

Introduction & definition of Wines

Wine is ancient, and yet the beverage we enjoy today is thoroughly modern. For eight thousand years, through the great civilizations of Greece, Egypt, to the Roman Empire and on into Europe and the boundless opportunities of the New World, wine has been enjoyed by millions upon millions.

Definition of Wines –

Wine is an alcoholic beverage obtained from the fermented juice of grapes. Fermentation takes place in various places according to the local traditions

In simple terms the Wine is defined as

“Wine is Alcoholic grape Juice”

Sugar + Yeast = Alcohol + Carbon Dioxide

- Sugars are provided by ripe grapes.
- Yeasts are either from the naturally occurring covering of microflora on the skin of the grapes or added to the grape juice by the wine maker
- The alcohol stays in the wine.
- Carbon dioxide gas escapes into the atmosphere.
- Content of Wine – Water – 86%, Alcohol – 10-12 %, Glycerol – 1%, carbohydrate in unfermented sugar – 0.2%, minerals – 0.2%, tannin / Colour pigment – 0.1%, acetic acid – 0.4%, higher alcohol (Butyl, propyl) – 0.1%, traces of vitamins.

Different factors affecting the quality of wine –

1. Grape – the most important factor that affects the quality of wine is the type & quality of grapes used. The wine stock in the world has originated from one species called VITIS VINIFERA. Few examples of different types of grapes used in wine making.
Red – Cabernet sauvignon, Pinot Noir, Merlot, Syrah, Gamay.
White – Riesling, Chardonnay, Muscat, Sauvignon Blanc, Pinot Blanc, Chenin Blanc.
2. Soil –
Soil plays an important role in growing quality grapes.
Deep dark soil (absorbs sunlight)
Stony granule (Gives flavour of Chalk/ Limestone)
There should be Free Draining
Healthy Warm population.
Adequate nutrients
Sufficient mineral element for healthy wine growth.

3. Climate –

Vines (grapes) grow well in a temperature of 15 – 21 degree C. a cool ripening temperature will produce exclusive delicate white wine whereas a warm ripening temperature will produce full bodied red wine.

Adequate sunlight and rainfall are also necessary for proper vine growth.

4. Vintage –

Vintage is a good year for harvest. The wine yield is best during this time.

5. Viticulture –

Viticulture (from the Latin word for *vine*) is the science, production and study of grapes which deals with the series of events that occur in the vineyard. The Care and maintenance of the grape, so as to produce the best possible wine has become a highly technical industry in some areas.

6. Vinification –

Every wine maker approaches his or her task in different ways & determine the level of technology that will be used in the production of wine. This theory or science is called as ‘Vinification’.

1.2 Classification of Wines

Wines have their own characters and can be classified in the following way:

A. Red Wine – These wines are made from black grapes or red grapes.

B. White Wine – Made from Green (white) grapes. In case black grape is used for the manufacturing of White wine then skin is not submerged so as to prevent the discolouration of the wine.

C. Rose Wine – The good quality Rose wines are produced by allowing red grape skins to remain in limited contact with the grape juice before fermentation starts, thereby creating a pink-tinted juice. The skins are then extracted and the pink juice is treated in the same manner as white wine. It is also legal in most countries to produce a pink wine by blending a small amount of red wine with a large quantity of white wine.

D. Still Wine - When the grape juice ferments to become wine, carbon dioxide is formed as a by product and released into the atmosphere. The end result is still wine.

D. Sparkling Wine – During the process of wine making if the wine maker at some stage of the process, prevents the gas from escaping then the end result is sparkling wine.

E. Fortified Wine – Some famous wines are classified as fortified wines because their alcohol content has been strengthened, or fortified, by adding a high- alcohol spirit is added to the wine. The most famous example of such wines are ‘Porto’ or ‘Port’ from Portugal and ‘Sherry’ from southern Spain.

F. Sweet Wine – When the sugar content in the grapes is not completely converted into alcohol thus retaining a certain amount of sweetness, sweet wines are produced.

G. Non – Vintage Wines – These are produced from wines made from the pressing grapes of more than one year including the pressing of the current year as well. So they aren't very expensive in comparison to Vintage wine.

H. Vintage Wines – These are made from the pressing of grapes of a particular year during which conditions have been favourable for the production of excellent wines. The year in which it is made will feature on the label on the bottle.

I. Dry Wine - These wines are those, which are produced when the sugar content is fully converted into alcohol thus producing a dry taste.

Viticulture & Viticulture methods

Viticulture – Viticulture (from the Latin word for vine) is the science, production and study of grapes which deals with the series of events that occur in the vineyard. The Care and maintenance of the grape, so as to produce the best possible wine has become a highly technical industry in some areas.

Why Viticulture?

If a 'Vine' is left untrained it will grow in an abundant but very random manner. The practice of training the vines on a trellis provides a support for the weight of the leaves and fruit and makes it easier for the vines to be tended throughout the year. This process is called as 'Trellising' which is an important part of Viticulture. Trellis system was developed at 'Cornell University's' Viticulture Research Station in New York.

Different types of trellising system –

In all of the trellising systems, the vines are trained to grow onto a network of wires that are supported by posts along the vine rows.

A. Vertical Trellis system - Stationary wires or annual canes are used as a support to the vine trunk. The new shoots are trained upward vertically.

B. Geneva Double curtain system – This system is typified by a horizontal set of wires on which the vine trunk is trained. A secondary wire is located above this and when the shoots reach this higher wire, they can be turned outward and downward.

C. Lyre System – In this system the vine is trained from the trunk onto two separate, small trellis system with the new shoots growing upward.

No single trellising system is right for any one place or any one type of grape, and grape growers must experiment with many different system before they find the best combination.

