

Beverage is any liquid consumed by humans for quenching thirst or merely for pleasure.

- Water is not included in beverage because it does not have any taste, color and flavor.
- Food service operators deal with a wide range of beverages to satisfy the requirements of guests before, due to perspiration, during, and after meals and at any time of the day.

### Beverage

Alcoholic

Non-Alcoholic

#### Alcoholic Beverages

- A potable liquid containing ethyl alcohol or ethanol ( $C_2H_5OH$ ) of 0.5 percent or more by volume is termed as alcoholic beverage.
- Alcoholic drinks are classified as
  - i) fermented drink
  - ii) ~~Be~~ Distilled
  - iii) Cocktails

#### Non-Alcoholic Beverages

- A potable drink cover that are either totally free from alcohol or that have less than 0.5 percent alcohol by volume.
- Non-Alcoholic drinks are classified as
  - i) Stimulating Eg: Tea or coffee
  - ii) Refreshing (Aerated drinks) Eg: Energy Exits.

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iii) Nourishing drink → Eg. Milk, lassi, etc.

### Coffee

- Coffee is a culture.
- Coffee is produced as 25° North and 30° South.
- Coffee is plant grow up to an altitude of 2000m above sea level.
- It is believed that coffee was first grown in Ethiopia, Europe.
- The scientific name of coffee is *Coffea Arabica*.
- It belongs to family Rubiaceae with genus *Coffea*.

There are two main types of coffee.

1. *Coffea Arabica*
  2. *Coffea Canephora* (known as "Robusta")
- Brazil is the number one coffee producing country in the world.
  - Coffee trees bear small red cherries containing seeds known as coffee beans.

### *Coffea Arabica*

#### Features

1. Shape of beans = long, oval, slightly flat beans.
2. Caffeine content = less compared to Robusta.
3. Countries where it is grown = Brazil, Arabia, Ethiopia, India, Mexico and Costa Rica.

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### *Coffea Robusta* features

1. Shape of beans = Irregular, convex-shaped small beans.
2. Caffeine content = 2 1/2 times more than Arabica.
3. Countries where it is grown = Ivory coast, Angola, Zaire.

# Why is Darjeeling called the "champagne of teas"?

→ As champagne grapes are only used for the French sparkling wines from region of champagne in France, Darjeeling teas come only from Darjeeling region, located on the foothill of Himalayas.

Tea gardens are located at altitudes of up to 4000 ft. above sea level, where the soil is slightly acidic.

- Best serving temperature for coffee = 82°C (180°F)
- Best serving temperature for milk = 68°C (155°F)

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#### Characteristics of a good coffee

Well prepared coffee should have good flavour, aroma, good body, and colour.

#### Various methods of making coffee

##### Instant Method

- It is the quickest and easiest method of making coffee. In this method, the soluble coffee solids are easily mixed with hot water. It can be made just before it is served by pouring freshly boiled

water over the measured, instant coffee powder. It coffee dissolves instantly. It can be served with milk. Sugar is offered separately. This method is suitable for making coffee in small and large quantities.

### Saucepan or Jug method

- This method can be adopted for the preparation of small and large quantity of coffee. A measured quantity of coarsely ground coffee is placed in a saucepan or jug, and freshly boiled water is poured over it and covered with a lid. It is allowed to infuse for few minutes and then strained. It is served with hot or cold milk. Sugar is offered separately.

### Cafetière method (plunger)

- This method is simple and most suitable for making coffee in a small quantity. The cafetière equipment has a glass container with a lip and a lid with a plunger unit. The lid holds the plunger in a position. In this method, measured quantity of medium coffee grind is placed and freshly boiled water added to the coffee. It is then stirred and covered with the lid and plunger unit and allowed to infuse. During this time the coffee grains will rise to the top of the liquid. After this, if the plunger is moved slightly, the coffee grains will fall to the bottom of the container. The plunger unit is pushed down the glass container before serving. The infusion time is normally 3-5 minutes which depends on the temperature of water. It is served with or without milk.

Sugar is offered separately. It is also known French Press method.

### Percolator Method

This traditional method of making coffee has considerable visual appeal in the restaurant and has the advantage that the coffee served is always fresh as only limited quantities are made at one time.

### Percolator Method

- This method is used more in the home than commercially.
- A set quantity of coffee grounds is placed in the percolator, which is then filled with freshly drawn water.
- The water, upon reaching boiling point, rises up through a tube and percolates the coffee grounds, extracting the full flavour, colour and strength.
- Hot or cold milk, cream and sugar may be added to taste.
- This ~~is~~ method of making coffee is in decline.

### Percolator Filter Machine Method

The principle behind this method is that when the measured quantity of freshly drawn water is poured into the top of the ~~house~~ pour through filter machine this water displaces the hot water already in the machine.

This hot water infuses with the ground coffee and runs into the serving container as a coffee and runs into the serving container as a coffee liquid ready for immediate use. It takes approximately 3-4 minutes to make one brew.

When coffee is made by this method, ensure that

- the machine is plugged in and switched on at the mains.

- the brew indicator light is on. This tells the operator that the water already held in the machine is at the correct temperature for use.
- the correct quantity of fresh ground coffee, which will usually come in the form of a vacuum-sealed pack is used. A fresh pack should be used for each new brew of filter coffee being made.
- a new clean filter paper is used for each fresh brew.

### Individual Filter and Pour over method

This is an alternative way of making bulk filter coffee. It is a plastic, disposable, individual filter, bought with the required amount of coffee already sealed in the base of the filter. Each individual filter is sufficient for one cup and after use the whole filter is thrown away.

The advantage of this method is that every cup may be made to order. It appeals to customers as they are able to see that they are receiving entirely fresh coffee and it also has a certain novelty value.

When making a cup of coffee by this method, the individual filter is placed onto a cup. Freshly boiled water is then poured into the individual filter to the required level. The liquid then infuses with the ground coffee within the individual filter and drips into the cup. A lid should be placed over the water in the filter to help retain the temperature. Time of making is approximately 3-4 minutes.

### Espresso

This method is Italian in origin. The machines used in making this form of coffee can provide cups of coffee individually in a matter of seconds, some machines being capable of making 300-400 cups of coffee per hour.

This method involves passing hot water through the finely ground coffee and infusing under pressure. The advantage is that each cup is made freshly for the customer.

Served black, the coffee is known as espresso and is served in a small cup. If milk is required, it is heated for each cup by a high pressure steam injector and transforms a cup of black coffee into a Cappuccino.

As an approximate guide, from 1/2 kg (1 lb) of coffee.

used, 80 cups of good strength coffee may be produced. The general rules for making coffee apply here, but with special and delicate type of equipment extra care should be taken in following any instructions.

### Decaffeinated

Coffee contains caffeine, which is a stimulant. Decaffeinated coffee is made from beans at which the caffeine has been extracted. The coffee is made in the normal way.

### Iced Coffee

Strong black coffee should be made in normal way. It is then strained and chilled well until required. It may be served mixed with an equal quantity of cold milk for a smooth beverage or with cream. It is served in a tall glass, with ice cubes added and with straws. Cream or milk is often served

separately and sugar added.

### Trickling over Egyptian coffees.

These are made from darkly roasted mocha beans, which are ground to a fine powder.

The coffee is made in special copper pots, which are placed on top of a stove or lamp, and the water is then allowed to boil.

The sugar should be put in at this stage to sweeten the coffee, as it is never stirred once poured out.

The finely ground coffee may be stirred in or the boiling water poured onto the grounds. The amount of coffee used is approximately one heaped teaspoonful per person. Mocha beans are used in this method.

- made in copper pot
- needs high temperature

Once the coffee has been stirred in, the copper pot is taken off the direct heat and the cooling causes the grounds to settle.

It is brought to the boil and allowed to settle twice more and is then sprinkled with a little cold water to settle any remaining grains.

The coffee is served in small cups. While making the coffee it may be further flavored with vanilla pods but this is optional.

### Varieties of coffee prepared from Espresso

- Espresso Traditional short strong black coffee.
- Espresso doppio Double espresso served in larger

cup.

- Café crème Regular coffee prepared from fresh beans, ground fresh for each cup, resulting in a thick cream colored, mousy head.
- Espresso ristretto intense form of espresso, often served with a glass of cold water in continental Europe.
- Americano Espresso with added hot water to create regular black coffee. May also be regular black coffee made using filter method.
- Espresso macchiato Espresso spotted with a spoonful of hot or cold milk or hot milk foam.
- Espresso con panna Espresso with a spoonful of whipped cream on top.
- Cappuccino Espresso coffee topped with steamed frothed milk, often finished with a sprinkling of chocolate (powdered or grated).
- Catté (or caté) latte shot of espresso plus hot milk, with or without foam flat white double shot of espresso topped with frothed milk which has been stirred together with the flat milk from the bottom of the jug, to create creamy rather than frothy texture.
- Latte macchiato steamed milk spotted with a drop of espresso.
- Catté mocha (or mochaccino) chocolate compound (syrup or powder) followed by a shot of espresso. The cup or glass is then filled with freshly steamed milk topped with whipped cream and cocoa powder.

- Iced coffee chilled regular coffee, sometimes served

with milk or simply single espresso topped up with ice cold milk.

### Errors in Coffee

- Water not fresh
- water has not reached boiling point, insufficient or too much coffee used.
- Infusion time too short or too short long or at wrong temperature.
- Coffee not roasted correctly
- stale or old coffee used.
- Incorrect grind of coffee used for equipment in operation.
- Coffee kept too long before use or kept at wrong temperature.
- Dirty equipment.
- sediment remaining in storage or serving compartment.

The trees that produce coffee are of the genus *Coffea*, which belongs to the Rubiaceae family. There are somewhere in the region of 50 different species, although only two of these are commercially significant. These are known as *Coffea arabica* and *Coffea canephora*. The coffee tree is an evergreen shrub, which reaches a height of two to three meters when cultivated. The fruit of the coffee tree is known as the "cherry" and these are about 1.5 cm in length and have an oblong shape. The cherry usually contains two coffee beans. The coffee tree will not begin to produce fruit until it is 3-5 years old and it will then usually yield good crops for up to 15 years.

