



WINE AND IT'S MANUFACTURING

1. INTRODUCTION

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2. Types Of Wines

3. Manufacturing Process

4. Conclusion

1. INTRODUCTION



- Wine making is something that has been done from thousands of years.
- Wine is an alcoholic drink typically made from fermented grapes.
- Yeast consumes the sugar in the grapes and converts it to ethanol, carbon dioxide and heat.
- Making wine is not just an art but there is also a lot of science involved in the process.
- The process of preparation of wine is known as **vinification**



2. TYPES OF WINE

- **The major classification of wines are:**
- **Still Wines**
- **Sparkling Wines**
- **Fortified Wines**
- **Aromatised Wines**

2.1 Still Wines

The alcoholic strength may be between 9% and 15% by volume. The wines may be:

- **Red:** being fermented in contact with grape skins from which the wine gets its colour. Normally dry wines.
- **White:** usually produced from white grapes, but the grape juice (must) is usually fermented away from the skins. Normally dry to very sweet.

- **Rose:** made in three ways – from red grapes fermented on the skins for up to 48 hours; by mixing red and white wines together; or by pressing grapes so that some colour is extracted. It may be dry or semi-sweet.



2.2 Sparkling Wines

- The most famous is Champagne.
- This is made by the methode champenoise (secondary fermentation in the bottle) in an area of north-eastern France.
- They may vary from brut (very dry), sec (medium dry), demi-sec (medium sweet), to doux (sweet).



2.2 Fortified Wines

- Fortified wines such as Sherry, Port and Madeira have been strengthened by the addition of alcohol, usually a grape spirit.
- Their alcoholic strength may be between 15% and 22%, by volume.



2.2 Aromatic Wines

- These wines are aromatized with herbs, bark, spices, roots, etc.
- An aromatized wine must have a minimum alcohol content of 14.5% by volume and a maximum alcohol content of 22% by volume.
- Most older brands come from France and Italy but there are now a range of small 'craft' producers around the world.



3. MANUFACTURING OF WINE

Harvesting

Crushing and Pressing

Fermentation

Clarification

Ageing and Bottling



3.1 Harvesting

- Harvesting or picking is certainly the first step in the actual wine making process.
- The process of making fine wine requires that the grapes are harvested at a precise time, preferably when physiologically ripe.
- Appropriate variety of fruits and berries are harvested.
- They must contain high amount of fermentable sugars.
- Grapes usually contain 5-25% total soluble sugar (Total soluble sugar).





3.2 Crushing & Pressing

- Crushing the whole clusters of fresh ripe grapes is traditionally the next step in the wine making process.
- Today, mechanical crushers perform the time-honored tradition of stomping or trodding the grapes into what is commonly referred to as must.
- Mechanical pressing has also improved the quality and longevity of wine, while reducing the winemaker's need for preservatives.
- Having said all this, it is important to note that not all wine begins life in a crusher.

3.3 Fermentation

- After harvesting, all grapes are usually transferred to the winery by truck for crushing.
- The pressed juice or “must” is pumped or gravity flowed into large temperature-controlled tanks for fermentation during which natural and added yeast metabolized the grapes’ sugar into ethanol and carbon dioxide.
- Fermentation typically lasted one to five weeks.
- The production of higher quality wines typically less automated and in smaller volumes.
- Lower quality wines made in larger volumes and more “formula” based.



3.4 Clarification

- Filtering and fining may also be done at this stage.
- Filtration can be done with everything from a course filter that catches only large solids to a sterile filter pad that strips wine of all life.
- Fining occurs when substances are added to a wine to clarify them.



3.5 Ageing & Bottling

- The final stage of the wine making process involves the aging and bottling of wine
- Further aging can be done in the bottle, stainless steel or ceramic tanks, large wooden ovals, or small barrels, commonly called barriques.

4. CONCLUSION

- All facets of wine production must be carefully controlled to create a quality wine.
- Such variables as the speed with which harvested grapes are crushed; the temperature and timing during both fermentation and ageing; the percent of sugar and acid in the harvested grapes; and the amount of sulfur dioxide added during fermentation all have a tremendous impact on the quality of the finished wine.



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