rhine. Although small, the Ahr region produces some of Germany's best reds from the Spätburgunder, or Pinot Noir, grape.

By tradition, German wines are sold in fluted bottles. The color of the bottle varies by region. Wine bottles from the Mosel-Saar-Ruwer region are green in color. Rheingau wines are always shipped in brown bottles.

Check Your Understanding

1. Germany is located near the northern limit of the areas where fine wine grape vines are still able to grow and mature. What are some of the ways that Germany's location impacts its wine industry?
2. Which grape produces the German wines that are generally considered to be the highest quality?
3. Which German river is at the center of the country's most famous winegrowing regions?
4. Name two of Germany's best known wine regions.

Ranking German Wines

Like France and Italy, Germany is a member of the European Union. So its wine are classified according to the same two-tier system. And, as with France and Italy, there are also four major rankings of German wines: two in the lower tier and two in the upper tier.

The two categories of German wine that are within the European Union's lower tier are:

- **Tafelwein (table wine).** Table wine is the most ordinary German wine and very little of it is exported. It is generally made in bulk and sold in large containers.
- **Landwein (country wine).** Landwein is country wine from a particular region. It is similar to the French Vin de Pays or the Italian Indicazione di Geografica Tipica (IGT).

There are also two categories of wines that are qualified to be in the European Union's higher quality tier (Quality Wines Produced in a Specific Region). In German these wines are called *Qualitätswein* (quality wine). All Qualitätswein must come from officially designated wine growing regions, or *Anbaugebiete*.

The two categories of Qualitätswein are:

- **Qualitätswein bestimmter Anbaugebiete (QbA).** The lower of the two categories is Qualitätswein bestimmter Anbaugebiete which means *quality wine from designated wine regions*. It is made from grapes grown in specially designated regions to which sugar may be added. When it is released, this wine is given an official certification number indicating that it has met the minimum required standards.
- **Qualitätswein mit Prädikat (QmP).** Qualitätswein mit Prädikat are the best wines of Germany. Known as *quality wine with special attributes*, they are made from fully-ripened grapes that require no addition of sugar. These wines are further ranked into one of six categories based on the amount of sugar that was present in the grapes at harvest.

Of the six categories, two refer to table wines:

- **Kabinett.** These light wines are relatively low in alcohol and go well with food.
- **Spätlese.** These wines are made from late harvest grapes with a higher sugar content. As a result they are higher in alcohol and may be somewhat sweeter.

The other four categories refer to dessert wines:

- **Auslese.** These wines are made from selected late harvest grapes that have reached extreme ripeness. In some cases, the grapes may have *botrytis cinerea* ("noble rot"). As you may recall, this is a mold that dehydrates the grapes, shriveling them into raisins and yielding wines of exceptional sweetness. The wines typically have an alcohol content of 15%.
- **Beerenauslese.** These are very rare wines made from the ripest grapes. Often the grapes have been affected by *botrytis cinerea*. At harvest the grapes must contain at least 25% sugar. The wines may reach an alcohol content as high as 18%.
- **Trockenbeerenauslese.** These wines are even sweeter and rarer and are produced only in those years when the grapes reach the necessary degree of ripeness. The wines may have a very high alcohol content – sometimes in excess of 20%. As you would expect, these wines are extremely expensive.
- **Eiswein.** These wines – literally called "ice wines" – are made from grapes that are left on the vines until winter. When the grapes are harvested they are, essentially, frozen raisins with a high concentration of sugar.

Reading The Labels

When it comes to reading the labels of German wines there is, as they say, good news and bad news:

- The good news is that, unlike other European countries, Germany has very comprehensive requirements about the information that must appear on the label. As you may have already discovered, it's possible to look at a French wine label and not learn very much about the wine inside. German labels, on the other hand, are among the most informative of all wine labels.
- The bad news is that for an uninitiated consumer this information is, for the most part, indecipherable.

Let's take a closer look at what we can learn from the label.

Grape variety. Unlike France and Italy, German wines usually include the grape variety as part of the name of the wine.

Vintage year. Because of its northern location, Germany's wines vary significantly from one year to another. Therefore, the vintage date provides an important clue about the character and quality of the wine.

Quality classification. The label will indicate which of the two higher quality rankings the wine has achieved:

- A wine that meets the *Qualitätswein bestimmter Anbaugebiete (QbA)* requirements may be labeled as Qualitätswein bestimmter Anbaugebiete, Qualitätswein bA, or simply Qualitätswein.
- A wine that meets *Qualitätswein mit Prädikat* requirements may be labeled Qualitätswein mit Prädikat or simply Kabinett or Spätlese.

Location. Germany is divided into 13 large wine regions called *Anbaugebiete*. However, just as you saw with France, the geography quickly becomes more specific as each *Anbaugebiete* region is divided into smaller districts called *Bereich* which, in turn, are divided into *Grosslagen* and, finally, into individual vineyards called *Einzellagen*. Unfortunately, without studying the geography of Germany it's very difficult to make sense out of most of these names.

Dryness. The label may indicate that the wine is *Trocken* (completely dry) or *Halbtrocken* (off-dry). Either of these designations may be used in conjunction with wines that are categorized as Kabinett or Spätlese.

Here's an example. The label on a bottle of German wine reads:

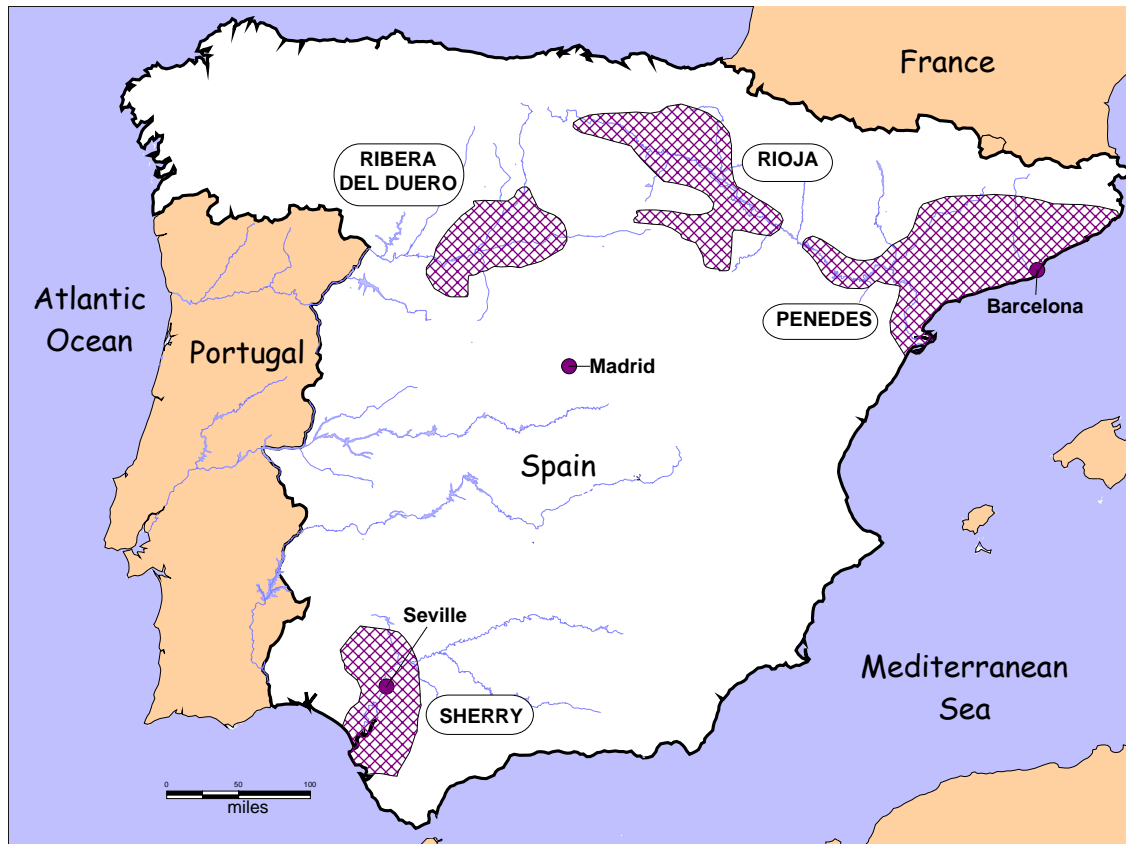
Piesporter Goldtröpfchen Riesling Kabinett Trocken

This label means that the wine is a Riesling from the Goldtröpfchen vineyard in the town of Piesporter. The wine qualifies as a Qualitätswein mit Prädikat and is a Kabinett, a light wine that is low in alcohol. This wine is completely dry (Trocken).

Check Your Understanding

1. What are the two categories of German wine that are within the European Union's higher tier?
2. The highest category of German wines is further divided according to what criteria?
3. Of the six classifications within the highest category of German wines, what are the names of the two that go well with food?
4. What information is typically available from the label of a German wine?

Spain



The vineyards of Spain date back to ancient times. As far back as 3,000 years ago, the Phoenicians – and, later, the Carthaginians and the Romans – enjoyed the wines from this area. Today, the Spanish wine industry is in the process of modernizing to build on this long heritage and capture a share of the growing world market.

There are four million acres of vineyards planted in diverse climates ranging from the damp chill of the Atlantic Ocean to the mountains of the north and the parched heat of the south. But because of its dry climate Spain's overall wine production is much less than that of France or Italy.

In Spain, winemaking has been subject to laws dating back as far as the Middle Ages. However, legislation regarding the *quality* of wine production was not officially enacted until modern times. In recent years the wine industry has developed along the same lines that we saw in Italy. Under a system called the *Denominación de Origen* laws, place names were authorized and quality standards were set for the best wine districts of Spain. As in other European countries, these laws were passed to meet the requirements of the European Union and bolster the reputation of local wines.

However, some knowledgeable wine people feel that a *Denominación de Origen* designation is not as useful in predicting quality as comparable designations are in other European countries. Some of the finest wines made in Spain do not carry a *Denominación de Origen* designation. And some wines granted *Denominación de Origen* status are not always deserving of it.

There is also a higher status *Denominación de Origen Calificada*. So far, only red wines from the country's famous Rioja region have qualified for this higher classification.

The designation of age is also an important aspect of Spanish wine law. Spanish wine labels bear one of four classifications noting how long the wine has been aged. Keep in mind, however, that aging does not equate with quality. Only a high quality wine will really benefit from extensive aging.

The four classifications are :

Joven. This term (literally, "young") refers to fruity, unoaked wines with no aging requirements. Today the designation *joven* has virtually eliminated the more pejorative equivalent *sin crianza* (which means literally "without aging").

Crianza. To earn the *crianza* (literally, "aged") designation a wine must be aged for at least two years, including at least six months in 59 gallon oak barrels called *barricas*. (NOTE: In Rioja and certain other districts a wine must be aged for at least 12 months in oak to be labeled *crianza*.)

Reserva. To be considered *reserva*, a red wine must be aged for at least three years, including at least one year in oak. A white wine must be aged for at least two years, with at least six months in oak.

Gran reserva. A red wine that is labeled *gran reserva* has been aged for at least five years, including at least two years in oak. A white wine labeled *gran reserva* has been aged for at least four years, with at least six months in oak.

The chart below summarizes the requirements for each of these classifications.

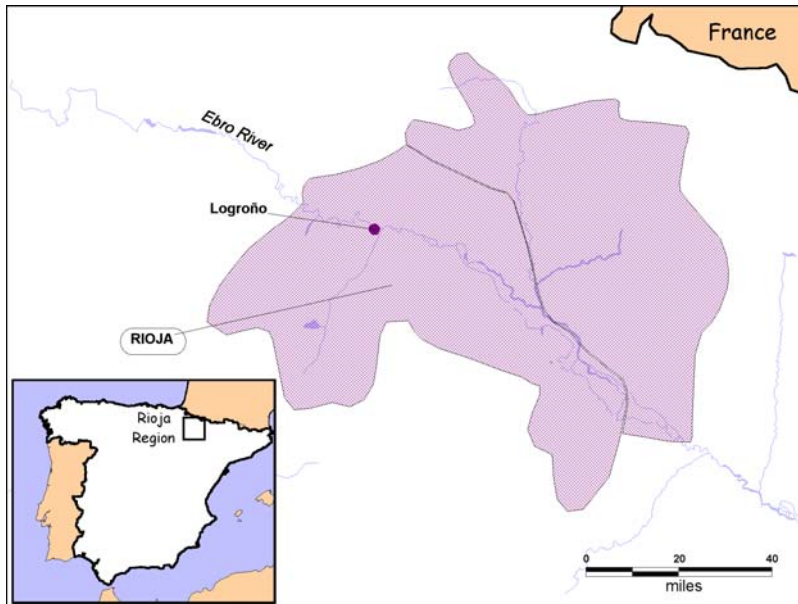
	Aging Requirements For White Wine	Aging Requirements For Red Wine
Joven	Unoaked wines with no aging requirements.	Unoaked wines with no aging requirements
Crianza	At least two years, with at least six months in oak (at least 12 months in Rioja and some other districts).	At least two years, with at least six months in oak (at least 12 months in Rioja and some other districts).
Reserva	At least two years, with at least six months in oak.	At least three years, including at least one year in oak.
Gran reserva	At least four years, with at least six months in oak.	At least five years, including at least two years in oak.

The wines made in Spain vary as much as the country's climatic regions. The wines produced in the cooler northern regions are generally lighter in color, body, and alcohol. Wines produced in the warmer southern regions are fuller in both body and flavor.

We'll briefly consider four of the most famous of Spain's winegrowing regions: Rioja, Andalusia, Galicia, and Catalonia.

Rioja (*ree-OH-hah*)

The Rioja region, a leading producer of red wines, is located in north-central Spain near the French border and the Sierra Cantabrica mountains. The region is named after the Rio Oja River, a tributary of the Ebro, that flows through the area.



The Rioja region is dry and mountainous. The temperatures of the region are similar to the Bordeaux region of France. (However, keep in mind that the Rioja region is dry and arid while Bordeaux is subject to mid-season rains.) The winemaking techniques of the two regions are also similar. When the phylloxera louse destroyed the vineyards of Bordeaux in the 19th century, many of the French winemakers emigrated to Rioja. They brought with them traditions and techniques that are still in use today.

Although the Rioja district produces both red and white table wines, it is known primarily for its red wines. Red Rioja is a blend of several grape varieties, including Tempranillo, Garnacha (the Spanish name for the grape known in France as Grenache), Graciano, and Mazuelo. White Rioja is blended from the Malvasia, Viura, and Calagrano grape varieties.

Two factors account for the distinctive character of Rioja wines: the grape varieties and the amount of time the wine ages. The district is known for its tradition of aging wine in small oak barrels for many years prior to bottling. Although this aging process produces red wines that are soft and palatable, it sometimes makes white wines turn brown and flat. In recent years new techniques have been introduced to improve the quality of both red and white Rioja. Some of the traditional aging in casks has been replaced with bottle aging that produces fresher tasting wines.

Andalusia (*an-da-LOO-zhia*)

The southern province of Andalusia is known around the world for its fortified wine called Sherry. This famous wine is made in the area around the seaport city of Jerez de la Frontera from vines planted on 20,000 acres of soil unique to the area. Although "Sherry" is technically a geographic place name, the designation "Sherry" has become a generic name like "Chablis" or "Burgundy." Wines known as "Sherry" are now produced in countries all over the world including Australia, South Africa, and the United States.

Of course, Sherry is not a table wine. But to further your education and development as a knowledgeable wine person, we're going to provide a brief summary of the process of making Sherry.

(NOTE: Please keep in mind that this process varies somewhat depending on the style of the final product, which may range from crisp dry *fino* to the increasingly sweet and fuller-bodied *manzanilla*, *amontillado*, *oloroso*, and *cream* varieties. We'll describe the process for making *fino*.)

- The process begins with the harvest of the grapes. The most important variety is the Palomino grape.
- In the past, the grapes were crushed, sometimes by foot, in large stone troughs known as *lagares*. Now most producers have adopted mechanical presses. By law, only 70% of the potential juice may be squeezed. This regulation helps to minimize the extraction of tannins from the skins and seeds.
- Fermentation converts all of the sugar in the grapes to alcohol. In recent years, traditional fermentation vessels such as large concrete or oak casks have largely been replaced with stainless steel or other modern materials.
- Once fermentation has been completed, a neutral brandy is added to increase the alcohol content of the wine. Depending on the variety of Sherry that will be produced, the alcohol content is raised to between 15% and 18%. (*Fino* wines are typically fortified to around 15.5%.)
- For reasons that are not entirely understood, an indigenous yeast known as *flor* grows like a skin on the surface of the fortified wine. The *flor* yeast imparts the distinctive flavor and aroma that are characteristic of *fino*. (NOTE: Those casks which do not develop *flor* are used to make the darker, full-bodied Oloroso.)

- The resulting wine is stored in wooden barrels. In other parts of the world, winemakers have traditionally stored wine in barrels to allow small amounts of oxygen to mellow and age the wine. However, the process of making Sherry actually promotes a high level of contact with the air. The wine is stored in older barrels that are only partially filled and are not tightly sealed. In this way, oxygen interacts with the wine and ages it.
- The aging barrels are stacked in racks called *solera*. The wines from different harvests are arranged in tiers, with the youngest barrels on the top and the oldest barrels on the bottom. As a portion of the oldest wines are drawn off for blending or bottling, the barrels are replenished by drawing from the younger wines. In this way, the contents of each barrel are gradually blended as they age. This method guarantees that the quality of each Sherry will be relatively constant from year to year. It also means that there is no such thing as a "vintage Sherry" because the younger wines are constantly blended with the older ones.

Galicia (*gah-LEE-cee-ah*)

Galicia is a region in Northwestern Spain, along the Atlantic coast just north of Portugal. The climate is both wet and sunny, and grapevines produce higher yields than anywhere else in Spain.

In terms of both geography and culture, Galicia is close to Portugal. And the white wines of the region are similar to the *Vinho Verde* that is produced just across the Minho River in Portugal. These wines are often complex blends of many local grape varieties, including Albariño, Loureiro, Caiño, Treixadura, and Torrontés. The wines are characterized by high acidity, floral nose, and flavors of apricot and peach.

Catalonia (*ca-to-LOH-nya*)

Catalonia is a region located on the Mediterranean coast near the border of Spain and France that includes the city of Barcelona. The region is fiercely nationalistic, and many of the inhabitants consider themselves Catalan rather than Spanish or French. In fact, in recent years the Catalan language has been restored as the official language of the region.

Catalonia has been in the forefront of modern Spanish winemaking since the 1870s, when the region began to produce sparkling wines utilizing the traditional *méthode champenoise*. In Spain, these sparkling wines are designated by the term *Cava*, which means "cellar." Catalonia was also the first region of Spain to introduce modern winemaking techniques such as the utilization of stainless steel equipment in fermentation and aging.

Today Catalonia produces a wide range of wines from international varieties as well as from local grapes such as Tempranillo, Garnacha, and Monastrell. The area is known for both dry white wines and traditional, full-bodied reds. In addition, Catalonia is also a major center of cork production.

Check Your Understanding

1. What is the name for Spain's system of appellation laws?
2. What is the name of Spain's most famous wine-producing region? Why are the winemaking techniques of this region similar to those in Bordeaux?
3. What are the two most important factors that influence the character of the wines from this region?
4. Describe the process of making Sherry.
5. Why are there no vintage Sherries?
6. Describe the characteristic wine of Galicia.
7. What are some of the innovations in Spanish winemaking that were first initiated in the Catalonia region?

Portugal

As the last stop in our tour of the wine producing countries of the Old World, let's move across the Spanish border and take a brief look at the wines of Portugal.



Like Spain, Portugal has made wine since ancient times. However, unlike Spain and the other great wine-producing countries of the Old World, Portugal has not really begun to share in the economic growth and prosperity of modern Europe. Today, Portugal is a relatively poor country. And although there are some fine Portuguese table wines, these wines have not really established themselves on the world market. The country's most famous exported wines – Port and Madeira – are dessert wines. Even so, wine is still one of Portugal's leading exports and Portuguese wines are recognized literally around the world.

Like the other Old World wine-producing countries that we've examined, Portugal also has a system of appellation laws. The most highly regarded wine regions are identified as *Denominação de Origem Controlada*. However, most of the wines exported to the United States are sold under brand names instead of place names. For example, most American wine drinkers are familiar with the rosé wines that make up a majority of Portugal's exports. But these wines are known primarily by their brand names – Mateus or Lancer's – rather than by their region of origin.

Another popular export is the so-called *vinho verde* wine, or "green wine," of the Minho region in northern Portugal. This wine is made from grapes that are grown on high lattices called *pergolas* and are picked before they are completely ripe. The resulting wines are high in acid and low in alcohol content and are best enjoyed when they are young.

In terms of fine wines, Portugal's red table wines are slowly improving in quality and gaining greater recognition. Wines made from the Touriga Nacional and Tinta Roriz (Tempranillo) grapes are showing good promise, particularly in the Douro region. Barca Velha is one wine from that region that is considered among Portugal's finest.

Now let's take a quick look at Portugal's best known wines: Port and Madeira.

Port

Portugal's most famous wine export is Port, a sweet dessert wine named after the city of Oporto. This wine is produced from grapes grown on 61,775 acres in the delimited area of Port in the Alto Douro region. The vineyards – first planted in 1756 – are located on incredibly steep, terraced land along the Douro River. And they have remained essentially unchanged for the last 250 years. Each vineyard estate is known as a *quinta* and is still managed according to traditional methods.

Port is produced in both red and white varieties:

- Red Port is a rich and ruby-colored wine made by blending several grape varieties, including Touriga, Mourisca, Tinta Francisca, Tinta Madeira, Bastardo, Tinta Cao, and others.
- White Port, which is a relatively new product, is made from grapes such as Malvasia, Verdelho, Rabigato, and Gouveio.

Both red and white Port are known for a distinctive sweet, fruity flavor. This characteristic flavor results when the wine is fortified with brandy before the fermentation process is complete. The process of making Port is similar in some ways to the process of making Sherry:

- Harvested grapes are crushed, sometimes still by feet, in large stone troughs called *lagares*.
- Over a period of 2-4 days, the juice is fermented in the *lagares*. The prolonged contact with the grape skins produces the characteristic color of red port.

- At a certain point during the fermentation process, the juice is drawn off and high-proof brandy is added. The brandy kills the yeast and stops the fermentation while there is still a high percentage of sugar remaining. This produces a sweet wine with an alcoholic content of nearly 20%.
- The wine is then aged in oak casks.

Like Sherry, most Port is blended with wines from several different years. However, a few times each decade, there are exceptional years when a vintage is declared. In that case, the wine is set aside and designated as Vintage Port. Aged in cask for only two years, this rare and fine Port then continues its aging – often for decades – in the bottle. During the aging process a heavy, crusty sediment forms. So the wine must be decanted before it is served. And long before decanting begins, the bottle must be stored upright so the sediment will settle.

Because most Port is not vintage quality, the wine is usually blended and aged for a long period of time before being bottled. Several grades of Port result from the blending and aging process. All of these grades are lighter than Vintage Port, mature sooner, and are less expensive. In English these grades are called:

Ruby Port. Ruby Port, the simplest and most inexpensive grade, is a blend of many wines. Its quality depends on the standards of the individual producer.

Tawny Port. Tawny Port is a better quality, more expensive, grade of wine that has spent more years aging and has thus assumed a tawny, pale-brown color, while losing some of its sugar content.

Late-Bottled Vintage Port. Late-Bottled Vintage Port is a wine that is almost of vintage quality. It is wine from a single year that produced a good harvest but was not declared to be a "vintage year." It is aged unblended in casks for four to six years before being bottled and may be ready to drink shortly after it is released.

Just as the French believe that "Champagne" refers only to sparkling wines from a particular region in France, the Portuguese believe that "Port" refers only to fortified wines from the Alto Duoro region in Portugal. Since 1968 the Portuguese have labeled their product for export with the words "Porto" or "Vinho do Porto" to distinguish it from similar wines that are produced in other countries.

Madeira

Madeira is a dessert wine that is named after an island in the Atlantic Ocean, 360 miles off the coast of Morocco. Currently, there are approximately 3,700 acres under vine, with another 3,700 acres on nearby Porto Santo island.

The island of Madeira has been under Portuguese control since 1419. By 1600 the Portuguese explorers who settled the island were already making wine and fortifying it with brandy for the sailors who were traveling to the Americas and the Far East. At first, these wines were harsh and acidic. But the sailors found that the fortified wine was seasoned and improved by the motion of the voyage and the exposure to tropical heat.

Portuguese winemakers were later able to duplicate these characteristics by perfecting the process known as *estufa*. The wine is exposed to relatively high temperatures in special ovens for four or five months, thus creating effects similar to a long sea voyage, and resulting in a caramel-colored, distinctive-tasting wine.

Both sweet and dry Madeiras are available. The amount of sweetness is determined at the moment when the wine is fortified.

- Sweet Madeiras are fortified with brandy before the *estufa* process.
- Dry Madeiras ferment first. Then the brandy is added following *estufa*.

Regardless of the process, all Madeira wines have an alcohol content of between 18% – 20% once all the steps are complete.

In addition to being fortified by brandy, Madeira also uses the same *Solera* system of blending used by the makers of Sherry. Over a period of time each wine is gradually blended with other vintages.

Although exceptional years have resulted in the production of vintage Madeiras, very few have ever left the country. Thus, a vintage date more often refers to the start time of the *Solera* than to the age of the wine. Today, it is still possible to drink a Madeira from a *Solera* that began in the middle of the nineteenth century.

Check Your Understanding

1. What is *verde* wine?
2. What is Port? How is it made?
3. What process must you follow to enjoy a glass of vintage Port? Why?
4. What is Madeira?
5. What determines the difference between a Dry Madeira and a Sweet Madeira?

Review

This chapter has continued your introduction to fine wines of Europe. In the process, we've tried to introduce you to the major winegrowing regions of the Old World and to the most famous wines that are produced there. Take a moment to look again at the generalized summary we provided at the beginning of the chapter:

Old World Generalizations	New World Generalizations
<p>The countries of Europe:</p> <ul style="list-style-type: none"> • France • Italy • Germany • Spain • Portugal 	<p>The countries of the Americas, the Pacific, and Africa:</p> <ul style="list-style-type: none"> • United States • Australia • New Zealand • Chile • Argentina • South Africa
<p>Tradition. The experience of many generations has led to conclusions (sometimes codified by law) about the combination of grapes, viticultural practices, and winemaking techniques that will produce the finest wine from each plot of land.</p>	<p>Innovation. There is ongoing experimentation with different grape varieties, viticultural techniques, winemaking processes, and new technologies.</p>
<p>Convention of using the place name of the vineyard – a region, district, town, vineyard area, or specific estate – to identify the wine rather than the variety of the grape.</p>	<p>Wines are typically identified by both the variety and the geographic location of the vineyards.</p>
<p>The appellation system is designed to support the European Union's two tier hierarchy of "quality wine" and "table wine." Fine wines meet the EU criteria for "Quality Wines Produced in a Specific Region."</p>	<p>Each country has its own system of appellation and quality control.</p>
<p>Multiple grape varieties thrive and reach the consumer.</p>	<p>Tend to have one or two varieties that drive their growth in export markets.</p>
<p>Wines tend to be subtler, more understated. Stronger emphasis on "earthy" or "mineral" characteristics.</p>	<p>Wines tend to be bolder, more intense, more "fruit-forward." They tend to accent the variety character of the grape more than the impact of the winemaking process.</p>
<p>These wines often complement the subtle flavors of the local cuisine from their region.</p>	<p>These wines have a bolder style that goes well with simple foods or foods that have strong flavors.</p>

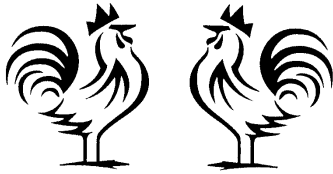
Here are some suggestions so you can check to see how well you've learned the material in this chapter.

- Explain the major differences between the wines of the Old World and the wines of the New World.
- Identify the major wine-producing countries of the Old World that produce and export fine wines for the world market.
- For each of the major wine-producing countries, describe the most important winegrowing regions.
- Describe the principal wines of each of these famous winegrowing regions.

If you find that you can't remember everything you've read, don't worry. There is a tremendous amount of information! You may want to take some time to reread this chapter several times – especially those portions of the chapter that are most applicable to your current territory. You should also consider this chapter to be a reference that you can return to in the future.

You may also find it helpful to review selected portions of the chapter in conjunction with visits to fine wine retailers. For example, you might read about the wines of Tuscany and then visit a store that has a good selection of wines from that region. By reading the wine labels, reviewing the appellations, and talking with wine retailers you'll be able to continually improve your understanding of the geography of each region, and the grapes, winemaking processes, and styles of its fine wines.

Despite the amount of information in this chapter we've only scratched the surface of a topic that is as fascinating as it is complex. If you're interested in learning more about the wines of the Old World, at the end of Chapter 10 there's a list of resources that can help you.



Chapter 10

Fine Wines Of The New World

As you've already seen, winemaking today is becoming an increasingly global industry. This means that to an increasing extent:

- Wine producers and consumers all over the world are becoming more knowledgeable and more sophisticated.
- Fine quality wines are produced in – and exported from – many countries that are located in the latitudes where fine wine grapes can be grown commercially.
- Wine consumers in many countries are considering – and purchasing – wines produced anywhere in the world.
- Like other sectors of the beverage industry, the wine industry is becoming increasingly influenced by powerful companies that are expanding quickly through a host of marketing arrangements, alliances, and investments.

In Chapters 8 and 9 we provided an overview of fine wines produced in the Old World by the traditional European wine-producing countries of France, Italy, Germany, Spain, and Portugal. Now, in this chapter, we're going to look at the New World countries that are becoming an increasingly powerful force in the global wine industry: the United States, Australia, New Zealand, Chile, Argentina, and South Africa.

Although winemaking is truly a global industry we have – by necessity – been selective in choosing which countries to highlight. Our focus is on those countries that export fine wine and are truly part of the international wine industry.

Even if we restrict our discussion to the major exporting nations, the global wine industry is a subject of enormous scope and complexity. Many excellent books have been written about the wines of the New World. Our goal is simply to provide a brief introduction and to whet your appetite for more detail. We encourage you to pursue this subject on your own, and at the end of the chapter we've provided a list of additional sources you can consider.

In any case, we have done our best to present all of this material to you in a clear and straightforward way. But there is a lot of information here for you to absorb and assimilate. Since some of this material is probably new to you, you may find it helpful to read some parts of the chapter two or three times.

Overview

This chapter is divided into sections that focus on each of the major international wine-exporting countries of the New World"

- United States
- Australia
- New Zealand
- Chile
- Argentina
- South Africa

To help you gain some perspective on the relative importance of these wine producing countries, consider these facts:

- In the year 2001 imported table wines (both "bulk" and "packaged") accounted for nearly 23% of all table wine sales in the United States. Imported wines represented approximately 46 million cases out of a total volume of 203 million cases.
- Table wines from these five New World countries together accounted for a little less than a third of the imported table wines sold in the United States. Here's a breakdown by country:

Australia	16.3%
Chile	12.2%
Argentina	2.7%
New Zealand	0.8%
South Africa	0.6%

- Projections suggest that in the year 2005, imported table wines will account for about 24.4% of all table wine sales in the United States. Imported table wines are expected to represent about 57 million cases out of an estimated total volume of 233 million cases.
- By the year 2005, the wines of the New World countries are expected to increase significantly in popularity, especially the wines of Australia. In fact, Australian wines are expected to account for 24% of all table wine imports into the United States. And the wines of Chile, Argentina, New Zealand, and South Africa are expected to account for another 17% of U.S. table wine imports

The Old World And The New World

As you've already seen in Chapters 8 and 9, the global wine industry is a vast subject and it's easy to be overwhelmed by the details. So to help provide a framework for your understanding we're going to review the generalizations we offered about the Old World and New World wine producers.

On the next page there's a chart that summarizes some of the major differences between the wines of these two worlds. Although you've already seen this chart in Chapters 8 and 9, we suggest that you take a few moments to review it now.

Old World Generalizations	New World Generalizations
<p>The countries of Europe:</p> <ul style="list-style-type: none"> • France • Italy • Germany • Spain • Portugal 	<p>The countries of the Americas, the Pacific, and Africa:</p> <ul style="list-style-type: none"> • United States • Australia • New Zealand • Chile • Argentina • South Africa
<p>Tradition. The experience of many generations has led to conclusions (sometimes codified by law) about the combination of grapes, viticultural practices, and winemaking techniques that will produce the finest wine from each plot of land.</p>	<p>Innovation. There is ongoing experimentation with different grape varieties, viticultural techniques, winemaking processes, and new technologies.</p>
<p>Convention of using the place name of the vineyard – a region, district, town, vineyard area, or specific estate – to identify the wine rather than the variety of the grape.</p>	<p>Wines are typically identified by both the variety and the geographic location of the vineyards.</p>
<p>The appellation system is designed to support the European Union's two tier hierarchy of "quality wine" and "table wine." Fine wines meet the EU criteria for "Quality Wines Produced in a Specific Region."</p>	<p>Each country has its own system of appellation and quality control.</p>
<p>Multiple grape varieties thrive and reach the consumer.</p>	<p>Tend to have one or two varieties that drive their growth in export markets.</p>
<p>Wines tend to be subtler, more understated. Stronger emphasis on "earthy" or "mineral" characteristics.</p>	<p>Wines tend to be bolder, more intense, more "fruit-forward." They tend to accent the variety character of the grape more than the impact of the winemaking process.</p>
<p>These wines often complement the subtle flavors of the local cuisine from their region.</p>	<p>These wines have a bolder style that goes well with simple foods or foods that have strong flavors.</p>

Now, of course, these are just generalizations. And, like any generalizations, they should be regarded with a degree of skepticism. But we believe there's enough general validity to help you as you learn more about the wines from each of the great wine-producing countries of the world.

Objectives

After reading this chapter you should understand and be able to explain:

- The major differences between the wines of the Old World and the wines of the New World.
- The major wine-producing countries of the New World that produce and export fine wines for the world market.
- The primary winegrowing regions of each of these countries.
- The principal wines of each of these famous winegrowing regions.

Key Terms

As you read this chapter you will encounter many new terms including the names of appellation laws, winemaking regions, fine wine grapes, and specific wines. By the end of the chapter you should recognize and understand all of these key terms.