The coffee bean through various stages while it is being processed. These are

1. harvesting
2. wet processing (washing, fermenting and drying)
3. dry processing (laid out on mats in the sun)
4. sorting
5. grading
6. grinding
7. packaging

### Tea Production

Tea, a traditional beverage originally from China, is the oldest, most popular, non-alcoholic caffeine-containing beverage in the world and its infusion is prepared by brewing of processed leaves

of the plant, *Camellia sinensis*. Tea is the second most widely consumed beverage in the world following water.

- It was found 6,000 years ago.
- Caffeine is found in tea.
- Black tea and oolong tea is oxidised and fermented more than others.
- Oolong tea is less oxidised and fermented.
- Darjeeling tea, Assam tea, Jasmine tea, Algray tea, English breakfast tea is also black tea.
- Most commonly consumed teas are black, green and oolong which are all derived from the plant *Camellia sinensis*, a member of the Theaceae family.
- Approximately 3.0 million metric tons of dried tea is produced annually, 20% of which is green tea, 2% is oolong and the remainder is black tea. Green tea and oolong tea are predominately consumed in Asian countries, whereas black tea is widely consumed in India and western countries.

### Varieties of teas

#### Black Tea

-The process for making black tea is defined by allowing the leaf to fully oxidize during production (which means water evaporates out of the leaf and the leaf absorbs more oxygen from the air). The results are the characteristic dark brown and black leaf with typically more robust and pronounced flavors.

fresh tea leaves → sorting and cleaning → withering → cutting / rolling → full fermentation → drying

### • Green Tea

All tea starts out green. The green tea process is defined by preventing oxidation. shortly after picking, the leaves are 'fired' (rapid heating) to arrest oxidation and keep the leaf 'green' for the duration of production. Green teas are typically steeped for shorter amounts of time and at lower temperature which will produce a lighter cup with less caffeine.

steps in tea processing

fresh tea leaves → sorting and cleaning → withering → steaming / pan frying → drying, rolling and shaping.

### • Oolong tea.

- Oolong tea are roughly defined as any tea that undergoes partial oxidation (10-90%), but this fact is not useful by itself. "Baking" (take the term literally) is also a common technique in making

oolong tea so it is impossible to summarize categorically.

steps in tea processing

fresh tea leaves → sorting and cleaning → withering → bruising leaf edges → short fermentation → pan frying → drying.

### • White Tea

The easiest way to define white tea is by its minimal processing - no pan frying, no rolling. The leaves are picked, then slowly and methodically dried. Since the leaves are not shaped by rolling the finished tea product tends to be quite bulky, but because they are not pan-fired there will be some incidental oxidation.

steps in tea processing

fresh tea leaves → sorting and cleaning → withering → drying.



- All puer tea comes from the southwest region of Yunnan, China. There are two types of Puer: Sheng puer and shu puer. Sheng puer is a simple non-oxidized tea whose finished product will change naturally over time. Shu puer starts out as a sheng puer, but goes through one more deliberate and accelerated "post-fermentation" process to speed up this change into a matter of weeks as opposed to years.

### • Herbal Teas

'Herbal Tea' is a catch-all term for most any tea that doesn't consist of tea plant leaves. Instead, an herbal tea is created by steeping spices, herbs, and other plants. It's a stress reliever, it aids digestion, and it's a soothing friend when you have a nasty cold. Usually there is no caffeine in herbal teas.

• oolong tea is the combination of green and white tea.

• white tea is very expensive.

• fermented tea is also known as tea cake, only produced in China.

• Boiling water is very good for black tea.

• Herbal tea - no presence of tea - only mint - health benefit.

They serve other teas and coffees in different formats

step 1: Cover the tea tray with a linen or mat. Make sure the cloth is the exact size of the tray area on the inside of the rim.

step 2: Stack saucers. Place one cup on its side, handle out, to one side on top of the saucer stack. Turn the second cup on its side and put the side opposite its handle into the mouth of the first cup. Place the third cup into the second cup in the same way, and the fourth into the third. The resulting circle of teacups is loosely hooked together, sitting atop the saucers. Place the entire stack on the upper left side of the tray, as it's oriented to you.

step 3: Fold each napkin in half diagonally. Stack them and place the stack to the immediate right of the cups and saucers. Fan the napkins out slightly.

step 4: Put teaspoons on top of the napkins with their handles towards the edge of the tray.

Fill the milk pitcher three-quarters full with milk. Place it directly to the right of the napkins with its handle towards the right edge of the tray.

Step 6: Fill the sugar bowl. Put the lid on and set it next to the milk pitcher, along the right edge of the tray.

Step 7: Place an insulated carafe filled with extra hot water between the sugar bowl and the cups and saucers.

Step 8: Put the teapot, filled with hot water and steeping tea, along the left edge of the tray just behind the cups and saucers. Make sure the handle is toward you at the back edge of the tray.

Step 9: Place a small vase of fresh flowers in the final empty space, just behind the sugar bowl. Fill the vase with water half-way to prevent it from spilling.

Tray setup for teas and coffees in different formats.

Things you'll need

- Milk
- Tea Tray
- Cups
- Linen sized to tray
- Saucers
- Square linen napkins
- Teaspoons
- Milk pitcher

- Sugar bowl
- White sugar
- Hot water
- Loose tea
- Teapot
- Vase
- Seasonal fresh flowers.

Coffee cocktails

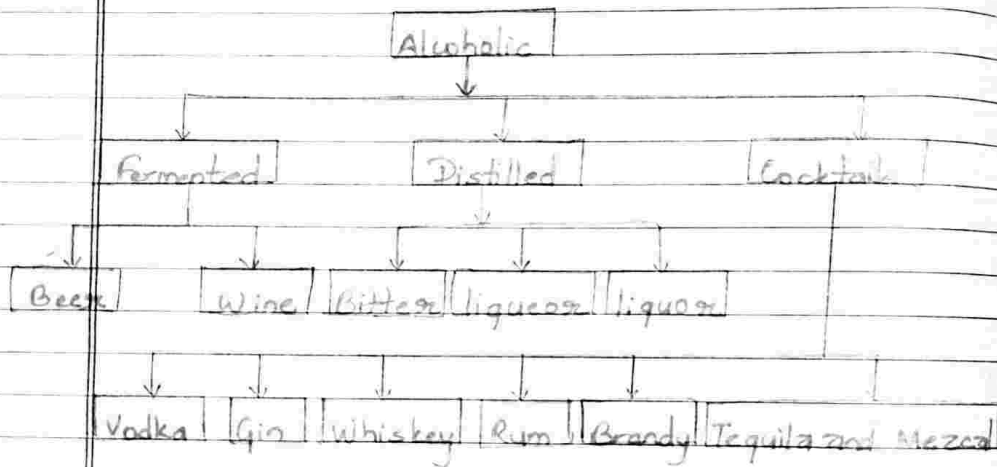
- Espresso Martini
- Irish Coffee
- Black Russian

- A potable liquid containing ethyl alcohol or ethanol ( $C_2H_5OH$ ) at 0.5 percent or more by volume is termed as an 'alcoholic beverage'.

Alcoholic Beverage produced by following methods fermentation and distillation.

Alcohol boils at  $78^\circ C$  whereas water boils at  $100^\circ C$ .

Strength of alcohol is measured by Alcometer.



Method of preparing Alcohol

1. Fermentation
2. Distillation

Fermentation is the process in which sugar is converted to alcohol and carbon dioxide by yeast. This process is the basis for producing all types

of alcoholic beverages.

Fermentation to take place + sugar

2. Yeast

3. Temperature

Types of yeast are Ambient / Natural Yeast and cultured Yeast.

Fermentation occurs at  $3-32^\circ C$ .

Quickest fermentation at room temperature.

# Ideal room temperature is  $17-20^\circ C$

When contains ethanol of a concentration up to about 14-15%. This is because above this level the ethanol kills the yeast and fermentation stops. In the absence of any of these, fermentation will not occur.

glucose  $\xrightarrow{\text{yeast}}$  ethanol + Carbon dioxide

$C_2H_5O$

$C_6H_{12}O_6(aq) \xrightarrow{\text{Yeast}} 2C_2H_5OH(aq) + 2CO_2(aq)$

Fermented drinks

- Fermentation is the process of changing sugar to alcohol and  $CO_2$  when yeast is added.
- Wines, ciders, perry are the examples of fermented drinks.
- Fermented beverage are not ready for consumption as soon as they are made.
- They need some time to develop because they are matured in wooden barrels and then bottled.
- When wines are matured in wooden barrels they

first have woody flavour and gradually diminishes to vanilla flavour.

## 2. Brewed and fermented drinks

- Similar to fermented drinks but the difference is base material
- It is usually malted and crushed cereal which is brewed in hot water to extract maximum soluble sugar from malt.
- It is then cooled and allowed to ferment with the addition of yeast.
- Beer, sake are the examples of brewed and fermented drinks.

Wine → grapes → distillation → Brandy.

Cider → apple

pear → pear

- Alcohol freeze at  $-114^{\circ}\text{C}$ .
- 1. Ale Beer → Top fermented, served at  $5^{\circ}\text{C}$  → Craft Beer
- 2. Lager Beer → bottom fermented, mostly drunk in the world, less bitter than Ale Beer
- Beer should be served at  $1-5^{\circ}\text{C}$
- Beer can be found in bottle, can, keg, I.D.R. - AUGHT

## Distillation

In the distillation process, the alcohol which is present in the alcoholic wash is separated from water.

The wash is heated to between  $77^{\circ}\text{F}$  and  $100^{\circ}\text{C}$ .

Brandy - fermented grape juice

Rum - fermented molasses

Gin - fermented cereal

Vodka - fermented potatoes or cereal

Tequila - fermented pina of weber blue agave

## Distilled drinks (spirits and liqueurs)

Young spirit is raw, sharp and harsh in taste so they are aged in wooden cask to mellow and make them flavorful.

The period of maturation varies from 1 to 25 years for finest cognac.

The congeners (acids and other flavoring substances obtained from base materials during distillations) interact with air through porous of barrels and new flavors are absorbed from wood.

The examples of distilled drinks are

1. Spirits
2. Liqueurs.
3. Faux-de-vie (clear, colourless fruit brandy that is produced by means of fermentation and double distillation).

## Types of distillation

### Types of still

There are two types of still used for distilling spirits:

1. The pot / Traditional / Kettle / Onion shape still
2. The patent / Continuous / Commercial / Column / Aeneas

### Coffey still

#### Pot still

Pot still method is the oldest method of distillation and most of the finest spirits are made by pot distillation.

