# *Introduction*

Grapes are unique among fruits. Ripe, they contain sufficient sugar and an appropriate amount of acid so that when they ferment enough alcohol is produced to make a palatable wine that is protected against imminent spoilage. Other fruits do not possess the proper balance of these basic constituents. Hence, sugar, acid, or water, or sometimes a combination of them must be added prior to fermentation. Otherwise, inadequate or excessive alcohol may be formed, fermentations may stick, and the product could either be so acidic (tart) or so flat that it would taste unpleasant or insipid. Minor adjustments in sugar and acid content of *vinifera* grapes may sometimes be required, but not often. On the other hand, other fruits almost always require additional steps in preparing and handling the raw material that don't apply to making grape wine. Hence, this publication is confined to grape wines.

The two major kinds of grapes used in the production of grape wines are native American species of grapes, or hybrids thereof, and the European species or *Vitis vinifera*. A well known American grape species is *Vitis labrusca*; many varieties are cultivated in the eastern United States, especially in New York. *Labrusca* varieties include Concord, Delaware, Niagara, Catawba, and Ives Seedling. To varying degrees, these grapes and the wines made from them have a noticeable aroma, commonly referred to as "foxy," that is partially due to the presence of the compound methyl anthranilate. Primarily, this characteristic distinguishes these wines from those produced elsewhere, particularly in western Europe and California. Besides their distinct aroma, these native grape varieties generally contain insufficient sugar to produce a balanced table wine. Thus, in eastern wine making adding sugar or chaptilization is permitted. These grapes also have other compositional and physical characteristics that require specialized handling methods. Because of these factors, as well as the more extensive interest in *vinifera* wines, the making of wine from American grape species will not be covered here. However, for those interested in making wine from American grapes, we highly recommend *Grapes into Wine* by P. M. Wagner (see **Selected References**).

Wine types are usually divided into classes according to their alcoholic content, groupings that form a convenient basis for excise taxes upon alcohol. The two major classes are table wines (9 to 14 percent alcohol) and dessert and appetizer wines (15 to 21 percent alcohol). Table wines owe their alcoholic content to the fermentation of sugar naturally present in the grapes and to the sugar that may be added to them. On the other hand, dessert wines obtain their higher alcoholic content from the addition of alcohol (wine spirits). Demand for table wine in the U.S. far exceeds that for dessert wine and because demand for information on home wine making has centered on making table wine, this publication is about grape table wine only.

Tax-free production of limited quantities of wine at home was allowed for many years in the United States, even during Prohibition. Despite this apparent legal freedom, laws and regulations pertaining to home wine making contained several arbitrary restraints that led to confusion and inconvenience. In 1979, these regulations were liberalized to permit home wine making without requiring registration. Details of the new regulations are given at the end of this publication.

Although no published figures exist on the volume of homemade wine produced in the U.S. annually, most observers agree that it probably exceeds 10 million gallons. Along with increased wine consumption since 1970, an "explosion" in the demand for information about grapes and wine has occurred in the United States. Not only has California's grape and wine industry experienced rapid growth, but a grape and wine growing renaissance has occurred in more than 40 other states as well. In California, the number of bonded wineries, mostly small table wine operations located primarily in coastal areas and the foothills, now total over 650. Many new winery entrepreneurs began their ventures as home winemakers.

In response to widespread interest, this guide covers the fundamentals of making table wine that should provide the basis for more successes than failures. Making your own wine can be an enjoyable, enriching, and rewarding experience. The ability to consistently make sound, above average, quality wines requires not only the desire to succeed, but, at times, hard work, patience, and attention to detail.

Aside from motivation and adherence to details, two other factors can influence the successful production of table wine at home: the amount to be produced and the kind of raw material used. While a few gallons of sound, palatable wine can be made easily from reconstituted grape concentrate, producing a fine quality wine is more readily realized from larger lots, using fresh, ripe grapes. Successful production of just 5 to 10 gallons of wine from small quantities of grapes requires considerable technical skill, experience, and the proper equipment, owing to the larger surface-to-volume ratio inherent in small volumes. Working with larger quantities of grapes and larger wine volumes minimizes chances of spoilage and oxidation. Thus, we recommend working with a minimum of about ½ ton of grapes to produce about 50 gallons of finished wine. Although these guidelines are presented with these factors in mind, the principles covered apply equally to smaller wine making activities. As a matter of fact, many beginners may wish to start out with one or two 5- to 10-gallon fermentations of reconstituted grape concentrate to become familiar with alcoholic fermentation, the adding of yeast and sulfur dioxide, and other wine making steps.

# *Acknowledgments*

For many years, one of us (Cooke) recommended a technologically sound, practical, and concise 31-page booklet to anyone seeking assistance on home wine making, particularly those using *Vitis vinifera* grapes. That booklet, published in 1962, was *Wine Making at Home* by Maynard A. Amerine and George L. Marsh, and unfortunately it is now out of print and no longer available. This publication owes a great deal to that well written, useful work. We also acknowledge the following books as rich, technical resources: *The Technology of Wine Making; Table Wines, The Technology of Their Production;* and *Wine, An Introduction.* They are listed in this guide under **Selected References**, along with other books, bulletins, and pamphlets.

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