Central Coast (California)

Central Valley (Chile)

Coastal Region (South Africa)

Columbia Valley (Washington)

French-American Hybrids

Grange

Malbeck

Mendoza (Argentina)

North Coast (California)

Pinotage (*pee-no-TAHJ*)

Shiraz (*shi-RAHZ*)

Sierra Foothills (California)

South Coast (California)

South Eastern Australia

Steen

Willamette Valley (Oregon)

Wine Of Origin

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

The United States

The United States is a vast country that spans an entire continent. And we are blessed with a wide variety of climates and temperatures, a wide range of soil conditions, and enormous variations in the amount of rainfall we receive and the availability of water from runoff and irrigation.

Wine is produced in nearly every state of the country. But, as you already know, most of our commercial wine production is concentrated in California and a few other key states. In this section we're going to provide an overview of the most important wine-producing states. But before we get started, let's consider the labeling requirements that apply everywhere in the country.

The information that appears on the next few pages is based on material that you've already read in the [Gallo Sales Manual](#). Keep in mind that individual states may have additional laws and labeling requirements.

Labeling Requirements

As you read in the [Gallo Sales Manual](#), wine labels are intended to fulfill two roles: attract the consumer and provide information about the wine. In addition to visual imagery, the label contains a significant amount of information that is required by law (as well as a variety of information that may be voluntary on the part of the winery). Labels vary widely according to country, winery, and the type of wine, but any wine sold in the U.S. must contain certain mandatory information on the label.

We're going to begin with a brief review of the labeling requirements for wines that are sold in the United States. When you look at the label of a bottle of fine wine, you'll see that there is a significant amount of information that is available to you including the vintage, alcohol content, varietal, and appellation of origin. Of course, keep in mind that the same information is required for all wine labels, regardless of whether or not a particular bottle is truly a "fine wine."

On the next page we've provided an example of the front and rear labels from a California vintage dated varietal wine: Gallo of Sonoma, Laguna Vineyard 2000 Chardonnay. Then, on the pages that follow we've included an explanation of the major elements of these labels. Please keep in mind that this information is intended only to give you a general understanding of labeling requirements currently imposed by various regulatory agencies. It is not an all inclusive list and the explanations represent only our interpretation of the main requirements specified by a regulation.



Brand Name

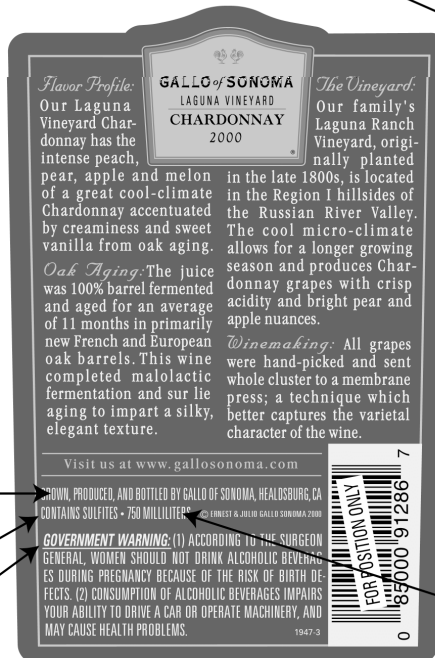


Appellation of Origin

Statement of Alcohol Content

Varietal Designation

Vintage Date



Name and Address

Declaration of Sulfites

Government Health Warning

Net Content

Mandatory Information

Brand name. This is the name that identifies the product to consumers. A winery, bottler, packer, company or person may own the rights to the brand.

Vintage Date. If the wine label specifies a vintage date, at least 95% of the wine must be produced from grapes harvested during that year. (Note: Individual states may impose a stricter requirement for vintage dating.)

Varietal Designation. If the wine is to be designated as a varietal made from a specific *Vitis Vinifera* grape – for example, Chardonnay or Cabernet Sauvignon – then at least 75% of the wine in the bottle must be from the named variety of grape. (Note: Individual states may impose a stricter requirement for varietal designation.)

*See endnote at conclusion of mandatory information for further clarification.

Statement of Alcohol Content. Any wine sold in the U.S. must include the alcohol content on the label. However, a variance of 1.5 % is allowed. In other words, if the label says 12%, the alcohol content can legally range from 10.5% - 13.5%. (Technically, wines that contain less than 14% alcohol may be labeled simply as "Table Wine" without stating the specific alcohol content.

Name and Address. The company (or location) that bottled the wine may not be the same company (or location) that actually fermented the wine or performed other steps in the winemaking process. A wine label must identify which winemaking processes or handling were performed at the location stated on the label. The location, or "address," is expressed as city and state after the name of the winery; in this case, Gallo of Sonoma, Healdsburg, California. Some of the most common process designations are shown below.

- **Bottled.** The named winery or company that only bottled the wine. In other words, no other winemaking processes were performed.
- **Vinted, Cellared, or Prepared (and Bottled).** The terms *vinted*, *cellared*, or *prepared* may be used interchangeably. They denote that the wine was cellar-treated (fined, filtered, stabilized, etc.) at the named location. Any of these designations can mean that the grapes were grown and the wine fermented at one location controlled by the vintner and then transported and bottled at a central location.
- **Made or Produced (and Bottled).** This means that at least 75% of the wine was fermented and bottled by the designated winery.

- **Estate Bottled.** This is the most specific name and address specification. To be labeled “Estate,” all aspects of the winemaking process, from growing the grapes to bottling the completed wine must be controlled by the named winery. The grapes must be grown on property that is owned or controlled (leased for at least 3 years) by the winery, and pressed (“crushed”), fermented, finished, aged, and bottled in a continuous process at the named location. All of the grapes used in making an Estate bottled wine must be grown within the boundaries of the named *American Viticultural Area (AVA)*. Similarly, the wine must be made at facilities owned or controlled by the bottling winery

Appellation of Origin. This designation denotes the location where the majority of grapes used to make the wine were grown. An *Appellation of Origin* can be the name of a state or county or a specific *American Viticultural Area* (see Other Required Information below). If the *Appellation of Origin* is a state or county, federal regulations require that at least 75% of the grapes must have been grown in the named state or county. States may impose more specific requirements. For example, the state of California requires that for a wine to be labeled as being from California, 100% of the grapes used to make that wine must have been grown in the state. However, California's requirements for a county *Appellation of Origin* are the same as federal requirements. In other words, for a county *Appellation of Origin* – for example, Sonoma – the state requires that at least 75% of the grapes used to make the wine must have been grown in the named county.

Net Contents. This denotes the amount of wine contained in the bottle or package, stated as a metric system measurement, e.g., 750 ml.

Declaration of Sulfites. If the wine contains sulfites, this fact must be stated on the label. It refers to the sulfites that are both naturally present in wine and traditionally added as part of the centuries old method of controlling oxidation or premature aging. Beginning in 1987 the Bureau of Alcohol, Tobacco and Firearms has required this labeling to notify those people who have an allergic reaction to sulfites. This is an extremely small percentage of the general population.

Government Health Warning. The label of any beverage that contains .5% or more alcohol sold in the U.S., must contain a specifically worded warning pertaining to the consumption of alcoholic beverages.

Note: Except for Vintage Date and Varietal Designation, all of the information above applies to all wine labels. The label on any imported wine must show the name of the firm that imported it (“*Imported By:*”) and the country of origin (“*Product of Italy*”).

Other Required Information

In addition to the mandatory information described above, other information may be required on the label of vintage dated wines that are identified as coming from very specific *Appellations of Origin*:

- **American Viticultural Area.** (Also referred to as *AVA* or *U.S. Viticultural Area*). As you know, an AVA is a well-defined grape-growing region with soil, climate, history, and geographic features which set it apart from the surrounding areas. For instance, “Russian River Valley” designates a particular area within Sonoma County. An AVA appellation indicates that 85% or more of the wine is produced from grapes grown in that particular area. An *Appellation of Origin*, as described above, may include several *Viticultural Areas*.
- **Vineyard Designation.** If a specific vineyard is mentioned on the label – for example, Frei Ranch – 95% of the grapes must come from the named vineyard.

Voluntary Information

Most voluntary information is actually part of the producer's marketing strategy to differentiate its products from those of competitors. Many wineries add descriptive terms or provide additional information about their wine on the label. Although this information is not required, no label can give false or deceptive statements. The terms Reserve, Private Reserve, Special Reserve, Proprietor's Reserve, or Special Selection have no official meaning. However, many wineries do use these terms, either to label some of their finest, selected lots of wine or simply as part of their marketing strategy.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on the answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. In the United States, what requirements must a wine meet in order to be labeled with a varietal name?
2. In the United States, what requirements must a wine meet in order to be labeled with a state or county Appellation?
3. What requirements must a wine meet in order to be labeled with a California Appellation? What requirements must a California wine meet in order to be labeled with a county Appellation?
4. In the United States, what requirements must a wine meet in order to be labeled with an AVA designation?
5. In the United States, what requirements must a wine meet in order to be labeled with a vintage year?
6. In the United States, what requirements must a wine meet in order to be labeled as a reserve or private reserve wine?

California

When the first European settlers arrived in California several species of grapevine were already growing wild in the region west of the Rocky Mountains. But it was the Franciscan monks who built the chain of missions from Mexico north to Sonoma during the years 1769 – 1823 who were responsible for planting the first vineyards in California. The monks planted Mission grapes, a hardy variety that made a relatively poor wine. Today, the Mission variety accounts for only 2,000 acres of California vineyards.

In the 1860s, Agoston Harazthy and other pioneering winemakers, including Jean-Louis Vignes, Pierre Pellier, Louis Prevost, Antoine Delmas, and A.P. Smith, introduced a wide variety of European *Vitis vinifera* into California. Unfortunately, just as the California wine industry was booming during the latter part of the 19th century, it was severely damaged by the Phylloxera blight. Then the industry was nearly destroyed again by Prohibition.

Following the repeal of Prohibition in 1933, the California wine industry faced a serious rebuilding challenge. The state had very few winemaking facilities and very few trained winemakers. In addition, there were only a limited number of grape varieties still being grown commercially. During Prohibition most of the vineyards had been replanted with thick-skinned, red grapes such as Zinfandel and Petite Sirah that could be shipped to other states for use in home winemaking.

Since 1950 there have been dramatic changes in the California wine industry. For example, in the 1950s, fortified wines such as sherry and port made up three-quarters of California's production. By 1968, table wines represented about half of all the wine produced in the state. And in the 1990s, table wines accounted for more than three-quarters of all production.

Along with this shift in emphasis from fortified wines to table wines, there has been a substantial increase in the availability of high quality grapes. In the early 1940s, there were no Chardonnay grapes growing and only 200 acres of Cabernet Sauvignon. And by 1959, there were still only 80,000 acres of wine grapes planted in the entire state. But during the 1960s and 1970s, there were extensive plantings of new vineyards. Some of these new vineyards were eventually uprooted, some were later abandoned, and many acres were eventually converted from one variety to another. The sum of California's vineyards grew to a total of 330,000 acres under vine by 1980.

California's Fine Wine Grapes

Along with this significant increase in vineyard acreage came a new emphasis on planting grape varieties capable of making fine wines. Here is a summary of California's vineyard acreage for the year 1999 (the most recent year available at the time this manual went to press).

There were a total of 265,000 acres planted statewide to over 39 types of red wine grapes, including:

- Cabernet Sauvignon: 62,734 acres
- Zinfandel: 51,811 acres
- Merlot: 47,638 acres
- Pinot Noir: 15,606 acres
- Syrah: 10,298 acres

There were a total of 205,103 acres planted statewide to over 26 types of white wine grapes, including:

- Chardonnay: 102,568 acres
- Sauvignon Blanc: 13,499 acres
- Pinot Gris: 1,147 acres

Obviously, as new varietal types become more popular with consumers, more acres of vineyards will be devoted to them. However, keep in mind that there is always a lead time of three to five years between initial planting and the first time that grapes can be used to produce wine.

A Premier Winegrowing Area

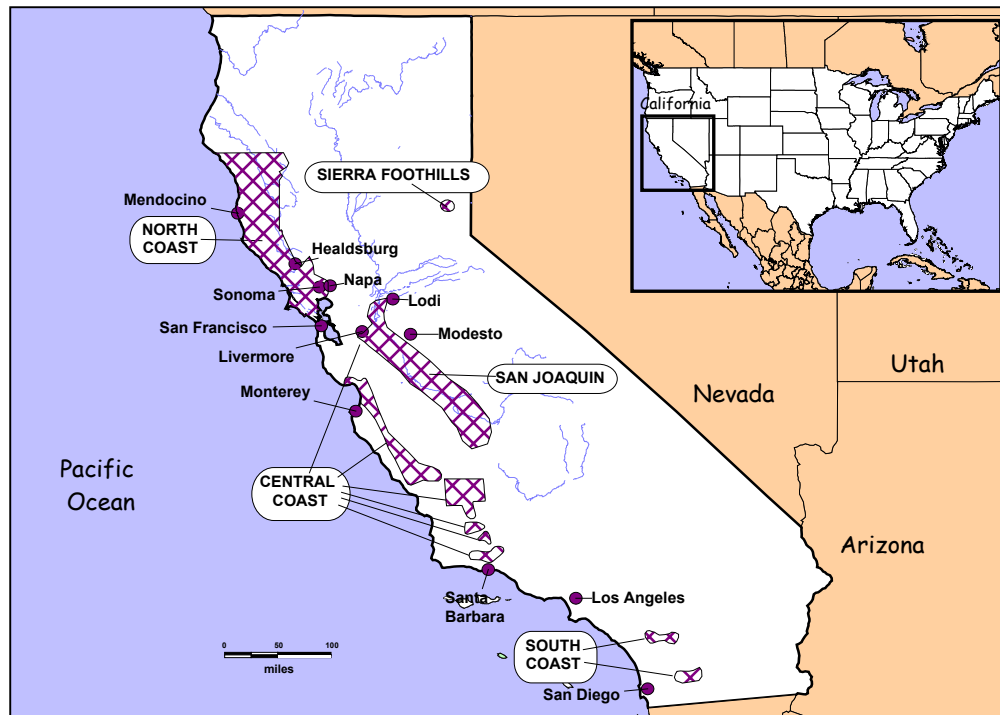
Although the repeal of Prohibition gave birth to the modern California wine industry, the industry has truly gained momentum during the last 30 years. And during this relatively short period, California has also emerged as one of the world's premier winemaking regions.

As a result of the increased availability of quality grapes, new technology, and innovative cellar practices, California now produces table wines that compete favorably in quality and value against the established wines made in France, Italy, Spain, and the most prestigious growing areas of the New World. In fact, California's finest wines – especially those made from varieties such as Cabernet Sauvignon, Merlot, Zinfandel, Pinot Noir, Chardonnay, and Sauvignon Blanc – now compete head-to-head with wines produced from the greatest vineyards of Europe.

Today, California is the major vineyard region of the United States. Consider these facts:

- The state produces more than 90% of the wines made in the United States and nearly 70% of the wines consumed in this country.
- California has 470,000 acres under cultivation to wine grapes.
- The state annually produces about 445 million gallons of wine (about 193 million cases). Approximately 10% of this total – about 19 million cases – are exported.
- There are approximately 850 "brick and mortar" commercial wineries in California. (That is, there are 850 physical wineries, as opposed to simply "labels" or "brands.")

California's Growing Regions



Most of California's finest wines come from the cool, coastal valleys that experience the Pacific Ocean's maritime influence. However, other areas of the state are also successfully cultivating fine wine grapes. Here is a brief summary of the state's major growing regions.

North Coast. As you've already seen, the North Coast comprises the counties north of San Francisco Bay: Napa, Sonoma, Mendocino, and Lake counties.

Central Coast. The Central Coast comprises the counties between San Francisco and Santa Barbara, including Alameda, Contra Costa, Santa Clara, Santa Cruz, Monterey, San Benito, San Luis Obispo, and Santa Barbara.

South Coast. The South Coast includes the coastal vineyards south of Los Angeles in Riverside and San Diego counties, especially the Temecula AVA in Riverside County.

Sierra Foothills. Summers are quite warm in the Sierra Foothills east of Sacramento. But fine wine grapes are being cultivated successfully at some of the higher altitudes in Amador, El Dorado, and Calaveras Counties.

San Joaquin Valley. Some fine wine grapes are also being grown in the northern part of the San Joaquin Valley, particularly in the area near Lodi.

California's diverse geography and climate allow the state to produce a dazzling variety of quality wines. In that regard, there is a key distinction between the great wine producing regions of Europe and the regions of California.

As you read in Chapters 8 and 9, the winemakers of Europe cultivate many varietals. Even so, for the most part, each of the great European winemaking regions is known for the particular kind of wine it produces from specific grape varieties. For example:

- Burgundy is famous for its Pinot Noir and Chardonnay.
- Bordeaux is recognized for its Cabernet Sauvignon and Merlot.
- The Loire Valley is celebrated for its Sauvignon Blanc.

Because of California's immense size and the diversity of the state's geography and weather, it has a number of regions that can produce exceptional fine wines from several different grape varieties. In addition, many of California's coastal valleys run east to west, or northwest to southeast. As a result, a single valley may experience a variety of weather conditions.

As an example, you'll recall that in *Chapter 3: Gallo's Approach To Fine Wine*, we described how Sonoma County is characterized by *diversity within proximity*. Consider the wide variety of growing conditions found just in Sonoma County:

- The cooler areas, located near the ocean, are well suited for Chardonnay, Pinot Noir, Riesling, and Gewürztraminer grapes.
- Warmer inland areas are ideal for Cabernet Sauvignon, Merlot, Sauvignon Blanc, and Zinfandel.
- And an even greater variety of conditions may be available depending on whether the grapes are planted along the warm valley floors or on the cooler hillsides.

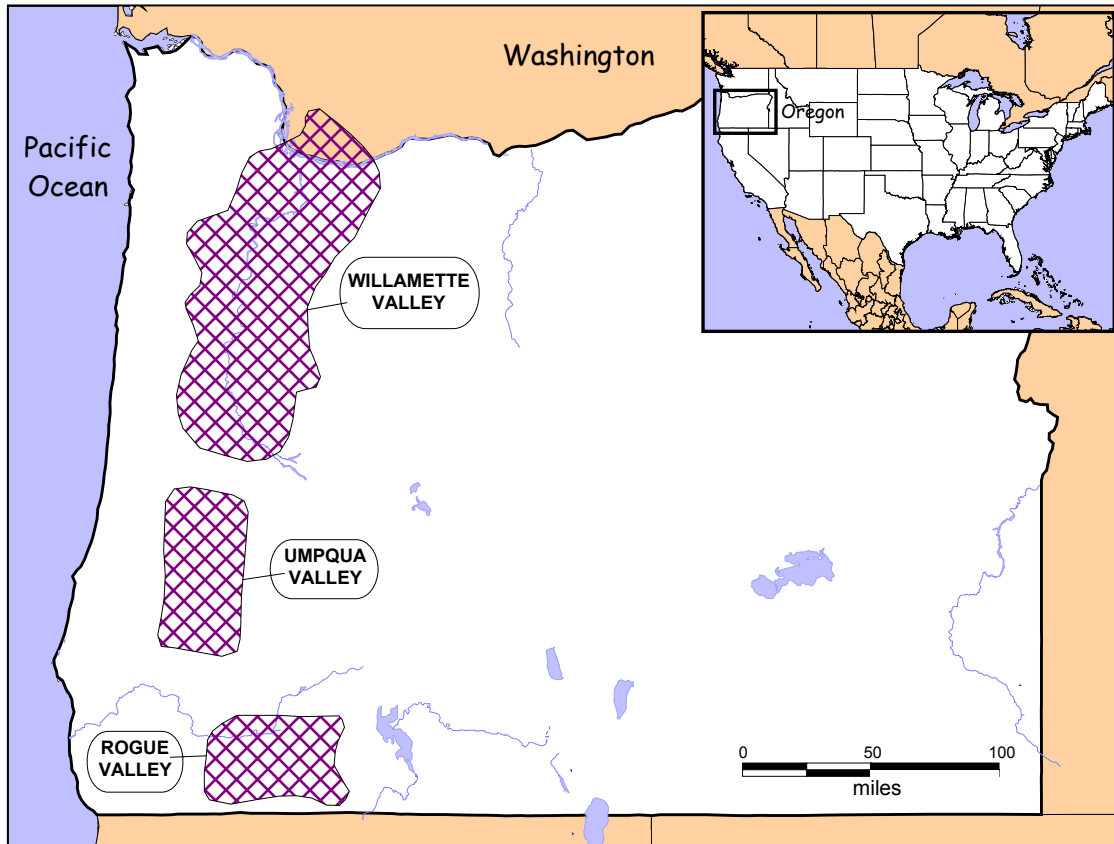
As further evidence of the state's diverse growing conditions, consider the fact that at the time this manual was published there were 145 officially defined American Viticultural Areas in the United States. Of these, 88 were located in California.

(We've included a listing of California's principal AVAs as an Appendix at the end of this chapter.)

Check Your Understanding

1. Describe some of the dramatic changes that have transformed the California wine industry during the last 60 years.
2. Which fine wine grapes are planted most extensively in California?
3. What are California's five premier growing regions?
4. Compared to the world's other great winegrowing regions, what is unique about California's geography and climate?

Oregon



Oregon's vineyards date back to the 19th century, but Oregon's wine industry was nearly destroyed by Prohibition. In fact, until the 1970s the state was known primarily for wines made from berries and fruits. Since then, the state has quickly achieved a reputation for making high quality varietal wines, particularly Pinot Noir.

Oregon's modern wine industry began in 1961, when a vineyard of Riesling grapes was planted in the Umpqua Valley, about 180 miles south of Portland. Two years later the first wines were produced at Hillcrest Vineyard. In 1966, a few acres of Pinot Noir grapes were planted in the Willamette Valley near Portland. Four years later, there were still fewer than 100 acres under vine and only seven wineries in all of Oregon. But when this manual went to press, Oregon had approximately 11,000 acres of vineyards and 178 wineries producing annual wine sales in excess of \$100 million.

Oregon's Winegrowing Regions

Region	Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Oregon	Willamette Valley	Pinot Noir	Pinot Gris
	Umpqua Valley	Pinot Noir Cabernet Sauvignon	Chardonnay Riesling
	Rogue River Valley	Merlot Cabernet Sauvignon	Chardonnay Pinot Gris
	Applegate Valley	Merlot Cabernet Sauvignon Syrah Zinfandel	Chardonnay

Most of the state's wineries are located in the Willamette Valley southwest of Portland. This area is characterized by a cool and damp maritime climate that is similar to the climate of the Burgundy region of France. Within the Willamette Valley, Yamhill County, southwest of Portland, is home to the greatest number of wineries. Other wineries are located farther south in Polk County and farther west in Washington County.

Other vineyards and wineries are located in the southern part of the state. The Umpqua Valley, located in southwestern Oregon near the town of Roseburg, is the site of Oregon's first winery, Hillcrest Vineyard. The climate here is warmer and drier than in the Willamette Valley. Principal red wine grape varieties are Pinot Noir and Cabernet Sauvignon. Principal white wine varieties are Chardonnay and Riesling.

Farther south near the California border, another emerging winegrowing area is the Rogue River Valley. The climate here is even warmer, and is well suited for red wine grapes such as Merlot and Cabernet Sauvignon, and white wine grapes such as Chardonnay and Pinot Gris.

South of Grants Pass and east of Bear Creek Valley, the Applegate Valley in the eastern Oregon is the state's newest appellation. This emerging area stretches along the path of the Applegate River and features a warm, dry climate.

Oregon's Fine Wine Grapes

Most of Oregon's vineyards are located in the western part of the state, where the climate is cooler, wetter, and more variable than California or Washington. So Oregon's wineries have focused primarily on early-ripening varieties.

Pinot Noir grapes are grown on more acres in Oregon than any other variety. As we mentioned a moment ago, the Oregon climate is similar to the Burgundy region of France. However, in this case "similar" means cool, wet, and changeable – in other words, difficult conditions for consistently producing exceptional grapes. So although Oregon has been able to produce some excellent Pinot Noir wines, there may be significant variations in quality from one vintage year to another.

Until recently, the principal white wine varietals were Chardonnay and Riesling. However, many wineries have begun to make excellent wine from Pinot Gris – the same grape that is called Pinot Grigio in Italy. Oregon's Pinot Gris wines tend to feature stronger fruit flavors, especially pears, apples, melons. And since these wines are often quite complex, even without oak aging, they can be produced – and enjoyed – soon after harvest.

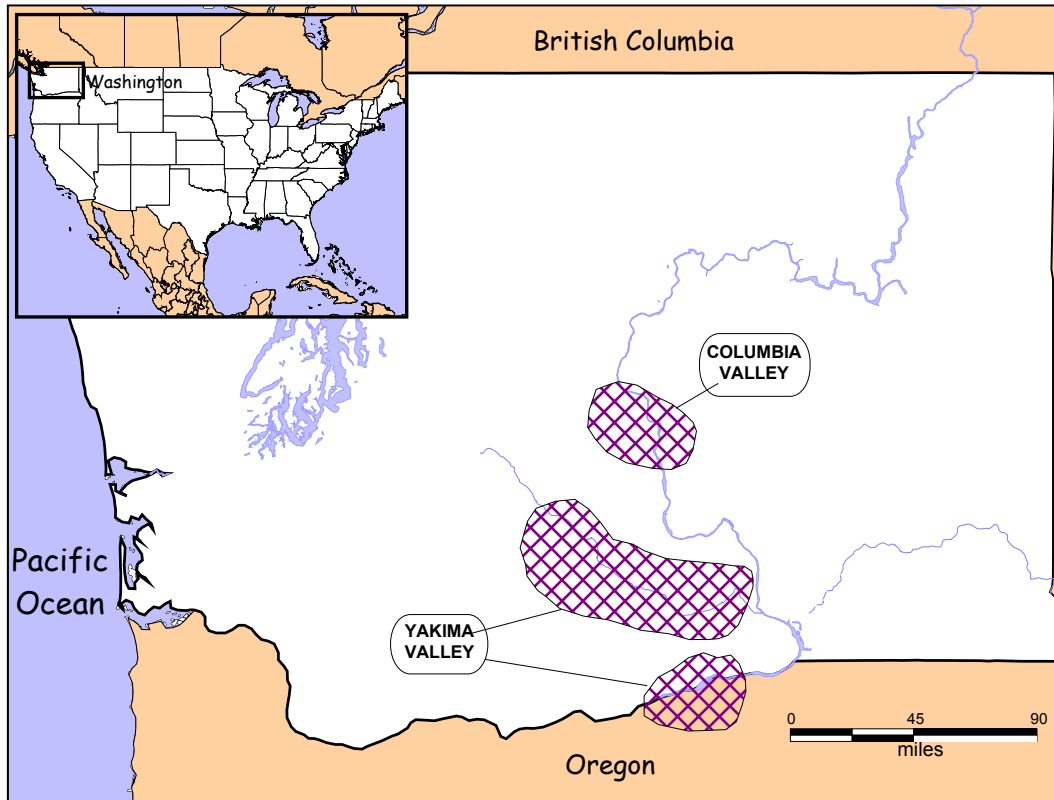
Oregon's Labeling Regulations

- A wine named after a grape variety must contain at least 90% of the named grape. (There is one exception to this rule. Wines produced from Cabernet Sauvignon grapes may be blended with up to 25% of complementary grapes such as Merlot and Cabernet Franc.)
- If a wine is labeled after a geographical area, such as Oregon or the Willamette Valley, 100% of the grapes contained in that wine must have been grown in the named region.
- Wines produced in Oregon may not be labeled with traditional generic names such as "Burgundy" and "Chablis."

Check Your Understanding

1. What is the principal winegrowing region of Oregon? What is the climate of this region?
2. What is the principal red wine of Oregon?
3. What is currently emerging as an excellent white wine?
4. What are two strict requirements of Oregon's regulations for labeling wines?

Washington



For more than 30 years after the end of Prohibition there was no commercial winemaking from European *vitus vinifera* varieties in the state of Washington. Then in 1967, two wineries began to make commercial wines from *vinifera* varieties. Ten years later, the state had nearly 3,000 acres of *vinifera* grapes and a total of six wineries. In the year 2000 there were more than 24,000 acres under vine and more than 162 wineries producing 59 million bottles of wine with a retail value of \$576 million.

Although Washington and Oregon are neighboring states, their winegrowing areas are significantly different. As you saw, most of Oregon's winegrowing regions are located in the damp western part of the state. In Washington, most of the vineyards are found in the Columbia Valley, a viticultural area in the central part of the state. Because the Columbia Valley is located east of the Cascade Mountains this area is, essentially, an irrigated desert. The growing season is characterized by warm sunny days and cool nights that allow the grapes to ripen fully while still retaining balanced acidity.

Washington's Winegrowing Regions

Principal Districts or Appellations	Predominant Red Wine Grapes	Predominant White Wine Grapes
Columbia Valley <ul style="list-style-type: none"> • Yakima Valley <ul style="list-style-type: none"> – Red Mountain • Walla Walla Valley 	Merlot Cabernet Sauvignon Cabernet Franc Syrah	Chardonnay Riesling Sémillon Sauvignon Blanc
Puget Sound		Riesling

Washington has a total of five American Viticultural Areas:

- Nearly all of the state's vineyards are located in the large Columbia Valley AVA which stretches across the south central portion of the state.
- Within the Columbia Valley AVA there are two smaller AVAs. The Yakima Valley AVA is a district located 200 miles southeast of Seattle. The Walla Walla Valley AVA is a smaller district located in southeastern Washington.
- Within the Yakima Valley AVA is a smaller sub-appellation, the Red Mountain AVA.
- The Puget Sound appellation is located in western Washington near the city of Seattle. This area, although relatively cool and damp, has produced some excellent Rieslings.

Although most of the grapes are grown in the greater Columbia Valley, most of Washington's wineries are located along the coast in the western part of the state.

Washington's Fine Wine Grapes

About 80% of Washington's vineyard acres are dedicated to the cultivation of white wine grapes. The predominant variety is Chardonnay. However, Riesling, Chenin Blanc, Sauvignon Blanc, Sémillon, Gewürztraminer, and Muscat Canelli are also grown successfully. The wines made from white varieties are known for their intense fruit and crisp acidity.

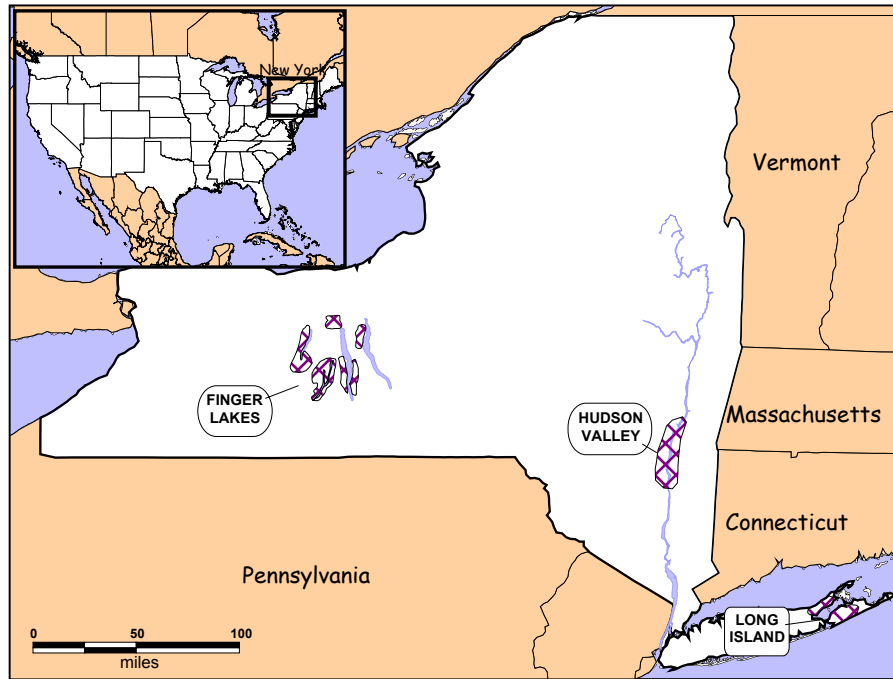
The remaining 20% of the state's vineyards are planted in red varieties. The state's red wines – currently consisting mostly of Cabernet Sauvignon and Merlot – are renowned for their elegance and balance. In addition, Syrah is now being cultivated on an increasing basis. And some experts feel that Syrah will ultimately become as important in Washington as Pinot Noir is in Oregon.

Nearly all Washington wines are marketed using varietal names, with a few being sold under proprietary names.

Check Your Understanding

1. What is Washington's major winegrowing region?
2. What is the climate of this region? Why is it so different from the climate of Oregon?
3. Describe the varieties and principal characteristics of Washington's white wines.
4. Describe the varieties and principal characteristics of Washington's red wines.

New York



New York has one of the longest traditions of winemaking of any state in the United States. In fact, the oldest continuously operating winery in the United States – Brotherhood Winery – was established in the Hudson Valley in 1839. Today the state has nearly 38,000 acres under vine and produces an annual volume of about 15 million cases. But even though New York is second only to California in terms of the volume of wine produced, the state is only beginning to gain recognition for the quality of its wines.

One major factor accounts for the slow acceptance of New York wines: the grape varieties that have been cultivated there. From that perspective, the history of New York is unique among the world's principal winegrowing regions.

We're going to consider the wines of New York because of their historical importance to the U.S. wine industry. However keep in mind that – at least for the moment – New York is not considered a major producer of fine wines for the U.S. or world market.

The History Of Grape Growing In New York

New York's winemaking tradition dates back more than a century and a half. However, it's only in recent years that New York's vintners began to cultivate the European *vitus vinifera* varieties that produce wine fines in other parts of the world.

For most of the state's history, *vinifera* grape varieties were not planted because of the challenging climate. Most wine experts believed that the cold New York winters would kill the dormant vines, and the humid summers would propagate diseases, rot, and mold. So, in the early days of New York's wine industry, most of the wines were made from local varieties such as Concord, Catawba, Delaware, and Niagara.

Then, in the 1940s, a few growers began to plant French-American hybrids, such as Baco Noir, De Chaunac, Chelois, Marechal Foch, and Aurora. French viticulturists originally developed these hybrids during the Phylloxera epidemic in their attempt to combine the sturdiness and disease-resistant qualities of the native American varieties with the taste qualities of the *vinifera* varieties.