Cognac, malt whisky, Dutch gin, Irish whiskey, itaquilla, liqueurs ~~etc~~ and dark rum are pot stillled.

Alcohol obtained from pot still.

1st distillation: 25-35% ABV

2nd distillation: 70% ABV Alcoholic volume (ABV)

It is finest and Time consuming.

#### Advantages

- Aroma
- small quantity of wash can be distilled.

#### Disadvantages

- Needs more time and labour
- Costly to operate
- Still needs frequent cleaning and refilling.

# Largest amount of alcohol obtained by pot still method?

→ Old Middleton Distillery, Ireland and 140,000 litres of Jameson Irish Whiskey.

#### Patent / Reflux / Column still

The patent still also termed as continuous still. In this system, the alcohol is separated from the liquid by hot steam and the end product is 'Congene-free'. It has high alcohol content.

Light spirit such as gin, vodka, white rum, neutral spirit, grain whiskey etc are prepared in this method.

Alcohol obtained from patent still.

1st distillation: 40-50% ABV

Highest up: 96% ABV

#### Advantages

- Require less labour, cleaning and refilling
- Cost effective
- More quantity of alcohol compared to pot still

### Disadvantage

- Not suitable for small quantity of spirits
- Aroma required in a drink may not be achieved.

### Patent still

A. Analyzes

B. Rectifies

1. Wash

2. Steam

3. Liquid out

4. Alcohol vapor

5. Recycled less volatile components

6. Most volatile components

7. Condenses

Alcohol Proof is a measure of how much ethanol (alcohol) is contained in an alcoholic beverage. Proof spirit means the measure of alcoholic content of a beverage.

The term originally arose from the old customs method of checking alcoholic content.

The system of assessing proof was adding spirit and gunpowder.

Came into use when the early distillers of spirits tried to prove the alcoholic strength of their products by mixing equal quantities of gun powder and igniting it.

If failed to ignite, called as weak; if it exploded and burned called as strong; if it burned with blue flame, it was proved suitable and safe for drinking.

Hence, the word proof is kept.

The liquid was termed 100% proof or 50% alcohol.

See

Scales in Measuring Alcoholic strength.

- United States (US Proof): Double the percentage of alcohol.

Eg. 100 proof contains 50% of alcohol by volume

100 is 57.1%.

of alcohol by volume

- Actual percentage of alcohol

is shown on the label.

### Conversion of Alcoholic Strength from One Scale to Another

- To convert US proof to GL:  $US\ proof \div 2$
- To convert US proof to sikes:  $175 \times US\ proof \div 200$
- To convert GL to US proof:  $GL \times 2$
- To convert GL to sikes:  $175 \times GL \div 100$
- To convert sikes to US proof:  $200 \times sikes \div 175$
- To convert sikes to GL:  $100 \times sikes \div 175$

### Types of Alcoholic Drinks and Their strength.

Alcoholic Drinks	Strength in % abv
De-alcoholized	0.05-0.5
low alcohol	0.5-1.2
Cider	4-8
Beer	3-6
Table wine	10-14
Sparkling wine	10-14
fortified wine	16-24
Aromatized wine	15.5-20
Spirits	40
Liquors	17-55

Dr. M. S. S. S.  
2021-02-24

Wine is an alcoholic beverage obtained from the fermented juice of freshly harvested grapes. It is prepared from both white and black grapes. There are many varieties of grapes produced and not all of them are used in the production of wine. The colour, flavor, and aroma of the wine are largely influenced by the type of grapes used in the production.

### Classification of wine

Wine is classified on the basis of the following factors:-

- Colour: white wine, sweet wine, Rosé wine
- Taste: Dry wine, sweet wine, medium wine
- Content: still wine, sparkling wine, Tonic wine.

### Colours

#### White wine

It is produced from both white and black grapes. White wine color ranges from pale straw with a green tinge to dark gold. It is produced from black grapes, skin must be removed soon after crushing.

#### Red wine

The color of red wines ranges from purple when young and to brick red as it ages. It is produced from red grapes. The skin is allowed to remain with the fermenting must either throughout the process or half way.

through.

The coloring pigments (the natural coloring matters of animal or plant tissue) present in the skin gives color to the wine.

### Blush Wine

It is the new style of rose wine developed in California, USA.

Skins of black grapes are allowed to soften or separate into parts with the must for a short period which produces light pink colored wine.

### Rose Wine

This wine is light pink in color which is produced from the mixture of white and red grapes.

The skin of the black grapes is allowed to remain in contact with the must (pressed grapes), till the wine is obtained.

When the color is obtained, skin is removed.

### Taste

#### Dry Wine

A dry wine is simply a wine that has no residual sugar, meaning it isn't sweet.

When grape juice converts to wine, alcohol is produced in the fermentation process because

Yeast eats the sugar present in the juice.

No more sugar, so no sugary sweetness; the wine is therefore dry.

It is obtained when there is some sugar left after fermentation, stopped naturally or intentionally by the manufacturer.

Some sweet wines are Riesling, Muscato, Vouvray, chenin Blanc, sauterne.

It is neither too dry nor too sweet.

It has traces of sugar left after the fermentation.

### Table Wine

#### Table Wine

Wine obtained by the natural fermentation process without adding anything.  $CO_2$  produced during fermentation is allowed to escape. Also known as table wine. Alcoholic content is 10-14%. Cabernet sauvignon is one best example.

### Sparkling Wine

Wines bottled with the  $CO_2$  produced during fermentation. The gas is prevented from escaping.

The trapped gas is result of secondary fermentation either in bottle or in sealed tank.

Alcoholic Beverage percentage is between 10 to 13%. Champagne is best example.

The alcoholic strength is increased adding brandy either during or at the end of fermentation.



fation Alcoholic content is 16-22%. Also known as heavy wine. Examples: sherry, Port, Madeira, and Marsala.

### Aromatized Wine

These wines are fortified and aromatized with herbs, spices, roots, etc. The alcoholic content is 14-20%. Vermouth is popular aromatized wine.

### Tonic Wine

This wine has health improves added to it. Buckfast Tonic wine, commonly known as Buckfast or Buckle, is a fortified wine with caffeine, licensed from Buckfast Abbey in Devon and distributed by J. Chandlee and Company in the United Kingdom and Grants of Ireland in Ireland.

Buckfast contains 15% alcohol in the 750 ml green bottled UK version, and 14.8% in the brown-bottled Republic of Ireland version, which equates to roughly 11.25 UK units of alcohol.

### Grapes

A grapes is a fruiting berry. Grapes can be eaten raw or they can be used for making wine, jams, juice, jelly, grape seed extract, raisins, vinegar, and grape seed oil.

The cultivation of the domesticated grape began 6,000-8,000 years ago.

The scientific name of grapes is *Vitis vinifera*.

There are over 10,000 varieties of grapes because

of mutation.

### Constituents of grapes

The constituents of grapes for wine making are as follows:-

- Stalk
- Skin
- Pulp
- Pips.

### Tannin

It hold grapes in a bunch. It weighs around 3-7% of the total weight of the harvest depending on the type of wine. It contains tannin (chemical compound), which are soluble in alcohol and add bitterness to wine.

Tannin contributes to:

1. Astringency means harshly biting or contracting
2. keeping quality
3. Helps in coagulation (change from a liquid to a thickened or solid state) with fining agent containing protein used during the clarification process.

### Skin

It is natural cover to protect the contents inside the grape. It contains the pigments 'anthocyanes' (water-soluble pigments) and flavones' (colorless compound for white or yellow color) that give color to the wine. It is covered with a waxy substance called bloom which contains bacteria, moulds and millions of yeasts which convert the

## grape to alcohol

### Pulp

A soft substance behind the skin of the grapes which contains liquid, sugar (glucose and fructose) and acids. It weighs 80-85% of the weight of the bunch. The pulp has minerals which influence the taste and character of the wine. It contains 80% of water and the sugar is between 10-25% and the rest is acids; this composition depends on variety of grapes and climate conditions.

### Pips

These are the small seeds of grapes. These contain both tannins and oils. They give a bitter flavor to the wine and are discarded during wine making.

## Factors Influencing the character of wine

### • Soil

The mineral content of the soil and ground water determines the composition of acids and other minerals which influence the aroma of wine. The most important factors to consider are organic content and drainage. A pH (a figure expressing the acidity or alkalinity) in the range of 5.5 to 7.0 is ideal for most varieties.

Every grape variety has different aroma and other features that play an important role in determining the kind of wine to be produced.

Most wine producing countries lie between 30° and 50° latitude. The countries near 30° produce poorer wine and near 50° produce better wine.

### • Viticulture

Every stage of viticulture - ploughing, weeding, spraying, harvesting etc happen at a particular month of year considering weather. Late harvested grapes have more sugar which determines the character of wine.

### • Storage

Wines should be stored at appropriate temperature (10 and 15°C) and in the room free direct sunlight and vibration. Poor storage would affect the character of wine.

### • Transportation

Bottles should be transported and handled carefully during the transit.

### • Aspect

The slopes facing south produce good quality wine due to longer exposure to sunshine whereas north facing slopes have not the advantages for

## quality wine

### • Climate

The climate can be good or bad for the grapes. Extremes of sunshine, storm, wind, rain, etc. can damage the grapes. The average temperature of the place should not be below 10 degree. The ideal temperature is 14 degree.

### Characteristics of Wine

Sweetness

Acidity

Tannin

Fruit

Body

### A good quality wine have following characteristics

- Have the aroma of the grapes.
- should be free from unpleasant smell.
- Be well-balanced i.e. all components of wine should be in harmony (fruit, acid/tannin and finish)
- Be clear and bright

### Faults in Wine

$SO_2$  is added during fermentation to kill the fungus present in yeast. Also works as preservative. Excess quantity leaves unpleasant smell. The  $SO_2$

disappears when exposed to air

### 5. Oxidation

During ageing process, the air invades the wine through very fine pores of the wood. If exposed to oxygen for longer time, white wine changes to brown. Exposing for longer time with oxygen the wine goes lifeless with dull texture & flat aroma.

### 5. Cork

During maturation and storage the bottle is kept horizontally to prevent the cork from drying out. The main purpose to do so is to keep the wine in contact with cork so it swells and doesn't allow air to pass. The cork is contaminated with strong mouldy smell by a substance called trichloroanisole (TCA) during the sterilization process spoils the wine during the contact.

