

# The Complete Book on Wine Production

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Wine is the most loved beverage across the world and a popular accompaniment with food. The popularity of wine in India has started growing rapidly. Wine is the fermented product of the grape. Because crushed grapes contain all that is needed to create wine, ancient wine producers simply allowed nature to take its course. As time went on, people realized that by intervening at certain times, they could make a wine with more predictable characteristics. Grape cultivation is one of the most remunerative farming enterprises in India. Grapes can be eaten raw or they can be used for making wine, jam, juice, jelly, vinegar. Delicate wine grapes are generally produced in frost free and moderate temperature environments. Thousands of grape varieties are grown all over the world; the wine grape varieties represent only a fraction of them. The colour, size, phenolic distribution and acidity of grapes give each wine its own characteristic. Wine quality is affected by the factors such as soil, climate, viticulture and wine making techniques. Wine quality is dictated mainly by the grapevines, not by the winemaker. Wine must be slightly aged to be drinkable. Grape production, linked with wine processing has provided the much-needed impetus for the growth of the wine industry. Indian government plays a crucial role in the current phase of Indian wine industry, supporting the current momentum amongst others through financial assistance and market protection. Gradual reduction of import duty levels will no doubt lead to increasing competition through imports, but will on the longer term result in a competitive industry that is able to export its top quality products to overseas markets.

Some of the fundamentals of the book are wine quality, mold and mold complexes associated with grapes, grape aroma components, soluble solids in winemaking, the molds and yeasts of grapes and wine molds, yeasts of grapes and wine, by-products of fermentation, chemistry of fermentation and composition of wines, outline of red wine making, stuck wines, white table wine, sparkling wine, vermouth and flavoured wines, cider and apple wine, plum wines in Europe, berry wines in pacific coast states, cherry and plum wines in pacific coast states, pomegranate wine from concord grapes, pineapple wine, pear wine, wine from oranges, grapefruit wine, wine from dried fruits, Swiss research on fruit juice fermentation honey wine (mead), etc.

This book provides a complete detail on all aspects of Wine production like describe the varieties of wine available, its manufacturing process, bottling and storage of wine, quality control in wine making and many more. It is hoped that this book will be very resourceful to all its readers, students, scientists, technocrats, existing industries, new entrepreneurs and all those who are related to wine making.

## 1. THE COMPOSITION OF GRAPES

- How Grapes Ripen
- Physical Changes
- Chemical Changes
- Measurement of Maturity
- Importance
- How to Sample
- Preparation of Sample
- Methods of Measurement
- Interpretation of Results
- Harvesting and Transportation
- Composition of Musts
- Water
- Sugars and Related Compounds
- Acids
- pH and Buffer Coefficient
- Nitrogenous Components
- Pigments
- Tannin
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- Odorous Constituents
- Metals
- Environmental Factors
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- Variety
- White Table Wines
- Red Table Wines
- Pink or Rosé Wines
- Dessert Wines

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- Factors Influencing Botrytis Growth
- Sensory Considerations
- Quantification of Botrytis
- Processing Considerations for Botrytis
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- Sensory Considerations as an Indicator of Grape Maturity and Quality
- Grape Aroma Components
- Soluble Solids in Winemaking
- Conversion of Sugar-to-Alcohol

Amelioration and Chaptalization  
Monitoring Fermentation  
Laboratory Measurements of Soluble Solids  
Densimetric Procedures  
Analysis

### 3. FRUIT QUALITY AND SOLUBLE SOLIDS

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Contribution of Juice Aroma  
Color and Phenols  
Grower Input  
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Sample Processing  
Fruit Evaluation  
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Laboratory Measurements of Soluble Solids  
Densimetric Procedures

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Definition of Wine-Related Yeasts

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