In the 1950s, a Russian immigrant, Dr. Konstantin Frank, successfully grafted *vinifera* varieties onto native rootstocks in the Finger Lakes Region. And, in 1961, Dr. Frank's Vinifera Wine Cellars produced the state's first Chardonnay and Riesling wines.

Today, about 60% of the state's vineyards are still planted with the native variety of Concord grapes. These acres are primarily in the Chautauqua region, located southeast of Buffalo along Lake Erie. These Concord grapes are used almost exclusively for table grapes, grape concentrate, juice, wine coolers, or kosher wines. In any given year only about one third to one half of the crop is crushed for wine.

Another 20% of the state's total acreage is devoted to other native varieties as Catawba, Niagara, Delaware, and Elvira. Although there is a market for the sweet wines produced from these varieties, most of the grapes are not used for wine. Some of these native varieties are used to produce sparkling wines and fortified wines, such as sherry and port.

More than 10% of the state's vineyards are planted with French-American hybrid varieties, particularly the Aurora and Seyval Blanc grapes.

Vinifera varieties are cultivated on less than 10% of the state's vineyard acreage. About half of the acreage is currently devoted to Chardonnay and the rest is dedicated to Riesling, Sauvignon Blanc, Gewürztraminer, Cabernet Sauvignon, Merlot, and Pinot Noir.

New York's Winegrowing Regions

New York has five AVAs:

- Cayuga Lake
- Finger Lakes
- Hudson River Region
- North Fork of Long Island
- The Hamptons, Long Island

Of these, the most important region is the Finger Lakes area in western New York. Here, four large lakes moderate a fairly cool climate. The region is home to more than 40 wineries and together they produce about 85% of New York's wines. Most of the newer wineries have been built along the Seneca and Cayuga lakes. The historic 19th century wineries are located primarily along the shores of the Keuka and Canandaigua.

The other principal historic grape growing region is the Hudson Valley. This area stretches along the banks of the Hudson River about 60 miles north of New York City.

The most exciting new winegrowing area is Long Island. In 1973 wineries were established along the eastern end of Long Island about 100 miles east of New York City. Now the area has two AVAs: North Fork and The Hamptons. And there are more than a thousand acres devoted almost entirely to *vinifera* varieties:

North Fork in particular seems well suited to many of the noble *vinifera* grapes. Among red wine grapes, Merlot is the most widely planted. However, Cabernet Sauvignon and Cabernet Franc are showing excellent potential. Chardonnay currently accounts for the highest percentage of white wine grapes. But some growers are achieving success with Sauvignon Blanc, Pinot Blanc, Riesling, and Gewürztraminer.

New York's Labeling Regulations

New York wines are marketed under a variety of generic, proprietary, and varietal names.

- Generic names, such as Chablis, Burgundy, Rhine Wine, and Sauterne.
- Proprietary names, such as Lake Country White.
- Varietal names, such as Chardonnay and Sauvignon Blanc.

If a wine is named after a grape variety then at least 75% of the wine must have been produced from the named grape. An exception to this has been made for wines produced from the intensely flavored native American varieties, which require only 51%.

New York's other labeling requirements are consistent with federal standards:

- If a wine is labeled New York State then at least 75% percent of the grapes used to make the wine must come from the state.
- If a wine is labeled with a defined AVA, such as Finger Lakes Region, Hudson River Region, North Fork of Long Island, or The Hamptons, then at least 85% of the grapes must have been grown in the named region.

The New York Wine Industry

Four producers – Gold Seal, Great Western, Taylor, and Widmer's – have dominated the industry for the past century.

However, the style and quality of New York State wines underwent a transformation in 1976 with the passage of the Farm Winery Act. This law allowed wineries that produce an annual volume of no more than 50,000 gallons (or 21,000 cases) to sell directly to consumers. This act made it possible for winemaking enthusiasts to start their own wineries and for grape growers to make their own wine from their own grapes. As a result there has been a dramatic increase in the number of small New York wineries. And the total number of wineries statewide has grown from just 19 in 1975 to 150 in 2000.

Even though the new small wineries make up only about 10% of the state's total wine sales, nearly all of them cultivate the French-American hybrids (such as Seyval Blanc) and *the vinifera* varieties that are responsible for the growing reputation of New York wines.

Check Your Understanding

1. What is the major reason why New York is just now gaining recognition as a fine wine producer?
2. Describe the three principal kinds of grapes that are cultivated in New York.
3. Name and describe the winegrowing region that accounts for about 85% of all of New York's wine production.
4. What is the state's most exciting new winegrowing area?
5. What are three ways that New York wines may be named?
6. How has the Farm Winery Act begun to change the New York wine industry?

Old Traditions And New Directions: Virginia And Texas

As you know, California, Oregon, and Washington account for nearly all of the U.S. commercial production of fine wine. However, wineries are springing up in nearly every other state across the country. And some of these wineries are producing quality wines that are gaining local and regional interest. To help you get a more complete sense of the U.S. fine wine industry we're going to take a brief look at two more states with a long history of winemaking: Virginia and Texas.

Virginia

The history of winemaking in Virginia dates back to the earliest days of the American colonies. Some historians believe that the settlers in Jamestown produced the first American wine shortly after their arrival in 1607.

In addition to his accomplishments as a statesman, architect, and inventor, Thomas Jefferson earned an informal title as "the father of American wine." Jefferson visited the vineyards of Europe and his research enabled Virginia growers and winemakers to adopt their processes. He also served as wine advisor to several American presidents.

The wine industry grew during the first half of the 19th century. However, many of Virginia's grapevines were destroyed during the Civil War. It took more than a century for the state's wine industry to begin a resurgence.

Today there are more than 60 wineries located throughout the state's six American Viticultural Areas:

- Shenandoah Valley
- Rocky Knob
- Virginia's Eastern Shore
- North Fork of Roanoke
- Monticello
- Northern Neck George Washington Birthplace

Today, Virginia wineries produce excellent wines from a wide variety of *vinifera* grapes. The most popular red varieties include Cabernet Sauvignon, Merlot, and Syrah, along with Cabernet Franc, Barbera, Nebbiolo, and Sangiovese. The most popular white varieties are Chardonnay, Sauvignon Blanc, Viognier, and Gewurztraminer.

In addition, growers in Virginia and other mid-Atlantic states are also cultivating an increasingly popular French-American hybrid called Chambourcin. This is a late-ripening varietal that can successfully withstand cold winter temperatures – although not for a prolonged period of time. Wines made from Chambourcin grapes are often said to combine the spiciness of Syrah and the softness of Merlot. The grape's similarity to Syrah and its high resistance to fungus is helping it to gain popularity in Australia, too.

Texas

Like Virginia, Texas also has a long tradition of winegrowing. In 1662, Spanish missionaries planted the state's first vineyards near the present site of the city of El Paso.

Winemaking thrived in Texas during the 19th century. In the 1880s, Thomas Munson conducted critical research in Texas on techniques for combating the Phylloxera scourge. In 1888, the grateful French government awarded Munson the title of *Chevalier du Merit Agricole*, which can be loosely translated as "Worthy Knight of Agriculture."

At the beginning of the 20th century there were more than 25 wineries operating in the state. Then, Prohibition effectively destroyed the Texas wine industry for 50 years. But in the 1970s the industry began a resurgence. Today there are more than 34 wineries in Texas and more than 3,000 acres under cultivation.

Texas probably has the most diverse – and most challenging – climate of any of the world's commercial wine regions. The state is well-known for sudden and dramatic fluctuations from hot to cold and from wet to dry. High winds, hailstorms, and sudden freezes also contribute to the difficulties of cultivating fine wine grapes.

Nonetheless, fine wine grapes have been grown successfully throughout the central, northern, and western parts of Texas. The state's major grape varieties are Chardonnay, Sauvignon Blanc, Cabernet, and Merlot. And growers are experimenting with Sangiovese, Viognier, and Muscat.

Texas has seven American Viticultural Areas:

- Texas High Plains
- Mesilla Valley
- Texas Hill Country
 - Fredericksburg (a sub-appellation in the Texas Hill Country)
- Escondido Valley
- Texas Davis Mountains
- Bell Mountain

A Look South

We've now completed our review of the fine wine industry in the United States. However, the United States is only one of the New World wine-producing countries that is having an impact on the world market.

During the second part of this chapter we're going to turn our attention to the southern hemisphere.

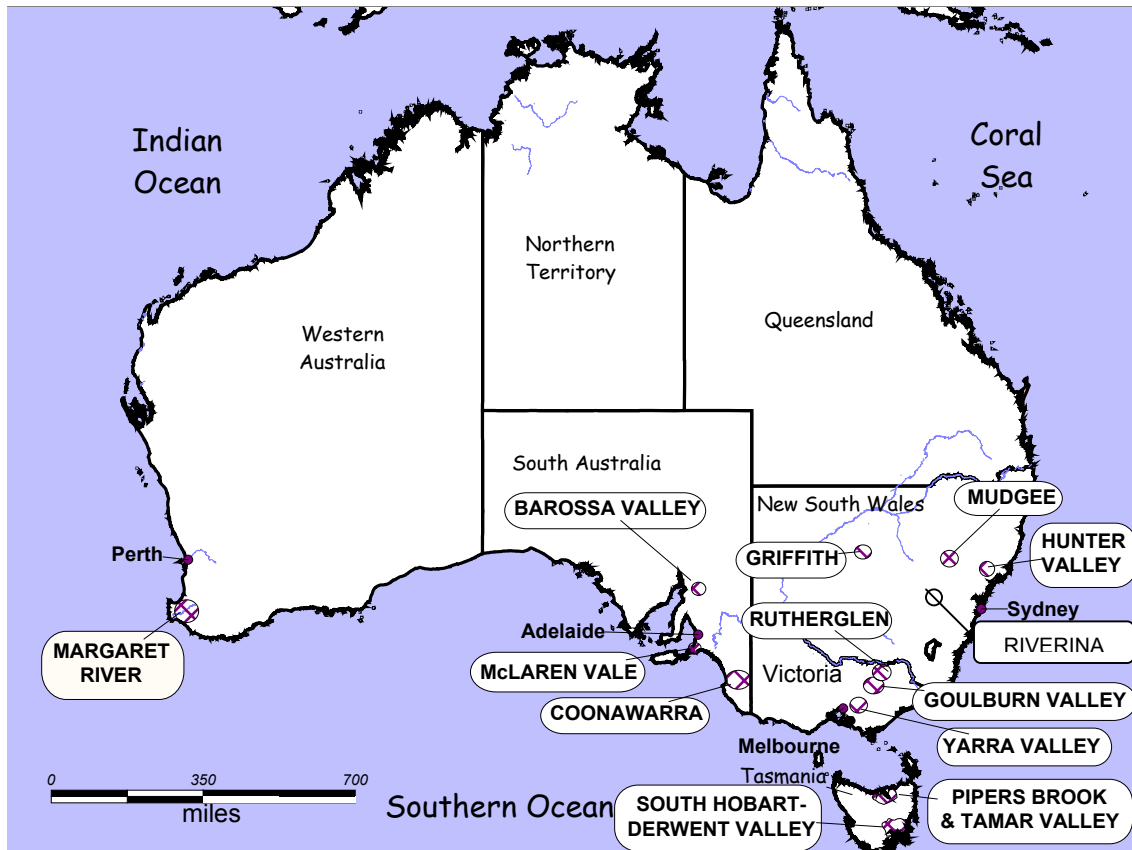
First, we'll consider "the wonders down under" as we examine the innovative and rapidly growing wine industry in Australia. And we'll also consider the emerging fine wine industry in neighboring New Zealand.

Then we'll travel across the Pacific Ocean to South America. And we'll see how Chile and Argentina are building on their long traditions of winemaking with the help of investment capital, new technologies, and winemaking expertise from well-established wineries in the United States and the countries of the Old World.

Finally, we'll continue eastward across the Atlantic Ocean to discuss a rapidly emerging New World wine producer, the Republic of South Africa.

As we look at each of these countries we'll try to help you gain a general understanding of their principal growing regions, the fine wine grapes that are cultivated, and the distinctive characteristics of the fine wines they produce. However, as we discussed back in Chapter 1, keep in mind that in today's global market, "fine wines" share many similar characteristics regardless of their country of origin. So in order to provide you with a practical perspective we'll also consider the overall structure of the wine industry in each of these leading New World wine producing countries.

Australia



The first British colonists arrived in Australia at the end of the 18th century. Soon afterwards, they began to make wines. And – unlike their counterparts in the United States and New Zealand – Australia's winemakers have never been constrained by conservative social attitudes toward temperance. So Australia has a continuous tradition of serious winemaking that dates back about 200 years.

Australia is a vast continent nearly equal in size to the continental United States. Because Australia is located in the southern hemisphere, the climate generally becomes cooler as you travel farther south. Most of the people live in the lower third of the country, below the 35th parallel (35° south latitude). And the winegrowing regions are also located in the cooler southern parts of the country.

The early settlers planted their vineyards near the emerging cities of Sydney, Canberra, Melbourne and Adelaide in the southeast and Perth in the west. As irrigation and transportation improved, the grape growing industry expanded into massive vineyards to support the production of bulk wines, dessert wines, and fortified wines.

The Growth Of The Australian Wine Industry

Australia's focus on making fine table wines began in 1950 when Australian winemakers set out to produce a red wine in the Bordeaux style. Initially they planned to make a Cabernet Sauvignon blend, but their efforts with the Syrah grape from the Rhône region (renamed *Shiraz* in Australia) proved to be more successful. Australian wine pioneer Maurice O'Shea (1897-1956), the chief winemaker at McWilliam's Mount Pleasant Winery from 1932 until his death, was one of the first to recognize the special characteristics and longevity of Shiraz wines, particularly from the Hunter Valley. He is today recognized as one of the most important and influential figures in the modern Australian wine industry.

During this period, the Penfolds Winery was also experimenting with Shiraz based wines, and created a stunning blend. Borrowing the name "Hermitage" from the great wine-producing district of the Rhône, they produced what many people considered to be the greatest Australian wine of its time, *Penfolds Grange Hermitage*.

The name Hermitage was ultimately dropped in deference to pressure from the European Economic Community. Today this wine is known simply as *Grange*. But it is still considered to be a world-class wine and it did succeed in starting a winemaking revolution in Australia.

Since 1970, the Australian wine industry has undergone a dramatic transformation. Simply put, there has been a concerted industry effort to establish Australian wines as a leading export in the world market. The past 30 years have been marked by these significant changes:

- The country's winemakers have shifted their emphasis from making dessert and fortified wines to making table wines.
- Australian viticulturists have found cooler hillside locations and have planted many new European varietals.
- Australian wine scientists have pioneered a variety of new techniques in the areas of vineyard mechanization, grape pressing, and refrigerated fermentation.
- The Australian wine industry as a whole has committed itself to strong global growth and has undertaken industry marketing efforts to achieve this goal.

Today, Australia is gaining a reputation as one of the world's leading producers of good quality, moderately priced wines.

The Industry Today

The Australian wine industry is strongly influenced by a few large firms that own many wineries and brands and are seeking to capitalize on the projected growth of Australian wines in overseas markets. They are aggressively acquiring many of Australia's smaller local wineries and are considering acquisitions and partnerships abroad. At the time this manual went to press, some of these firms were negotiating joint ventures with other international wineries to develop new wine lines and cooperate on research, manufacturing, and marketing.

The Australian wine industry's remarkable success – and dramatic growth – during the past 30 years is due to a combination of five factors:

Favorable climate. Significant portions of the country have a warm, dry climate that is moderated by cool maritime breezes. With higher altitudes in some areas, the Australians have been successful at cultivating most of the traditional noble grapes of Europe.

Plentiful land. Australia is a vast continent covering more than 2.9 million square miles but with a population of only about 20 million people in 2001. Prime vineyard land in Australia is plentiful and inexpensive compared with the best vineyard land in the United States and Europe. This provides Australian winemakers with a significant cost advantage over their principal rivals.

Innovation. Because Australia is located halfway around the world from the great winegrowing areas of Europe, and because Australia has a significantly different climate, the country's winemakers have always been open to innovation. For example, Australian winemakers were the first to market wines from non-traditional blends of classic grapes and to include more than one varietal grape name on the label, such as "Shiraz/Cabernet Sauvignon" or "Chardonnay/Sémillon."

Technology. Australia is, along with the United States, the most technologically advanced wine producing country. And in addition to introducing new winemaking technologies, they are also in the forefront of experimenting with machine harvesting on a large scale.

Philosophy of winemaking. Australian winemakers have aggressively experimented with new styles that appeal to the tastes and preferences of contemporary consumers. For example, they tend to:

- Emphasize intense, fruit-forward flavors that accentuate the varietal character of the grape.
- Reduce the tartness of their white wines and the tannins of their red wines to produce soft wines that do not require extensive aging.

In the process, Australian winemakers have – along with Italy – taken the lead in producing easy-to-drink wines that have proven to be very popular with wine consumers around the world.

Australia's Fine Wine Grapes

Australian winemakers have achieved their greatest success with these noble grapes:

Shiraz. In Chapter 8 you read about the Syrah grape from the Rhône region in France. The Australians renamed this red wine grape as Shiraz, and it is the most widely planted premium red wine grape. Australian Shiraz wines are made in many styles ranging from simple but delicious light wines with fresh strawberry fruit flavors to serious, more complex wines that need time to evolve and mature.

Cabernet Sauvignon. Cabernet Sauvignon is rapidly catching up to Shiraz as the country's principal red wine grape. Cabernet grapes reach full maturity in Australia's warmer growing regions, achieving outstanding structure and flavors of red currants, black currants, chocolate, and mulberry. In years past, Cabernet has often been blended into wines that were made predominantly from Shiraz. Now, Australian winemakers are turning with increasing frequency to the more traditional Bordeaux blends of Cabernet Sauvignon with Merlot and Cabernet Franc.

Chardonnay. Chardonnay is the most widely planted premium grape in Australia. And the Australian wine industry has contributed significantly to the increasing worldwide popularity of this wine. In years past, many Australian Chardonnays were heavily oaked and were characterized by a buttery, almost syrupy quality. Now, many producers have opted for a more restrained style. And some wineries are even marketing their bottlings with the word "unoaked" on the label. It is also common in Australia to blend Chardonnay with other white wines, most often Sémillon or Colombard.

Riesling. This is the premier white wine grape of Germany and Alsace and, until recently, was the most widely planted white wine grape in Australia. The country's best quality Rieslings are grown in the coolest regions, especially Tasmania and the Clare Valley and Eden Valley of South Australia. Although Australian Rieslings are said to have a distinctive lime aroma, they have not achieved notable success on the world market.

Sémillon. This white wine grape comes from the Bordeaux region. In Australia it is spelled Semillon (without the accent mark) and pronounced *SEM-ill-on* instead of the more traditional French pronunciation of *se-mee-OHN*. Some Australian Sémillons are aged in oak, like Chardonnay. Others are not aged in oak but still take on more complexity as they age, developing flavors of nuts, honey, and orange marmalade

Australia's Fine Winegrowing Regions

Wines are produced throughout Australia, but commercial production is focused in four of Australia's seven states/territories:

- New South Wales
- Victoria
- South Australia
- Western Australia

There are also notable wine regions on the southern island of Tasmania.

For many years it has been a common practice for Australian winemakers to blend grapes from several distant sources. For example, most wines labeled for export say simply "South Eastern Australia."

The term "South Eastern Australia" encompasses wine regions within all states of Australia – New South Wales, Victoria, South Australia, Queensland and Tasmania – but excludes Western Australia. This diverse fruit supply provides winemakers with a broader range of blending options and enables them to produce wines that are high in quality and consistent in style from one year to the next. So when you pick up a bottle of wine and see the name "South Eastern Australia," you would usually find that the wine is a blend from a number of different regions. .

In the last few years there has been an increasing trend to produce fine wines with grapes from a specific growing region. Let's take a closer look at all of Australia's notable grape growing regions.

New South Wales. The city of Sydney is located in the state of New South Wales on Australia's east coast. This area was the home of the first English settlers, who arrived more than 200 years ago. In fact, Australia's first vineyard was planted in Sydney in 1788 by the first Governor of the colony, Captain Arthur Philip. In 1828, grapevines were established in the Hunter Valley, an area about 100 miles north of Sydney. The Hunter Valley area still produces notable Shiraz and Semillon. Newer vineyards are located in the Mudgee region to the west of the Hunter Valley.

The Riverina area of New South Wales, to the West of Sydney and founded by John James McWilliam in 1913, is today credited with producing more than two thirds' of New South Wales' wine, and almost one quarter of Australia's total wine production.

State	Principal Regions	Predominant Red Wine Grapes	Predominant White Wine Grapes
New South Wales	Hunter Valley	Shiraz	Sémillon Chardonnay
	Mudgee	Merlot Cabernet Sauvignon	Chardonnay
	Riverina	Shiraz Cabernet Sauvignon	Sémillon Chardonnay Botrytis Semillon

Victoria. The state of Victoria is located just south of New South Wales on the other side of the Murray River. This state was Australia's principal vineyard region until the late 19th century when phylloxera destroyed the vineyards. Now some of these historic vineyards have been revived. In the hottest areas of northern Victoria sweet dessert wines are made from the Muscat and Tokay grapes. The cooler areas of the region – like the Yarra Valley around Melbourne – produce Pinot Noir, Chardonnay, and sparkling wines.

Region	Principal Regions	Predominant Red Wine Grapes	Predominant White Wine Grapes
Victoria	Rutherglen		Muscat Tokay
	Goulburn Valley	Shiraz	Marsanne
	Yarra Valley	Pinot Noir	Chardonnay

South Australia. The state of South Australia makes nearly 60% of Australia's wines. Most of these wines are inexpensive box wines produced for the domestic market. But the vineyards in the southeastern part of the state (the area closest to Victoria) produce some of the country's finest wines. Australia's world-famous Grange is produced from Shiraz grapes that are grown in South Australia. This area also produces exceptional, full-bodied Rieslings. And the Barossa Valley is famous in Australia for its Ports and Sherries.

Region	Principal Regions	Predominant Red Wine Grapes	Predominant White Wine Grapes
South Australia	Adelaide Hills	Pinot Noir	Chardonnay
	Barossa Valley	Shiraz	
	Clare Valley	Shiraz	Riesling Chardonnay
	Coonawarra	Cabernet Sauvignon Shiraz Merlot	
	McLaren Vale	Shiraz Cabernet Sauvignon	Sauvignon Blanc
	Padthaway		Chardonnay Sauvignon Blanc

Western Australia. Most of Western Australia is an arid desert region. And the Indian Ocean to the west does not provide much of a cooling effect. But the city of Perth on Australia's west coast is home to more than one million people. And south of Perth there are thriving vineyards.

Western Australia produces only about 3% of Australia's wine – but approximately 20-30% of its premium bottled wines. This area produces high quality white wine blended from Chenin Blanc and Verdelho. Newer vineyards in the cool Margaret River area are successfully producing Pinot Noir.

Region	Principal Regions	Predominant Red Wine Grapes	Predominant White Wine Grapes
Western Australia	Margaret River	Pinot Noir Shiraz Cabernet Sauvignon	Chardonnay Semillon
	Swan River		Chenin Blanc Verdelho Chardonnay
	Great Southern	Cabernet Sauvignon Shiraz	Riesling

Tasmania. Tasmania is an island located 200 miles south of Melbourne. In the last 30 years a number of vineyards have been planted there. The island's cooler climate is proving to be well suited for Pinot Noir, Chardonnay, Riesling, and sparkling wines.

Region	Principal Regions	Predominant Red Wine Grapes	Predominant White Wine Grapes
Tasmania	Piper's Brook-Piper's River	Pinot Noir	Chardonnay Gewürztraminer Pinot Gris Riesling

Australia's Labeling Requirements

Australia's labeling regulations are informative and relatively straightforward:

Varietal. If wines are labeled with the grape variety then the designated variety must make up at least 85% of the wine.

Blends. In Australia it is also common to blend grapes and to name the wine with both of the varieties. For example, wines labeled as Shiraz/Cabernet Sauvignon. In that case the label typically specifies the percentage of the blend represented by each of the varieties. For special blends and proprietary wines, the label usually includes the vat or bin number used at the winery.

Vintage. At least 95% of the grapes must be from the vintage year. Keep in mind that in the southern hemisphere, the fall months occur when it's spring in the northern hemisphere. So grapes ripen six months earlier than in Europe or the United States. And the wines of any vintage year are six months older than their American or Old World counterparts.

Location. At least 85% of the grapes must be from the designated geographical location. However, as we described above, many wines labeled for export say simply South Eastern Australia. This huge territory includes three states. So the name South Eastern Australia doesn't tell you much about the origin or style of the wine.

Check Your Understanding

1. Describe the current structure of the Australian wine industry. What significant trends are likely to shape the industry in the years ahead?
2. What five factors have accounted for the Australian wine industry's remarkable success – and dramatic growth – during the past 30 years?
3. What are the principal fine wines grapes of Australia?
4. What are two blended fine wines that are unique to Australia?
5. What is South Eastern Australia? Why isn't this location particularly helpful in determining the origin of the grapes of the style of the resulting wine?
6. What are the principal winegrowing areas of Australia?
7. What are the labeling requirements for Australian wine?

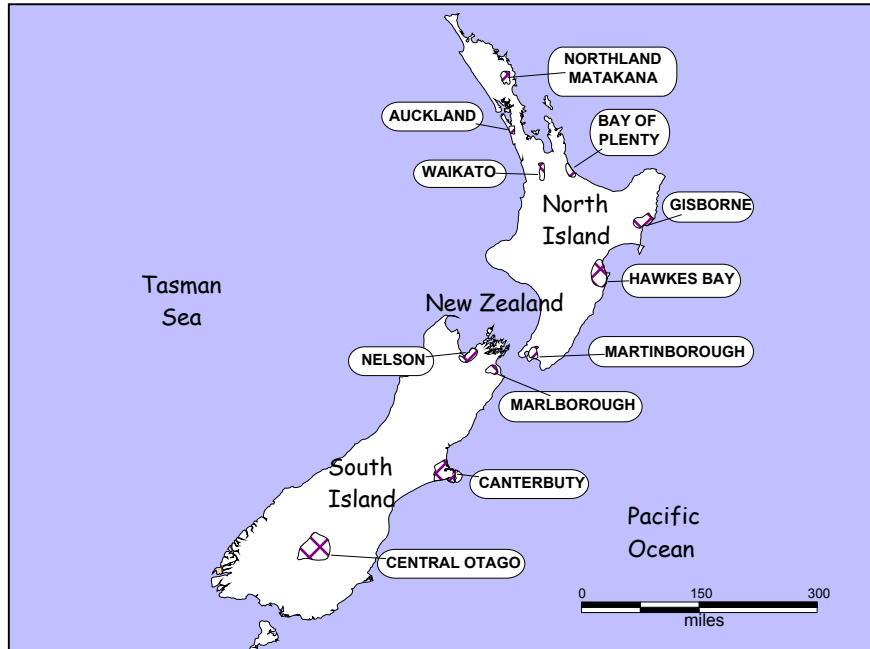
New Zealand

For our next stop in this brief tour of New World winemaking countries, we'll head south and east of Australia to the island nation of New Zealand. To put this country in perspective, here are a few facts to consider:

- Most Americans think of Australia and New Zealand as neighbors and, in relative terms, they are. But the distance between the two countries is more than 1,000 miles!
- Most Americans think of New Zealand as two relatively small islands. But these islands span a distance from north to south of 1,000 miles – with a correspondingly large difference in climate and growing conditions.
- New Zealand is farther south than any other leading wine-producing country. New Zealand's position in the southern latitudes is roughly equivalent to the area in the northern latitudes between southern Spain and the Rhine Valley of Germany.
- New Zealand's wine industry is relatively small – about 10% of the size of Australia's industry. But the industry is expanding rapidly and exports, in particular, have increased dramatically.

New Zealand has a relatively short history of fine winemaking, due in part to the early settlers' preference for beer over wine, in part to the country's conservative attitude toward alcohol in general, and in part to the ravages of phylloxera, fanleaf degeneration, and leafroll viruses. Only since the 1970s has New Zealand begun to discover its winegrowing potential.

The country consists of two islands: North Island and South Island. The climate of both islands is relatively cool due to strong maritime influences. However, there is sufficient sunshine to grow a wide variety of premium grapes.



	Principal Regions	Predominant Red Wine Grapes	Predominant White Wine Grapes
North Island	Kumeu River		Chardonnay
	Martinborough	Pinot Noir	
	Hawke's Bay	Cabernet Sauvignon Pinot Noir	
South Island	Marlborough	Pinot Noir	Sauvignon Blanc Chardonnay Pinot Gris Riesling
	Central Otago	Pinot Noir	Pinot Gris Chardonnay

North Island is warmer and has produced some high quality red wines – especially Cabernet Sauvignon – in the areas around Auckland and Hawke's Bay. Cabernet is often bottled as 100% varietal or blended with Merlot and Cabernet Franc in the Bordeaux style.

South Island has proven to be an exceptional area for growing white wine grapes, especially Sauvignon Blanc. The cool climate produces grapes that are rich in flavor and high in acidity. In a very short time New Zealand has gained a reputation for producing some of the world's finest Sauvignon Blanc, wines that have been compared favorably to the Sancerre of the Loire Valley – crisp, austere, and steely with flavors of lime or cut grass.

The cool climate of South Island also appears to be well suited to growing Pinot Noir. Many observers believe that New Zealand's Pinot Noirs are becoming among the best in the world. Plantings of this very challenging grape are expected to increase substantially in the years ahead.

Because of the country's cool climate, vintages can vary considerably in quality from one year to another.

Check Your Understanding

1. What are some of the reasons why New Zealand has only recently emerged as a quality wine producer?
2. Which grape has enabled New Zealand to produce wines that have quickly gained international recognition?
3. What are the distinguishing characteristics of these notable New Zealand wines?

Chile



Wine has been produced in the Central Valley of Chile since the middle of the 16th century. And for centuries the country has maintained a thriving wine industry producing red wines for domestic consumption from what is locally called the Pais grape (and which is identical to the Mission variety that was cultivated in the early days of the California wine industry.) As early as the 17th century, the Spanish tried unsuccessfully to restrict grape cultivation in Chile in order to protect their exports of wine to the area. And, by the 18th century, Chile had already established a reputation as a sizable producer of inexpensive wine.

Then, in the 19th century, two events occurred that helped to change the course of wine history in Chile and the rest of the world:

- A Frenchman named Claudio Gay persuaded the government in Chile to establish an experimental nursery for a variety of plants – including European *vinifera* vines.
- A wealthy Chilean and a French winemaker together imported vine cuttings from the noble grapes that produce the world's most notable fine wines.

So it was that by the middle of the 19th century Chile had a collection of vines capable of producing the classic grapes of Europe. Then the European wine industry was devastated by *Phylloxera* and another blight, *powdery mildew*. Chile's geographic isolation from the rest of the world proved to be an enormous benefit to the country's winemakers. Chile was – and remains to this day – the only major wine-producing country where *Phylloxera* does not exist and where *vitus vinifera* wines can grow on their own roots. And the country's wine industry prospered throughout the 19th century while virtually every other wine-producing nation was ravaged by disease.

During the late 1800s European winemakers, fleeing the scourge of *Phylloxera*, arrived in Chile and began cultivating the classic European grape varieties. These immigrants, including many from the region of Bordeaux, brought their knowledge and traditions of winemaking.

Today, Chile remains the only commercially important wine producing country that continues to cultivate Cabernet Sauvignon on its own *vitus vinifera* rootstock.

The Wine Industry In Chile Today

The 1970s and 1980s were a period of political strife in Chile and the wine industry suffered enormously. However, the reestablishment of free market policies has led to a resurgence of the industry. In the 1980s Chile's wine industry made a long-term commitment to develop quality wines for export. Since then there has been a tremendous amount of capital investment in modern presses, stainless steel fermentation vats, and oak barrels. The industry has experienced dramatic growth and improvement and has succeeded quickly in developing a strong export market based on acceptable, popular-priced varietal wines.

Now the principal challenge is to improve the quality of the country's fine wines. Many knowledgeable critics and observers feel that Chile's best wines have not achieved either the voluptuous fruitiness of California and Australia or the subtle earthiness of French wines. White wines can seem somewhat watery – which may be the result of uncontrolled high yields or the uncertain heritage of the varietal grapes. Red wines, though generally better, have not established a consistent record for high quality either.

But the outlook for Chile's wine industry seems strong. In recent years there has been a marked increase in foreign investment. And Chilean wineries have undertaken a number of significant joint ventures with major wineries from the United States, France, and Spain

Chile's Winegrowing Regions

Chile is a long skinny country that extends north and south between the 30th and 40th parallels. The country is bounded on the west by the Pacific Ocean and on the east by the Andes Mountains range. Most of the vineyards are located in the *Central Valley*, which lies between a range of coastal mountains and the Andes. In the Central Valley, a combination of factors make the climate ideally suited to growing fine wine grapes:

- A Mediterranean climate characterized by warm, dry summers.
- Adequate rainfall that is restricted mostly to the winter months.
- The presence of numerous rivers that carry melted snow westward from the Andes Mountains and provide a reliable source of water for irrigation.
- The cooling effects of the Pacific Ocean and the Humboldt current.

Within the Central Valley there are a number of notable winegrowing regions. From north to south they are:

- Aconcagua Valley
- Maipo Valley
- Rapel Valley
- Maule Valley (and the sub-region of the Curicó Valley)
- Bío Bío Valley

Keep in mind that because Chile is in the southern hemisphere, areas located farther north are closer to the equator and are therefore generally warmer than areas farther south. So, for example, the Aconcagua Valley – which is the farthest north of the growing districts – is the warmest area for growing fine wine grapes. Many of the major wineries are located farther south in the Maipo Valley and the Rapel Valley where the temperature is cooler.

Another promising winegrowing area is the Casablanca Valley. This coastal area is located farther north, near the city of Santiago. But its proximity to the Pacific Ocean results in the same kind of foggy weather that creates cool growing regions in California. This area seems to have good potential for Chardonnay.

With more than 270,000 acres under vine, Chile is the second largest producer of wine in South America. (Argentina produces much more wine but lags behind Chile in exports.) But winemakers are really just beginning to explore the microclimates of Chile and develop new growing areas.