### 6. Vinegar

- When is turned to vinegar by two ways:
- When exposed to oxygen for longer duration.
  - Acetobacter bacteria is unchecked because it acts on alcohol and converts wine to vinegar.

### 5. Hydrogen Sulphide

- It smells similar to a rotten egg. When yeast reacts with  $SO_2$  during fermentation, it takes on smell of rotten egg. It can be rectified when wine is decanted. This occurs in red wine

In some cases, the potassium bitartrate crystals on cork may form which spoils the appearance of wine. The crystal (wine diamond) can be retained by pouring gently into the glass.

### Foreign materials and sediments

Wine may be ~~contains~~ contaminated by splintered glass due to faulty bottling equipment. Wines throw up sediments during ageing which can be removed by racking or decanting.

### Wine Tasting

Wine tasting is the process of evaluating the wine. It includes the assessment of CAT (Colour, Aroma and Taste).

To evaluate the wine, the following are recommended.

- A clean room with white background and free from strong smell.
- A clean and clear wine glass of 10-12 oz capacity.
- Evaluation sheet if more number of wines is evaluated.
- Spit if more number of wines is tasted.

### Steps in Wine Tasting

1. Pour the wine and observe its clarity and color by holding against the light.

2. Swirl the glass and observe how the wine slides down, to evaluate the viscosity of the wine.
3. Swirl & nose the wine to evaluate its aroma.
4. Swirl and taste the wine to evaluate its taste and check if the wine is balanced or acidic.
5. Feel the body of the wine.
6. Make a note on the observation on the colour, clarity, smell, viscosity etc.
7. Observe clarity and color: Pour 2-3 oz of wine in the wine glass and hold at 45° angle in white background or light to observe the colour and clarity. At last make a note of results.
8. Swirl the glass: Swirl the glass and observe the fall of the wine on the sides of the glass which reveals the viscosity of the wine and take note.
9. Swirl and nose the wine: Holding the glass by the stem, swirl it gently for 5 seconds. Swirling makes more of the wine to come in contact with oxygen and release the alcohol and the elements in the wine that produce the distinctive aroma and bouquet. Put the nose almost inside the glass and take quick smell. Compare the smell with any of the fruits, spices, chemicals, vegetables and flowers and make notes.  
Following are some of the flavours often identified.

Wines may have the flavour of tropical, citrus and stone Geranium, violet, rose, orange blossom, etc.

Grassy, asparagus, peas, bell pepper etc  
Black pepper, cloves, anise, etc

Chemical: Soapy, sulphur dioxide, skunk, etc.

10. Swirl and taste: Take a small amount of wine, roll it round the mouth and draw some air through the wine to heighten the flavor, sweetness, dryness, acidity and astringency of the wine are evaluated. The astringency is associated with red wine which is due to presence of tannin.

11. Feel the body: Body is the feel of wine in the mouth. It is contributed by alcohol, sugar, tannin and acid. Full bodied wine fills the mouth in a sensuous way. Observe the aftertaste which refers feeling in mouth after tasting.

12. Make notes: Make a note on the observation on the color, clarity, smell, viscosity, taste, body and aftertaste and sum up the observation.

### Naming of Wines

Any product produced for a consumer should have a name for marketing. Wine is also named and it is printed on the label of the wine bottle. There are so many varieties of wines from various regions of different wine producing countries with their name in the market.

These are named in any of the following four methods -

Wines produced in Germany, Australia, USA, France were named after the grape variety used in wine making.

Minimum amount of grape variety mentioned on the label used in the production varies from region to region and country to country depending on law of the place.

In European countries, 85% wine come from grapes mentioned on the label, USA 75% and in France 100%.

Wines named after the grape variety known as "Varietal wines".

Named after place of origin.

Quality wine are generally named after their place of origin, which may be large such as region and district or smaller such as villages, community.

The place of origin is normally delimited and controlled by the government.

The smaller the area, the higher the standard of the wine.

### Brand Name.

Some wines are named after the producer, shipper or the proprietor of the vineyard who tries to establish his/her brand by producing quality wines according to their styles. Most of the times, the reputation of the producer is the basis for the choice.

Some countries name their wines after well-known wine districts that are noted for its typical style of wine.

Wines must have the place of origin on the label. For example: California, Chablis. This helps the consumer to identify the wines are made in California.

Most generic wines are inexpensive and affordable wines for many consumers.

### Service of Wine

There are seven points that should be considered when serving wine: -

1. The sommelier should be able to describe wine and its characteristics.
2. Serve the wine before the food.
3. Ensure the wine is served at correct temperature.
4. Always treat wine with respect and demonstrate a high level of technical skills when opening wine.
5. The neck of the bottle should never touch the rim of the glass when pouring.
6. Fill glass to the correct level. Never overfill the glass.
7. Unnecessary topping up should be avoided.

### Red wine

15.5 - 18°C → younger red wines can be consumed at lower temperature

### White wine

10 - 12°C

### Dessert wine and sparkling wine

4.5 - 10°C

### Glass for wine service

1. Sparkling wine - Flute or Tulip shaped glass.
2. White wine - Medium sized wine glass
3. Rose wine - Flute or Medium sized wine glass
4. Red wine - Large wine glass

Still wine is the result of natural fermentation of grape juice. still wines may be red, white, or rose and may be sweet, dry or medium according to the manufacturer's decision. The winemaker's introduce different techniques at various stages of winemaking to produce still wines of unique characteristics.

Red wine gets the colour from the skin during fermentation.

### steps in making still wine.

Following are the basic steps in the production of still wine:-

#### To make red wine.

The juice of black grapes undergoes fermentation with the skin to make red wine. The steps of making red wine are as follows:-

Destalking machine  
Crusher

Fermentation

Pressing

Filteration and fining

Blending

Resting

Bottled

#### White wine

Destalking machine  
Crusher

Pressing

Fermentation

Maturing cask

Filteration and fining

Blending

Resting

Bottled.

Step 1: Black grapes are passed through a mechanical destemmer - crusher to remove the stems and to crack the grapes so as to release the juice. The juice, pulp, stems, and skins, now called must, is transferred to a fermentation tank.

Step 2: The must undergoes fermentation for up to 14 days. The yeasts slowly convert the grape sugar to alcohol. The fermenting juice obtains the colour from the skin of the grapes which is allowed to remain in contact with the must during the fermentation. The juice, now termed as wine, is separated from the skins and stems by passing it through a press.

step 3: The wine is transferred to ~~ask~~ oak barrels for ageing.

step 4: During the ageing process, the wine continues to ferment and develop. The yeast and the residue settle to the bottom of the barrel and form sediment called lees. Wine is separated from the lees by transferring the wine to clean casks. This process is called racking.

steps: The wine is subjected to fining and filtering to make it clear and star bright.

step 6: The wine is then blended, stabilized and rested.

step 7: It is finally mechanically bottled, corked and packaged for distribution.

### To make white wine

White wine is made from the juice of white or black grapes which are pressed before the fermentation to separate the juice from the skin.

The process of making white wine are as follows:-

step 1: The grapes are passed through a destemmer-crusher and gently pressed to must.

step 2: The must is immediately passed through a press to separate the juice from the skins and stems.

step 3: It undergoes fermentation process in which the yeasts slowly convert the grape sugar to alcohol.

step 4: The wine is transferred to oak barrels for ageing.

steps: The residue settles to the bottom of the barrel and form sediment called the lees. Wine is separated from the lees by transferring to wine to clean

casks. This process is called racking.

step 6: The wine is subjected to fining and filtering to make it clear and star bright.

step 7: The wine is blended, stabilized and rested.

steps: The wine is finally mechanically bottled, corked, and packaged for distribution.

### To make rose wine and blush wine

In the production of rose wine, the skins of black grapes are allowed to remain in contact with the fermenting must, till the required colour is obtained. It takes normally about 24-36 hours. Blush wine remains in contact with the skin for an hour or two, producing wine of light pink colour with a blue tinge. The remaining steps are the same as that for red and white wines.

### Red Wine

Following is the process of making red wines.

### Grape Harvest (Harvesting)

The first step in winemaking is the grape harvest which can be accomplished either mechanically (harvesting equipment) or manually (hand-picked). Hand-picked method is costly and time consuming as it selects the best quality grapes. It is often used in the preparation of costly wines. Mechanical method is more efficient, cost-effective, and is well suited for large vineyards. Some producers harvest during the night time as the temperature is low. The type of harvest employed depends on the manufacturer's choice.



After the harvest, the grapes are crushed and destemmed quickly. The grapes are crushed in many ways according to the manufacturer's choice. Hydraulic, revolving, cylinders, and pneumatic base press are the widely used methods of crushing grapes. Some wineries situated in remote mountain regions still follow the old foot-pressing method. The objective of crushing is not necessarily to squeeze all the juice out of the grapes, but to gently crack the skin and allow the juice to start its run. It may be pressed many times but the first press yields which is the richest in sugar. The gently crushed grapes are known as must.

### Fermentation

Yeast starts the wine fermentation

What happens is small sugar-eating yeasts consume the grape sugars and make alcohol. The yeasts come either from a commercial packet (just like you might find in bread making), or occur spontaneously in the juice. Spontaneous fermentation ~~also~~ uses yeast found naturally on grapes. Commercial yeasts allow winemakers to produce very consistent wines year in and out. Natural yeasts are more challenging but often result in more complex aromatics.

### Malolactic Fermentation

Wine makers use many methods to tune the wine during fermentation. For example, the fermenting juice gets frequently stirred to submerge the skins (they float)

One way to do this is to pump wine over the top. The other way is to punch down the "cap" of floating grape skins with a tool that looks like a giant potato masher. Pumpovers rigorously extract lots of flavor from the grape skins and make for rich reds. Punch down extract flavors more delicately and thus they tend to produce more subtle red wines.

### Pressing wine

Most wines take 5-21 days to ferment sugar into alcohol. A few rare examples, such as Vin santo and Amarone, take anywhere from 50 days up to 4 years to fully ferment. After the fermentation, winners drain the freely running wine from the tank and put the remaining skins into a wine press. Pressing the skins give winemakers about 15% more wine.

### Malolactic Fermentation ("Second Fermentation")

As red wine settles in tanks or barrels a second fermentation happens in which bacteria converts malic acid into lactic acid and carbon dioxide.

### Ageing

Red wines age in a variety of storage vessels including wooden barrels, concrete, glass, clay and stainless steel tanks. Wooden barrels affect wine the most noticeably as it flavors wine with natural compounds.

It is the process by which we combine different varietal wines into one supreme wine. Blending wines into a challenge, because you have to use your sense of texture on your palate instead of your nose.

### Clarifying the wine

Clarifying may be done by adding substances such as egg white and that collects the protein in the wine during its passage to the bottom of the cask. Wine is then be passed through the fine filters for filtration.

### Bottling and labeling wine

Now, it's time to bottle our wine and it's important. A small amount of sulphur dioxide is added to preserve the wine.

### Bottle ageing

Finally, a few special wine continue to age in the winemakers cellars for years.

### White wine making process.

#### 1. Harvest

For making white wine you can either use black or white grapes. as skin of ~~gr~~ black grapes are removed before fermentation. Winemakers should keep in mind that grape should be picked at cool temperature and when to harvest grapes.

Picked grapes head immediately to the winery and go to wine press, where juice from grapes gets collected into a tank. During this step grapes also receive sulphur dioxide to stop bacterial spoilage before the fermentation starts.

#### 2. settle the juice

The freshly squeezed juice is cloudy so it sits in tank for little while to settle and chill down. This process helps to remove suspended solids.

#### 3. Fermentation

White wine is rarely placed in an open fermentation tank. The goal is to reduce oxygen exposure ~~re~~ which can burn off all those delicate aromas in white wine.

#### 4. Malolactic fermentation

It isn't alcohol fermentation but an acid conversion carried out by a bacteria where it eats malic acid found in ~~at~~ wine and poops ~~and~~ out lactic acid. It is optional and not used much as white wines.

#### 5. Make the blend

After giving its time to blend the wine while it's common to have varietal white wines the wine maker can still go through a barrel selection process to create a single variety blend.

At time point, the wine is still cloudy so to make it clear many winemakers add clarifying or fining agent to remove suspended proteins in the wine. Fining agents including casein or egg whites.

Wine Grapes chart

	Bold		Syrah
	Merlot	Carbnet Sauvignon	
	Malbec		Cabernet Franc
	Grenache	Petit Syrah	Chianh
Fruity	Viogineisz		Champagne
	Moscato		Earthy
		Chardonnay	Pinot Noir
	Rieding		Cava
		Pinot Grigio	Sauvignon Blanc
	Light		

### Rose' and Blush Wine making process

In the production of rose' wine, the skins of black grapes are allowed to remain in contact with the fermentation must, all the required color is obtained. It takes normally about 24-36 hours. Blush wine remains in contact with the skin for an hour or two producing wine of light pink color with a blue tinge. The remaining steps of production are the same as that for red and white wine.

1. How many bubbles does a bottle of champagne have?  
 → For standard 750 millimeter bottle, is approximately 100 millions bubbles.

2. How dry is that champagne?  
 → No champagne today is extremely sweet. Eg sauternes often contain 12% of sugar (12.0 grams per litre).

Brut Nature: less than 2 grams of sugar per litre (3% of sugar)

Extra Brut: 0 to 6 grams per litre (0 to 6% of sugar)

Brut: less than 12 grams per litre (less than 12% of sugar)

Extra Dry: 12 to 17 grams per litre (1.2 to 1.7% sugar)

Sec: 17 to 32 grams per litre (1.7 to 3.2% sugar)

Demi sec: 32 to 50 grams per litre (3.2 to 5.0% sugar)

Sweet: more than 50 grams per litre (5% sugar)

### Making of Sparkling Wine

Sparkling wines have CO<sub>2</sub> which gives the wines the sparkle. There are four methods of making a sparkling wine. The objective of all methods is to produce a clear wine with stream of bubbles of carbon dioxide.

#### 1. Méthode Champennice

This is the most complicated process which is followed by the champagne region of France. It is traditional method of making champagne which is made according to Comité Interpersonnel du Vin de Champagne (CIVC) regulation. The three classic grape varieties used are Pinot

Noir, Pinot Meunier and Chardonnay.  
The production of champagne involves two stages: primary fermentation and secondary fermentation.

Grapes (Pinot Noir, Pinot Meunier, Chardonnay)

Crushed / Pressed

Juice is run off to vat for fermentation

Rocking

Blending and fining

Liquor de tirage is added (solution of cane sugar, yeast and old wine)

Rémuage (process of periodical shaking of bottle collect the sediments on to the cork)

Dégorgement (process of removing the sediments from bottle)

Addition of liqueur d'expédition (dosage → solution of similar wine frage)

Re-corking

Shaking and resting the bottle

Packaging

steps involved in champagne production by secondary fermentation.

Types and characteristics of champagne

Brut Nature: Very dry (little amt of sweetening and add to remove the astringency of complete dryness)

Extra sec: Dry champagne (1-2% sugar)

Sec: Medium dry (2-4% sugar)

Demi sec: Medium sweet (4-6% sugar)

Demi doux: Sweet (6-8% sugar)

Doux: Rich very sweet (8% and above)

Sizes of Champagne

Magnum	2 bottles
Jeroboam	4 bottles
Reboam	6 bottles
Methusalem	8 bottles
Salmanazar	12 bottles
Balthazar	16 bottles
Meubuchednazar	20 bottles

2. Cuvee close

This method was introduced in France by M. Charmat and involved secondary fermentation in large, sealed tanks. It takes only 10 days to complete. The wine is drawn off through filters under pressure and is bottled.

The resulting wine is cheaper than champagne.

### ① Tank Method

②  
1st Fermentation → 2nd Fermentation → Filtration  
Base wine created Base wine inoculated with sugar, yeast into tanks. It takes approx. 10 days.  
③  
Wines are sent through a filter to remove the sediments.

④ Dosage → ⑤ Bottling  
Wine receives a mixture of sugar and must called Dosage.  
Wines are bottled under intense pressure retain ~~fizz~~ fizz.

### 3. Transfer Method.

This method is similar to *methode champenoise* except the process is shortened by using filtration and fining instead of lengthy riddage process.

### 4. Direct Impregnation

This is the cheapest method of making sparkling wine.  $CO_2$  gas is directly impregnated into the wine from a cylinder in the same way as in the making of aerated waters.

Champagne produced in golden in color and made from all three champagne grapes: chardonnay, pinot noir, pinot meunier.

### a) *Millesimee Champagne*

It is the wine of a single year and is permitted to add up to 20% of wine from another vintage if this can benefit and balance the wine.

### b) *Pink Champagne*

It is made either by allowing the skins of black grapes to remain contact with the must, or by blending a little bit of red wine.

### c) *Blanc de blanc*

It is made from the white grapes, only and sometimes may even be labelled as *Blanc de Blanc*.

### d) *Blanc de noirs*

It is made from black grapes only. This is very rare outside the region.

### e) *Cremant*

These wines have a little less fizz than ordinary champagne.

"All *Crus* are sparkling wine but all sparkling wine are not champagne".

## Sparkling Wine

vs.

## Champagne

1. NM (Négociant Manipulant): The producer buys grapes from other sources besides his/hers own and makes wine.
2. CM (Co-operative de manipulant): It is a cooperative of growers who blend the product of their collective vineyards to sell under one or more brands.
3. RM (Recoltant Manipulant): Also known as Grower Champagne. It refers to a grower who makes wine from his/hers own grapes.
4. CR (société de recoltants): It refers to an association of growers who are not a co-operative, making shared champagne.
5. RC (Recoltant Co-opérateur): It is co-operative members selling champagne produced by the co-operative under its own name label.
6. MA (Marque Auxiliaire): It is a brand name owned by someone else; for example: supermarket.
7. MN (Négociant distributeur): It is wine merchant selling under his/hers own name.

1. Made any where in the world.

2. Most use chardonnay and pinot noir grapes.

3. Can be made using the carbonation method, charmat or traditional method.

4. Taste varies based on how it's produced.

1. Made in the champagne region of France.

2. Most use combination of chardonnay, pinot noir, pinot meunier grapes.

3. Can only be made using the traditional method.

4. Taste is usually nutty and tasty.

~~Q. 11~~  
2021-03-12

## Fortified Wine

- fortified wines are made when grape brandy is added to a wine and can be either be dry or sweet. Most fortified wines are higher in alcohol content (about 17-20% ABV) and have a longer shelf life after they are opened.

## Fortified Wine of the World

- Sherries
- Port Wines
- Madeira
- Marsala
- Malaga
- Montilla, Oriles
- Vin doux Naturels.

## Sherry

Sherry takes its name from the town of Jerez (de la frontera), and is made in around the region surrounding the town of Jerez de la frontera in south western Spain.

Within region 3 main centers of sherry production are

1. Jerez de la frontera
2. Puerto de santa Maria
3. Sanlucar de Barrameda.

## varieties for sherry

- Palomino Blanco
- Pedro Ximenez
- Moscatel fino

## Production of Sherry

After fermentation all sheries are dry white wine with 10 to 14% alcohol. Brandy is added to the wine after the fermentation bringing the alcoholic strength to 15 1/2%. The young wine, known as añada, is stored in wooden barrels with a loose stopper to encourage oxidation. Sherry is classified as either fino or oloroso by nature based on the formation of flor. The formation of dense, white, frothy yeast called flor may or may not develop in the wine within 18-24 months after fortification during storage.

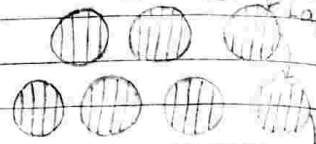
If flor occurs it restricts the air interacting with the wine and prevents it from oxidation, keeping the wine pale and delicate. This wine is known as fino. If fino does not develop, the air invades the wine and making it dark and heavy, resulting in Oloroso.

In some barrels, wine develops flor, but it is thinner than that of fino and dies after 2 or 3 years. This allows light oxidation which contributes slightly fir less and darker sherry than fino but not as dark and heavy as oloroso. It is between fino and oloroso, called amontillado.

The sheries are placed in solera system for ageing and blending. Each category of sherry has its own solera.

Solera is a network of large barrels, through which the wine passes during the ageing process. The solera has several rows of identical barrels. The barrels contain 2/3 rd wines.

Each row of barrels is termed as scale or criadera and the number of criadera in a system is not fixed. There may be 10-14 criadera in the system.