Chile's Fine Wine Grapes

As we mentioned earlier, Chile is the only principal winemaking country in the world that has remained unaffected by *Phylloxera* and *powdery mildew*, two of the most widespread and devastating of all diseases affecting fine wine grapes. The country is very proud of this heritage and maintains a strict quarantine on all imported plants.

On the other hand, the domestic wine industry has not done a consistently good job of identifying and isolating the vines that are cultivated. So, with the exception of the most recent plantings, there are legitimate questions about the actual identity of many Chilean vines. Many of the vines that are called "Merlot" are actually a mixture of Merlot and Carmenère. And many of the vines that local growers consider to be "Sauvignon" are more likely to be Sauvignon Vert or Tocai Friulano than Sauvignon Blanc. Since the 1990s there have been substantial new plantings of clones that have been imported from Europe or the United States under strict quarantine regulations.

The best Chilean red wines are made mostly from Cabernet Sauvignon grapes and are vinified according to the traditions of Bordeaux. Other fine wines are made from the Pinot Noir and Barbera varieties. And some of the newer vineyards are being planted to Merlot.

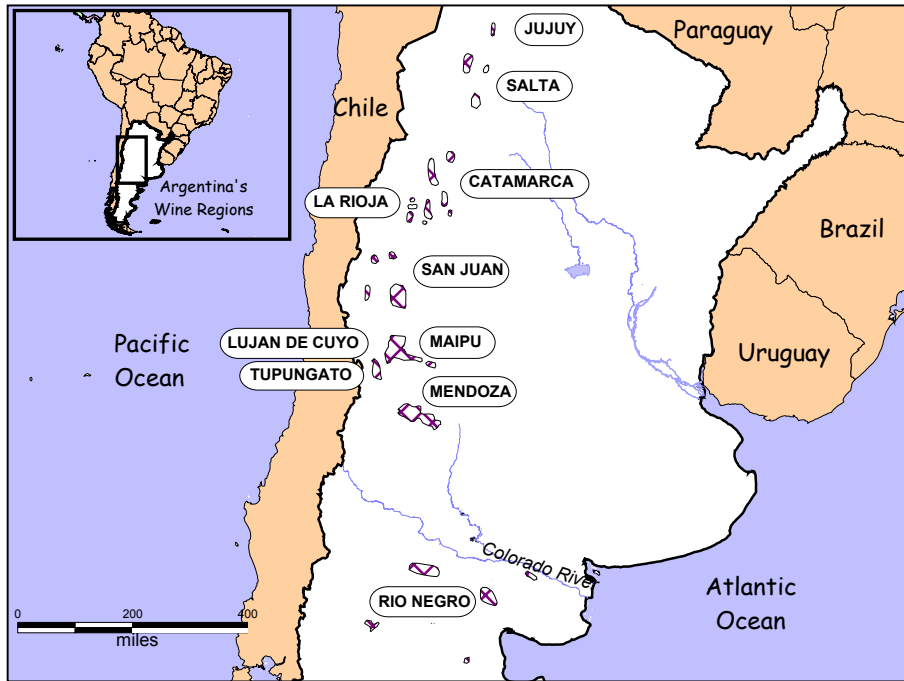
The best Chilean white wines include Sauvignon Blanc, Sémillon, Chardonnay, and Riesling. These wines – which are some of the best South America has to offer – are very popular in the United States because of their good quality and relatively low price.

Like most of the New World wines, Chile's wines are labeled with both the grape varietal and the region or district of origin.

Check Your Understanding

1. Why did French winemakers emigrate to Chile in the middle of the 19th century?
2. What factors make Chile's climate ideal for growing fine wine grapes?
3. Describe Chile's principal growing region.
4. Name two districts where many of Chile's principal wineries are located.
5. Which grapes produce Chile's most notable red wines?
6. Which grapes produce Chile's most notable white wines?
7. What are the challenges and opportunities facing the Chilean wine industry today?

Argentina



As in Chile, wine grapes have been cultivated in Argentina since the middle of the 16th century. But Argentina's winemaking industry has a more diverse heritage. Immigrant winemakers from France, Spain, and Italy all brought local grape varieties and winemaking techniques with them. And with per capita consumption of about 11 gallons of wine per year, wine is clearly an important element in the national culture.

Today, Argentina is the largest wine producer in South America. With more than 750,000 acres under cultivation, the country consistently ranks among the top five wine producing countries in the world. Argentina's annual wine production is approximately the same as the United States.

Until recently, the country's wine industry had been very old-fashioned. However, two events have served as a catalyst for change:

- During the period from 1970 to 1995, domestic wine consumption dropped by more than 50% – from an astonishing 20 gallons per capita to "only" about 11 gallons per capita. (Keep in mind that annual wine consumption in the United States is less than 2 gallons per capita!)
- Meanwhile, neighboring Chile began to achieve notable success in exporting wines.

As a result, Argentina's wine industry has begun to focus on improving quality for the world market.

Argentina's Winegrowing Regions

75% of Argentina's vineyards are located in the western part of the country where the Andes Mountains divide the country from Chile. The high altitude helps to moderate the temperature, producing the "warm days and cool nights" that are characteristics of the world's great winegrowing regions. The climate in this area is extremely dry but rivers flow down from the Andes and provide water for irrigation.

Mendoza is the country's major growing region and accounts for about 70% of all of the country's wine production. The principal districts of Mendoza include:

- Agrelo
- Maipu
- Tupungato
- Lujan de Cuyo

From north to south, the country's other major growing regions are:

- Salta, Catamarca, and Jujuy
- La Rioja
- San Juan
- Río Negro and Neuquén

Argentina's Fine Wine Grapes

The most notable vineyards in the Mendoza region produce wines that are identified by their varietals. Argentina's wide range of fine wine grapes reflects the country's diverse winemaking heritage.

Exceptional red wines are made from Malbec (spelled *Malbeck* in Argentina), a French grape from the Bordeaux region. Other red wines are made from:

- French grapes, including Cabernet Sauvignon, Pinot Noir, and Syrah.
- Spanish grapes, including Tempranillo, the noble grape of the Rioja region.
- Italian grapes, including Bonarda, Barbera, Sangiovese, and Lambrusco.

Principal white wine grapes include Riesling, Chardonnay, Traminer, Pinot Blanc, and Sémillon. But white wines are also produced from Torrontés (a grape native to Argentina), Pedro Giménez, Moscatel, and Chenin Blanc.

At the time this manual went to press, Argentina's red wines were generally considered to be of higher quality than the country's white wines. However the wine industry is continuing to make dramatic strides in overall quality improvement.

Argentina's Wine Industry

Large wineries, known as *bodegas*, produce wine in quantity for the home market. But many of the best wines produced in Argentina are now exported to the United States, where they are enjoyed for both their quality and price.

Today, Argentina's premier wineries have been leading the local wine industry to embrace modernization and increased quality. And, as you saw in Chile, there has recently been a considerable amount of foreign investment in Argentina's wine industry, particularly from wineries in the United States and France.

Check Your Understanding

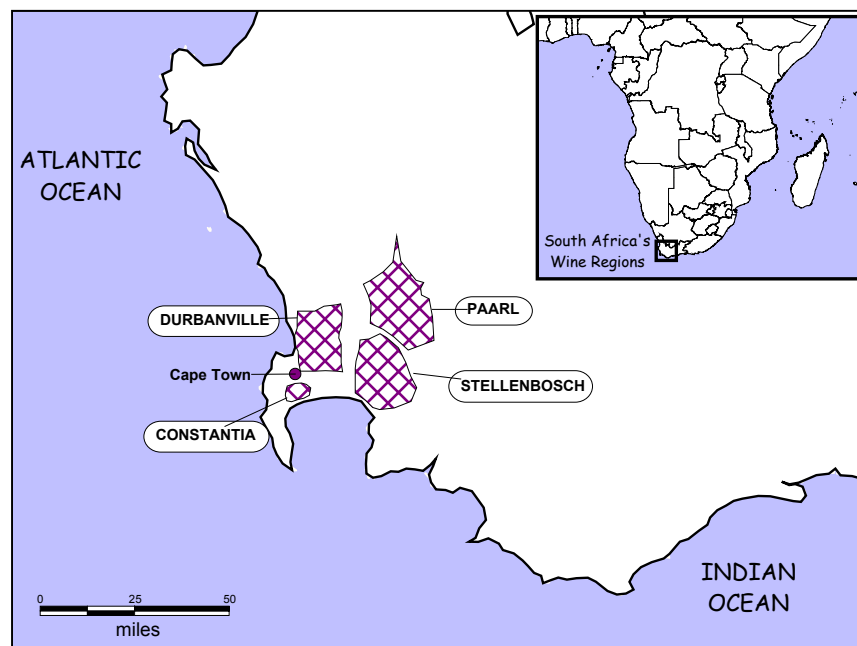
1. What two factors were responsible for Argentina's recent focus on improving quality for the world market?
2. Overall, how large is Argentina's winemaking industry?
3. Name and describe Argentina's principal winegrowing region.
4. Name some of the fine wine grapes that produce Argentina's most notable red wines.
5. Name some of the fine wine grapes that produce Argentina's most notable white wines.

South Africa

Dutch settlers first brought grapevines to South Africa about 350 years ago. The country first gained international renown for a dessert wine called *Constantia*, which was much sought after by the courts of European nobles during the late 18th century.

For many years the local winemaking industry languished in relative obscurity. South Africa was isolated economically from the rest of the world because of its policy of Apartheid. And most of the country's grapes were used to produce distilled alcohol, sherry, or port. But since the end of Apartheid, South Africa has begun to focus more extensively on the production of table wines for export to the world market.

South Africa's Winegrowing Regions



Because of South Africa's warm climate, most of the country's fine wine vineyards are located in what is called the Coastal Region, an appellation in the southwestern part of the country surrounding Cape Town. The principal winegrowing districts in the Coastal Region are:

- Paarl
- Constantia
- Durbanville
- Stellenbosch

South Africa's Fine Wine Grapes

South Africa cultivates a number of the noble grapes of Europe as well as its own unique varieties.

Among white wines the most common grape is Chenin Blanc, which in South Africa is called *Steen*. It produces lively, fruity wines that may vary from dry to medium-dry to semi-sweet. The *Steen* grape is also used to make sparkling wines. South Africa produces Sauvignon Blanc with excellent varietal character. Chardonnay and Riesling are also becoming more popular.

Among red wines, Cabernet Sauvignon and Merlot are increasing in prominence and, to a lesser degree, so are Shiraz and Pinot Noir. Most notable among the South African red wines is *Pinotage* (a local cross between Pinot Noir and the Cinsault grape from the Rhône region). *Pinotage* is an early ripening variety that provides good color, high sugar, outstanding acid content, and exceptional yields. The wine produced from this vine is light-to-medium bodied and combines the cherry fruit of a Pinot Noir with the earthiness of a Rhône wine.

South Africa's Wine Industry

Since the end of Apartheid, South Africa's wine industry has undergone dramatic improvements. The industry has enthusiastically embraced the expertise and technology of the world's wine leaders. Today, South Africa consistently ranks in the top ten countries of the world in terms of wine production. The industry is strongly influenced by a few very large firms.

To improve the quality of its wines, South Africa has established *Wine of Origin* laws that are closely modeled after the French system of Appellation D'Origine Contrôlée. These laws regulate many aspects of grape growing and winemaking, including the designation of vineyard areas, allowable grapes, and vintage requirements. For example, wines designated for export must contain 85% of the named variety to comply with the regulations of the European Union. However, at the time this manual went to press, only about 10% of South Africa's wines qualified as *Wine of Origin*.

At their best, the wines of South Africa combine the best elements of Old World and New World styles. They feature both the full fruit flavor of California and Australia wines with the lean subtlety that is characteristic of the finest French wines.

Check Your Understanding

1. Name and describe South Africa's primary winegrowing region.
2. What is the principal white wine grape that is grown in South Africa? What other white wine grape consistently produces wines of excellent varietal character?
3. What is the name of South Africa's most notable red wine grape? Describe the wines that are made from this grape.
4. Describe what South Africa has done to improve the quality of its wines for the world market.

Review

In this chapter we have provided a great deal of information about fine wines of the New World. In the process, we've tried to introduce you to the major winegrowing regions of the United States, Australia, New Zealand, Chile, Argentina, and South Africa, and to some of the fine wines that are produced in those countries.

We realize that we've covered a lot of information. Here are some suggestions so you can check to see how well you've learned the material in this chapter.

- Explain the major differences between the wines of the Old World and the wines of the New World.
- Identify the major wine-producing countries of the New World.
- For each of the major wine-producing countries, describe the most important winegrowing regions.
- Describe the principal wines of each of these famous winegrowing regions.

Obviously, we don't expect you to remember everything you've read. There is a tremendous amount of information! You may want to take some time to reread this chapter several times – especially those portions of the chapter that are most applicable to your current territory. You should also consider this chapter to be a reference that you can return to in the future.

You may also find it helpful to review selected portions of the chapter in conjunction with visits to fine wine retailers. For example, you might read about the wines of Australia and then visit a store that has a good selection of wines from that region. By reading the wine labels and talking with wine retailers you'll be able to continually improve your understanding of the geography of each region, and the grapes, winemaking processes, and styles of its fine wines.

We hope we've stimulated your interest in the innovative and rapidly changing wines of the New World. If you're interested in pursuing this subject in greater depth we've provided a list of resources that can help you.

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Appendix:

California's Principal AVAs

North Coast Region

Sonoma County

Alexander Valley
Chalk Hill
Dry Creek Valley
Knights Valley
Los Carneros
North Coast
Northern Sonoma
Russian River Valley
Sonoma Coast
Sonoma County Green Valley
Sonoma Mountain
Sonoma Valley

Napa County

Atlas Peak
Chiles Valley
Howell Mountain
Los Carneros
Mount Veeder
Napa Valley
North Coast
Oakville
Rutherford
Spring Mountain District
St. Helena
Stags Leap District
Wild Horse Valley
Yountville

Mendocino County

Anderson Valley
Cole Ranch
McDowell Valley
Mendocino
Mendocino Ridge
North Coast
Potter Valley
Redwood Valley
Yorkville Highlands

Lake County

Benmore Valley
Clear Lake,
Guenoc Valley
North Coast

Central Coast

Alameda County	Central Coast Livermore Valley
Contra Costa County	Central Coast
Santa Clara County	Central Coast San Francisco Bay San Ysidro District Santa Clara Valley
Santa Cruz County	Ben Lomond Central Coast San Francisco Bay Santa Cruz Mountains
Monterey	Arroyo Seco Carmel Valley Central Coast Chalone Hames Valley Monterey San Lucas Santa Lucia Highlands
San Benito	Central Coast Chalone Cienega Valley Lime Kiln Valley Mount Harlan Pacheco Pass Paicines San Francisco Bay

San Luis Obispo

Arroyo Grande Valley

Central Coast

Edna Valley

Paso Robles

Santa Maria Valley

York Mountain

Santa Barbara

Central Coast

Santa Maria Valley

Santa Rita Hills

Santa Ynez Valley

South Coast

Riverside County

South Coast
Temecula

San Diego County

San Pasqual Valley
South Coast

Sierra Foothills

Amador County

Shenandoah Valley
Fiddletown
Sierra Foothills

El Dorado County

Shenandoah Valley
El Dorado
Fair Play
Sierra Foothills

Calaveras County

Sierra Foothills

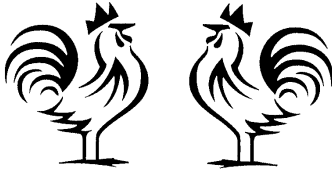
San Joaquin Valley

Sacramento County

Clarksburg
Lodi

San Joaquin County

Lodi
River Junction



Chapter 11 The Fine Wine Retailer

In The Gallo Sales Manual you learned that, as a consultative sales person, you need to focus on each retailer as a unique business person. Because, in the final analysis, *you are always selling to people*. And if you don't understand your retailers as *people*, you can't begin to achieve your potential as a sales consultant.

You also learned a systematic approach to get to know – and understand – your retailers by developing an account profile, identifying the retailer's appeal points, and recognizing whether the retailer can be characterized as one of six common "types."

Account profile. First, you learned how to analyze your accounts. You developed the discipline of taking 5 or 10 minutes for a systematic survey of each store. You learned to analyze the store in terms of its exterior and interior appearance and to make an assessment based on the 5 Standards of Performance. You learned to supplement your analysis with information you could gain by talking with other salespeople who call on the account representing non-competing product categories. And you learned to use your probing and listening skills to talk with retailers about the concerns that are most important to them.

Appeal points. Then, based on the account profile, you learned how to identify which of the eight *appeal points* are most meaningful to each retailer:

1. Profit
2. Service
3. Dependability
4. Advertising
5. Quality
6. Price/Value
7. Turnover rate
8. Attractive packaging

These appeal points are the factors that influence the retailer's buying decisions. Most retailers have one or two appeal points that are most important to them. And, as you learned to identify these appeal points, you began to emphasize them during your sales presentations.

Common "types" of retailers. Each retailer is unique in terms of his or her style, appearance, attitude, disposition, wants, likes, and dislikes. But retailers also share some similarities and patterns of behaviors. As you got to know your retailers you probably learned to recognize whether they can be characterized as one of six common "types."

Of course, not every retailer fits one of these types exactly. And you probably found that some of your retailers didn't seem like any of these types. But regardless of whether or not a particular retailer "fits" a common type, you learned to tailor your presentations so that they became more meaningful – and more effective – with each of your retail accounts.

Everything that you've learned so far about getting to know and understand your retailers is still valid. However, just as fine wines represent a very special segment of the wine industry, fine wine retailers represent a very special segment of the retail market.

At this point you have probably called on one or more stores that are true fine wine retailers. You may have talked with these retailers about Gallo of Sonoma and our other fine wines. And you may have sold distribution, shelf, cold box, display, or pricing/promotion in relation to one or more of the wines in our fine wine portfolio.

Over the past few weeks, you've acquired an enormous amount of additional knowledge about fine wines as a result of reading this [Introduction To Fine Wine](#) manual. In this chapter we're going to share some insights into the special needs and concerns of fine wine retailers. And we're going to provide you with a framework you can use to learn more about the unique characteristics of the particular fine wine retailers in your territory. As you complete this chapter and the next one, you will be in a position to approach your fine wine retailers with greater confidence, greater insight, and greater effectiveness.

Overview

This chapter is designed to provide you with a base of knowledge and understanding about fine wine retailers in general and to help you in identifying the more specific characteristics and concerns of the particular fine wine retailers in your market. Then, in Chapter 12, you'll build on this base of knowledge as you learn – or review – the SIERA sales model. SIERA is an advanced sales process that builds on the Approach, Body, Proof, and Close that you've already used successfully. SIERA can help you whenever you have to make a particularly difficult or challenging sales presentation. As you'll see, the SIERA process can be especially helpful when you are presenting a fine wine to a knowledgeable retailer.

This chapter is divided into these major sections:

Meet The Fine Wine Retailer. In this section we will set the stage by describing a variety of different types of fine wine retailers.

Understanding The Fine Wine Retailer. Here we will introduce you to some of the general characteristics and concerns that are shared by many of the fine wine retailers you will be calling on.

Pre-Plan Your Sales Call. You already understand the importance of pre-planning your accounts. This process is even more critical when you are selling to fine wine retailers. We'll examine how you can – and must – understand the buyer's business objectives and personal preferences, the in-store merchandising and promotion policies, and the store's external marketing plan.

Prepare For A Fine Wine Presentation. To make an effective fine wine presentation, you must be prepared. In this section we'll consider what you absolutely must know about the Gallo of Sonoma Winery, our grape growing techniques, our winemaking practices, and the specific product (or products) that you are selling.

Conduct A Professional Tasting. If you're selling fine wines, a sales presentation to gain new distribution almost always includes a tasting. And the way that you conduct the tasting will have a significant impact on the image and credibility you establish with your customers. We'll review all of the elements of a professional tasting experience, including the selection and use of proper glassware, the proper temperature for serving wine, the proper techniques for opening and pouring, the proper technique for tasting, and the appropriate way to communicate with the retailer during the tasting experience.

Field Exercise. At the end of this chapter you'll find a Retailer Interview form and the directions for an activity that will help you interview the owner or manager of one of the fine wine accounts that you call on. By thoroughly completing this Field Exercise you'll apply what you've learned in this chapter and gain a better insight into the perspectives and thought process of one fine wine retailer.

Let's get started!

Important: Many of the sales practices described in this chapter – such as conducting wine tastings, providing consumer samples, or participating in winemaker dinners – may not be legally permissible in some markets. Even if these practices are legally permissible, they may not be consistent with your distributor's policies.

Please keep in mind that this chapter describes the mechanics you would follow in those markets where these practices are appropriate and applicable. All direction regarding any of the practices or activities outlined in this chapter must come from your distributor.

Objectives

After completing this chapter you should understand – and be able to explain and demonstrate – how to prepare for and conduct a fine wine presentation. And you should be able to tailor the presentation to the unique interests and concerns of the particular fine wine retailer.

Specifically, you should be able to:

- Define what we mean by the term "fine wine retailer."
- Describe the general characteristics and concerns that are shared by many fine wine retailers.
- Pre-plan the sales calls you'll make to your fine wine accounts.
- Prepare yourself for an effective fine wine presentation.
- Present our products for tasting in a confident and professional way.

Key Terms

This chapter does not include a lot of new terminology. But by the end of the chapter you should recognize and understand these key terms.

Cellar temperature

Chilled

Palate cleanser

Room temperature

Sell through

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on any answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

Meet The Fine Wine Retailer

What, exactly, do we mean by the term "fine wine retailer?" After all, the chances are good that you have already been calling on a number of fine wine accounts. And from your own experience you probably already know that these retailers fit a variety of descriptions and profiles. So let's begin by describing the "fine wine retailer" that will be the focus of this chapter.

If you were to ask a group of sales representatives and knowledgeable wine consumers to describe the stereotypical "fine wine retailer" they would probably describe an account that meets most or all of these criteria:

- An independent retailer that is generally considered to be a "go to" store in the local neighborhood or community.
- The store may not carry liquor, or liquor may represent only a small percentage of their overall sales volume.
- This retailer survives (or thrives) based on his or her ability to:
 - Build interest in fine wines over a period of time (develop a clientele).
 - Offer experimentation to wine knowledgeable consumers.
 - Meet the needs of special customers by carrying (or reserving) wines that are hard to get or by expediting rush orders or special orders from distributors.
- The store is independently owned and is run by an entrepreneur who has a true passion for fine wines.

And, in fact, there are many "traditional" fine wine retailers that meet these criteria. So as you read through this chapter and you come across the term "fine wine retailer," you should think about an account that is similar to this "traditional" or stereotypical description.

On the other hand, in today's complex and rapidly evolving marketplace there are also many other kinds of retail stores that sell fine wines and that you can realistically consider to be your fine wine accounts. For example:

Small chains. You may call on accounts that are very similar to the "traditional" fine wine retailer described above, except that the stores are part of a small chain. In this case, the owner of the chain may not be on the premises and may not be heavily involved in the day-to-day operations of the store.

Specialty stores. Some independent retailers or small chains may feature an excellent selection of fine wines to complement their high-end foods or specialty deli items.

Liquor stores. In some markets you'll find independent or chain liquor stores that feature fine wines but also promote a full line of other alcoholic beverages.

Large liquor chains. Some liquor chains want to be perceived as being the "go to" store in a relatively large trading area. This store wants to appeal to both the fine wine shopper and to the consumer who tends to purchase a significant volume of any other type of alcoholic beverage. Although this type of store has sizable departments for all categories of alcoholic beverages it typically has some sales clerks who are highly knowledgeable about fine wines.

High end stores in a grocery chain. These accounts are often considered to be "Cluster 1" stores within the chain. Depending on their location and the volume of their wine business they may have a well-trained and knowledgeable staff of wine salespeople with job titles such as "Sommelier" or "Wine Steward." In addition to running the wine department, these salespeople may answer customer inquiries, place special orders, and hand sell a significant percentage of their products. Because these stores are part of a chain, they may be subject to a wide range of chain policies, procedures, and authorization requirements, and they may have special restrictions relating to entertainment by suppliers or tasting of supplier products.

Neighborhood stores. There are many small neighborhood grocery and liquor stores where the owner takes a special interest in fine wines. Depending on the location of the store and the demographics of the neighborhood, wines may account for a significant percentage of the store's overall sales and profits.

As you read through this chapter, keep these various account profiles in mind. Although we've written the chapter with an emphasis on the "traditional" fine wine retailer, you'll find that most of the same principles will generally apply as you work with any of these different kinds of fine wine accounts.

Understanding Fine Wine Retailers

As you've already learned, every retailer is unique in some way. So you could say that fine wine retailers are just like the other retailers you work with – they're all different!

On the other hand, many fine wine retailers do share some characteristics. And they have some concerns and perspectives that set them apart from your other accounts. Here are some of the characteristics you're likely to encounter when you sell to fine wine retailers:

You're often selling to the owner. When you sell to fine wine retailers you are often calling on the owner of the store, not just an employee. In this chapter, we'll refer to the person who is making the buying decision as the "buyer" or the "decision maker." Just keep in mind that in many fine wine accounts, that person is, in fact, the owner.

They're passionate about wine. Unlike some of the retailers that you call on, fine wine retailers tend to be passionate – and knowledgeable – about wine. You'll find that many fine wine retailers are devout readers of wine and food publications such as Wine Enthusiast, The Wine Spectator, Bon Appetit, Impact, Progressive Grocer, Food And Wine, and regional and local publications dealing with wine and food events. Some fine wine retailers "moonlight" as wine columnists for local newspapers or as wine commentators at local radio and television stations. Others get involved in judging wine competitions. And many just pursue wine knowledge as an active hobby outside of their business.

The owner is concerned about availability and pricing. If you're calling on specialty stores the owner is likely to be concerned about carrying items that will be available at chains and discount stores in their area. Most fine wine specialty stores offer their customers a wide selection and a high degree of personalized service. They cannot generally afford to compete on the basis of price. So they tend to look for unique products that will not be widely distributed in their area.

Buying decisions are critical. In general, you would expect most retailers to be concerned primarily with selling. But for fine wine retailers, the greatest challenge may be buying. These retailers know what their customers like. And if they make the right buying decisions then they can generally feel confident that the wines will ultimately *sell through* to their customers. But they are inundated with prospective products – perhaps as many as 20-40 per week. So it can be very challenging to select the best mix of products for their customer base.

A tasting is often essential to the sale. If you're attempting to gain new distribution, your sales presentations to fine wine retailers will generally need to include a tasting. In fact, some fine wine retailers will want to re-taste a product as it ages to see how it is developing.

You need a unique "story." When you conduct a tasting, you will need to discuss your product's background and attributes in detail – particularly as they relate to key competitive products. The fine wine retailer is dealing with hundreds or even thousands of items. The retailer wants to hear a unique "story" about your product that can make it stand out against the competition. So you need to come prepared with detailed product knowledge and the ability to communicate this knowledge in a clear and compelling way.

Sell - through is critical. You're already seen that it's not enough to just sell a wine *in* to an account. You have to work with the retailer to be sure that the wine sells *through* to the store's customers. This issue is particularly critical for the fine wine retailer. A fine wine retailer typically stocks a large number of SKUs, and each case of wine may represent a substantial investment in inventory. In addition, the store's overall sales volume is typically not as high as the volume for a discounter or price leader. So you should always be prepared to discuss what you will do to help the store sell your products *through* to their customers.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. List three characteristics or concerns that are shared by many fine wine retailers.
2. Why do you need a unique "story" when you make a presentation to a fine wine retailer?
3. What is "sell - through?" Why is sell - through a critical concern for many fine wine retailers?

Pre-Plan Your Sales Call

To effectively pre-plan a sales call that you will make to a fine wine account you must accomplish three goals:

- You must understand the buyer's business objectives and personal preferences.
- You must understand the in-store merchandising and promotion policies, preferences, and practices.
- You must understand the store's external marketing plan.

At this point in your career, this process is not new to you. But there are unique challenges and opportunities in selling to fine wine retailers. By making an investment of the time and effort you need to properly pre-plan the sales call, you can make the transition from an "order taker" or "just another sales representative" to a true fine wine sales consultant.

Understand The Buyer's Objectives And Preferences

As you read a moment ago, when you call on traditional fine wine accounts, the "buyer" is often the owner of the store. The first step in pre-planning is to gain a thorough understanding of the buyer's overall business objectives, strategies, and personal preferences. For example, consider the buyer's attitude toward these issues:

Product selection. What criteria drive the store's product selections? Are they trying to offer consumers diversity, regionality, or certain price ranges? Or does the store just want to be eclectic?

Image. What image is the account trying to project about itself to attract customers? Is it service-oriented? Value-driven? A prestigious place to shop?

Profitability. How does the account achieve profitability in its wine sales? Is it through volume (making a little bit on lots of bottles) or mark-up (making a lot on fewer unit sales)?

Pricing. What is the store's pricing strategy? Consider these two ends of the pricing spectrum:

- The stereotypical fine wine retailer often chooses to set prices at a level that is somewhat above the prevailing market prices in the area. This retailer is selling to a relatively affluent clientele that is willing to pay a few dollars more for convenience, service, and the privilege of shopping in a nice atmosphere. The retailer maintains a tremendous inventory of wines that are not found elsewhere in the area. To do this, the store may order split cases and be required to pay an upcharge. The retailer may also get special allocations of select wines that are available to them because of their prominence in the local wine community. This type of retailer tends not to handle mass items because they are widely available and their prevailing prices are generally known.
- At the other end of the pricing spectrum is the fine wine retailer who chooses to set prices at a level that is somewhat below the prevailing market prices in the area. The store may be a high-volume account that features a relatively small selection of fine wines. But they are able to utilize their huge buying power to take advantage of available discounts and pass those savings to cost-conscious consumers.

And you're also likely to encounter pricing philosophies that are anywhere in between these two extremes. For instance, a retailer may choose to maintain a very competitive posture on high volume, advertised fine wines. The same retailer may have a higher markup on items that are hard to find or that add significantly to the cost of inventory.

Personal wine preferences. We'd like to think that retailers approach all of their suppliers in an even-handed manner. But the fact is that retailers are only human and, like all of us, they have personal biases. In the fine wine environment, those biases can be related to the brand, the specific varietal, the AVA, or the general area of origin (Sonoma vs. Napa, Australia vs. California). So you need to know the buyer's personal wine preferences in general, as well as their predisposition to our products specifically.

Preferences for sales presentations. Finally, how does the buyer prefer to meet for presentations? Have they set aside particular days of the week for sales calls? What time of day is most convenient? Do they like formal, business-like presentations or more casual conversations? Do they prefer to meet with you one on one, or do they require the presence of other individuals in order to make a buying decision?

Understand The In-Store Merchandising And Promotion Policies, Preferences, And Practices

Once you understand “where the buyer is coming from,” you also need to understand how the store actually works. Consider the store’s merchandising and promotion policies, preferences, and practices in these areas:

Shelf and cold box. How is the account laid out in terms of the shelf and cold box? What are the policies about which wines go where? How are adjacencies determined – by sales volume, price, or alphabetically? How is the number of facings determined for each product? What are the store’s preferences in terms of how you service the shelves and cold boxes?

Displays. On the floor, are the displays permanently arranged in a particular way, or do the displays rotate thematically? Are there size limits for displays? Are there any restrictions as to what type of POS can (or can not) be used? How does the buyer want you to service the display areas (if permissible by law and local practices)? Should you build and restock the displays, or should you just stack the wine nearby so an employee can do the work?

Sales staff. In today’s fine wine environment the most important factor influencing your product’s success in the store is often the support of the sales staff. What role does the account allow you to play in terms of educating their staff on your products? For example, does the account allow you to make a formal product presentation to the staff? Can you provide members of the staff with coaching on how to sell your products?

Tastings and other contact with customers. What options are available to you in terms of getting your products into the hands (and, where legal, the mouths!) of the store’s customers? How much personal contact are you allowed with the store’s customers? Can you pour samples or hand-sell? Is there an in-store tasting bar run by the staff? Does the account host outside tasting groups that you can become involved with?

Before you can create a thorough business plan for each of your products within a particular account you need to have answers to all of these questions.

Understand The Store's External Marketing Plan

It's also important to consider the opportunities for promoting your products outside of the physical confines of the store. For example, consider these opportunities:

Advertising and publicity. What types of advertising does the account do in broadcast, print, or electronic form? Is the owner or an employee “moonlighting” as a wine columnist for a local television station, radio station, or newspaper?

Direct mail. Many fine wine retailers sell cases of wine without ever putting them on the floor. They've learned to promote their product, where legally permissible, through catalogues, direct mail, newsletters, or personal sales calls to their high-volume customers who just “have to have” the latest and greatest offerings. If there is some form of direct mail, how frequently is it sent out?

E-commerce. Most of the activities described above under the heading of direct mail can also be accomplished electronically by using the Internet for product advertising. Many progressive retailers have undertaken a wide variety of web-based ad campaigns. For example, does the retailer have a web site that is updated regularly with new product advertising? Does the retailer send e-mails to notify preferred customers of new product availability?

Special events. Fine wine retailers often attract new customers by participating in special events outside of the store. For example, do they supply wine to support the fundraising efforts of a favorite charity? Do they have contracts with caterers in the area? (You might be surprised to discover how much wine is sold through caterers!) Do they work sponsor dinner events or other wine tasting functions? Or do they support local business or industry groups whose members are key customers?

Getting Started (Or Getting Started Again!)

You may already be calling on a number of retailers that could be considered to be traditional “fine wine” accounts. And, in the process, you may already be gathering and considering all of the information we've described above. Or you may already be gathering and considering some of this information.

In any case, we'd like you to take a step back and analyze (or re-analyze) your fine wine accounts. You can think of this as getting started – or as getting started again. But by understanding the buyer's business objectives and personal preferences, the in-store merchandising and promotion policies and preferences and practices, and the store's external marketing plan, you'll be able to maximize your sales opportunities in the account.

Does this look like a lot of work? Well, it is! But, if you want to become a true sales consultant to this account – and not just an order taker – then you have to understand the business from the buyer's perspective. And if you want to maximize your sales potential you have to target every volume opportunity in the account.

How do find the answers to all of these questions? As you've worked with your general market accounts you've already learned many of the skills you'll need to pre-plan your fine wine accounts. Here are a few additional suggestions to help you get started.

Go on-line. If possible, before you even walk into the store you should check to see what kind of outside information is available. If you have access to a computer, go on-line and see if the retailer has established a web site. If so, see how the account is using the site to provide general information, promote specific products, and take customers' orders. You can also use a search engine to see if anyone has written an article or commentary about the account.

Look for ads. Look through current issues of area newspapers and magazines to see if the account advertises there.

Use the resources of your distributor. Talk with your manager and with other sales representatives in your distributor. You may be surprised to find out how much they already know about the account. Don't be too proud to ask for help!

Survey the account from a fine wine perspective. You may have been calling on this account for some time. If so, you've probably been considering their business as a whole. Now it's time to take a fresh look at the fine wine areas of the store. Focus on the account's fine wine activities as if they were the retailer's primary business. And as you survey the account, don't just look at the store's layout. Also take the time to look at all written materials that might be posted. Talk to the account's employees, and ask them questions.

Focus on selling *through* rather than just selling *in*. Throughout the entire pre-planning process, remember that your goal is not just to sell fine wines from Gallo *in* to the account. Your goal is to assure that these products sell *through* to the store's customers. As you consider the buyer's business objectives, strategies, and personal preferences and the store's internal and external merchandising and promotion policies, you should focus on specific, practical ways you can work with the account to sell *through* to their customers.

Make an appointment with the buyer. If the account is a traditional fine wine retailer it's possible that you may not yet have any SKUs in distribution. And you may not be calling on the account on a regular basis. It's essential that you begin calling on the account regularly. And it's also essential that you make an appointment to sit down and talk with the buyer. Focus on what the buyer wants from you, not what you want from him or her. The sale will be made later. For now, you are only gathering information and educating yourself about how to play a consultative role with this account.

Check Your Understanding

1. What, specifically, should you determine about the buyer's business objectives and personal preferences?
2. What, specifically, should you determine about the store's merchandising and promotion policies?
3. What, specifically, should you determine about the ways that fine wine retailers may promote their products outside of the store itself?
4. Identify at least three sources you can use to obtain information that will help you pre-plan the account.

Prepare For A Fine Wine Presentation

Earlier in this chapter we identified several important characteristics that are shared by many fine retailers:

- Fine wine retailers tend to be passionate – and knowledgeable – about wine.
- Fine wine retailers consider many new products each week. And it can be challenging for them to buy the best mix of products for their customer base.
- Fine wine retailers expect that you'll be able to discuss your product's background and attributes in detail – particularly as they relate to key competitive products.
- Fine wine retailers are dealing with hundreds or even thousands of items. So it's a good idea to have a unique "story" about your product that can make it stand out against the competition.

So if you are going to make a fine wine presentation to a knowledgeable retailer, you need to be well-prepared. This means that you have acquired detailed knowledge about your products and that you have the ability to communicate this knowledge in a clear and compelling way.

Specifically, you should be prepared to talk about these topics:

The Winery. You need to have a sound general understanding of the Gallo of Sonoma Winery. You should be able to discuss its history, business philosophy, location, and vineyards. And you should be able to talk knowledgeably about the key people, like Matt and Gina Gallo, who are setting the direction for the winery and making things happen on a daily basis.

Grape Growing Practices. You need to feel comfortable describing all the efforts we undertake at Gallo of Sonoma to ensure that we have the finest wine grapes possible. You should be fluent with the elements of the Gallo Quality Circle Of Grape Growing. And you should be able to discuss some of the unique characteristics of our various vineyards.

Winemaking Practices. You need to understand and be able to discuss all of the winemaking processes we use to produce fine red and white wines at Gallo of Sonoma. And you should also be able to describe the unique steps we take at the winery to maximize the character and potential of all our wines, from the County tier to Single Vineyard designates and Estate bottlings.

Specific Product Knowledge. You need to have memorized all of the specific information about the particular product you are presenting. You should be able to discuss the important aspects of grape growing and wine making – from the location of the vineyard and the characteristics of the grapes at harvest, to the methods used to press and ferment the grapes, to the types of barrels used in aging, all the way to the blending of the finished wine. You should be able to discuss the flavor profile of the wine and its food compatibilities. And you should also be able to discuss the wine from a business perspective, detailing its overall brand positioning in your market and the specific sales and placement objectives that have been established for it.

Use Your On-Line Resources!

Keep in mind that you now have an on-line resource that can provide you with the product information you need. Gallo's Trade Network site was developed to give sales people and their retailers the most up-to-date information possible regarding Gallo's products and promotional information.

You can access this site at <http://trade.ejgallo.com>. You shouldn't have any difficulty registering for this site. Just follow the on-screen instructions. Then, once you access Trade Network, visit "Brand Central" for Winemaker Notes, Awards & Accolades, Product Visuals, Product Specifications, and more.

Check Your Understanding

1. In order to prepare for a fine wine presentation, what information should you know and be able to explain about the Gallo of Sonoma Winery?
2. In order to prepare for a fine wine presentation, what information should you know and be able to explain about our grape growing practices at Gallo of Sonoma?
3. In order to prepare for a fine wine presentation, what information should you know and be able to explain about our winemaking practices at Gallo of Sonoma?
4. In order to prepare for a fine wine presentation, what information should you know and be able to explain about the specific product you are presenting?

Conduct A Professional Tasting

Reminder: Many of the sales practices described in this chapter – such as conducting wine tastings – may not be permissible in some markets. This section describes the mechanics you would follow in those markets where conducting a wine tasting is appropriate and applicable. Ask your distributor to provide you with specific directions about sales practices that are permitted or prohibited in your market.

Once you've established distribution with a fine wine retailer you have all of the same sales and merchandising responsibilities that you have with any account. However, if the account is a traditional fine wine retailer then you may have very limited opportunities for displays or promotion initiatives. So it's likely that most of your sales responsibilities will focus on achieving distribution (and sell-through) of new products.

When you are selling new distribution to a fine wine retailer you will often need to conduct a tasting. And keep in mind that a fine wine retailer is likely to regard every new vintage as a new product – especially with wines in the ultra-premium category. So when a new vintage is released, you may need to conduct a tasting (where legal) in order to secure continued distribution.

In order to conduct an effective tasting for a discriminating fine wine retailer, you need to be attentive to all of the elements that comprise professional wine service. These elements are:

- The selection and use of proper glassware.
- The proper temperature for serving wine.
- The proper technique for opening and pouring.
- The proper technique for tasting.
- The proper way to communicate during the tasting.

Let's consider each of these.

The Selection And Use of Proper Glassware

Among knowledgeable wine drinkers, particular styles of wine glasses are generally considered most appropriate for particular types of wines. Although there are valid practical reasons for some of these choices, the reasons are often based more on history and tradition and have simply been carried over into modern times.

In any case, when you are selling fine wines it is your responsibility to arrange for the proper tasting glass for your presentation. In practical terms, this means one of two things:

- Check ahead of time to ensure that appropriate glassware is available at the site of the presentation.
- Bring appropriate glasses with you.

Obviously, you cannot be expected to carry every style of glassware style into every account. Instead, you should always come prepared with a versatile glass that can be used for all types of wine.

As you know, a wine glass should meet these four criteria:

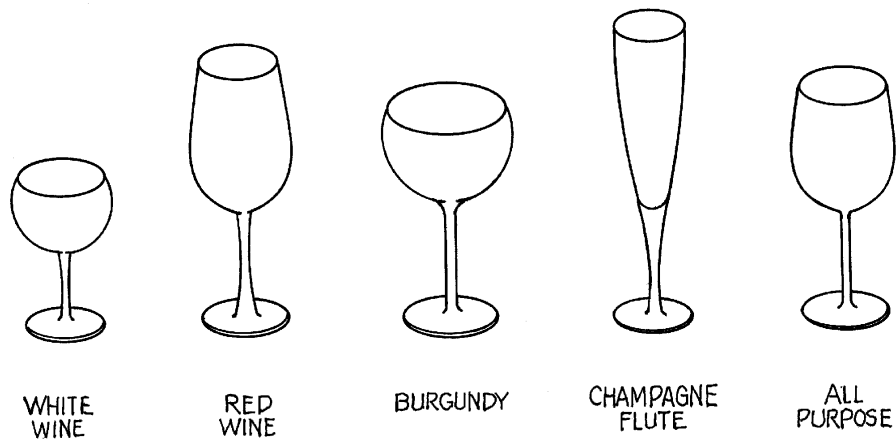
It has a stem. There are two reasons why a wine glass has a stem. When a taster holds the glass by the stem, light can still enter from all directions, enhancing the color of the wine. The stem also allows the taster to observe the appearance of the wine and swirl the wine without allowing warmth from the hand to raise the temperature of the wine.

It is clear glass without facets. Both of these characteristics make it easier to see and evaluate the appearance of the wine.

Its shape has curved sides that form a bowl. This bowl shape makes it easier for the taster to recognize the aroma of the wine. A glass with straight sides or sides that slant out will diffuse a wine's aroma and make it more difficult to smell.

It is large enough to swirl the wine. As you know, in order to be able to inspect the appearance of the wine and savor its aromas, a taster needs to be able to swirl the wine in the glass. So be sure the glass is large enough to swirl comfortably without spilling the wine.

The chart below shows examples of acceptable wine glasses.



The Proper Temperature For Serving Wine

The taste of a wine changes dramatically at different temperatures:

- If a wine is too cold, its aromas and flavors will be masked and only its acidity will be recognized.
- If a wine is too warm, the alcohol will be extremely volatile and the tannins will be very bitter.
- In addition, bottles that have become over heated also run the risk of becoming “cooked” and having their flavors taste oxidized or raisined.

So what temperature is ideal for serving wine? Well, as you read in Chapter 7, there are actually three ideal temperatures:

Room temperature. 65° F (18°C) is considered “room temperature” and is appropriate for medium to full bodied red wines. Keep in mind, however, that most of the retailers you call on do not actually maintain their stores at this temperature. In fact, the term “room temperature” is slightly misleading. You need to pay attention to the actual temperature of the room and the impact of that temperature on your wines. In many situations, you may want to slightly chill your red wines in advance of a tasting.

Cellar temperature. 57°F (14°C) is considered “slightly chilled” or “cellar temperature.” Historically, this is the average temperature of a true underground wine cellar. This temperature is appropriate for full bodied white wines and light bodied red wines. So if a bottle has been chilling in the refrigerator you may need to let the bottle stand at room temperature for about 30 minutes to achieve the desired temperature.

Chilled. 52°F (14°C) is considered “chilled.” This temperature is appropriate for light to medium bodied white wines. However, please note that *this is not the temperature of a refrigerator*. In fact, most refrigerators are set at 40°F (4°C). So if a bottle has been chilling in the refrigerator you may need to let the bottle stand at room temperature for 10-15 minutes to achieve the desired temperature.

Whenever you conduct a tasting you should always showcase the wine at the best possible temperature. And if you're tasting fine wines, your “tool kit” should include these indispensable items:

- A "cooler" or insulated chest.
- Refreezable ice substitute.
- An insulated wine bag.

Keep in mind that you usually transport wine in the trunk of your car. So while your heater or air-conditioner is keeping you comfortable, your wines are suffering in the cold of winter or the heat of summer. By using your "cooler" along with insulated wine bags, you can keep the chilled wines chilled at the proper temperature and protect the unchilled wines from becoming overheated.

And remember that in serving fine wines, the correct serving temperature is an essential element of "style." If you are tasting with a knowledgeable buyer, he or she will pay close attention to whether the white wines are too chilled or the red wines are too warm.

The Proper Technique For Opening and Pouring

After you've made sure that the wine is at the proper temperature, it is important to open and serve the bottle professionally. This process is well-established and your buyer will certainly notice how well you perform it. So be sure to adhere to these guidelines:

Always handle the bottle with respect and delicacy. Regardless of which product you are presenting, treat every bottle as if it were the most expensive and precious bottle in the world. Never grab the bottle by the neck. And be sure to show the label to the buyer as you present the bottle.

Remove the foil below the lip with a clean, straight cut. If the cut is incomplete, do not rip the foil off the bottle. Instead, make an additional cut.

Insert the corkscrew firmly into the cork and twist down clockwise until the entire curved portion ("worm") of the screw is seated. Then remove the cork in two steps. You should:

- First, pull up with the corkscrew until the cork is almost removed.
- Then, gently wiggle the cork out with your thumb and forefinger. Be careful not to create a loud "pop".

Wipe around the outer edge and inside neck of the bottle with a towel. Clean off any sediment or tartrates that may have collected on the surface of the bottle.

Pour approximately 2 ounces of wine in your glass first. Check for any aromas indicating that the wine may be "off." Then, once you're satisfied that the bottle is in good condition (not "corked" or "off"), pour 2 ounces of wine into the buyer's glass.

The Proper Technique For Tasting

The vast majority of the tastings that you conduct will take place with just the owner/decision maker or perhaps with one other person from the retail account. Some accounts will allow you to conduct a tasting any time you bring a bottle to one of your regular sales calls. But there are many accounts that schedule tasting appointments on specific days or at specific times. So you'll need to ask questions to determine the tasting procedures for each of the fine wine accounts that you call on.

If you know that two (or more) people will need to be involved in the tasting then it's up to you to schedule your tasting appointment on a day and at a time when both (all) of the decision makers will be there. And, of course, if you do schedule a specific appointment be sure to arrive on time.

During the tasting itself you should always consider the buyer's personal preferences. And since a fine wine retailer may have a lot of preferences, you may not have a great deal of control or influence about what happens during the tasting. Even so, you should try to control as many variables as possible. Here are some general tips that can help you to control – and enhance – the tasting experience.

Control the timing. A person's ability to taste is directly proportional to his or her level of hunger. For that reason, the ideal time to taste wine with a retail account is just before lunch (generally around 11:30 in the morning). The next best time is in the middle of the afternoon (around 2:30 or 3:00). And, whenever possible, avoid conducting a tasting at the end of the day. Remember that fatigue dulls the senses – and the attention span – of the buyer.

Control the tasting environment. Ideally, the buyer should be able to give 100%, uninterrupted attention to tasting your wine. Try to avoid situations where there is a lot of ambient noise or distracting sounds. Make sure the room is comfortable and well lit, neither too dark nor too light.

Control the number of people. Make sure the tasting doesn't suffer as a result of "audience overload." Most of the time you'll limit the tasting to the decision maker or to the decision maker and one key employee who may have influence on the buying decision. In some situations it may be necessary – based on the requirements of the retailer – to include more people in the tasting. If that's the case, make sure the tasting group is small enough so that you can personally manage the tasting experience and interact directly with the participants.

Control the format. In today's retail environment it is very rare for an account to conduct a competitive tasting – that is, a tasting that involves comparing competing wines from more than one winery. Most fine wine retailers consider diversity to be desirable. They generally try to feature a variety of different styles and vintages of the same varietal. So they're not interested in comparing one wine with another but rather in determining if each wine is acceptable and is something they can develop in their store. However, it's still possible that you may find yourself in a competitive tasting situation. If this occurs, you should try to position your wine either second or third in the line-up. Whenever several wines are tasted, the impression of the first wine is often distorted by “palate shock.” In other words, the taster's senses may be jarred by the wine and, as a result, the wine may come across as acidic or rough.

Control the visual background. As you know, any tasting experience begins with a visual examination of the wine. You'll need to provide a piece of white paper to hold up against the glass so you can see the color. So be prepared, and make sure you have an appropriate piece of white paper available with you.

Control the “palate cleansers.” During the tasting, do not use “palate cleansers” other than water. Crackers and cheese only add flavors to the taster's mouth, they do not eliminate them. And any additional flavors will certainly have an impact on the taster's experience of the next wine.

Control the order of the tasting. Sometimes your tasting will include a number of different products. For example, you might conduct a tasting of the entire Gallo of Sonoma line. In that situation, remember that the order in which you taste the wines will have a direct impact on the taster's impression of them. Follow this sequence:

- Taste dry wines before sweet wines.
- Taste light wines before heavy wines.
- Taste white wines before red wines.

Conversation During The Tasting

Sales representatives sometimes wonder what to say during a tasting. The extent and nature of the conversation varies tremendously from one buyer to another. There are some buyers who want you to remain absolutely quiet while they taste. There are others who would like for you to tell them something about the wine. For example, they may want to hear information such as where the vineyard is located, the percentage of barrel fermentation, whether the wine underwent sur lie aging or malolactic fermentation, the aging time in the barrel, or even where the oak came from or who the coopers were.

There is one thing that you should definitely avoid. Because your fine wine retailers are knowledgeable tasters don't try to "put words into their mouths" about how the wine tastes. For example, you should definitely *not* say something like "How do you like the bold, fruit-forward style?" or "Do you get the buttery, oaky character of the wine?"

On the other hand, if the buyer does want to hear some information you may be able to incorporate a little suggestive selling. For example, you might provide winemaking information like "The wine was 100% barrel fermented in new, lightly toasted French oak." And then you could finish by saying "which we like because of the subtle oak and smoke nuances that it gives to the wine." In other words, as you're providing some of the winemaking information you may also be able to suggestively insert some descriptive language about the wine into the conversation.

How do you know the retailer's preferred approach to conducting a tasting? The most direct approach is simply to ask the retailer. As you've seen, your first appointment with a fine wine retailer is not a sales opportunity but a discovery opportunity. As part of your initial appointment you should ask the owner or buyer directly: "What are your preferences in terms of meeting with me? How do you like to conduct tastings?"

(At the end of this chapter you'll find a Retailer Interview form and the directions for a Field Exercise you can conduct to learn more about the perspectives and preferences of one of your fine wine retailers. And you'll see that we've included this question as part of the Retailer Interview.)

Finally, keep in mind that if you need additional information you can always ask your District Manager.

Check Your Understanding

1. What are the four criteria you should use to select an appropriate wine glass?
2. What are the three correct temperatures for serving wine? Which temperature is most appropriate for a full bodied red wine? For a full bodied white wine? For a medium bodied white wine?
3. What five guidelines should you follow to properly open and pour the wine?
4. What is the ideal time to taste wine with a retail account? Why?
5. When you're tasting a number of wines, what criteria should guide the order of the tasting sequence?

A Look Ahead To SIERA

In this chapter we've provided you with a foundation of understanding about the retailers who sell fine wines. We've examined how you can pre-plan your sales call to maximize the effectiveness of each meeting with the buyer. And we've considered how to conduct a tasting with the decision maker in the account.

Keep in mind, of course, that the whole purpose of conducting the tasting is to gain distribution for your products. After all, you are a sales representative with a specific sales objective. And, assuming that the retailer's response was generally positive, at the end of the tasting you should gain commitment to distribution in that account.

Of course, distribution is only the beginning of the sales process. With a fine wine retailer your goal is always to support the *sell through* to the ultimate consumer. You'll learn more about this in Chapter 12 as we introduce you to a more sophisticated sales process that builds on the Approach, Body, Proof, and Close model and the RACC technique that you're using now. This sales process is called SIERA.

As you'll see, SIERA is an acronym that stands for the five parts of this sales process. They are:

- S Summarize The Situation
- I Idea Statement
- E Explain How It Works
- R Review The Benefits
- A Ask For The Order

The SIERA process is especially helpful in sales situations that are difficult or complex. And it can be particularly effective when you are selling fine wines to very knowledgeable retailers. By building on your base of knowledge about fine wine retailers and applying the SIERA sales model, you will be able to establish yourself as a true consultative sales professional.

Review

If you've learned the material in this chapter then you should be able to:

- Define what we mean by the term "fine wine retailer."
- Describe the general characteristics and concerns that are shared by many fine wine retailers.
- Pre-plan the sales calls you'll make to your fine wine accounts.
- Prepare yourself for an effective fine wine presentation.
- Present our products for tasting in a confident and professional way.

In addition, remember that the sale doesn't end when the retailer says "yes." A successful sale never stops with distribution or a display location. Selling a wine *in* to the account is only the first step. Your ultimate goal is always to help the retailer sell the wine *through* to his or her customers.

(If you're not convinced that your goal is to sell through to customers, the next time you are in the store take a good look at the shelves. You will be able to identify many products whose reps thought that their goal was just to sell *in* to the store. You do not want your product to be one of those!)

As you read earlier, when you pre-plan your sales call you will identify all the ways the store promotes its products, both internally and externally. When you make a sales presentation be sure to focus on how you will support these approaches to ensure that your wine actually sells through successfully. Be sure that "sell through" is always included in your sales presentations. Don't wait to discover that the wine is not selling as well as you hoped it would. By then, it's too late. You – and your products – will have lost credibility in the eyes of the buyer. And once you lose credibility it can be difficult to re-establish it.

Finally, keep in mind one final thought about fine wine retailers. You will not always be successful in selling one of our products. Sometimes you will have to take no for an answer – at least for a while. And that's okay. If you follow the approach that was presented in this chapter you will, over time, be able to establish a truly consultative relationship with your retailers. You will help your retailers recognize that you are sincerely interested in the success of their stores. And you will be able to demonstrate that you can be a trusted source of information and advice – and fine quality wines from Gallo of Sonoma.

If you are comfortable with the information presented in this chapter then you can continue with the field exercise that's described on the next page. If you're not yet comfortable with the information we've presented, take some time to reread this chapter before you go ahead.

Field Exercise

You may have already been calling on fine wine retailers for several months. But this chapter has provided a lot of information that you may not have considered before – or that you may not have applied consistently with your fine wine accounts. So we're going to conclude this chapter with a Field Exercise that will help you build on what you've already learned about your retailers and begin to take a new look at them from the perspective of a truly consultative fine wine professional.

The Field Exercise is designed to help you start – or start again – to use a structured approach to analyze your fine wine accounts. The goal of this activity is to provide you with an opportunity to take a fresh look at a particular account, to eliminate any biases you may have developed, and to develop the information you need to maximize your sales potential in that account. Once you've completed this Field Exercise with one account, you'll be able to continue to apply the same approach with your other fine wine retailers.

Directions:

1. On the pages that follow you'll find a Retailer Interview form. **Make a photocopy of the form.** You will use this photocopy when you conduct his Field Exercise.
2. Select a fine wine account that you are currently calling on. Choose an owner or buyer that you believe will respond positively to your request for an interview.
3. Let the owner or buyer know that you are interested in learning more about his or her business in order to help you grow as a fine wine professional.
4. Ask for an appointment to meet for about 30 minutes. Select a time and date that are different than your regularly scheduled call on that account.
5. Meet with the retailer and use the Retailer Interview form to guide a structured fact-finding discussion. By thoroughly completing this Retailer Interview you'll gain a better insight into the perspectives and thought process of one fine wine retailer.
6. Meet with your District Manager to discuss what you learned about the account. Then repeat the process with your other fine wine retailers.

RETAILER INTERVIEW

Wine Appreciation I Seminar Pre-assignment: "Know Your Market Exercise"

Your Name: _____

Store: _____ Date: _____

Mailing Address: _____

City: _____ State/Zip: _____

Telephone number (include area code): _____

Owner's/Manager's Name: _____

Approximate Age (Guess): _____ Years as a retailer: _____

Appointment Date and Time _____

Describe the store (what kind of "image" does it project to customers): _____

1. Who is your "typical" fine wine customer (demographics)?

2. How many 750ml bottles of wine does a typical wine-oriented customer buy at one time? _____

3. Approximately what percent of the store's wine customers can be considered regular clientele?
_____ % (People the retailer is familiar with)

4. What is the number one selling brand of Chardonnay and Cabernet Sauvignon 750ml at the following price points?

Price

Chardonnay

Cabernet Sauvignon

Over \$14.99

\$8.99-\$14.99

5. How important is personal or "hand" selling (suggestions to customers) to the store's fine wine sales volume? Describe impact on sales.

6. How do store sales employees obtain wine knowledge?

7. Who is the best fine wine sales representative who calls on your store? (Provide his/her name, distributor, major products handled, and what this sales representative does and knows that differentiates him/her from other reps.)

8. Which distributor and/or winery representatives (name at least two wineries) do you respect most? Why?

9. What is the procedure that you follow, or prefer, when tasting wines for distribution consideration?

10. Do you encourage or promote winemaker dinners or other wine oriented events conducted in concert with vendors? ____Yes ____No If yes, describe the type of events.

11. If permissible in the state, does the store conduct any consumer oriented tastings or samplings, i.e., wines of the month, California Cabernets, Italian reds, etc.? _____Yes _____No

If yes, describe the type of events and the cost per customer, if any.

12. Do you publish a newsletter? _____Yes _____No

If yes, describe details. Who writes it? How it is circulated? What is the frequency of publication? How do you decide which wines to feature, etc.?

13. How are you currently using the web, e-mail, and e-commerce to build your business?

Do you have a web site? What kind of information does it provide? How frequently is it updated? Who is responsible for it?

Do you use e-mail to notify customers of new offerings and special promotions?

(If legally permissible in your area) Do you allow customers to place orders through your web site?

The remainder of the form requires your assessment of the situation rather than “interview questions.”

14. Describe the owner's/manager's attitude and level of support for Gallo table wines in the following categories:

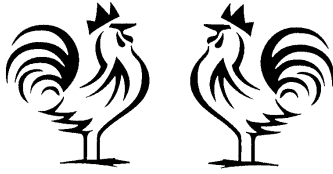
Ultra Premium/Super Premium: _____

Premium: _____

15. Describe the greatest “opportunities” in this store for Gallo brands in the following categories:

Ultra Premium/Super Premium: _____

Premium: _____



Chapter 12 SIERA Selling

Up to this point in your career you have used a four-part sales presentation that was first outlined in the Gallo Sales Manual: *Approach, Body, Proof, and Close*.

Approach. During this stage you get retailer ready to listen to your presentation. To accomplish this goal you may use a technique like one of these:

- Ask a question.
- Break the ice and make small talk.
- Use a visual aid.
- Use a gimmick.
- Appeal to pride.
- Present a benefit.

Body. This is where you tell the retailer *what* and *why*: *what* your proposal is and *why* it makes good business sense. Typically, the Body of your sales presentation incorporates three elements:

- *Feature*: A factual, informative description of what you offer.
- *Benefit*: How the retailer will gain as a result of accepting your sales proposal.
- *Action*: What you want the retailer to do.

Proof. During this stage you demonstrate that the statements in the Body of your presentation are true. Effective Proof statements help reduce doubt or skepticism towards your proposal. Specifically, you must be prepared to show the retailer how your claims and the expected benefits are credible, based on information such as:

- Account records/route cards
- Testimonials
- Success of other stores in the area
- P.O.S.
- Tastings

Close. This is the stage where you get the retailer to agree to your proposal and take the suggested action. At this stage in your career you obviously know how to ask a closing question and close a sale. The Gallo Sales Manual outlines a number of recommended closing techniques. Here are a few of the most popular:

- *Physical Action:* "Can I get your signature on the order?"
- *Choice:* "I can be in Wednesday afternoon or Friday morning to help set it up. Which is better for you?"
- *Yes Chain:* "You do like the P.O.S.? You know the sales history with this product? You know how well it will sell from the meat section? So, it makes sense, right?"
- *Assumptive Close:* As you near the close, you assume that the retailer likes your proposal and will accept it. The success of this technique depends on your ability to read the reactions of your retailer. Many experienced Sales Representatives have found it to be quite effective. "25 cases will be just right here. I'll be back on Thursday to build the display."

Throughout the four-part sales process you may encounter objections. And, at this point in your career, you have learned how to handle objections by using the RACC technique: *Restate, Answer, Check, and Continue*.

Restate. When a retailer presents an objection it's important that you listen carefully. Don't contradict or argue. Instead, restate the objection to show your retailer that you were listening and that you understand the concern. For example: "I see, Frank. What you're looking for is more information to reassure you that displaying our new varietal wine will result in increased sales."

Answer. Provide the retailer with the factual information he or she needs to accept your proposition. Emphasize the benefits of your presentation. Clarify your answer as appropriate.

Check. Make sure that your answer is satisfactory. Ask the retailer if his or her concern has been satisfied. And ask if there are other questions to be answered. But it's important to do this in a somewhat assumptive manner so that you don't encourage a lot of new objections.

Continue. Move forward with the sales process and ask for the order.

In this chapter we're going to present a more sophisticated sales process that builds on the Approach, Body, Proof, and Close model and the RACC technique. It's called SIERA.

SIERA is an acronym that stands for the five parts of this sales process. They are:

- S Summarize The Situation
- I Idea Statement
- E Explain How It Works
- R Review The Benefits
- A Ask For The Order

The SIERA process may be entirely new to you, or it may be a process you've already been using. In either case, SIERA is especially helpful in sales situations that are particularly difficult or complex. And, as you'll see, it can be particularly effective when you are selling fine wines to very knowledgeable retailers.

Important: Many of the sales practices described in this chapter may not be legally permissible in some markets. Even if these practices are legally permissible, they may not be consistent with your distributor's policies. Please keep in mind that this chapter describes the mechanics you would follow in those markets where these practices are appropriate and applicable. All direction regarding any of the practices or activities outlined in this chapter must come from your distributor.

Overview

This chapter focuses on the five steps of the SIERA sales model:

- S Summarize The Situation
- I Idea Statement
- E Explain How It Works
- R Review The Benefits
- A Ask For The Order

We're going to begin this chapter by looking at the SIERA model from a general perspective. And we'll see how you can apply it in sales situations that are typical of those you face everyday in most of your accounts. Then, at the end of the chapter, we'll consider the specific application of the SIERA model to selling a fine wine to a very knowledgeable retailer.

To help you learn and apply the SIERA model we're actually going to review the model three times in this chapter.

First, we'll provide a brief overview of the five steps. We'll explain the benefits of using the SIERA model. And you'll read a brief example of a SIERA presentation where a sales representative is proposing to move the mid-priced and premium-priced California varietal section to the front corner of the store near the cold box.

Then we'll look at each of the five steps in more detail. As you'll see, it's the first step – Summarize The Situation – that represents the biggest change from Approach, Body, Proof, and Close. This step is also the most important one in the SIERA process, and it's the one that we will examine most thoroughly. You'll also have an opportunity to read a second example of a SIERA presentation. In this example, the sales representative is proposing a bin of five HPC varietal red wines.

Finally, we'll see how you can utilize the SIERA model in a sales situation that involves fine wines. And you'll read an extended presentation based on a proposal for Gallo of Sonoma Laguna Vineyard Chardonnay.

Objectives

After reading this chapter you should understand and be able to explain the five steps in the SIERA sales process:

- Summarize The Situation
- Idea Statement
- Explain How It Works
- Review The Benefits
- Ask For The Order

More importantly, you should be able to follow this model on the job whenever you are facing a sales situation that is particularly challenging or complex.

At the end of this chapter you'll complete a Field Exercise that will bridge the material in this chapter to your actual job experience. You'll be asked to prepare a SIERA presentation for a fine wine sale that you want to make in your territory. You'll review this presentation with your district manager and then make the presentation to your fine wine retailer.

Key Terms

As you read this chapter you'll find that most of the terms relate to different sales skills and various aspects of the SIERA sales process. By the end of the chapter you should recognize and understand all of these key terms.

Answer

Approach

Ask For The Order

Body

Check

Circumstances

Close

Confirming Question

Continue

Explain How It Works

Idea Statement

Leading Question

Opportunities

Needs

Proof

Restate

Review The Benefits

SIERA

Summarize The Situation

Summary

Summary Analysis

Transitional Question

Transitional Statement With A Question

Reminder: As you read through this chapter remember to answer the Check Your Understanding questions at the end of every section. You can write your answers on a separate piece of paper or on the answer sheets that your trainer has provided. If you write your answers you will learn the material more quickly and more thoroughly. And you'll also create your own quick reference guide that you can use to review the key points of the chapter.

If you're not sure how to answer any of the questions, re-read the preceding section to find the necessary information. Make sure you can answer all of the questions before you continue.

The SIERA Process

Let's take a brief look at five steps in the SIERA process. As we review each step, keep in mind that it's the first step – Summarize The Situation – that represents the biggest change from Approach, Body, Proof, and Close. This step is also the most important one in the SIERA process.

The underlying premise of the SIERA model is that it's a lot easier to persuade someone to do something when you both see the situation in the same general way. So, as you'll see, when you Summarize The Situation your goal is not to try to close the sale right away. Rather, it is to "get on the same page" with the retailer and set the stage for a substantive business discussion.

Summarize The Situation

In the first step – Summarize The Situation – you demonstrate that you understand the retailer's situation with respect to the area of his or her business that you are going to address. You'll often hear this step of the SIERA process referred to as the "Summary Analysis" or simply as the "Summary."

The key to a successful SIERA presentation is careful and thorough preparation. Of course, when you begin a SIERA presentation you always have a clear idea of the specific proposal you are going to make. But during this first step, *your focus is not on what you are going to propose*. Instead, you begin by outlining the unique circumstances, needs, or opportunities of the retailer. The purpose of this step is to gain the buyer's interest and confidence in you with respect to the general subject of your sales proposal. In this way, you set the stage for your proposal to be accepted by showing the buyer that it will be based on a true understanding of his or her business needs.

When you Summarize The Situation you begin by establishing "the big picture." In other words, you present a series of statements – or ask a series of questions – to start a non-threatening discussion about the general area where you will be making a proposal. For example, you might start by talking about a broad area such as table wines, or the benefits of good shelf merchandising, or about a specific category such as HPC. In any case, by talking about the underlying business situation you can establish a bridge from "small talk" to a business conversation about the general area where you are going to make a proposal. And you can avoid the kind of "conditioned" resistance that typically arises when a retailer feels he or she is hearing yet another self-serving sales pitch.

The Summary enables your customer to feel that you are thinking of his or her business opportunities rather than yours. Your analysis demonstrates that you accurately understand your retailer's business philosophy and opportunities. It also shows that you appear to be proceeding towards a logical and practical solution to a business problem.

Throughout your Summary you should ask questions or make short statements to check for your retailer's agreement. By gaining agreement with your Summary Analysis, you verify that you and the retailer view the business situation in a similar way.

Then, at the end of your Summary, you ask a "transitional question" or make a "transitional statement with a check for understanding question." Either of these transitional approaches establishes general agreement with your Summary Analysis and steers the conversation logically in the direction of the idea that you are going to propose.

Idea Statement

In this step, you simply and clearly state specifically what you are proposing.

Your Idea Statement should be concise and direct. This step enables you to present your recommendation in simple and practical terms so the retailer can quickly grasp what you are proposing. And it helps to avoid surprises when you Ask For The Order.