The bottom row of barrels, termed as solera, contains the oldest sherry and the topmost criadera is topped with new wine, añada. At the time of bottling, up to 1/3rd of the wine is drawn from barrel in the bottom row of the solera and subsequently, the barrels are replenished with wine drawn from the barrels of the first criadera (the second scale). The second criadera (the third scale) is topped with wine from the third criadera (fourth scale), and so on, up to the top row with añada taken from the original barrel. The wine drawn from the solera undergoes further treatment of fining to make it clear and bright. Sweetened with Pedro Ximénez (PX) and moscatel wine and ABV is adjusted to 16-20% by adding brandy.

## Types of sherry

### 1. Fino

It is pale, light and very dry sherry with 15.5-16% alcohol. Served chilled and preferred as aperitif wine.

### 2. Manzanilla

This is the palest, lightest and the driest of all sherries. The alcoholic content is similar to fino.

### 3. Amontillado

It is yellow in colour with a dry, nutty flavour and about 16.5-18% alcohol. It may be served at room temperature, chilled depending on the taste preference of the customers.

### 4. Olorosso

These sherries have the strongest fragrance of all the sherries. They are dry, dark in colour. It has 20% alcoholic percentage.

### 5. Amorosos

It is the traditional name for sweet olorosso. It is also termed as cream sherry.

### 6. Palo Cortado

It is between olorosso and amontillado in style. It is very rare. It contains 18-21% alcohol.

7. Cream: It is smooth, full, sweetish wine made by blending olorosso with a sweetening wine made from Pedro Ximenez and Moscatel.

## Port

Port is produced from the grapes grown in Upper Douro valley of Northern Portugal. It is claimed to be world's greatest fortified wine. Port is most commonly enjoyed as a dessert wine because it is rich and sweet. There are fine ports that are highly treasured for sipping and are expensive.



## Types of port

### 1. Ruby (Red) Port

A deeply-colored red port which includes Vintage, late-bottled Vintage (LBV), Crusted and Ruby port.

### 2. Tawny Port

A very sweet barrel aged port with nut and Caramel flavors.

### 3. White Port

Made with indigenous white grapes including Rabigato, Viosinho, Gouveio and Malvasia.

### 4. Rose Port

This is a new style of port wine made like rosé wine with flavors of strawberry, violets and Caramel.

## Madeira

Madeira is a Portuguese fortified wine that comes from the island of Madeira in the Atlantic Ocean.

It is one of the most versatile fortified wine and served as an aperitif, soup wine, dessert wine or as after dinner wine.

## Types of Madeira

Madeira is named after the grapes used in the preparation. They are given in the preparation order ascending order of sweetness in the following.

### 1. Sercial

It is the driest Madeira, with a slight almond flavour. It is quite harsh when young, and takes more time to mature. It is served chilled as an aperitif.

### 2. Verdelho

It is soft and sweet wine with a smoky flavour. It goes well with soups.

### 3. Bual

It is a full-bodied sweet wine with a velvet-brown colour.

### 4. Malmsey

It is dark rich wine with a full flavour. It is regarded as one of the finest wine.

### 5. Blends

Some madeiras are blended and marketed under the shipper's brand name. Examples are Rainwater and London particular.

## Producers of Madeira

The leading producers of Madeira are as follows:-

- Blandy's
- Cossart Gordon
- Ferraz
- Leacock
- Lomelino
- Sandeman
- Shortridge Lawton

Marsala is a fortified wine comes from North west Sicily, taking its name of a town in that area. The local grapes Grillo, Catarratto and Inzolia are used in the preparation. It is made from a blend of white wine, brandy and heated must, which is then matured in the solera system.

In 1773, the English merchant, John Woodhouse established the winery in Sicily for the production of Marsala wine. It gained popularity soon.

### Types of Marsala

#### Marsala fine

It varies in style from dry to sweet and needs a minimum period of ~~time~~ four months of ageing. It must not be less than 17% abv.

#### Marsala Superiore

The style ranges from dry to sweet and must be minimum of two years old and the alcohol not less than 18 percent abv.

#### Marsala Speciale

It is Marsala with flavours, such as coffee, almonds, fruit, etc.

#### Marsala Vergine

It is driest of all Marsalas and is normally offered as aperitif. It is aged for minimum period of five years and must contain minimum of 18 percent abv.

Vergine Stravecchio or Vergine Riserva  
It is aged for a minimum period of 10 years.

Málaga is a sweet fortified wine that comes from Malaga on the Mediterranean coast of Spain. The main grape used in the its production is Pedro Ximénez. It is produced from the grapes dried on the straw mats in the sun. It is then blended with concentrated grape juice after fermentation and is then fortified. It is matured in the solera system.

### Types of malaga

Málaga wines are classified according to age, colour and sugar content.

According to the age, they are called

- Málaga: It is aged for 6-24 months.
- Málaga Noble: Aged for 2-3 years.
- Málaga añejo: Aged for 3-5 years.
- Málaga transañejo: Aged for more than 5 years.

According to their colour

- Dorado or golden: It is produced with no added grape syrup.
- Rojo dorado or not gold (tawny): It is production with the addition of up to 5 percent grape syrup.
- Oscuro or brown: It is produced with the addition of grape syrup between 5 and 10 percent.
- Colour (coloured): It is produced with the addition of grape syrup between 10 and 15 percent.

- **Nero o Dunkel (dark)**: It is an aged wine, produced with the addition of over 15 percent of added grape syrup.

### According to the sugar content

- **Dulce Crema ~~and~~ cream**: Contains sugar between 100g/l and 140g/l. Its colour ranges from amber to dark amber.
- **Dry pale or pale dry**: Has sugar content not more than 45g/l.
- **Pale cream**: Has sugar content higher than 45g/l.
- **Sweet**: Has sugar content more than 140g/l. Its colour ranges from amber to black.

### Producers of Malaga

The leading producers of Malaga are as follows:-

- Scholtz Hermanos
- Larios
- Manischewitz
- Jorge Ordonez

### Note:

- sherry and port are the two great fortified wines which are available in many styles.
- Marsala used in culinary preparation.

Vermouth is an aromatized and fortified wine, deriving its name from a German word *wermut*, meaning 'wormwood'. Vermouth was first marketed as a medicine for its therapeutic and digestive properties.

The word *vermouth* derived from *ge*.

It is served as aperitif. Italian Vermouth refers to sweet and red vermouth and french refers to dry and white vermouth. Vermouth is flavoured with about 50 different ingredients which includes wormwood, quinine, citrus peel, notes, flowers and herbs.

### Production of Vermouth

The following ingredients are required to produce Vermouth Young wine of ordinary quality.

Mistelle (mixture of unfermented grape juice and brandy)

Flavoring agents - Macerated or infused in Alcohol.

### Style of Vermouth.

#### Styles

#### Features.

Dry Vermouth

It is termed as French Vermouth. Produced from dry white wine, flavoured, and fortified. Light yellow to gold in colour.

Sweet Vermouth

It is also known as Italian vermouth. Reddish brown in colour, sweet; made from white wine, flavored, fortified and coloured with caramel.

Bianco It is a straw coloured, sweet vermouth.  
Sweetened with mistelle or sugar.

Rosé Vermouth It is less sweet than Bianco and coloured  
with caramel.

### Popular Brands of Vermouth

Dry	Sweet	Bitter-sweet
• Martini	• Cinzano Red	• Punt-e-Mes
• Chambéry	• Martini Bianco	
• Cinzano	• Martini Rosé	
• Tarella	• Cinzano Bianco	
• Noilly prat	• Noilly prat Red	
	• Martini Rosso	

### Bitters

"Bitters are to cocktails as salt is to food" They improve  
and align flavours just like salt does, they help to  
accentuate flavor and they bring their own flavors.

Bitters are spirit flavoured with herbs, bark, roots,  
spices and fruits. There are two types of bitters

1. Flavourers Bitter - Angoustra, Peach, Orange, All  
Spiced bitter
2. Beverage bitter - Campari, Cynar, Fernet Branca.

Traditionally grapes were transported to lagares (shallow  
granite troughs) and crushed by foot treading. Foot  
treading done only by top producers for best grapes  
of high cost. Piston tanks used since 1800s for  
pressing. Autorificator continually circulates juice  
and skins so cap stays broken and submerged.  
Carbon dioxide pushes must down inside tank.  
Pump-Over fermenters pump and spray must in sealed  
tank. Rotary fermenters rotate on schedule to inte-  
grate skins.

Port fermentation always relies on ambient  
yeast. Port House determines sweetness and arrests  
fermentation through addition of grape spirit (~~and~~  
aguardiente). Fortification brings alcohol level to  
20% and kills yeasts. House sweetness generally  
ranges between 8-12%. Legally port may be very  
sweet - 130 g/l or 13% Rs or more, sweet,  
Semi-dry or Extra dry - 40 g/l or 4% Rs or less.

### How Port is matured?

Traditionally, 1-2 winters in wineries in large wooden  
casks or vats. Transported to Vila Nova de Gaia  
(or other legal area in demarcated Douro region)  
Tawnies: Smaller barrels, oxidation aging. Rubles  
/ LBV / Vintage: aged in large vats to preserve  
color and fruit. Port barrel is called a 'pipe' (usu-  
ally 550 l or more)

Most ports reflect a blend of various

- Grape varieties
- Vineyard lots
- Vintage
- Sweet port may be "toned down" with dry port
- Extra-sweet port called gempiga can be blended in to increase sugar levels.

### Types of Port

Bottle-Aged Ports (mainly reductive aging)

### Vintage

- Shipper may declassify vintage at their discretion.
- 2 winters in cask before bottle, but most aging is in bottle, not wood.
- Horizontal blend of grapes and vineyard lots.
- Not fined or filtered.

### Single-Quinta

- Houses have discretion of bottling the product of a single quinta (farm)
- Blend of many varieties from one property and one vintage year.

### Wood Aged Ports

- Aged in large oak casks for minimum for 3 years.
- Lacks complexity of vintage / Quinta Ports.

- Simple Tawny bottled 3 years after harvest.
- Aged Tawnies can be bottled in multiples of 10 years (10, 20, 30 year old) - but age is an average, not a minimum.

### Large Bottle Vintage (LBV)

- Bottled 4-6 years after harvest (versus 2 for Vintage)
- Matured in large oak vats
- Most LBVs intended for drinking when released.