After you present your idea, you should pause briefly to permit the retailer to respond before you continue. At this point, all you're looking for is a positive nod or a simple "uh huh."

If the retailer objects to your idea, go back to the appropriate point in your Summary Analysis where you established general agreement about the needs or opportunities that are available. Use the RACC technique to overcome the retailer's objection and regain general agreement before you proceed.

Explain How It Works

This third step in the SIERA process is to clearly explain the details of your proposal so that the retailer can see that your idea is practical. Your goal is to let the retailer know that you are providing a realistic and achievable way to capitalize on business opportunities. At the same time, you should address any questions or concerns that you anticipate that the retailer may have.

This step and the next step – Review The Benefits – contain the same general persuasive information that you have been using successfully in the Body and Proof parts of the Approach, Body, Proof and Close sales technique.

Review The Benefits

During this stage you show the retailer how your idea will more than compensate for any time, effort, or expense involved. This is where you answer the all important question for the retailer: "What's in it for me?"

During this step you should build on each of the key features that you have established during the previous steps of Summarize The Situation, Idea Statement, and Explain How It Works. Your goal is to show how these features lead to corresponding benefits such as increased volume, increased profit, higher turnover, improved cash flow, or increased impulse sales. Be specific, and use benefits that this particular retailer will consider to be important. By tailoring your presentation in this way you make it easier for the retailer to say "yes."

Ask For The Order

In this step you positively suggest some action that the retailer can take so he or she can start to benefit from your idea. In other words, you use the same closing techniques that you have used effectively in the past.

When should you ask a closing question? Once you've presented your Idea Statement you can ask for the order any time you spot an opportunity to close. For example:

- When the retailer agrees with a benefit you've described.
- If the retailer has not voiced any concerns or objections.
- If you have effectively answered a retailer's objections.

Why Do We Need An Expanded Sales Process?

The SIERA sales technique builds on the experience you have been gaining as a consultative sales professional – in particular, your ability to conduct a persuasive two-way sales conversation.

When you use the Approach, Body, Proof. And Close, you typically charge into your retailer with all the enthusiasm, facts, figures and persuasion you can muster. But, as you've already learned, many retailers automatically resist anything they perceive as a "sales pitch." A "sales pitch" can trigger an automatic "you against me" reaction, even if the pitch is for something that would really benefit the retailer.

On the other hand, very few successful retailers have a negative reaction to participating in a business conversation that clearly relates to their business and on ways to improve it. In fact, retailers will consistently buy only from someone they perceive as a *consultative* sales representative – someone who understands their business and who can suggest "win/win" ways to improve it.

When you use SIERA you create an opportunity for a mutually profitable business discussion with a retailer. A SIERA sales conversation is not a gimmick or a mechanical format for making a canned sales presentation. It is simply a proven process for guiding a mutually advantageous two-way sales conversation. The SIERA process requires preparation, a solid understanding of the retailer, and a logical approach to building business.

Why Now?

If this chapter is the first time you've seen the SIERA model, you may be wondering why this technique was not presented earlier in your sales career. Keep in mind that when you first started out as a Gallo sales representative, you were bombarded with a lot of new information that you had a lot to learn in a very short period of time:

- You had to get to know your customers.
- You had to learn about wine and get to know your products.
- You had to learn about competitive products.
- You had to learn how to merchandise.
- You had to learn to do all the administrative aspects of the job.

- You had to learn how to sell.

That's why we presented a relatively simple sales model, Approach, Body, Proof, Close. Now that you have acquired a lot of practical experience and job knowledge, this is an ideal time for you to learn a more sophisticated sales technique to help you close even more sales.

Check Your Understanding

Before you continue, take a few moments to check your understanding. Write your answers to these questions on a separate piece of paper or on any answer sheets that you've been given. Remember – if you're not sure how to answer any of the questions, re-read this section to find the necessary information. Make sure you can answer all of the questions before you continue.

1. What are the five steps of the SIERA sales model?
2. Of these five steps, which one represents the biggest change from the Approach, Body, Proof, and Close sales model?
3. What is the goal you are trying to accomplish during the first step of the SIERA model?
4. Which steps of the SIERA model contain the same general persuasive information that you have been using successfully in the Body and Proof parts of the Approach, Body, Proof and Close sales technique?
5. Which step of the SIERA model is essentially the same as the Close step in Approach, Body, Proof and Close?

An Effective SIERA Presentation

Before you can make an effective sales presentation you first have to get your retailer's attention. So when you're going to make a SIERA presentation you still use whatever Approach you feel is most appropriate to get the retailer's attention and open up the conversation.

From that point on, the SIERA process is different than Approach, Body, Proof, and Close. You Summarize The Situation in a way that gives the retailer confidence that you will be proposing something of value – something that will satisfy a specific business need or solve a specific business problem.

An effective Summary Analysis enables you to show that you understand the retailer's challenges and opportunities. And it sets the stage for you to present an Idea Statement that will benefit the retailer's business.

The simple example that follows is an illustration of how the SIERA model can be used in a Gallo sales situation. This example focuses on improving the position of the MPC and HPC shelf section in a medium-sized liquor store. You should consider that the sales representative has already made an appropriate Approach and has initiated a business conversation with the retailer. Keep in mind that in the "real world" you would probably ask more questions to open up a two-way sales conversation rather than just making a one-way presentation. And you would always be prepared to overcome objections by using the RACC technique.

Summarize The Situation:

Sales Representative: George, you've told me in the past that your overall wine business is not growing but your local competitors seem to be doing much better. Is this still the case?

Retailer: Yeah, that's right. My business is flat.

Sales Representative: Even though your overall business is flat, there is some good news. You're doing a real good job with mid- and high-priced varietals. Those are hot categories in your store. In fact, my records show that Gallo products in these categories are showing steady increases month after month.

Retailer: I guess there are some bright spots if you look closely. Some of my newer red varietals are really taking off.

Sales Representative: Then you agree that MPC and HPC varietals represent a real growth opportunity in your store?"

[Note: This is a "transitional question" that builds on the buyer's agreement and leads towards the Idea Statement. You'll learn more about this technique later in this chapter.]

Retailer: You could say that.

Idea Statement

Sales Representative: OK then. My idea is to further increase growth by moving your mid-priced and premium-priced California varietal section to the front corner of your store near the cold box.

Explain How It Works:

Sales Representative: Here is what you currently have on the shelf in the front section. It's mostly made up of imported dessert wines and expensive champagnes that are not really doing much for you.

And here is how I think you could best merchandise your MPC and HPC varietals based on the positive trends in your store. Basically, we're keeping all the facings of each brand you carry. We're just re-positioning a few brands to get your best sellers on the eye level shelf to provide more exposure.

Review the Benefits:

Sales Representative: As you said, the MPC and HPC categories are the only categories doing well for you. By re-positioning them to where you currently have your slower moving imported dessert wines and champagnes, you will see even more growth – which will increase your overall sales volume.

And, as you know, these are among the most profitable wines that you sell. So we'll be taking advantage of one of the best shelf positions in your store to build more profitable business for you.

Here in the front section of the store these wines will get maximum exposure to more of your customers, which will enable you to capitalize on the positive trends.

You'll also increase impulse sales, which will mean more sales, higher turnover, and increased profit for you.

Best of all, there is no cost for you.

Ask for the Order:

Sales Representative: It will be real easy to flip/flop these two sections – it's a simple move for you. Would Tuesday or Thursday work better for your staff?

Now let's take a closer look at each of the five steps in the SIERA process.

Summarize The Situation

The SIERA model is based on the premise that you are most likely to sell something when you have a receptive buyer. You make a positive connection with your decision maker by demonstrating that you understand his or her situation and that you are talking about something that will provide specific practical benefits to his or her business.

To Summarize The Situation effectively you should begin with your goal and work backwards. In other words, you must first:

- Determine your specific sales objective for this account. What is the Idea Statement that you are planning to propose?
- Determine the key benefits of this proposal. What will your proposal do to help the retailer's business? Why should the retailer want to move ahead with it?
- Anticipate any objections the retailer might have to your proposal. Plan the flow of your discussion so you can address these concerns.

With this information in mind you can begin to develop an effective Summary of the current situation. Your goal is to build a strong business case for your proposal. In other words, you want to show how a thoughtful analysis of the retailer's current situation leads logically to the recommendation you are proposing.

Your analysis of the current situation should address one or more of these three areas:

- Circumstances
- Needs
- Opportunities

Let's consider each of these.

Circumstances. Circumstances include any market conditions or facets of the retailer's operations that have a bearing on the idea you are going to propose. For example:

- What is the retailer's approach to pricing, advertising, and special promotions? What kind of thinking or philosophy is behind this approach?
- What is the retailer's merchandising philosophy in terms of displays, shelf sets, window banners, and classified ads?
- Where does the store (or chain) stand against its competition in terms of market share?
- What else is going on with the store (or chain) that might have a bearing on your proposal?

Needs. Needs include any specific problems or "hot buttons" (appeal points) that are of particular concern to this retailer. For example:

1. Profit
2. Service
3. Dependability
4. Advertising
5. Quality
6. Price/Value
7. Turnover rate
8. Attractive packaging

Opportunities. Opportunities are the areas where your proposal can help to improve the retailer's business. For example, opportunities might include ways that the retailer can benefit by:

- Taking advantage of trends
- Increasing impulse sales
- Cross merchandising
- Adding new wine consumers

When you Summarize The Situation you focus on circumstances, needs, and opportunities that are important to this particular retailer. A good Summary shows that *you understand the retailer's business from his or her perspective*. Then, by asking questions and providing relevant information, you gradually steer a two-way conversation in the direction of your specific proposal. In the process you:

- Get the buyer to think about the business issues you will address.
- Develop a common frame of reference.
- Reduce the likelihood of encountering serious objections when you present your idea.

As you build your Summary, always start with the broader concepts and move toward the specifics. In essence you present the “big picture” before you get into the details. You might start with a brief review of case sales and trends, IRI or Nielsen data (if available), or state-wide sales numbers, before getting into the core of what you want the retailer to consider.

This process is somewhat analogous to transferring liquid from a large container to a small one by using a funnel. If you pour too fast, the liquid will spill over or the funnel may tip. In a SIERA presentation, you start with a lot of information. So you have to make sure you are “pouring” it at an acceptable rate by asking questions and getting the retailer's confirmation throughout the process. By the time you get to the bottom of the funnel, the information is very specific and highly focused on the idea you are going to present. In other words:

Establish the “big picture” or a general overview of the circumstances, needs, and opportunities that are driving your recommendation. Gradually focus a two-way sales discussion containing specific relevant information that is acceptable from the perspective of the buyer.



Transition



Idea Statement

The example that follows illustrates how a SIERA presentation might focus a sales conversation towards a display of five HPC varietal red wines. For the purpose of this example, we're using "Gallo Select" – a fictitious brand name. The full line is in distribution and is selling well in the store.

As in the previous example, we're picking up the conversation after the sales representative has made an appropriate Approach and has initiated a business conversation. Remember that in the real world there would typically be a greater exchange of information and more of a two-way sales conversation.

Summarize The Situation

Sales Representative: Stan, I just recently read an article that said red wines now account for almost 40% of US table wine sales and are still growing strong.

Retailer: The mix seems about right. But when it comes to growth, you couldn't prove it by me.

Sales Representative: I remember that a couple of weeks ago you mentioned that sales of your very profitable HPC red wines aren't growing as fast as they were a year or so ago.

Retailer: That's right.

Sales Representative: My records show that all of our red varietals are doing well for you. But some are growing much faster than others. If you consider all of your HPC reds together – all brands – which varietals seem to be showing the most growth?

Retailer: Well, Cabernet is still the category leader in terms of volume, but I'm not seeing much growth there. Merlot is continuing to develop nicely, and Pinot Noir and Zinfandel are really starting to take off. And a few of the lesser known red varietals appear to be getting some trial, too. I've got some experimenters in this store.

Sales Representative: So it appears that HPC reds continue to be big business in your store, but the overall category isn't growing as quickly as it used to be.

Retailer: Right – that's about it.

Sales Representative: It looks to me like the consumer is continuing to buy old favorites but is also doing some experimenting. Not just between wineries, but also between varietal types. It would seem that it's very important to your total wine business to maximize your sales of the hottest red varietals and keep growing the category overall. Right?

Retailer: Absolutely. You've got to stay on top of your business more than ever today. We've got a real fickle consumer.

Sales Representative: With that in mind, it seems to me that the best way to maximize red wine sales and to keep your profits growing is to feature a fast selling and highly profitable Cabernet along with three or four of the faster growing varieties. This would give that fickle consumer a nudge to try a new red when buying an old favorite. Doesn't that make sense to you?

[The sales rep makes a transitional statement and asks a question to check for agreement.]

Retailer: Hmm. I guess so.

Idea Statement

Sales Representative: My idea is that you put up a bin featuring 750s of five Gallo Select red varieties – Cabernet Sauvignon, Merlot, Pinot Noir, Zinfandel, and our Syrah – to take advantage of the growth trends in your store.

Explain How It Works

Sales Representative: Look at the P.O.S. It's designed to do two things. First, to attract new consumers to the category. And second, to suggest multiple purchases to today's wine experimenters.

The emphasis is on experiencing the pleasing differences between varietal types. The Gallo name on the P.O.S. says "quality," regardless of the varietal. This gives even a timid consumer the confidence to try something new. And the compact size of this innovative wire bin will enable you to position it right next to the cold box.

Review The Benefits

Sales Representative: Based on your sales volume, I recommend that you buy the 15-case deal. Between the display and the shelf you'll easily turn that in three or four weeks. And you'll be able to take advantage of our special promotional price.

Now take a look at this profit sheet. If you feature each of these products at \$1 below your everyday pricing, your net profit on the 15 cases will be \$356.

With this display you're also going to be generating multiple sales and impulse sales to your customers who haven't yet started experimenting with some of the reds that are growing in popularity, like Pinot Noir and Syrah. So you should see a substantial increase in your overall red HPC business. And you'll be building a base of customers who will try these varietals again in the future.

Ask For The Order

Sales Representative: I can be in Thursday afternoon or Friday morning to help set it up. Which day is best for you?"

In this example, the sales representative summarized the situation in a way that got the retailer thinking about red wines in general, specific HPC red varietals, and how to maximize red wine sales. The rep also kept the focus on profit, an important benefit to this retailer.

Transition To Your Idea Statement

When you Summarize The Situation you should always conclude with a transition that enables you to present your idea based on the common frame of reference that you've established.

You can use a *transitional question* or a *transitional statement with a confirming ("check for understanding") question*. For example, you might ask:

- *"Wouldn't you agree that increasing demand for HPC wines in your store offers some real opportunity for you to build your high-end wine business?"*

Or you might say:

- *"Your increasing HPC sales makes this a great time to really build this profitable category in your store. Wouldn't you agree?"*

Regardless of whether you transition with a question or a statement your goal is to confirm that the retailer is in general agreement with your analysis of the situation and would therefore be receptive to hearing your idea. In effect, your objective is to say: "This is how I see the situation. Do you see it the same way?" So your transitional question or statement gives a retailer a chance to agree with or disagree with your Summary.

If the retailer agrees with your Summary then you have established a common frame of reference. Now you can present your Idea Statement and discuss your proposal in a substantive, businesslike way.

If the retailer disagrees with your Summary of the situation, you need to ask questions to find out why. Keep in mind that at this point you're not trying to close the sale. In fact, you haven't even presented your idea. But if you can not reach general agreement with the retailer on your Summary Analysis, it is almost certain the presentation will fail. That's why it's important to ask questions throughout your Summary to make sure that you and the retailer are reaching a shared understanding that will enable you to lead the conversation towards you Idea Statement.

In the example you just read, here's the transition to the Idea Statement.

Sales Representative: With that in mind, it seems to me that the best way to maximize red wine sales and to keep your profits growing is to feature a fast selling and highly profitable Cabernet along with three or four of the faster growing varietals. This would give that fickle consumer a nudge to try a new red when buying an old favorite. Doesn't that make sense to you?

Why It's So Important To Summarize The Situation

When you Summarize The Situation effectively, you gain two important advantages:

- You get the retailer's focused attention.
- You establish the credibility you need to conduct a substantive business discussion.

Let's consider each of these.

Attention. Retailers are people just like we are. And although wine may be really important to them, they also deal with a multitude of other, non-work concerns – as we all do every day. So, at times, buyers are just not in the "wine world." Their thoughts may be focused on family concerns, deliveries, other commitments, and a variety of other issues that are not related to building their business through effective merchandising of Gallo products.

When you Summarize The Situation for the buyer, you help to build a bridge between "their world" and "your world." The effectiveness of this technique is based on the fact that whenever you want to change a person's thinking on a subject or perspective on a situation, it's always more effective to begin by addressing where they are right now. In other words, by gaining the buyer's agreement that you understand "their world," you are better able to lead them to an understanding of "your world." You establish a common frame of reference – in effect, a shared view of "our world" – based on the fact that you and the buyer now see the situation in the same way. As a result, you help to focus the buyer's attention on the matter at hand. And you create a logical path to lead the retailer into the topic you want to discuss.

Credibility. Wine retailers – especially those who feature fine wines – are becoming increasingly knowledgeable about all aspects of growing grapes and making wines. And they are becoming increasingly sophisticated in terms of marketing and merchandising. If you want to position yourself as an effective business partner with your retailers you must:

- Be aware of trends in the marketplace.
- Be an expert in-store operations and management.
- Know how to use this knowledge to help retailers build their business.

When you Summarize The Situation you demonstrate that you have the current wine knowledge, market information, and merchandising and sales skills to be an effective consultant to the retailer. You show that you are on top of the facts and trends that can affect the sale of wine in their store. And you increase the likelihood that the retailer will be receptive to your proposals to build their business.

Check Your Understanding

1. When you Summarize The Situation you are not trying to close the sale. In fact, you have not even presented a specific sales proposal. What are you trying to accomplish during this step of the sale process?
2. When you Summarize The Situation you typically address *circumstances*, *needs*, and *opportunities*. Describe what we mean by each of these terms.
3. What is the purpose of a *transitional question* or a *transitional statement with a question*?
4. When you Summarize The Situation effectively, what two advantages do you gain?

Asking the Right Questions

Generally, you will be doing most of the talking during the Summary step. But it's possible – and, in fact, preferable – to Summarize The Situation by asking questions. Experienced sales representatives generally use three kinds of questions:

- **Leading questions.** You can use questions to lead the discussion in a desired direction and steer the retailer to where you want the conversation to go.
- **Confirming questions.** You can use questions to check for agreement, to make sure you understand the retailer's position, and to confirm that you are developing a common frame of reference.
- **Transitional questions.** You can use questions to review your Summary and transition to your Idea Statement.

Let's look at each of these three kinds of questions.

Leading Questions

A leading question is a question that is designed to gather information and take the conversation in a specific direction. Experienced sales representatives have found that the use of leading questions is one of the best techniques for establishing a two-way sales discussion. When they're used correctly, leading questions can be a very powerful way to establish a common point of view with a retailer and create a shared understanding that can serve as the basis for discussing a substantive business proposal.

On the other hand, it can be challenging to use questions to guide a conversation in the direction you want to go. It takes preparation and practice. In particular, you need to avoid asking a series of closed-ended questions that come across as patronizing and self-serving. And never ask a question where the answer is obvious. If you consider your questions from the retailer's perspective you should be able to eliminate questions like "Don't you want to increase your sales?" or "Would you like to increase your profits?"

Here are some additional guidelines that may help you:

First, determine what you're trying to establish. Begin with your goal in mind.

Then, consider how to create a logical path to that goal. In general, you should plan to move from the "big picture" to more specific information.

Develop open-ended questions. Open-ended questions are questions that ask for more than just a yes or no response. If you use a series of simple "yes chain" questions then you are more likely to be viewed as shallow and self-serving.

Consider how the retailer is likely to answer. When you ask a leading question you should already know the answer – or at least have a good sense of how an honest retailer would answer. You don't want to be surprised by an answer that takes your conversation in an unproductive direction. And you don't want to ask a question that might embarrass the retailer or require the disclosure of confidential information.

Be prepared for the unexpected. If a retailer provides incorrect information or answers in an unexpected way, it is probably an indication that he or she does not have all the facts. Treat these answers as objections. Use the RACC technique as appropriate and continue with the Summary.

Confirming Questions

You can use questions to check for agreement, to make sure you understand the retailer's position, and to confirm that you are developing a common frame of reference. When you're using questions to confirm an agreement or check for understanding, you generally ask closed questions – questions that ask for a yes or no answer. Here are some examples:

- *"In the last six months you've seen a major increase in your MPC varietal business, haven't you?"*
- *"It seems to me that you've been pretty disappointed with the sale of sparkling wines lately. Am I right?"*
- *"According to my records, your red wine business really picks up in the Fall. Is there any reason you wouldn't expect the same pattern to continue this year?"*
- *"So, based on what you've told me, would you agree that this is an ideal time to expand your offerings with some of the new varietals that are really taking off?"*

As you can tell from these examples, most of the time you ask confirming questions where a "yes" answer means that the retailer agrees. However, it's also possible to ask confirming questions where you gain agreement with a "no" answer. For example:

- *"I think we've addressed all of your concerns. Is there any other reason why we shouldn't go ahead?"*

- *"Before we move forward, do you have any other questions you'd like me to answer?"*

Transitional Questions

When you Summarize The Situation it's important to ensure that the retailer agrees with your analysis. So, at the end of the Summary it's important to ask a *transitional question*.

The transition question (or the transition statement with a question) asks the retailer to confirm general agreement with your view of the circumstances, needs, and opportunities in the account. It shows that the retailer is favorably inclined to consider your proposal. And it serves as the bridge from your Summary to the Idea Statement you want to present.

Here are some examples of transitional questions:

- *"So would you agree that over the past few years your Gallo HPC business has expanded very profitably by adding new products and varietal types?"*

[To bridge to a discussion of adding a new HPC varietal.]

- *"So, by featuring new releases in your newsletter, haven't you been able to consistently increase the sales of new varietal types?"*

[To bridge to a discussion of promoting a new varietal in the retailer's newsletter.]

- *"Based on what you've seen in your store, do you agree that the shelf position can make a tremendous difference in how a category sells?"*

[To bridge to a discussion of improving shelf position to take advantage of the positive trends in a category.]

A Final Word About Summarizing The Situation

Keep in mind that a Summary Analysis is a thorough "stage-setting" step of a well-planned sales conversation. Here are the major elements:

- Open your Summary with a broad statement or a question.
- Discuss circumstances, needs, and opportunities and lead a gradually narrowing sales conversation towards your idea.
- Ask questions that require the retailer to get involved as well as to confirm his or her acceptance of the direction that you are pursuing.
- Provide supporting information to the retailer relevant to the business proposal that you will be making.
- Conclude with a transitional question or a transitional statement with a question that confirms the retailer's general agreement with your analysis and makes a logical transition to your Idea Statement – your description of what you want the retailer to buy or do.

When you Summarize The Situation you'll generally encounter one of three responses:

The retailer agrees with your Summary. In that case, you can continue with your presentation and go on to your Idea Statement.

The retailer wants more information. In that case, you respond with appropriate answers. And you continue to provide information until the retailer agrees with your Summary.

The retailer disagrees with your Summary. If the retailer does not agree with your Summary analysis then it is very unlikely that he or she will agree with your proposal. In this case, you have several options:

- Ask questions to determine why the retailer disagrees. If it appears that the disagreement is based primarily on a lack of understanding, provide additional information.
- Use the RACC technique to respond to the retailer's objection.
- Reposition your Summary to focus on the retailer's concerns and appeal points.
- End the discussion and plan how you may be able to revise your presentation. At this point you haven't presented a specific proposal to the retailer so you haven't necessarily "lost" any sales opportunity. But it is essential for you to understand the retailer's perspective on the circumstances, needs, and opportunities facing his or her business. Based on what you learn now about the retailer's concerns, you may be able to come back later with a more effective SIERA presentation.

Check Your Understanding

1. What are three kinds of questions you can use when you Summarize The Situation?
2. What should you do if the retailer agrees with your Summary of the situation?
3. What should you do if the retailer wants more information?
4. What should you do if the retailer appears to disagree with your Summary of the situation?

Let's now assume that the retailer has agreed with your Summary of the situation. And let's move to the second step of the SIERA process: Idea Statement

Idea Statement

When you present your Idea Statement you simply describe what you want the retailer to do. Generally speaking, the shorter and more concise your statement, the more effective it will be.

For example, suppose that when you provided a Summary of the situation, the retailer agreed with your analysis of the growth trend of HPC varietals. In that case, you could then proceed to tell the retailer that your idea is to take advantage of this growth of HPC varietals with the new wine you're introducing and to set up a display of the new wine in a preferred high-traffic location in the store. Your clear and concise Idea Statement is that the retailer should display the new wine in the specific location you're suggesting.

Or, suppose that when you provided a Summary of the situation, the retailer agreed that HPC wines have high impulse appeal to knowledgeable wine consumers who are constantly experimenting. In that case, you could then proceed to tell the retailer that your idea is to rearrange two shelves in the cold box to take advantage of impulse sales of white HPC varietals.

After stating your idea, pause briefly in order to let the retailer respond. If the retailer responds positively, continue with the presentation. If the retailer objects to your idea, go back to an appropriate point in your Summary Analysis where you feel you established general agreement in the direction you were going. Use the RACC technique to overcome any objections and gain general agreement. Then proceed accordingly.

At this point you should not introduce specific details such as case quantities. After all, the retailer has not yet heard the benefits of your proposal. We'll explain more about the rationale behind this strategy later in this chapter.

In the example you read earlier in this chapter, here's the Idea Statement.

Idea Statement

Sales Representative: My idea is that you put up a bin featuring 750s of five Gallo Select red varietals – Cabernet Sauvignon, Merlot, Pinot Noir, Zinfandel, and our Syrah – to take advantage of the growth trends in your store.

By making a clear and concise Idea Statement, you assure that your recommendation is in front of the customer before any interruptions, questions, or objections cloud the issue.

Check Your Understanding

1. When you present your Idea Statement, what are you trying to accomplish?
2. After you present your Idea Statement, what should you do?
3. If the retailer responds to your Idea Statement in a positive way, what should you do?
4. If the retailer objects to your Idea Statement, what should you do?
5. Why is it generally not a good idea to include specific details such as case quantities when you present your Idea Statement?

Now let's consider the next step of the SIERA model, Explain How It Works.

Explain How It Works

This is the step where you explain to the buyer how your recommendation will work. Here you describe the key features of your proposal, provide the executional details, and explain what you will do to make this idea successful.

Of course, in order to Explain How It Works, you need to have worked out all the details in advance so you can be sure that your idea *will* work. And keep in mind that a well-planned explanation should anticipate and answer any questions or objections before they are stated.

By the end of your explanation, the retailer should have a clear understanding of exactly what agreeing to the idea will entail. And you should be prepared to share all of the information and sales tools that are available to support your proposal, for example:

- New product brochures or other sales aids
- P.O.S.
- Advertising and ad schedules
- Syndicated data (IRI or Nielsen) if available.
- Local or statewide trends for the product or the category.
- Tasting notes
- Special display racks or bins
- Shelf schematics (where legal)
- And you also need to describe specifically what you will do to make the idea work. For example, in a grocery store, you may need to explain that you have obtained all required approvals for an out of section wine display.

When you explain the details of your presentation, the retailer should have a clear understanding of your idea. And the retailer should feel confident that your idea is workable and practical.

In the example you read earlier in this chapter, here's what the sales representative says to Explain How It Works.

Explain How It Works

Sales Representative: Look at the P.O.S. It's designed to do two things. First, to attract new consumers to the category. And second, to suggest multiple purchases to today's wine experimenters.

The emphasis is on experiencing the pleasing differences between varietal types. The Gallo name on the P.O.S. says "quality," regardless of the varietal. This gives even a timid consumer the confidence to try something new. And the compact size of this innovative wire bin will enable you to position it right next to the cold box.

Keep in mind that when you use the SIERA model to sell displays, you should generally not mention case quantities during this step, even though it may feel natural to do so. Here's why.

When you've used the Approach, Body, Proof, Close sales model, you probably talked about case quantities fairly early in the Body of your presentation. But you did so in the context of bridging *features* to *benefits*. You probably said something like: "By buying the 15 case deal you'll make \$X in profits." This was usually effective, because the focus was on the retailer's implied question: "What's in it for me."

However, if you're using the SIERA model you have not yet established the benefits that provide business justification for the suggested quantity. And if you mention case quantities when you Explain How It Works you may shock the retailer and lose the flow of your presentation. So remember: when you make a SIERA presentation hold off on mentioning case quantities – or any other potentially "derailing" specifics – until the next step when you Review The Benefits of your proposal. At that point, you are not selling cases – you are selling the benefits of the cases.

Check Your Understanding

1. When you Explain How It Works, what is the goal you are trying to accomplish?
2. Describe the kind of information that you would generally include when you Explain How It Works.
3. When you're using the SIERA model to sell displays, why is it generally not a good idea to mention case quantities when you Explain How It Works?

Review The Benefits

In this step you explain the benefits that your proposal will provide. In other words, you outline how your proposal will add value to the retailer's business.

When you first learned the Approach, Body, Proof, and Close sales model, you were taught to use the traditional bridge to convert features to benefits. For example:

The proposal has this *feature* . . . which means to you . . . this *benefit*.

The proposal has this *feature* . . . which gives you . . . this *benefit*.

When you make a SIERA presentation you do not necessarily have to follow this mechanical bridging process. However, you still need to answer the retailer's question: "What's in it for me?" And the more thoroughly you review and reinforce the benefits, the easier it is for a retailer to agree to your proposal.

When you created your Summary, you had to consider the circumstances, needs, and opportunities from the retailer's perspective. Now you have to "close the loop" by outlining how your proposal will turn these circumstances, needs, and opportunities into bottom-line business results such as:

- Higher sales volume
- Faster turnover
- More impulse sales
- Eliminating out of stocks
- More bottom-line profit dollars

You should review all appropriate benefits that link to key issues you addressed in your Summary of the situation, your idea, and your explanation of how your proposal works. Be specific and use benefits that this particular retailer will relate to. And be sure to quantify the additional profit the retailer will gain as a result of implementing your proposal. For this reason, you would normally present case quantities while you Review The Benefits.

In the example you read earlier in this chapter, here's what the sales representative says to Review The Benefits.

Review The Benefits

Sales Representative: Based on your sales volume, I recommend that you buy 15-cases. Between the display and the shelf you'll easily turn that in three or four weeks. And you'll be able to take advantage of the special pricing of our 15 case promotion. (Note: Where legal.)

Now take a look at this profit sheet. If you feature each of these products at \$1 below your everyday pricing, your net profit on the 15 cases will be \$356.

With this display you're also going to be generating multiple sales and impulse sales to your customers who haven't yet started experimenting with some of the reds that are growing in popularity, like Pinot Noir and Syrah. So you should see a substantial increase in your overall red HPC business. And you'll be building a base of customers who will try these varietals again in the future.

This step allows the retailer to clearly see the benefits of your idea and to come to the same logical conclusion that you have proposed. A review of several credible benefits makes it easy for the retailer to say yes.

Check Your Understanding

1. When you Review The Benefits, what is the major goal you are trying to accomplish? What is the key question you are trying to answer?
2. With the SIERA process, how is your presentation of benefits different than it was in Approach, Body, Proof, and Close?
3. With the SIERA process, why do you generally present case quantities when you Review The Benefits rather than at an earlier point in the presentation?

Ask For The Order

If you have developed a sound SIERA presentation you have addressed the unique circumstances, needs, and opportunities facing the retailer. You have presented a clear and workable idea. You have explained, in practical terms, how you can implement your idea successfully. You have effectively demonstrated how your proposal can help the retailer achieve meaningful benefits. And you have certainly earned the right to Ask For The Order.

There's nothing especially difficult about this stage of the sales process. Keep in mind that retailers *expect* you to ask for the order. Use whatever closing techniques feel right for you and the situation. You don't need to be proficient with every closing technique that's included in [The Gallo Sales Manual](#). But you should have at least two or three closing techniques that are comfortable for you.

Ask For The Order

Sales Representative: I can be in Thursday afternoon or Friday morning to help set up the display. Which day is best for you?"

Whenever you ask a closing question, remember to stop talking and wait for the retailer's response. If you continue to talk you may unintentionally invite the retailer to raise additional questions and concerns.

Check Your Understanding

1. By the time you reach the last step of the SIERA model, what have you done to earn the right to Ask For The Order?
2. How does Ask For The Order compare with the Close step in Approach, Body, Proof, and Close?
3. When you ask a closing question, why is it important to stop talking and wait for the retailer's response?

A SIERA Presentation For Fine Wine

So far in this chapter we've been considering SIERA as a general sales model that you can use in any challenging or complex sales situation. The SIERA model is particularly appropriate for selling fine wines – especially in those situations where you are dealing with an extremely knowledgeable fine wine retailer who may not be favorably predisposed to accepting your recommendation.

On the pages that follow we've provided an example of how you could make a SIERA presentation to a fine wine retailer. For the purposes of this example, the product that the sales representative is attempting to sell is Gallo of Sonoma 1999 Laguna Vineyard Chardonnay. This product was selected for illustrative purposes only. You could make an effective SIERA presentation for any other product in Gallo's fine wine portfolio.

Here's some background information for you to keep in mind as you read through the example:

- The sales representative is relatively new and has been calling on this retailer for about six months.
- The customer is a very knowledgeable fine wine retailer who prides himself on his extensive wine knowledge.
- The store currently carries Gallo of Sonoma County wines and has done reasonably well with them as an entry point for new customers who are interested in experimenting with fine wines.
- A previous sales representative had sold this account an earlier vintage of Laguna Vineyard Chardonnay. However, as you'll see during the course of the dialogue, this wine did not sell particularly well in the account.

With this background information in mind, here are some key learning points to consider as you read through the dialogue. Of course, remember that in the “real world” there would probably be more of a two-way conversation and less of a one-way presentation.

Summarize The Situation

You always want to begin by focusing on the opportunity. If this was an account that had been very successful with the previous vintage of Laguna Chardonnay the opportunity might be "Good news! I've got the new vintage of Laguna Vineyard Chardonnay!" In this situation that's not an opportunity. So the representative has to present a more comprehensive view of the situation to establish a starting point.