~~OK~~  
Checked



## Introduction

Traditional rules for food and wine

- The aperitif which is served before the meal should be dry and preferable wine based.
- The starter courses are best served with dry white or dry rose' wines.
- National dishes are recommended with the wines of that country.
- Shellfish and fish dishes are served with dry white wines.
- White meat are served with medium white wines.
- Red meat go well with red wines, game dishes with robust red wines i.e. full bodied, intense and powerful.
- All the wines go well with cheese. Red wine suits the blue veined, hard, and mild cheese. Medium white and rose' wines go well with cream cheese.
- Port is the traditional wine served with stilton cheese.
- Sweet wines are offered with sweets and desserts.
- Brandy and liquors are served at the end of the meal.

## Guidelines for Pairing Wine and Food.

The following factors influence wine and food pairing:-

- **Acidity**
  - Food with acidic level needs wine with acidity; otherwise the taste of food will dominate the taste of wine and make it dull and lifeless.
  - For example: Lemon chicken needs a wine of higher acidity to accompany the dish.
  - Tomato dishes need acidic wine.
  - Fish dishes require acidic wine as they always need lemons, either in the preparation or in their presentation.

- **Tannin**

- Acidity in food does not go well with the tannic present in wine.
- Tannin is perfect with red meat as it helps to cut the chewiness of the meat.
- Cabernet Sauvignon and Syrah wines are high in tannin which go well with the red meat.
- Pinot Noir and Gamay which are low tannin wines can be served with fish and its sauce.
- Tannic wines pair well with ~~red~~ meat and protein foods.

- **Texture**

- Food and wines have a texture which can be felt when we taste them.
- Wines with 12.5% and above are considered heavy and ones below 11% are as light.
- Light textured dishes go well with lighter wines and heavy textured dishes with full bodied wines.

- **Flavour**

- The flavours of the dishes and the wines must be considered while matching them.
- Flavoured dishes should be served with flavoured wines.

- **Fat**

- The food must be analyzed for its fat content.
- Fatty food can be served with acidic wine which acts the fattiness.
- The crisp acidity of the wine acts so ~~normal~~ contrast and cuts through the creaminess of the sauce and

give different sensational taste.

### • Sweetness

- Sweet wine can be paired with spicy foods of Asian cuisine.
- It ~~act~~ can act as a contrast to the burning sensation caused by chilies and spices.
- Sweetness in wine can balance tartness in food.

### • Preparation Methods

- The main ingredients may be finished off in many styles
- A fish may be simply seasoned, poached and served plain with salad or it may be finished off with rich white wine sauce.

### Problem Dishes

Wines do not go well - all types of food. If served with certain foods, the wines will taste dull and flavors cannot be enjoyed.

The following foods do not go well with the wine:

- Chocolate
- Egg especially boiled egg
- Highly acidic food such as relishes, spicy or savory condiment or appetizers, such as 'chutney or olives' and salads dressed with very sharp dressing.
- Very spicy food.

## Wine and Food Suggestion

### Aperitifs

Some aperitifs are

- dry and medium sherries
- Madeira, Dry vermouths
- Bitters
- Medium white and rose' wines such as Rhines, Moselles, Vouvray, white Bordeaux, Anjou, Cabernet rose'
- Dry champagne
- Sparkling wines

### Fish and shellfish

Fish and shellfish are served with dry white wine. Some dry white wines are:

- Champagne Brut
- Chablis
- Meursault
- Pouilly - Fuisse'
- Entre - deux - Mers
- Alsace
- Sancerre
- Muscadet
- Frascati
- chateau Oliviere
- Dry rose' wine for salmon.

## Meat

Red meat is served with the following types of dry red wine

- Médoc • Margaux • Pauillac • Burgundy Red • Bardolino
- Chianti • Chinon

White meat are served with the following types of dry or medium white wine:

- Château Olivier • Sèvre • Saumur • Sauvignon Blanc

- Light red wines may also be offered with roasted white meat

## Poultry

The following light red wines go well with roast poultry:

- Beaujolais
- Chinon

## Game

Full bodied robust red wines are offered with game:

- Hermitage • Châteauneuf-de-Pape • Nuits St. Georges • Médoc • Graves • Barolo • Chianti • Rioja

## Cheese

Blue-veined cheese is served with red wine and cream cheese is served with Vouvray and Anjou.

- Port wine is served with stiller.

## Sweets and desserts

The following are wines served with sweets and desserts:

- Sauternes

- Auslese
- Sweet champagne.

## Wine and food suggestion

The following guidelines should be considered when wine is suggested for a multi-course meal.

- Dry wine is served before sweet wine.
- White wine before red wine
- Light wine before heavy wine
- Sparklers before still wines
- Young wine before old wine.

## Wine list

- Wine list is a list of alcoholic beverages offered for sale in a food and beverage facility. It is also termed as beverage list.
- The list may include all categories of alcoholic drinks, such as beer, wine, spirit, liqueur and cocktail, depending on the size and style of operation, and the location of the facility.
- Wine list, Bar list, Banquet wine list, Room service wine list, etc are the types of beverage lists used in a luxury hotel.

## Designing a wine list

The arrangement of drinks in a wine list may vary from one establishment. However, the drinks may be arranged according to the ordering pattern. The following order of grouping wines is very practical:



- Aperitif
- Champagne and sparkling wines
- Brandies
- White wine
- Eaux de vie
- Rosé wine
- Liqueurs
- Red wine
- Dessert wines

### Designing a wine list

The drinks may also be grouped based on the following:-

- Country
- Varietal name
- Colour and body
- Suitability for dishes

### VODKA

Vodka is a rectified spirit prepared from grain, potatoes, rye and grapes. Vodka has come from Russian word "voda" meaning "little water". Perfect ingredients for making cocktail as it is colorless and flavorless.

### Types of Vodka

#### 1. Neutral Vodka

It is distilled from grain or potato and highly rectified.

#### 2. Gold

-It is cask matured to derive golden color from the wood.

#### 3. Flavored vodka

-It is flavored with various spices, herbs and fruits.

### Vodka Brand

Belvedere (Poland), Boru (Ireland), Ginc (France), Absolut (Sweden)

### Flavoured Vodka Brand

Absolut Apeach, Gordon's Citrus, SKYY orange, Stoli Peach.

### Production of VODKA

#### 1. Mash ~~Product~~ preparation

The grains are grinded and mixed with water

#### 2. Fermentation

-Yeast is added and vats are closed over next 2 to 4 days.

### 3. Distillation and rectification

- Patent Distilled, Pot Distilled

### 4. Water added

- Decrease from 96% to 40% ABV by adding pure nature.

### 5. Bottling.

Vodka Cocktails.

Blood Mary (Vodka, tomato juice, lemon juice, tabasco sauce)

White Russian (Vodka, coffee, liqueur, cream, ice)

Vodka Martini (Vodka, Dry, vermouth, green olives)

Vodka Tonic (vodka, tonic water, lime wedge, ice)

### Tequila

- Tequila is a Mexican liquor, distilled from the fermented juice of blue green agave plant. Legally made in town of tequila. Most tequila is bottled at 37-40% ABV percent.

### Production of Tequila.

1. Preparation : Base material : Agave Tequilana  
Harvest time: 8-10 years. The spiky leaves are removed to get to the heart of the fruit known as piña. Weight: 35-70kg
2. Piñas are cooked, cooled and crushed to extract the fruit juice, called aguamiel.
3. Pressing: Traditional stone wheel or steel rollers.
4. Fermentation : transferred to vat and yeast is added to

induce fermentation. 5-7% alcohol

### 5. Distillation : Twice in pot still

### 6. Maturation: Silver or Gold tequila aged in oak casks. White tequila not aged.

### 7. Bottling Diluted to 40% ABV and bottled

### Types of Tequila

1. Mixto (Mixed): Distilled from wash obtained from a minimum of 51% of agave tequilana and maximum of 49% of other sugars.
2. 100% Agave: This tequila has 100% distillate from agave tequila on a weber.

### Categories of Tequila

1. Joven Abogado (Meaning young / adulterated, 100% agave, not ag)
2. Blanco (white): No ageing, no color
3. Reposado (Rested / aged): Aged in oak barrel, 2 months to 1 year.
4. Añejo (aged): Aged for a minimum period of 1 year.
5. Extra añejo (extra aged): Aged for minimum 3 years.
6. Oka (Gold): Blend of plata with reposado / añejo / extra añejo

## Mezcal

Mezcal is a distilled alcoholic beverage made from any type of agave - certified by Mexican government - strong and has a smoky flavor. Worms that live in agave plant are hand-picked and added to some mezcal while bottling in Oaxaca, Mexico. Mezcal is taken straight without any salt and lemon.

## Tequila cocktails

Tequila Sunrise (tequila, orange juice, Grenadine, Ice)

Margarita (tequila, Cointreau, lime juice, salted glass)

Paloma (Tequila, grape fruit juice, soda water, ice)

Tequila Sunset (Tequila, orange juice, blackberry, brandy, cherry)

## Liqueurs

Flavored and sweetened spirits having high alcoholic content. It is Latin word 'liquifacere' means to dissolve or melt. Served in small quantities as digestives at the end of the meal. It were used as medicine for stomach ailments.

## Production of liqueurs

To produce liqueurs, the following main ingredients are needed:  
Spirits (Whisky, rum, brandy, neutral or grain spirit)  
Flavoring agents (Herbs, flowers, fruits, barks, roots, seeds)  
Sweetening agents (Sugar syrup, corn syrup, honey)  
Coloring agents (optional) natural vegetables, colouring agents or approved food dyes.

## Wine of France

France is one of the largest wine producers in the world and France is top vineyards and wine regions have their history since in Roman times. Institute National des Application d'Origine (INAO) is the government body which regulates the gravity quality rating for wine produced in France. The INAO Oversees this mammoth task with the assistance of the various regional wine syndicates like CIVC in Alsace or the CIVC.

## French Wines laws and classification of French wine

### 1. Vin de Table

This wine is made from any vineyard or grape varietal in France. Wine sold as Vin de Table do not by law. List grape varietals, vintage, regions, appellations or production techniques on the label. There are no restrictions on grapes, vineyard management or production techniques used to produce Vin de Table wine.

### 2. Vin de Pays

This wine has more info information to be placed on the label. It is bit expensive and superior to Vin de table.

### 3. Vin Delimite de Qualite Superieur (VDQS)

It was the second highest category of French wine, below AOC in rank but above Vin de Pays. VDQS wines were subjected to restrictions on yield and vine variety, among these other less than 1% of all French wines bear the VDQS designation of the label.