Idea Statement

As you saw in the previous examples in this chapter, the goal during this step is to present the proposal clearly and concisely.

Explain How It Works

In this example you'll see that during the Summary of the situation the representative reviews what is happening and establishes the opportunity. In the process, the representative begins to paint a picture in the retailer's mind of other wines that fall within the HPC category. And the retailer is, in effect, nodding and agreeing: "Yes, that's exactly what I see happening in my store right now." Then, with the Idea Statement, the representative proposes to bring in a product that's just perfect to capitalize on the opportunity.

If you're proposing distribution of a new product, the first thing the retailer is going to wonder is: "Is the product any good? Does the wine that you've brought me today fit within this category in my store?" So if you are selling new distribution then in order to Explain How It Works, it's usually important to taste the wine. And for the retailer, at this point the first and most important thing is to find out: is the quality in the bottle?

[Of course, if you are calling on stores that are part of a chain it can be very difficult to arrange a tasting. You may have to get the buyers out of the store and that can be very challenging. If tastings are legally permitted in your market, talk to your District Manager about the appropriate way to arrange and conduct them. But, for the moment, you should consider that the most likely scenario is that a sales presentation for new distribution will include a tasting.]

The kind of conversation that goes on during the tasting depends on the buyer and what kind of style the buyer prefers. Obviously, you want to be away from the front counter of the store in a quiet area that's free from distractions. If suitable glasses are not available at the account, you need to be sure you've brought proper glassware. And make sure that the wine is at the appropriate serving temperature.

Once the retailer has tasted the wine you've gotten over the hurdle of "is the wine worth it?" The retailer should be convinced from a taste standpoint that the product is good and worthy of the accolades it has received. Then you can begin to address other issues such as in-store promotion, brand name, awareness, sell-through rate, or pricing.

Keep in mind that when you are selling fine wines it's not enough to just sell the wines *in* to the store. Your objective is to help sell the wines *through* to the store's customers. Your sales presentation has to include everything you're going to do and all the materials you're going to provide to assist the account in selling the products that you're going to sell to them.

Review The Benefits

As you'll see in this example, with the SIERA model you do not have to use a traditional "bridge" from the features of your proposal to the benefits that the retailer will gain. However, it is still critically important to answer the retailer's question: "What's in it for me?" Also, notice that the sales representative does not present a specific case quantity until this step in the SIERA process.

Ask For The Order

Years ago, sales literature was heavily focused on techniques for closing the sale. It was not unusual to see books with titles such as Secrets Of Closing Sales or 101 Sure-Fire Closing Techniques. And these books advocated a variety of obscure and esoteric closing techniques.

As you've already learned on the job, there is nothing magical or secret about how to close the sale. If you have taken a consultative approach and have built a strong business case for your proposal, then you should feel comfortable and confident asking the retailer to go ahead. The SIERA process is designed to help you build this strong business case. So you can use whatever approach you prefer to gain the retailer's agreement to move forward.

Now let's take a look at an example of using the SIERA model for a fine wine presentation.

Summarize The Situation

Sales Representative: I was just reading that the HPC and ultra premium segments continue to be one of the leading engines for growth in the table wine industry here in the United States. That's certainly the case in your store, isn't it, Charles?

Retailer: Yes, I'd say so.

Sales Representative: Would you agree that, for your customers, Chardonnay continues to be the most popular white wine in that segment?

Retailer: Absolutely. Especially for the U.S. wines.

Sales Representative: I was noticing that Chardonnays from the Russian River Valley AVA in Sonoma County seem to be doing very well with the discriminating customers in your store – especially with those customers who buy in the range of \$15 and up. What do you think accounts for that popularity?

Retailer: I'd say there are several factors.

First of all, let's face it. Cool climate viticulture is all the rage right now. And the Russian River Valley is one of the leading "terroirs" for cool climate viticulture in California.

Also, *The Wine Spectator* continues to call the Russian River Valley one of the premier growing regions for Chardonnay in the United States.

And wines from the Russian River Valley continue to get extremely high scores and recognition from competitions and wine writers. That's very important to my customers.

Sales Representative: I know that a lot of your customers are very knowledgeable wine drinkers. Many of them are avid readers of publications like *Wine Enthusiast* and *The Wine Spectator*. And you do like to feature wines that have received positive reviews from those publications and leading wine writers, don't you?

Retailer: Yes, absolutely. That's something I know my customers expect.

Sales Representative: It seems to me that your customers also expect you to offer wines that are not widely available. Wines that might be allocated, or hard to find.

Retailer: Of course. Let's be realistic. I'm not going to try to compete on price with a warehouse store or a supermarket. I've got to offer something special in terms of selection.

Sales Representative: I realize that, Charles. And along those lines I've noticed that single vineyard designated wines seem to have become increasingly popular with your customers.

Retailer: Yes. As you said, a lot of my customers are very sophisticated wine drinkers. And they have come to recognize that a vineyard designation is a mark of prestige for the wine.

Sales Representative: So as we've been talking, it seems to me that the ultra premium segment is doing well and continuing to grow in popularity with your knowledgeable and sophisticated customers. Your customers have recognized the preeminent quality of Chardonnays from the Russian River Valley AVA. They appreciate the distinction and quality of single vineyard designates. And they count on you to offer hard to find, allocated wines that may not be widely available in the market. All of these factors are important for the success of a new wine in your store. Would you agree with that?

[The sales representative makes a transitional statement and asks a question to check for agreement.]

Retailer: Yes, I would.

Idea Statement

Sales Representative: What I have to offer you today is a wine that meets all of these criteria. And I'd like to talk with you about how we can bring in this wine and feature it most effectively in your store. It's our Gallo of Sonoma Laguna Vineyard Chardonnay.

Explain How It Works

Sales Representative: I appreciate the fact that you're taking time off the floor. I've brought the wine to taste. And I have some glasses for us.

Charles, having worked with you the last six months I respect the fact that you like to taste wine for yourself and come to your own conclusions. So as I open the bottle let me take just a moment and give you some of the key facts.

Our Laguna Vineyard is located in the Russian River Valley AVA near the neighboring properties of Tom Dehlinger's Octagon vineyard, Steven Kistler's Vine Hill Vineyard; and several of the Dutton family vineyards. So I know you're very familiar with this area.

The Laguna Vineyard is also where the fruit for our Sonoma Estate Chardonnay comes from. So you know the quality of that vineyard.

The grapes were not crushed or destemmed. Instead, they were taken immediately into the press with our proprietary whole cluster direct to press process. The grapes were gently pressed whole cluster so that the free run and the light press juice could immediately be gravity-fed into our underground cellar for fermentation in predominantly new French oak barrels.

The wine underwent 100% malolactic fermentation. The wine remained in barrel for 10 months, stirred on the lees an average of every 1-6 weeks. It was bottled lightly filtered and unfined.

[NOTE: To prevent this manual from becoming dated we have consciously chosen to omit the vintage in this example. The winemaking information that is presented here is intended to be representative of the kind of information you should be prepared to discuss with your retailers. Check Brand Central at <http://trade.ejgallo.com> for specific information, by vintage, before making your presentations.]

I'd like to go ahead and pour a sample now.

Retailer: Please go ahead.

Retailer: *[The retailer tastes the wine.]*

I find a very aromatic nose of Bartlett pear . . . green apple . . . and citrus fruit . . . framed in a nice toasty oak character . . . with a buttery overtone in the aftertaste. It's a medium to full bodied . . . a very showy style of Chardonnay. It fits very well with this category. I'd say it compares quite favorably with other wines in this category.

Sales Representative: I'm glad you feel that way. And I'm particularly pleased that you feel that the wine is competitive with others in its category, especially since most of those wines sell for \$25 or more per bottle. So with a suggested retail price of \$20 our Laguna Chardonnay is not only an incredible fine wine but also an incredible fine wine *value*. Exactly the type of "find" that many of your best customers are looking for. And I believe we've got some terrific opportunities in your store to feature this wine for your customers.

Retailer: Hold on a minute. You're right – the wine is very good. And I think it measures up nicely. But I have history with this wine. I felt the previous vintage was equally as good. And I brought it in and supported it and I have to say, I was disappointed with the sales results.

Sales Representative: What was it exactly that disappointed you?

[The sales representative probes to understand the objection.]

Retailer: The turn rate wasn't what I wanted. I had to work too hard to sell it. And I had to invest way too much of my own personal time in it.

Look, I don't mind helping to recommend a wine in my store for the first 30 or 60 days that I've got it in distribution. But after that, I have a whole lot of other wines coming in on a very regular basis that I want to turn my efforts and attention to. And my hope would be that after a certain period of time I don't have to continue to hand sell a wine in this category.

But the fact is that other wines of this caliber in the ultra premium category have the ability to sell significantly more bottles than this wine. And I was disappointed by that.

Sales Representative: What do you think made the difference between this wine's sales rate and the sales rate for some of the other wines in the category?

[The sales representative probes to understand the objection.]

Retailer: Well, to be honest, I think at least part of it was that Gallo name. I had to work too hard to convince my customers that it was okay to spend this much money on a bottle of wine with a Gallo label.

Sales Representative: Aside from your personal recommendation and efforts to hand sell the last vintage of our Laguna Vineyard Chardonnay, what other ways do you recall that you featured the wine in your store?

Retailer: Given that it was the first time we carried this wine, I don't believe that anything else was done, other than cutting it in on the shelf next to my other Russian River Valley Chardonnays.

Sales Representative: I hear you saying that the wine sold but not as quickly or as easily as you'd expect for a wine of this caliber. You had to put too much of your own personal effort into making the sales. And at least part of that difficulty – in your opinion – was due to the Gallo name, rather than to any quality issue with the wine itself. Is that right?

[The sales representative Restates the objection.]

Retailer: Yes, I would say so.

Sales Representative: I understand and appreciate the experience you have had in being one of the first stores in our market to support the Gallo of Sonoma Single Vineyard wines. The Gallo of Sonoma brand is now a year older in the minds of consumers. And, over time, more and more and more people are becoming convinced about the quality of these wines.

Over the past year alone, our winery has won a number of prestigious and highly visible honors – both nationally and internationally. And many of our wines have received strong recommendations and accolades. Within the last few years we've won VinItaly and the London International Wine & Spirits Competition. We've won the San Francisco International Winery of the Year Award for the third time in the last four years.

[The representative continues with the RACC technique and Answers the objection.]

Retailer: You have been making great strides.

Sales Representative: Thank you, Charles. We're proud of the awards we've won. But even with all of that recognition I understand that some of your customers may still not be fully aware of our fine wine successes. So, this time, I have a number of specific proposals on how we can work together to ensure that the product sells through in a time frame that you're comfortable with.

Retailer: What did you have in mind?

Sales Representative: First, I'd like to start with your newsletter. From our conversations I know that this is one of the best ways that you build recognition and publicity for the wines in your store. And I have a press kit and winemaker's notes here to help you develop the kind of information you like to include in the newsletter. Here are some great promotional materials with information about the background of the winery, Gina Gallo, everything you need to help you develop a feature in your newsletter.

Retailer: Hmm. Let me take a look at what you have here . . . All right. What else?

Sales Representative: Next, I'd like to sit down with your floor staff, the other people who work in the store, and taste them on this wine. I want to be sure they're aware of the characteristics of this wine.

Retailer: Okay.

Sales Representative: I can also work with you to provide information for your web site. In fact, if you're interested, Gallo has a number of electronic content pages that can be worked into your site to add interest – you know, pages on different varietal grapes, that kind of information.

Retailer: Really? Well, I suppose that might be of some interest.

Sales Representative: I'd be happy to review those pages with your new Webmaster. I met him the last time I was in the store. His name is John . . .

Retailer: Franklin. John Franklin.

Sales Representative: I'd be glad to discuss those pages with him. Also, you've got a tasting group in this store with a mailing list of about 750 people. And typically about how many will show up on a monthly basis for the tastings that you do in your store? Would you say 100? 150?

Retailer: That varies. But anywhere from 100 to 125 would be typical.

Sales Representative: Great. I'd like to find an open spot on your calendar in order to come in and present this wine to your tasting group.

Also, I know you've got a tasting bar in your store where your customers can taste wines. I'd like to schedule a few evenings and afternoons over the course of the next month when I will come in and be here and talk with your customers when they come in to do their tastings.

Retailer: And you would come in on your own time to do this?

Sales Representative: Absolutely. And finally, for those times when I'm not here, I believe that including a small display of this wine in your "Award Winning Wines" display area will attract a fair amount of attention.

Retailer: I appreciate what you're offering to do. But I'm concerned about supporting a wine that might be sold at discounted prices by my competition. Where else will it be sold?

[The unspoken concern is pricing. The retailer is wondering: Are you going to be selling this wine into a supermarket where they offer low everyday pricing or frequent promotional discounts? Am I going to be undercut by anybody else in the marketplace?]

Sales Representative: Charles, I understand you are concerned about featuring a broadly distributed wine in this price category. And I know that you typically like to feature wines that are hard to get and that have a very limited production.

This wine has a very limited production, and we're coming to you early so you can be one of the first in the marketplace with it.

So I think that should answer your concerns about distribution of the Laguna Ranch Chardonnay, Charles. Would you agree?

Retailer: Hmm. I suppose so.

Review The Benefits

Sales Representative: We've outlined the opportunity to continue to grow the HPC category, and this wine clearly fits within it.

You've tasted it, and this wine clearly warrants the accolades it's earning. It's definitely competitive within this tier of wine. And at the price at which you can offer it to your customers, it represents a great value.

And we've discussed a promotional plan which helps to ensure that the wine will sell through in the amount of time that you'd like to see.

Because of the limited nature of this wine, I feel that the sales plan I've outlined would support a 10 case allocation for your store. It's a sizable portion of what my distributor has to sell, but I believe that your store warrants it.

Ask For The Order

Sales Representative: So, I'd like to get started immediately by bringing in your 10 case allocation and setting up a display in your "Award Winning Wines" display area. And let's check your calendar so we can schedule the tasting sessions with your staff and your customers.

Retailer: Sounds good. I think your plan will address my concerns.

Review

If you've learned the material in this chapter then you should be able to explain and demonstrate the five step SIERA sales model:

- Summarize The Situation
- Idea Statement
- Explain How It Works
- Review The Benefits
- Ask For The Order

And should be able to follow this model on the job whenever you are facing a sales situation that is particularly challenging or complex.

As you've seen, the major difference between SIERA and the traditional four part Approach, Body, Proof, and Close is in the first step: Summarize The Situation. This is really the only step that is new and different. And you may have already started using a Summary Analysis – at least to some extent – as a way to establish agreement before you get to the heart of your presentation.

In any case, by getting the retailer to agree with your Summary of the situation and your analysis of the circumstances, needs, and opportunities, you set the stage for a meaningful business discussion and make it easier for the retailer to accept your proposal.

Do you always have to use all five steps of SIERA? Not necessarily. Each situation depends on what you're asking for, and your relationship with the retailer. In any case, remember that SIERA is not a formula or a “cookie cutter” approach. It is a framework and a guide that helps put your experience, skill, and creativity to work. It's a thought process that helps you establish a common reference with your retailers – especially when you need to make presentations for decisions that will require a major investment of time, money, or effort.

If you are comfortable with your ability to discuss and demonstrate the SIERA sales model then you're ready to work on the Field Exercise that's described on the next page. If you're not yet comfortable, take some time to reread this chapter and to gain a greater familiarity with this sales approach.

Field Exercise

The Field Exercise is designed to help you apply the SIERA sales model with one of your fine wine retailers. Once you've completed this Field Exercise with one account, you'll be able to continue to apply the same approach with your other fine wine retailers.

Directions:

1. Prepare a SIERA sales presentation for one of the fine wine accounts in your territory. As you develop the presentation, pay particular attention to how you Summarize The Situation.
2. Review the presentation with your district manager. Incorporate your manager's suggestions for improvement.
3. Make the SIERA sales presentation to your fine wine retailer.

Putting It All Together

Now you've completed the 12 chapters of this Introduction To Fine Wine manual. Congratulations!

By working through this manual you have learned a great deal of information – the *substance* that will help you sell fine wines from Gallo. And you've also acquired some of the *style* that will help you feel more confident and more comfortable when you make your fine wine presentations.

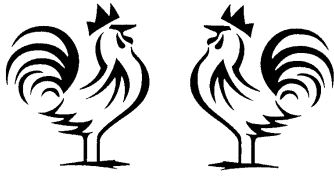
Even so, this manual really represents just the "tip of the iceberg." We've tried to get you off to a good start. But now it's up to you to gain experience and continue to learn.

In 1728, John Gay wrote in The Beggar's Opera:

*Fill ev'ry glass, for wine inspires us,
And fires us
With courage, love, and joy.*

We hope that you, too, will develop a real passion for fine wine. That's one reason why we've included an Appendix that provides you with A Brief History Of Wine.

We also hope you will join tasting groups or wine clubs, take classes in winemaking and wine tasting, and pursue the wealth of information that is available through lectures, tastings, books, periodicals, and the Internet. The world of fine wine awaits you. Enjoy it!



Appendix A Brief History Of Wine

If your goal is to acquire the knowledge and skills you need to sell fine wines, why should you bother to read about the history of wine? That's a good question.

Our experience has shown that people who develop an appreciation of the history and heritage of our industry typically discuss wine with much more pride, conviction, confidence, feeling, and (yes!) passion than those people who simply think of it as a product of modern technology. If today's highly advanced winemakers are the *heart* of a modern industry, then wine history, because of its unique relationship with the development of Western civilization, is the *soul* of that industry.

Is historical insight essential to your success as a fine wine sales representative? Probably not. That's why we have presented this information as an Appendix and not as an integral chapter in this manual. However, we are certain that by gaining a historical perspective you will have a definite competitive advantage in your dealings with those dedicated fine wine retailers who embrace their businesses with *heart, soul, and passion*.

The material that follows isn't intended to give you an in-depth knowledge of the history of wine. Its objective is quite modest. We simply want to provide you, as a highly motivated fine wine sales representative, with the opportunity to develop a very basic understanding about how important wine and the "wine industry" have been to people and to civilization for thousands of years. We also want you to understand how the role of wine in Western civilization has changed throughout the ages and to be aware of some of the major developments that have shaped a modern industry.

You won't find this to be a meticulously researched treatise on the subject. If it were, it would be thousands of pages in length. Our approach is "factual" wherever possible, but is also part anecdotal, part folklore, and part interpretative. In other words, we're going to tell you a "story" and not present you with a carefully documented research paper. We hope that the pages that follow will give you the "flavor" of the rich history of a product that has satisfied many different needs of Western man since the first grapes were fermented.

One additional caveat – if absolute accuracy is important to you then don't quote us! Specific dates and periods of time – especially for the earliest history of wine – are provided only to give you a general idea of the historical flow of developments. Historical dates vary significantly from source to source (and from researcher to researcher). The truth of the matter is that no one knows for sure, at least within several hundred years, when many discoveries, practices, and improvements actually took place. There are different interpretations of evidence and there is room for considerable dispute. Also, we've omitted much more than we've included. Even so, by reading this Appendix carefully, you'll gain a pretty good idea of the general sequence of historical events – some big, some small – that set the foundation for today's modern wine industry.

With that in mind, please read and enjoy the information that follows – but don't "study" it. There are no specific "Objectives" or "Check Your Understanding" activities in this section of the Introduction To Fine Wine manual.

The Linguistic Origins Of The Word "Wine"

Of course, wine wasn't always *wine*. In the writings of the pre-eminent ancient civilizations, wine was referred to by many names. The dominant linguistic group in the Middle East in 1500 B.C. was the Hittites, who called wine "uiian" or "uianas" which in turn became "uin" in the Luwian tongue.

The languages of neighboring nations also used the Hittite word. In Armenian it became "gini," in Mingrelian "gvin-i," and in Georgian "gvino." Many of the Semitic languages borrowed the word and it became "wayin" and later "yayin" in Hebrew, and "wayn" in Sabaean, Arabic, and Ethiopian.

Although the works of the earliest Greeks refer to wine as "woinos," the word became "oinos" when the "w" was dropped in classical Greek writings. The derivatives of this word include the more familiar Latin and Etruscan "vinum" and others such as "vino," "vin," "wein," and, ultimately, "wine" in English. But no matter what it's been called by civilizations throughout the ages, or in different languages today, the subject matter is the same: the human experience with an intoxicating (if not always palate-pleasing) beverage made from fermented grapes.

The Ancient History Of Wine

Despite the ancient origin and long history of wine made from grapes, it is very possible that both mead (a wine made from honey) and beer (a beverage made from fermented grains) predated grape wine as alcoholic beverages. In most areas, honey and grains were much easier to obtain than ripe grapes. Even so, the remnants of grape seeds that have been unearthed in villages dating back to several thousand years B.C. indicate that grape growing appeared to have been a thriving "industry." In fact, some archaeologists and historians claim to have documented wine production in relatively large quantities in the Middle East some seven thousand years ago (5400-6000 B.C.). Regardless of the actual date, it's safe to say that men and women have made and enjoyed wine for a very long time.

It seems that wine fermentation may have been something of an accident. Since many types of yeasts are abundantly and naturally available in the air, it is possible that one of our ancient ancestors might have accidentally left crushed grapes sitting in an uncovered container – only to discover some days later that an intoxicating beverage had resulted. Pleased with the experience, if not the taste, people undoubtedly set out to duplicate and then improve upon nature.

We are fairly certain that the intentional making of wine from grapes probably began either in what is now Northern Iran or the region between the Black and Caspian seas. Grapes grew wild and abundantly in both areas. In the Bible the book of Genesis tells us that the resting place of Noah's Ark was Mount Ararat, which rises in the Caucasus Mountains of Turkey. And it is written:

". . . and Noah began to be a husband man, and he planted a vineyard; and he drank of the wine and was drunken." Whether you accept this story as factual or not, it is interesting, and perhaps comforting to some, that archaeological evidence regarding early grape growing and winemaking is reasonably consistent, with respect to time and place, with biblical accounts of Noah's experience with the grape

Based on historical accounts, scientific evidence, and traditional beliefs, it is fairly certain that the cultivating of grapes and the fermenting of grape juice were an important part of ancient civilization at least 5000 years ago. It is also fairly certain that the quality of these early attempts at winemaking was probably equal to that of the early beers – in other words, nothing to brag about. In all probability, most of these wines were consumed "young" – during or immediately after fermentation – before they turned to vinegar.

Ancient Egypt

Of all the early civilizations, the Egyptians of the predynastic period (between 5000 and 3500 B.C.) kept some of the best records on the ancient industry of winemaking. Hieroglyphics from this era tell us that there was a small, but apparently well-developed grape industry, complete with arbors, pruning and a type of wine press. Their records indicate that the Delta region, and some regions to the south, were busy producing red and white wines. Because these wines were expensive to make, they were enjoyed almost exclusively by priests and royalty. Everyone else had to satisfy their thirst by drinking beer.

Early Storage Techniques

Research indicates that these early wines were often stored (and fermentation was sometimes completed), in clay containers or in bags or pouches made from goatskins. These “vessels” were usually poorly sealed with greasy rags, leather or even mortar. As a result, air came in contact with the wine and caused it to spoil in a relatively short period of time.

Primitive clay vessels gradually evolved into the distinctively shaped amphorae (that's the plural of amphora) that were used by Egyptians and other Mediterranean civilizations, possible as early as 3000 B.C., to store and transport olive oil, grains, seeds, wine, and minerals. Though some were flat, most amphorae were large terra-cotta jugs or jars that tapered to a point and had two handles and a spout on top. The shape made handling easier and the relatively small spout could be sealed fairly effectively. You've probably seen pictures of amphorae that have survived intact from Egyptian, Phoenician, Greek, and Roman shipwrecks that occurred in the Mediterranean Sea several thousand years ago.

The Greeks (and possibly the Romans) were known to seal the insides of their amphorae with tree resin (typically pine) which served as a preservative. It is often said that old habits are hard to break. Most non-Greeks who taste modern “retsina” (wine flavored with resin) for the first time can attest to the fact the some “acquired tastes” apparently take thousands of years to develop!

Over the centuries, the earthenware amphorae evolved into highly decorated fine pottery valued by the elite of many civilizations. Prior to the first century B.C., the Romans were using amphorae, both grand and simple, to ship wines throughout their empire. Their better wines were closed with organic material such as cork, sealed with wax, and inscribed with the year, vineyard, producer, and even the type of grape.

The Fertile Crescent

Generally speaking, early man settled where living was the easiest. Areas where plant life and water were abundant encouraged early civilizations to develop and flourish. One such area is known as the Fertile Crescent. The Fertile Crescent resembles the curve of a quarter moon that stretches from the eastern Mediterranean Sea to the Persian Gulf, incorporating parts of modern day Lebanon, Syria, Iraq, and Iran. In ancient times, the most fertile and agriculturally productive area was a narrow strip of land between the Tigris and Euphrates Rivers in what is now Iraq. In later years, the Greeks quite logically named this area Mesopotamia, which to them meant “between the rivers.”

The Sumerian (Persian) culture flourished in this area as early as 4000 B.C. Wild grain grew in abundance, which led to the early production of beer. By 2700 B.C., many crops were cultivated, including grapes. Because of the agriculturally friendly environment, the Fertile Crescent is probably the first place that wine was produced in sufficient quantity to become a “popular” beverage for many, if not truly for the masses. By 2000 B.C., wine had become a part of daily life for many and was apparently taxed by the government.

By this time it appears that the people of this region had become aware of the harmful effects of temperature and air on the quality of wine. In Asia Minor and the Caucasus, wines were stored in jars sunk in the ground, or in containers cut from stone and then plastered so they wouldn't leak. These early storage techniques kept the wines at cool and somewhat constant temperatures. The tops of these containers were also covered and then usually sealed with pitch or grease.

Despite these efforts at “quality control,” it is likely that most of the wines of this period were of such poor quality that they were usually drunk shortly after fermentation. Nevertheless, the people of this ancient land produced, traded, and drank a great deal of wine.

In time, the city-state of Babylon gradually expanded until it controlled the Fertile Crescent and a much wider area. King Hammurabi, who ruled Babylon from 1792-1750 B.C., established a formal body of law (“The Code of Hammurabi”) incorporating some 300 codes that governed the activities of all the people in his kingdom. In testimony to the widespread use of wine by both privileged and common citizens alike, three of the codes pertained to the sale or purchase of wine. One prohibited a form of price-gouging by a “wine-seller” (always a woman); another made wine-sellers responsible for arresting any “outlaws” who requested a drink; and a third prohibited any “priestess” serving a fertility cult from opening a wine shop or entering one for a drink. The penalty for violating any of the three codes was probably death.

Babylon was the Western world's first metropolis. And Hammurabi was the first ruler to set down a comprehensive written body of laws (a copy still survives on a eight-foot high black stone in the Louvre Museum in Paris). So this formal recognition and regulation of wine is a particularly noteworthy event in the long history of our industry.

Ancient Greece

The Greeks strove for perfection in every aspect of civilization, including winemaking. Wine became such an important item of Greek trade that archaeologists have discovered containers of Greek wine across the Mediterranean, Egypt, and the Middle East.

During the Homeric period (1000 – 700 B.C.), wine played a significant role in both religious ceremonies and social situations. Homer's Iliad contains many excellent descriptions of wine. This epic also describes how wine was used to comfort a weary man, as when Hector's mother Hecuba offered him wine upon his return to Troy.

The aesthetic values of wine were also discovered early on. Homer, although certainly not unique, appreciated the pleasures derived from drinking aged wines. The many other poets and connoisseurs of classical Greece ranked Pramnian, Lesbian, Mendaeian, and Chian wines among their favorites. A book in verse, The Deipnosophists, was dedicated to the pleasures of drinking and eating. And the ancient Greeks even devised *kottabos*, a wine-drinking game.

The records of ancient Greece also indicate that wine was used by most Greek doctors for medicinal purposes.

Although the Greeks may have occasionally served wine as an aperitif, it was more commonly offered with meals and was considered an important part of a healthy diet. The Greeks often diluted their wine with water. And they frequently added odorous materials, such as grated goat's-milk cheese, white barley, herbs, and similar kinds of fragrant materials. This practice certainly suggests that the wine was not of very good quality; the mixing of these additives was probably an attempt to mask objectionable odors that resulted from spoiled wine.

There is little doubt that the appeal of wine was based as much on the effect of its alcohol as on its contribution to a healthy diet. No later than the seventh century B.C., the cults of Dionysus, and later Bacchus, developed in Greece. These cults were dedicated to the celebration of wine and its enjoyment.

The Celts

While the Greeks were the predominant civilization in the Mediterranean region, the Celts held dominance over much of northern Europe. Archaeologists have unearthed Celtic cups and flagons dating from the pre-Christian period (roughly between 225 – 50 B.C.) that were apparently used for serving and drinking wine.

Historians believe that wine had probably first reached Celtic Europe from the Mediterranean. It seems the Celts imported wines from both Greece and Rome. During this period, fierce Celtic warriors reportedly drank wine without moderation and opportunistic Celtic traders spread wine consumption throughout northern Europe.

Wine In The Bible

The ancient Hebrews made wine an important part of their daily life. In addition to the story about Noah mentioned earlier, the Bible tells many more tales about grapes and wine and their effect on the Israelites. There are numerous reports on the effects of wine, both good and bad, and a great deal of moralizing, especially in the book of Proverbs.

In the New Testament, wine was acknowledged as an “official” part of the church’s religious ceremonial activities. The actual origins of the ceremonial and mystical role of wine are unknown, but they may have derived from the pleasurable effects of alcohol, or from the fact that wine, especially red wine, was associated with blood (and, thus, with life). Or, perhaps, it may have stemmed from the magical transformation of a beverage that on one day produced no observable effects and only a few days later, following fermentation, resulted in marked behavioral changes. Whatever the source, ceremonial wine is prevalent in nearly all early religions and became an integral part of Christianity.

One biblical story may bring to mind a somewhat pretentious neighbor, friend or business associate. In John 2:3–10, there is an account of the Feast of Cana, in which a guest comments that the host must certainly be prosperous since he served a bad wine first, followed by a good one. (This was the opposite of the normal procedure. Usually, the good wine was served first when palates were fresh and heads were clear. Once the guests were slightly inebriated and, thus, less critical, the host would serve the bad wine.) Obviously, winemaking had still not evolved to the point where there was a lot of quality wine available. So a typical host served the good wine first and saved whatever he had left (or could afford) for later. Consequently, anyone who would serve good wine after bad was perceived as being wealthy enough to be generous with his quality wine.

The Importance of Wine to Pre-Christian Life

There are several reasons why wine filled an important role in ancient life.

Wine did not contaminate as easily as water, which made it a sensible alternative in those cities where public sanitation was a problem and where water-borne diseases were common. In addition, wine was a storable – and transportable – source of nutrition. Wine was consumed shortly after fermentation, while it was still cloudy. So the suspended yeast cells were also consumed, providing a valuable source of proteins and vitamins.

Wine was also favored for its euphoric effect. Wine had more alcohol than beer, so its pleasant effects were quicker and greater. The pre-Christian era was a period of time that was not particularly pleasant for rich or poor. Wine was a welcome beverage because it allowed the people to forget their difficulties and to turn away from a world filled with bitter winters, wars, and slavery.

Wine And The Roman Empire

The Greeks continued to extend the culture of the vine through commerce, spreading its enjoyment to lands as far away as Spain to the west and the Black Sea to the east. By the first century of the Christian era, wine had become a well-established part of civilization.

Because the climate was often too warm and the storage techniques were generally poor, most of the wines of this period were still of relatively poor quality. Nonetheless, it appears that some quality aged wines were available. And regardless of the general level of quality, wine was an important part of the diet and culture of the Middle Eastern and Mediterranean peoples.

In Italy, the Romans moved beyond the trial-and-error winemaking practices of the Middle East and Greece. The Romans adopted the proven grape varieties and winemaking procedures used by the Greeks and then building upon them. It seems that the Greek colonists, who first settled in Italy in the eighth century B.C., may have brought their own wine from Greece and probably cultivated vines they brought with them, as well as the indigenous vines they found in Italy. Although the Romans borrowed heavily from Greek civilization, their contributions to the cultivating of grapes and making of wines were substantial.

The Roman warrior, author, and naturalist Pliny the Elder (Gaius Plinius Secundus, A.D. 23-79), was responsible for developing the first good classifications of grape varieties. He classified grapes according to their color, time of ripening, prevalent diseases, preferred soil, and the wines that could be produced from each variety.

It is apparent that the Romans understood the best ways to cultivate each type of grape. They became particularly skilled at increasing yield through pruning and fertilization. In fact, the curved pruning knife is widely considered one of their inventions. The Romans' understanding of the connection between vine production and wine quality was apparent in the edict of Numa Pompilius that only wine made from pruned vines could be offered to the gods.

By the first century A.D., the Romans had refined the development of amphorae to an art form. But the barrel gave them the ability to transform winemaking and wine trading into a relatively large scale commercial industry. By the second century A.D., the Roman wine industry had begun to use the modern oak wine barrel. This was a major step forward in that barrels were strong, could be rolled onto ships or into storage facilities, safeguarded wines from spoiling, and enhanced their flavor. As the empire expanded, so did the thirst for wine of the Romans who remained in Italy. The barrel enabled the Romans to import vast quantities of wine from their colonies throughout the Mediterranean. In fact, it is estimated that at one time Spain alone supplied approximately half of all the wine consumed in the mother country.

The introduction of cooperage also represented a major engineering achievement. Making a barrel is a complex process. Not only must the staves be coopered precisely to fit snugly, they must also be bent in such a way that pressure is exerted equally at both ends of the staves. Getting the heads to fit into the barrel and remain leak proof was a difficult problem that some anonymous cooper eventually solved.

[Note: To set the record straight, Romans did not invent the barrel. And they were not the first people who used them for transporting wine. In the 5th Century B.C., the Greek historian Herodotus described wine being shipped in date-palm casks down the Euphrates from Armenia to Babylon. It has also been reported that Celts (Gauls) developed watertight wooden barrels for transporting beer and vinegar around 400 B.C. and that Sumerian (Persian) traders used closed barrels or casks to transport beer, olive oil, water and even wine on boats as early as 900-800 B.C. The ancient Egyptians were thought to use open, straight-sided wooden buckets to ferment both beer and wine as early as 2700 B.C. However, all of these early efforts to use wood as a sturdy and reliable container for transporting wine were very rustic by Roman standards.

Another refinement enjoyed by wealthier Romans was the use of glass – bottles for storing special wines and goblets for sipping. There is not universal agreement among experts about the precise origin of glass-blowing, but it appears that the Romans borrowed the art from people along the Eastern Mediterranean coast, most likely the Syrians. Regardless, glass-blowing became so prevalent in Rome during the first and second centuries A.D. that glass objects began to be accessible to common people throughout the empire.

Despite these advances, the Romans were not much more successful than their Greek predecessors in terms of their ability to consistently make high quality wines. However, numerous Roman wines were known to keep for many years which suggests significant progress in storage. It was not until the 19th century that scientists discovered that bacteria caused wines to spoil and were able to develop methods for controlling bacterial growth to prevent spoilage. However, the Romans did discover an early form of “pasteurization.” They realized that distasteful changes in the wine could be slowed down by storing the wine in a warm environment, such as a smoke-filled room.

Because most of their wines did spoil and did become acetic, the Romans devised a number of treatments to compensate for the undesirable changes. For example, they used alkaline materials to reduce the acidity and other foreign materials to mask the acid taste and poor quality of these wines. Another common practice in the Roman period was the use of salt water to make the colors seem brighter and to dilute the bitter taste. The citizens of Rome also borrowed the Greek practice of adding spices and herbs. And the use of gypsum to compensate for a deficiency in natural acidity appears to have started in North Africa and then spread to Italy and Spain.

Because of these many advances in methodology and because of the increasing availability of wine in ancient Rome, the literature of the Roman period that was dedicated to an appreciation of wine is both larger and more enthusiastic than that of the Greek period. The quality of wines is praised in passages from Horace and Virgil, with both poets indicating, in their rapture over the qualities of a 160-year-old Opimian Falernian wine, that something greater than an intoxicating beverage had been achieved. And it was in the writings of this period that the first wine snobs began making recommendations to the Roman elite.

As the Roman Empire expanded, so did the culture of the vine. Wine was exported from Italy to every place where Rome had established colonies: into western and eastern France, north to the Rhine in Germany, to the south of England, east along the Danube.

However, as the colonists became better established and more independent, they began producing their own wines for local consumption. Pliny, and other Roman writers, criticized these early efforts, especially the wines from the south of France. It has never been established whether these attacks stemmed from the fact that the wines were truly bad, or whether they were the result of "sour grapes" brought on by regional jealousy. Pride, more than common sense, may have been the reason why, in the first century A.D., the Emperor Domitian prohibited the cultivation of grapes in France and passed a law requiring that vineyards in the Rhône Valley and other regions of France be removed. Although this seemed a drastic attempt to prevent Gallic wines from competing with those exported from Italy, it may have also been decreed in order to increase the production of grain by making more land available. In spite of such Draconian measures, the Romans managed to spread the culture of the vine, including some grape varieties and their own methods for growing those varieties, to the far reaches of their empire.

The Christian Era – The Middle Ages

When the Roman Empire finally fell and civilization began to disintegrate, agriculture also deteriorated and with it the wine industry.

The Middle Ages were not an enlightened era, nor a time suited to the appreciation of wine. As chaos reigned in Europe from 400 A.D. until late in the 13th century, only a small amount of wine was produced. It is possible that Charlemagne, the one truly enlightened monarch, may have planted some vineyards. And although a few poets occasionally praised the wines, it was probably more for their alcoholic impact than their quality.

The one notable development during these dark times for wine was the appearance in Europe of several grape varieties from the Middle East. Historians believe that these varieties were probably brought home by returning Crusaders, and this conclusion is supported by the fact that many of the varieties now cultivated in Europe were already there by the 13th century. Most experts agree that the Petite Sirah grape was introduced to the Rhône at this time, and additional varieties were brought to various other regions in France.

Wine And The Catholic Church

The major reason that grape cultivation and wine making survived the Dark Ages at all is that the Catholic Church required wine for sacramental purposes.

During the period from the 10th to the 15th centuries, the system of Christian monasteries represented one of the few stable organizations in Europe. There were three reasons why many monasteries flourished as agricultural enterprises: they were not subject to most taxes, they had an abundant supply of labor, and they escaped the marauding that made farming a dangerous occupation for most individuals.

The monastery system was thus responsible for either discovering, or preserving, many of the important wine regions of Europe. This was especially true in Burgundy and some districts of Germany where monastic orders owned large vineyards and had the opportunity and resources to improve the methods of winemaking to a point of sophistication far beyond those developed from 400 to 1200. The wine made in the monasteries was used for sacramental purposes, was served with meals, and was sold to support the operation of the monastery. Today, the remains of these monastic wineries can still be found in many European countries, including France, Spain, and Yugoslavia.

The monastery system is notable in the history of wine for initiating the first real attempts at classifying wine by region. Exhibiting an uncharacteristic, though justifiable, pride in the industry they were building, the monks were quick to praise the local wines of their region. As a result of the safety and stability they enjoyed, the monasteries could let their wines age for years in wooden casks. Because most monasteries cultivated and preserved the ability to read and write, they were able to keep detailed records of the wines they made, which allowed them to classify each wine and compare each with wines from previous years and from other regions.

The stability afforded by the monasteries not only preserved the wine industry, but advanced it to such a point that when the Western World finally emerged from the Dark Ages, it discovered a flourishing and sophisticated wine industry.

Although they were absolutely critical to the survival of the wine industry, the monasteries were not alone in growing grapes and making wines. During this period, many feudal lords and royal estates in the same regions owned their own vineyards and made their own wines.

Wine and International Trade

Most records indicate that the trading of wine continued even during the harshest years of the eighth through the 11th centuries, to the benefit of both the Church and the nobility.

Bordeaux and England traded during this time. In Germany, the Hanseatic League of city-states imported and exported wines between member states and to foreign countries, with some German wines being traded as far west as Ireland. But it was not until the 14th and 15th centuries, when the world began to stabilize politically and world trade began to increase, that wines were shipped around the Western World and once more became an important part of international commerce.

The trading of wines on a “global” scale was instrumental in standardizing two important aspects of winemaking: quality and classification. Once wines began to be shipped long distances as part of international commerce, sellers were forced by buyers to include some guarantee of product quality. Thus, for the first time, wine producers classified their wine and sold it for a price commensurate with its quality.

Despite the increased availability and trade of wine, the commoners of the Middle Ages did not enjoy the pleasures of the grape to the same degree as their counterparts did in the Roman period. However, this began to change as the feudal system slowly broke down and the emerging middle class began to enjoy an improved standard of living.

During the 15th through 17th centuries, as more people demanded more wines, more acres were converted into vineyards, especially in France and Germany. As a result, the trade in wines continued to escalate. The trading between England and the countries of southern Europe and the Mediterranean was particularly active and influential, as evidenced by the fact that Shakespeare's plays contain many references to wines from Spain and other nations.

The Introduction Of Wine To The “New World”

In 1524, European *Vitus vinifera* wine cuttings and the art of winemaking were exported to Mexico from Spain under the order of Hernando Cortes, governor of Mexico. The momentum of civilization was not destined to stop here. Starting in 1697 with the Mission of Loreto, Spanish missions began creeping up the coast of Baja California, until the narrow peninsula was dotted with frontier houses of Christianity.

The Early Beginnings of the California Wine Industry

Eventually, the Spaniards pushed their sphere of influence into what was to become the state of California. In 1769, Father Junipero Serra established the Mission San Diego. Subsequently, the Franciscan Fathers, under the direction of Father Serra, built a chain of 21 missions from San Diego to Sonoma (the last mission, established in 1823), which were connected by the 500 mile-long El Camino Real ("The Royal Highway").

Though the first vineyards were planted in or around 1769, the fruits of this labor were not to be appreciated immediately. Therefore, the Fathers found it necessary to import a meager supply of wine and brandy. The second mission, San Gabriel, became the site of the first actual California winery, which was located in a small building behind the mission.

Except for the Mission Dolores in San Francisco, each mission in the chain planted vines and produced its own wine. The sweet nectar was used for religious services and medicinal purposes, and served with food as a table wine. The wine also entertained travelers along the Royal Highway and quenched the thirst of the soldiers who accompanied the missionaries (and who tended to prefer something a little “stronger” than water).

Mission Dolores was not self-sufficient in matters of wine because of the adverse affects of the ever-present fog and uncooperative nature of the soil. Fortunately, the vintners at Santa Clara, and later Sonoma, were winemaking successes, and they provided wine for the San Francisco mission.

The missions grew only one variety of grape, appropriately coming to be known as the “Mission”. Many other grapes were known to produce better wines, but the Mission variety, which yields large loosely-set clusters of medium-sized, round, crisp, brownish-red grapes, gained favor because of its great vigor, fruitfulness, and year-after-year dependability.

Even though the Franciscans controlled and maintained a virtual monopoly over the “wine industry” during the 18th Century and the first two decades of the next, their activities were not commercial in the modern sense of the word. Wine (and later, brandy) was used in trade and barter as a way to pay for supplies and seek favors from neighboring ranchers. Even this limited “commerce” was illegal, as the missions were supposedly permitted to trade only among themselves.

Viticulture, as an art and science, did not develop in California during this period that was dominated by the Franciscan Fathers. Experts agree that the greatest single contribution made by these men of the cloth to the future of the industry was in showing that the *Vitis vinifera* grapes could be successfully grown for the production of wine in vast and diverse areas of what was later to become the state of California.

The friars continued their reliance on the late-ripening Mission grape that showed particular favor to the Southern region. This singular source gave definite characteristics to the wine. The Mission variety of grape contained insufficient acidity to make a good table wine, and inadequate color to produce a red wine. Aside from the fact that the Mission grape helped to satisfy a demand, the highest compliment given to it with much regularity is that it make a “passable California port.”

Between 1800 and 1823, wine production by the Franciscan Fathers flourished. During this period, both acreage and output increased greatly. The early California settlers, mostly cattle ranchers, had neither the time nor the personnel to devote to making wine. The friars did, and with the assistance of plentiful Indian labor, the making and “selling” of wine remained almost completely confined to the chain of missions.

During this period most of the wine was produced in Southern California. Since government regulations were conveniently overlooked, there was a considerable amount of wine for “sale.” But the wine came from few sources, primarily the San Gabriel and San Fernando missions.

In 1834 the Mexican government secularized the missions and gave their land to prominent citizens. The history of wine production during this early period in California is exciting and full of colorful characters. What follows are only a few highlights. If you are interested in learning more about the development of the California wine industry between 1823 and 1920, we strongly encourage you to seek out one of the many excellent books that go into detail on this formative period. Some read like novels!

Wine In The “Private Sector”

In 1823, the Pueblo of Los Angeles witnessed the first significant departure from tradition. This thriving city of some 400 residents had become the vine center of California because of the large yield from the nearby missions of San Gabriel and San Fernando. Word circulated throughout the Americas, and in that year, a Missourian named Joseph Chapman reportedly became the first “Yanqui” (U.S. citizen) to settle in Los Angeles. Chapman was an adventurous loner and a former pirate whose face bore the scar from a tomahawk wound.

Don Jose, as he was called by the natives, became fascinated with the wines of the missions and quickly picked up a working knowledge of the trade from the friars.

Between 1824 and 1826, Chapman reportedly planted 4,000 grape vines in what has since become downtown Los Angeles. His efforts earned him the honor of becoming California’s first full-time viticulturist. Chapman is also considered to be the first Yanqui to ever sell wine in California purely as a business venture.

Joseph Chapman does not stand out prominently in California wine history, primarily because his interest was short-lived. He abandoned the wine industry in 1836 for other pursuits in Santa Barbara. His work was soon overshadowed by the contributions and personalities of other winemakers. Even so, Chapman previewed the potential of the private winery in California and deserves credit for beginning a landslide of interest, enthusiasm, and immigration.

The next person to make his mark in the fledgling industry in Southern California was a 50-year-old Frenchman named Jean Louis Vignes. Despite his name, Vignes was not actually a true “Vigneron” by trade; but he was an experienced cooper. At this time, most Frenchmen had never heard of Los Angeles; even fewer knew that it was surrounded by about 100,000 vines and an abundant supply of available land. Nonetheless, Jean Louis Vignes believed that his trade would be in demand – and he was right.

Vignes began by manufacturing barrels for local growers. Previously, they had depended upon Indians to supply large earthenware jars for the storage of wines. Vignes was industrious and paid no attention to the quiet tradition of the “siesta.” In a short time he had acquired enough capital to focus on developing his own winemaking estate.

Vignes’ technical proficiency was closely rivaled by his business acumen, especially his knowledge of marketing, which he applied with his characteristic determination. This combination of professional abilities made Vignes the first large-scale commercial wine producer in California.

Vignes is also credited with “importing” knowledge and skills from the Old World to the New. He encouraged a large-scale immigration of French grape growers, wine makers, and coopers to California.

In the late 1830s the industry began to shift from Southern to Northern California. During this period a central figure in the development of the winemaking industry was General Mariano Guadalupe Vallejo. The General played a colorful part in California's history. In addition to serving as the Mexican Commandant General of the California Army, he was also renowned as an Indian fighter and as an agriculturist.

When the missions were secularized, no winemaker benefited more directly than Vallejo. In 1834, Vallejo was given a land grant of 44,280 acres near the present site of Petaluma. Nine years later he received a second grant of 80,000 acres around the San Pablo and Suisun bays. He eventually accumulated about 150,000 acres, much of which was planted with vineyards.

Vallejo replaced most of the Mission grapes with better varieties and rented some of this land to winemaking families. One of his most important contributions to the California wine industry came as a result of being the first non-missionary grower in the Napa Valley. Vallejo's efforts conclusively proved that the region was suited to growing excellent wine grapes. The General amassed a large collection of silver trophies and golden goblets that testified to the quality of his wines.

Eventually, Vallejo was "convinced" to accept the manifest destiny of the United States. From that point on, he often assisted settlers on the newly opened land that surrounded his abode.

By 1849, Northern California's winemaking industry was on the brink of enormous changes. The Gold Rush – and the population explosion it would bring – was about to transform the wine industry. As a result, California would become the leading producer of wine in the New World and, eventually, a high quality competitor that would rival any country in the Old World.

Wine And The “Modern” World

By the middle of the 19th century, California’s wine industry was growing quickly. But it was greatly overshadowed by the increasing popularity of the wines – and the improved winemaking sophistication – of the Old World.

By 1850, the wine industry was flourishing throughout most of Europe south of the Rhine, into Austria along the Danube, and east to the Crimea and Caucasus in Russia. France, Spain, Portugal and other regions were exporting wine to England and elsewhere. Germany was also shipping wines to England and to many of the northern European countries. Countries such as Belgium and Holland, which had no wine industry, cultivated an active trade for wine, primarily importing wine from France. In the loose federation of city-states that would become modern day Italy, the production of wine was very common throughout this period. However, until the end of the 19th century, not much wine was exported except for vermouth from Turin and some wine from Tuscany and Sicily.

During this time, most Western consumers appear to have cultivated an appreciation for the taste of sweet wines over drier table wines. Consequently, a brisk trade sprung up between Cyprus and Europe. A sweet wine from South Africa, known as “Constantia” became popular in Europe during the 18th and 19th centuries. An especially important and long-standing relationship also developed at this time around the exporting of port from Portugal to England.

The preference for higher alcohol sweet wines was probably due to the fact that they were more stable and easier to care for than table wines. And since central heating was still not prevalent in northern Europe, the additional calories provided by the sweet wines were especially warming and appreciated. In spite of this trend, by 1850 a number of table wines, including Rhine and Bordeaux wines, as well as wines from Burgundy and Champagne had become well know for their quality throughout much of Europe.

1850 was also noteworthy because in that year more wines were bottled and aged than at any time before. Unfortunately, at least 25% of the wine spoiled before the completion of fermentation and the quality of much of the wine was relatively poor. However, judging from the market created by the more wealthy merchant classes and the royal courts, the quality of at least some of the wine must have been quite good,.

California After 1849

Perhaps no single event, excluding national prohibition, has delivered such immediate impact on the California wine industry as the population explosion brought about by “gold fever.” It was estimated that in 1846 the population of California, exclusive of native American Indians, was 10,000. By the time of the census of 1850, the state had a non-Indian population of 92,597 – nearly 60,000 of whom devoted their full time to the search for gold in the Mother Lode.

As a result of the Gold Rush, the demand for wine surged in Northern California. Simply put, from a wine producer’s point of view, the Gold Rush was good business. The influx of miners and their suppliers provided a thirsty market for those wineries already in existence. In fact, during the first few years, demand almost always exceeded supply! This in itself testifies to the unquenchable thirst of the adventurous men of the period and gave rise to a phenomenon of the times: *never before or since in California’s history have so many individuals tried their entrepreneurial hand at winemaking in such a short period of time.* This was the period of the true “peasant industry,” wherein most of the winemaking was done at small, one- or two-men wineries. As it turned out, many of these entrepreneurs spoke little English.

So 1850 was marked by an economic boom in California and an unprecedented worldwide demand for wine. But 1850 also became a watershed year for another, less positive, reason. In the years that followed, a series of vine diseases swept across Europe, including downy mildew, powdery mildew, and black rot. As a result of these diseases – which originated in America and were unintentionally transported to Europe – the grapes did not ripen properly (if they ripened at all). Fortunately, the wine industry soon discovered fungicides that effectively overcame the effects of these diseases.

During this period, many French wine growers and winemakers who had become disillusioned by industry problems at home were drawn to the California gold fields to seek their fortunes. Another development that contributed to the rapid growth of the California wine industry after 1850, aside from the general prosperity of the state and the growing threat to the French vineyards, was the disillusionment and disappointment of the many miners who failed to hit “pay dirt.” Many of these men, including a significant number from France and Germany, began planting vines in the temperate Napa Valley. This phenomenon caused the state to be dotted with small wineries and drastically raised the price of good growing land.

During this period, the wineries literally followed the mines. When a successful claim promised longevity, someone would plant grapes, and within three years local wine would be on sale.

Needless to say, the era of the Gold Rush vintners was not exactly marked by quality. Wine was in demand by hard-working men, not connoisseurs. Most of the miners and soldiers of fortune just wanted a drink – they cared little about vintage, aroma, or body!

This was also a time for get-rich-quick schemes, even among winemakers. Many wineries were known to counterfeit or closely imitate European labels in an effort to obtain higher prices for their wines. However, there were also some qualitative developments during this period which helped to establish California as a credible wine source beyond the gold fields of the Mother Lode.

In 1853, two German musicians, Charles Kohler and John Frohling, opened a wine cellar on Merchant Street in San Francisco. By 1862, they had 10 cellars on Montgomery Street in San Francisco and had rented the basement of the Los Angeles City Hall for wine storage. Within a short period of time they were operating from San Francisco, Los Angeles, and a branch office in New York, and they expanded their operations to such exotic places as Shanghai, Hong Kong, Japan, Russia, Peru, Germany and Denmark. Kohler and Frohling established a huge empire, holding controlling interests in many large wineries. But above all, they built their success on a reputation for quality wines. Most of their triumph came after 1860, when the state's economy was diversifying and becoming more sophisticated. But it is significant that their profitable operations, based upon the sale of quality wine, were born during a time when quantity, rather than quality, was the characteristic favored by most consumers and producers.

Sonoma County – The Early Foundation For California's World Class Wines

As you read in *Chapter 3: Gallo's Approach To Fine Wine*, Ernest and Julio Gallo's interest in Sonoma County as a source for high quality wine grapes began in 1934. This early interest became a lifelong commitment. History will show that they and their families were true modern visionaries with respect to developing the potential of Sonoma County – and Gallo of Sonoma – as preeminent sources of fine wines by any global standard.

Some 150 years ago, another individual mentioned in Chapter 3 was also a visionary with respect to Sonoma County's potential as a winemaking region. What he lacked in long-term commitment, he made up for in enthusiasm and flamboyance! The remainder of this Appendix will be primarily devoted to the contribution of this one Sonoma County winemaking pioneer. Many equally talented people preceded him; and many others will undoubtedly continue to follow him in contributing to the California wine industry. Yet, because of Gallo's commitment to Sonoma County, we're going to highlight the early and lasting importance of Sonoma County to the rapidly growing California wine industry by providing an expanded discussion of the exploits of one man and his family. We hope that whether you are a history buff or not, you will enjoy reading about one larger-than-life figure in the "Old West" who did not wear chaps, pack a Colt pistol, or build a transcontinental railroad!

A Man For The Time And Place

Unquestionably, the most colorful of the characters during the booming California wine industry between 1850 and 1870 was one self-proclaimed Hungarian “Count” named Agoston Haraszthy. Scandal and opportunism were his hallmarks, yet he had a profound positive influence on the California wine industry during his brief tenure in the state.

After Haraszthy participated in a failed revolt in his native country, he decided that an “escape” to America would be in his best interest. In 1840 he founded the city of Haraszthy (now Sauk City) in The Territory of Wisconsin. He was a very successful land developer and farmer who is said to have answered the call of gold in 1849. Others say he left because locals resented his attempts to run Haraszthy like a landed manor in Hungary.

Haraszthy moved to California and first settled in San Diego. There he grew grapes but produced a disappointing wine. As a builder, he built a jail which collapsed. Even so, he managed to be elected San Diego’s first Sheriff in 1850!

By all accounts, Haraszthy was a charming individual: shrewd, highly political, and a scoundrel. In 1852 he was elected State Assemblyman representing San Diego County. Soon afterwards, he moved to San Francisco where he made a handsome profit selling table grapes that he shipped up from Los Angeles. Then, in 1854, President Franklin Pierce appointed Haraszthy to the post of Assayer of the U.S. Branch Mint on Montgomery Street.

Under Haraszthy’s supervision, the Mint refined record amounts of gold. However, the Mint apparently also set a new record for wastage, as extraordinary amounts of the precious metal were purportedly blasted out of the furnace flues by the intense heat generated by around-the-clock operations. Indeed, gold dust was found on surrounding rooftops! Haraszthy resigned his post in April of 1857, requested a formal investigation of his accounts, and deeded his personal property to the Treasurer of the Mint. Subsequently, he was charged with the embezzlement of \$151,550, and he became a favorite subject of San Francisco’s infant newspaper industry. In 1861, he was formally acquitted of the charge and his personal property was at last returned. However, the scandal – and the accompanying “bad press” – were never completely erased from the public eye.

The careless operation of the Mint was not only the black mark on the Hungarian’s social record. At the time of his employment by the Treasury, Haraszthy had illegally purchased (for a nominal price) several hundred acres of suitable vineyard land at Crystal Springs (in what is now San Mateo). He was accused of a minor swindle against the government and was forced to divest himself of about half of his holdings.

So, you may wonder, what does this sordid tale have to do with the history of wine in California? As it turns out, plenty! In fact, today's California wine enthusiasts should look upon Haraszthy's tangles with the law as a blessing. If it had not been for the legal setback of 1857, no one knows how his career may have advanced. After all, Haraszthy was a "comer" in government service. It's quite possible that his path might have led to the governorship or a diplomatic position. In any case, if Haraszthy had not become embroiled in legal problems then it's doubtful that he would have been able to devote his full-time efforts to the production of wine. But that, in fact, is what he did.

During his first 17 years in this country, Haraszthy had embarked on two dozen separate careers, including: author (he wrote two volumes designed to entice European immigrants to cross the Atlantic); contractor (he built a town, bridges, and jail); land developer; farmer; steamboat owner and operator; smelter and refiner; legislator; sheriff; Assayer of the Mint; and self-styled promoter of all sorts of schemes. However, from the year 1857, his talent and energy were to be devoted almost exclusively to a single pursuit – the science of viticulture. And from 1857 to 1868, Count Agoston Haraszthy earned prominence and the noble title that was later conferred upon him by many historians and writers: "Father of California Wines."

In January of 1857, Agoston and his son, Atilla, set out to transform 560 acres of Sonoma land into a fine vineyard and winery that would soon win worldwide fame. On gently sloping land that commanded a view of both the Sonoma Valley and San Francisco Bay, he erected a Pompeian mansion of ancient proportion and grandeur. He named his estate "Buena Vista" in a just description of his sweeping panoramic view.

In overall terms, Haraszthy's wine production was undoubtedly small. But his primary historical contribution to the industry should be considered in terms of quality rather than quantity.

Haraszthy's last stand at Buena Vista represents a marked departure from the questionable business morality that made his name infamous. Haraszthy was a contemporary of men who would rather counterfeit their labels than spend a minute or a penny to improve the stock. Yet in this final chapter of his life, Haraszthy proved to be an heir to pioneers like Jean Louis Vignes and M.G. Vallejo who brought significant improvements to the whole of the California wine industry.

More than anything else, the Count brought enthusiasm and optimism to the native industry. He was a man of vision and, perhaps more importantly, of inspiration and influence. Within the narrow confines of his Buena Vista activities after 1857, he combined "art" with production in a zealous manner that benefited the entire industry.

Many wine historians believe that Haraszthy's most important single contribution to the industry was 1858 pamphlet on grape growing and winemaking: [Report on Grapes and Wines of California](#), which has since become a classic. In it he advised growers to test as many grape varieties as possible and to specialize in those that not only grow particularly well in each area, but that also produce the finest wines.

This pamphlet was the first major attempt by anyone to reduce the art and science of California grape growing and winemaking into a comprehensive digest. His work, by its merit, brought him recognition and, once again, a government position. The years 1859 and 1860 had been poor ones for the state's grape crop. The California State Agriculture Society, established in 1854, saw a need to form a State Viticulture Commission (also known as the "Grape Commission") to help strengthen the faltering wine industry. Haraszthy, based on his knowledge of the industry and his success at Buena Vista, was appointed Commissioner. In this new prestigious capacity, Haraszthy and his family took off for Europe in 1861 for five months with the full support of President Lincoln's Secretary of State William Stewart.

Haraszthy crisscrossed the famous wine regions of Europe, gathering techniques and grape cuttings as he went. Upon his return, he presented his large report, Grape Culture, Wines, and Wine-Making, to the State Legislature – along with a \$12,000 bill for his expenses. Both were ceremoniously rejected. Once again, Haraszthy had become a *persona non grata* in the eyes of the government. Yet, he received some consolation and satisfaction when he was elected President of the State Agricultural Society in the very same week!

Regardless of his political fate, the Count was in the possession of what was generally agreed to be about 200,000 fine cuttings of multiple varieties of European grapes. The ultimate disposition of these cuttings earned Haraszthy an important place in the history of the California wine industry. He was known to travel up and down the state, in a Johnny Appleseed fashion, giving away cuttings and encouraging people to try their hand at wine production.

Haraszthy was not the first to import European vines in bulk; this innovation must be credited to Jean Louis Vignes. However, Haraszthy was the first to go abroad in the "bring 'em back alive tradition," and was the first man to actually recognize the California wine industry in aggregate terms. He tried, in a manner approaching missionary zeal, not only to gain an audience for his newly acquired information, but also to persuade growers to try different varieties of vines in different regions of the state. The Count saw California as having a wine-producing potential that would eventually rival the greatest vineyards of Europe, but he knew that this could not be achieved without exhaustive experimentation and, perhaps, a century of patience.

Haraszthy thought California's climate was significantly superior for the cultivation of grape vines than the climates that he had generally experienced in Europe. He recommended that a site should be selected with an even temperature and, if possible, a gentle western slope. Haraszthy also advised that soil produced by volcanic eruption – that is, containing red clay and soft rocks, with high magnesia, lime, or chalk content – would be best for grape growing because it never cracks and tends to retain moisture during the summer.

Haraszthy also influenced his fellow vineyardists to grow their vines on hillsides, thereby avoiding any need to irrigate, lowering the cost of wine production, and leaving the rich flat land for other agricultural pursuits. Another extremely practical contribution made by Haraszthy was his discovery that California Redwood could be used to produce excellent casks and could serve as a satisfactory substitute for the increasingly expensive oak.

The Count remained true to his dramatic tradition until the bitter end. In 1868, Haraszthy literally saw his empire crumble down around him as his spectacular mansion burned to the ground. He found himself faced again with the old gold scandal which had been recently revived. One of his larger cellars collapsed. The State Legislature imposed a monthly head tax on “coolies” (low paid Chinese contract laborers who he used to clear and maintain vineyards and dig cellars). Haraszthy couldn’t obtain credit, and he had suffered large losses on the stock exchange. To make matters even worse, Europe’s mysterious powdery mildew blight was beaten with sulfur, introducing vicious competition to the California industry.

In the end, “Count” Agoston Haraszthy left a tremendous legacy in California. And he left this world as flamboyantly as he had lived his adult life. This amazing man responded to all the difficulties that were besieging him by packing up and moving to Nicaragua, where he somehow succeeded in getting the local government to finance his sugar cane planting, milling, and rum-distilling operation. While looking for a good location for his mill, the Count decided to ford a river Tarzan-style. Reportedly, the bough broke and the Count did drop, much to the delight of a hungry alligator!

One Wine World

Today, as you know, there is really only one wine world. The terms “Old World” and “New World” may have some marketing panache and some traditions, but in reality, there is but one Global Wine World. This one world shares problems, traditions, technology, research, markets and even ownership. Much of this globalization has occurred relatively recently. However, in the late 19th and early 20th centuries the stage was set for making all wine worlds interrelated if not interdependent.

The Phylloxera Infestation

As mentioned earlier, in the 1850's vineyards in Europe had been severely damaged by a series of vine diseases. Unfortunately, the worst was yet to come. Around 1870, some grape species were imported from America (native East coast *Vitus labrusa* vines) and planted in the botanical gardens of England and France. On the vines was a root louse known as *phylloxera*, to which the American species were mostly resistant. Disastrously, the European *Vitus vinifera* grapes were not.

The agricultural industry has never witnessed, before or since, the amount of destruction that happened to the world's vineyards between 1870 and 1900. The louse destroyed almost all the vineyards of France and most of those in Spain. The damage to vineyards in Austria, southern Germany, Italy, Rumania, and southern Russia was also extensive. The devastation extended to other parts of the world and even returned to America where it ruined vineyards in California. Greece, which was the one European country free of phylloxera, exported raisins that could be made into wine to the other European countries.

The French determined very quickly that the only manageable way to remedy the problem was to graft European grapes onto healthy American rootstock that was resistant to phylloxera. Viticultural experts made several trips to America and returned to France with thousands of cuttings. The best were selected and distributed throughout the world. In order to save the wine industry from completely dying out, some of these American varieties were also planted as direct producers of grapes, not just as rootstocks for the European varieties. Of course, it turned out that many of these "foxy-flavored" varieties were not well-suited to the climate of Europe – or to its palate.

Phylloxera's devastation of the wine industry, and the economic crisis that followed, made it almost impossible to produce quality wines. So the years from 1875 to 1893 witnessed few vintage years in France. And the disruption of the European wine industry forced many grape growers to migrate from France and Italy to North America, South America, and the rest of the world.

One positive effect of the phylloxera infestation, was the fact that vineyards were replanted with only the varieties currently judged as "best" for winemaking in that particular growing area. So the process of replanting eliminated many of the less appropriate varieties that had been cultivated prior to the infestation.

“Revolutionary” Influences

During the middle of the 19th century, the most significant advances made in the wine industry were due to the work of Louis Pasteur.

As a teacher at Lille, Pasteur was fermenting sugar-beet molasses in order to produce alcohol for distillation. While investigating why sugar produced poor yields of alcohol in a distillery, he discovered that the alcohol was actually converting to acetic acid. When he later applied this knowledge to the wine industry, Pasteur was able to demonstrate conclusively that the spoiling of wine was caused by aerobic microorganisms (of the *Acetobacter* type) that produced acetic acid. Further experimentation revealed that keeping wines out of contact with the air would inhibit the development of *Acetobacter*. For the wine industry, this was a major breakthrough that gradually led to the complete control of acetification in wine. Pasteur also discovered several anaerobic diseases of wine and developed treatments for controlling them as well.

As an important leader of the *scientific revolution*, Pasteur thus became the first to apply scientific principles to fermentation and the care of wines, and began a trend that continues throughout the world of wine today.

Since Pasteur's time, the industry has witnessed a number of other major scientific breakthroughs, including the use of pure yeast cultures to produce clean fermentations, the application of mild antiseptics (such as sulfur dioxide) to prevent the growth of unwanted organisms, and the use of various fining agents to obtain clearer and more stable wines.

During the late 19th century, the wine industry was also impacted by another, equally significant revolution: the *industrial revolution*. Just as the scientific revolution enabled winemakers to apply scientific breakthroughs to winemaking, the industrial revolution enabled winemakers to apply the principles of technology. Some of these technological advancements included the design of new machinery for cultivating vineyards, handling or crushing grapes, pumping crushed grapes to fermenting tanks, filtering, and pumping wines between tanks. These advances dramatically reduced the cost of production and contributed to the worldwide expansion of the wine industry.

The Golden Age Of Wines

Today, the wine industry has largely recovered from the infestation of phylloxera and the harmful impact of Prohibition. As a result of the scientific and industrial revolutions and the vision and creativity of industry leaders, the global wine industry is today enjoying a true golden age

Thanks to the continued application of scientific and industrial principles, the industry is now producing a higher percentage of fine wines, at a relatively lower cost, than at any time in history. Every aspect of grape growing and wine making has been affected. More high quality grapes are being produced per acre. The grape varieties are better, they suffer less damage from insects and fungus diseases, and they arrive at the winery in better condition. And the wines are processed more rapidly, less expensively, and with greater chances for success.

The scientific and industrial revolutions and the evolving sciences of enology and viticulture have taken much of the guesswork out of the wine industry. To see the enormous impact of these advances, just consider the capabilities and efficiencies of our own Gallo of Sonoma Winery. And it's likely that within the next few decades, the global wine industry will be able to control even more of the variables that influence wine production, thus increasing both the quality and the availability of fine wines all around the world.

Conclusion

We hope that this very incomplete “history” has whetted your appetite for learning about the long and interesting heritage of your industry. Volumes have been written about amphorae, cooperage, wine trading, wine’s contribution to civilization, and other subjects that were only superficially covered in the proceeding pages. Probably even more has been written about the subjects that we omitted entirely such as refinements in fermentation, the evolution of grape presses, and the chemistry of winemaking. We urge you to “surf the net,” visit your local library, and browse through bookstores to explore your own particular interests regarding the long and fascinating history of wine. We’re confident that your increased knowledge will pay off for you – both personally and professionally.