### 4. Appellation d'origine Controlee (AOC)

AOC accounts for 53.4% of all wines from France. There are series of rules and regulations that can be go along with being classified as an AOC wine.

2 condition of the production of Appellation d'origine controlee (AOC) wine

- Specific place of origin
- Specific grape varieties for each region
- Set minimum alcohol content
- set maximum yield per hectare.
- specified viticulture
- specified method of vinification
- condition for bottling of wine

French wine producing region

#### 1. Bordeaux

No other wine region is more powerful, more commercially successful or more important as a source of profoundly complex age worthy wines. Both Red and white Bordeaux wine are almost always blends of two or more varieties. Growing multiple varieties that ripen

at different times is a practical way of spreading the agricultural risk in Bordeaux's sometimes difficult maritime climate.

#### Grapes of Bordeaux

- White
  - Muscadelle
  - Sauvignon Blanc
  - Sémillon
- Red
  - Cabernet Franc
  - Cabernet Sauvignon
  - Carmenerre
  - Melbec
  - Merlot

By law, red Bordeaux wines must be made from one or more of six red grapes. Tannin also acts as a preservative in wine which is why so many of Bordeaux can be aged for such long periods of time.

#### 2. Champagne

Champagne is the name of the world famous sparkling wine we all know. But it is also the name of the region where this wine is made. The wine champagne comes from the region of champagne, 90 miles northeast of Paris.

## Grapes of champagne

### White

- Chardonnay

### Red

- Pinot Meunier
- Pinot Noir

## 3. Burgundy

- Burgundy (Bourgognes in French) is the most spiritual of wines. Wine which is made in the Burgundy region in eastern France in the valleys and slopes west of the Saône a tributary of the Rhône. The most famous wine produced here are dry red wines made from pinot noir grapes and white wines made from chardonnay grapes. It is one of the world's most difficult wine regions to understand.

## Grapes of Burgundy

### • White

- Aligote
- Chardonnay

### • Red

- Pinot Noir

## 4. Beaujolais

- Beaujolais extend for some 35 miles over low granite hills to the south of Burgundy. They seem

like white wine in its expressiveness, thirst-quenching qualities, and freshness. All Beaujolais is made from gamay (grapes). It is made by a special fermentation technique - carbonic maceration - that maximizes the wine's inherent fruitiness.

## Grape of Beaujolais

### Red

- Gamay

By law, Beaujolais is made in three ascending categories of quality (and price).

They are

- Beaujolais
- Beaujolais - villages
- Beaujolais cru.

## 5. The Rhône

Red wines dominate the region, although whites are rosés are also made in the Rhône. The most famous northern Rhône reds are Côte-Rôtie and Hermitage: the most famous southern red is Châteauneuf-du-Pape. Syrah is the sole red grape in the north. Southern Rhône reds are usually blends of many grapes the most important of which are Grenache and Mourvèdre.

## Grapes of Rhône

### • White

- Bourboulenc
- Clairette

- Grenache Blanc
- Maccabeo, Picardon, Picpoul and Rolle
- Marsanne
- Muscat Blanc Petitis grains

- Red
- Calitor
- Carignon
- Cinsaut
- Clairette Rose, Counoise, Marselan, Muscardin, Muscat noir, Picpoul noir.
- Grenache
- Mourvèdre
- Syrah

## 6. The Loire

The upper Loire includes the Sauvignon blanc dominated areas of Sancerre and Pouilly-Fumé. The middle is dominated more by Chenin Blanc and Cabernet Franc wines found in the regions. The lower Loire is dominated by wines of the Melon de Bourgogne grape.

### Grapes of Loire

- White
- Arbois
- Chardonnay
- Chenin Blanc
- Folle blanc
- Melon de Bourgogne
- Sauvignon Blanc

## Red

- Cabernet Franc
- Grolleau
- Gamay
- Pinot noir

## 7. Alsace

It is primarily white wines because of its Germanic influence it is only Appellation d'origine Contrôlée region in France to produce mostly variety wines

### Alsace Wines

- Gewurztraminer white (dry and sweet)
- Muscat white (dry and sweet)
- Pinot Gris white (dry and sweet)
- Riesling white (dry and sweet)
- Crémant D'Alsace white (sparkling)
- Pinot Noir red

## Italian wine law and classification

### 1. DOCG (Denominazione d'origine Controllata e Garantita)

It denotes controlled (controllata) production methods and guaranteed (garantita) wine quality. The regulations for DOCG wines are tighter and more restrictive.

### 2. ~~DOG~~ DOC (Denominazione di origine controllata)

There are 329 different DOCs in Italy, which cover

many types of wine from the sparkling wines of Prosecco to the Vin Santo Dessert wine of Tuscany. Each DOC has its own rules about permitted grape varieties, maximum harvest yields and aging requirements.

### 3. IGT (Indicazione Geografica Tipica)

It is created to recognize the usually high quality of the class of wines known as Super Tuscans. IGT wines are labelled with the locality of their creation. Many wines failed to qualify for DOC or DOCG status because they ~~the~~ were made from grape varieties not sanctioned under DOC/G laws.

### 4. Vino da Tavola

It means 'table wine'. In Italian Table wine has different legal meanings and connotations depending on where and how it's used.

### Italian Wine producing regions:

#### 1. Piedmont

The best known wines from the region include Barolo and Barbaresco. They are made from the Nebbiolo grape, a highly site specific variety known for its forceful tannin.

#### Grape of Piedmont

White

- Arnie
- Cortese

- Moscato
- Asto

Red

- Barbera
- Dolcetto
- Nebbiolo

#### 2. The Veneto

Some Veneto wines both dry and sweet are made by a special process known as sippassimento, which concentrates the sugars in the grapes. One of the Veneto's most popular wine is Prosecco, a very chic, casual Italian Spumante.

#### Grapes of ~~wine~~ Veneto

White

- Chardonnay
- Pinot Bianco
- Pinot Grigio
- Despaila

Red

- Cabernet Sauvignon
- Covina Veronese
- Merlot
- Negrara

#### 3. Friuli - Venezia Giulia

Many of Italy's most vibrant, rocky white wines are produced here. It's top white wines are produced sometimes 100% varietal wines, made entirely from such varieties as Friulane and Ribolla giulla.

#### Grapes of Friuli - Venezia Giulia

- Whites
- Friulano
  - Picolit
  - Pinot Grigio
  - Ribolla gialla

- Red
- Cabernet Franc
  - Refosco
  - Pignolo

#### 4. Tuscany

Tuscany is home to some of the world's most notable wine regions. It is also known for the dessert wine, Vin santo made from a variety of the region's grapes.

#### Grapes of Tuscany

- | Whites                  | Reds         |
|-------------------------|--------------|
| - Malvasia Bianca Lunga | - Canaiolo   |
| - Sauvignon Blanc       | - Sangiovese |
| - Trebbiano             |              |

#### 5. Grappa

It is the clear brandy that results when grape pomace is re-fermented and distilled. In Italy, grappa is primarily served as a digestive or after dinner drink. Its main purpose is to aid in the digestion of heavy meals.

#### Germany Wine Classification:

##### 1. Deutscher Wein

There are seven Deutscher Wein region made from normally ripe and slightly under ripe, and slightly under grapes. These wines only have to comply with few restrictions and the wines are not officially tested

##### 2. Deutscher Landwein

- A superior Deutscher Wein with a minimum of 5% more alcohol. The wine must come from one of 19 specified wine districts. A Landwein must not contain more than 18 grams of sugar per litre.

##### 3. Qualitätswein (QbA)

It means "quality wine" derived from its German counterpart and is one of the eight wine classifications tiers in the Verband Deutscher Prädikats (VDP) classification system used in Germany and Austria. They have to obey the regional appellation laws and are tested for compliance by an official committee.

##### 4. Prädikatswein

These wines are known to be very sweet and at harvest, the grapes are classified into 6 groups of descending sweetness. These wines are all naturally produced no chaptalization.

#### German wine producing region:

##### 1. Ahr

The Ahr is one of Germany's northernmost wine regions. In the broad eastern end of the valley, the slopes are gentler and the soils are rich in loess. Four out of five bottles of Ahr wine are red. Fresh Riesling and Müller-Thurgau are the white wines produced here.



## 2. Baden

- It is the southernmost of Germany's wine regions. Comprised of nine districts. Baden has many soil types and grape varieties.

## 3. Franken

It lies some 65 km / 40 miles east of the Rhine in Bavaria with most of its vineyard planted on the hilly slopes & lining the main rivers and its tributaries.

## 4. Rheingau

- The Rheingau is one of the most distinguished wine regions of the world. Riesling and Spätburgunder are predominant grape variety.

## 5. Rheinhessen

It is the largest wine region in Germany. It lies in a valley of gentle rolling hills. Wines of this region are often characterized as being fragrant, medium bodied and mild in acidity pleasant easy to drink.

## Production process of liqueurs.

1. **Extraction:** Flavours are extracted from main ingredients by pressure, maceration, infusion, percolation methods.
2. **Distillation:** Natural products are steeped in the alcohol until its well impregnated with flavour, then it is distilled to remove impurities. It is purified by re-distillation.
3. **Maturing:** Liqueurs must be given time to allow the ingredients to develop flavour and character. The finest liqueur are matured in oak cask.
4. **Fining:** Impurities are still suspended in the liquid and must be removed. To remove, binal filtration process is carried out.
5. **Bottling:** Spirit is added to liqueurs to bring it to correct alcoholic strength. Sugar Syrup may also be added to adjust the sweetness. It is bottled.

Liqueurs: Abricotine, Advocaat, Amaretto, Anisette  
Flavour: (Apricot) (Egg yolk) (Almond) (Anise, Licorice) (Apricot)

## Other Spirit

- 1. **Eaux-de-vie:** Distilled spirits from fruits and also called fruits brandies. It is dry to taste, aged in glass, termed as white alcohols.

2. Calvados: Prepared from a mash of cider apples. double distilled in pot still. matured in oak casks for upto 25 years, produced from Germany.
3. Apple Sack: distilled from fermented mash of cider apples. made in pot still, matured for 2 years in wood.
4. Poire williams: Distilled from williams pear - bottled wine ripe pear inside it.
5. Absinthe: Highly alcoholic, flavored with worm wood and anise.
6. Akvavit: Distilled spirit from grain or potatoes and flavored coroway and cumin.
7. Sake (Japan), Grappa (Italy), Fenny (India), Marc (France), corn (Germany)