Specialty Wines

Champagne/ Sparkling Wines

Champagne or Méthode champenoise/ Méthode traditionnelle/ Méthode classique

Traditional Champagne presses are vertical; a so-called 'Coquard' press is often employed.

Grapes for sparkling wines are usually picked around 17-19 Brix, pH levels (pre-fermentation) are usually around 3.05 to 3.2, total acidity levels are often around 9-10 g/L. The winemaker's aim is to produce a still wine with high-acidity and moderate alcohol after the first fermentation, this is the base wine.

Malolactic fermentation is very common after the first fermentation. Old oak casks can be used for the first fermentation, but usually temperature-controlled stainless steel tanks are more common.

The blender practises the art of blending (**assemblage**); the aim for non-vintage wines is to produce a wine of a defined style that will be consistent over the years. The blender will have a range of wines from different grape varieties, different vineyards and different years at his disposal. To help achieve consistency, as well to benefit from the extra depth of flavour provided by the aged wines, each year a proportion of the production will be stored in bulk as a reserve wine for future blends.

Laboratory analysis is used to asses the wines for blending, but ultimately it comes down to the blenders taste to create the final blend.

A label that includes the term Blanc de Blancs is a wine made entirely from green grapes. Blanc de Noirs is a white sparkling wine made entirely from black grapes. Rouge de Noirs (rare) is for red sparkling wines made from black grapes.

The second fermentation is created by adding the ***liqueur de tirage***, which is a mix of wine, sugar, yeast, yeast nutrients and a clarifying agent.

The bottle is closed with a temporary seal (likely a crown cap) and then laid to rest horizontally. The temperature at which the bottle is

stored affects quality, at lower temperatures the secondary fermentation and subsequent yeast autolysis are slowed down, but more complex flavours can develop.

As the yeasts get to work on the sugars, they produce alcohol and CO_2, and more yeast themselves.

During the maturation in bottle, the yeast cells will find that they no longer have any sugars to consume and they begin the process of yeast autolysis (self-digestion) and the dead yeast cells produce enzymes that impart flavour into the wine.

Then the process of riddling (**remuage**) moves the deposit in the bottle into the neck of the bottle, against the cork. Traditionally this was done by hand (a riddler), but is now most commonly down by a machine (a gyropalette).

The sediment now in the neck is frozen to make the process of its removal (dégorgement) less messy.

After the disgorgement, a mixture of wine and sugar is added, this is called **dosage**. The sweetness, or dryness of the finished wine is classified as:
Brut Nature/ Ultra Brut = 0-2 g/L
Extra Brut = 0-6 g/L
Brut = 0-15 g/L
Extra-Sec = 12-20 g/L
Sec/ Dry/ Secco/ Trocken = 17-35 g/L
Demi-Sec/ Riche/ Abbocato/ Halbtrocken = 33-50 g/L
Doux/ Sweet/ Dolce/ Dulce = 50+ g/L

The wine is generally aged a few months further to allow the dosage to integrate with the wine.

Transfer Method

This method attempts to gain the advantages of the second fermentation in bottle, but without the complications of sediment removal.

After the second bottle fermentation, the wine is transferred to a tank under pressure and then the whole contents are filtered, again under pressure, and then bottled.

Charmat Method/ Cuve Close

The secondary fermentation takes place in tanks and is then transferred to bottles.

Carbonation

Inject the wine with CO2 and bottle. Cheapest method, the bubbles are large and disappear quickly.

Amarone/ Ripasso/ Recioto/ Valpolicella: Wines of the Veneto

Amarone: Grapes are harvested perfectly ripe in the first two weeks of October, by carefully choosing bunches having fruits not too close to each other, to let the air flow, grapes dried on straw (now often plastic) flat baskets for 1 to 4 months in special drying chambers under controlled conditions. This concentrates the remaining sugars and flavours.

The quality of the grape skin is a primary concern as that component brings the tannin, colour and intensity of flavor to the wine. The process of drying not only concentrates the juices within the grape but also increases the skin to juice ratio.

The length of the drying process (**appassimento**) can be up to 120 days but varies according to producer and the quality of the harvest.

Following drying, end of January/beginning of February, the grapes are crushed and go through a low temperature fermentation process which can last up to 30/50 days. The reduced water content can slow down the fermentation process.

Ripasso: unpressed Amarone grapes are added to a finished red wine. Fermentation then starts a little, but this process adds alcohol, colour, flavour, etc... to the finished wine.

Recioto: dried grapes are fermented with residual sugar left to make a dessert-style wine. Note: a Recioto di Soave is made from Garganega grapes.

Sherry

Sherry is a fortified wine made from white grapes (typically Palomino or Pedro Ximénez, but sometimes Moscatel) that are grown near the town of Jerez in Spain.

Palomino: the dominant grape used for the dry Sherries. Approximately 90% of the grapes grown for sherry are Palomino. The Palomino grape produces a wine of very bland and neutral characteristics. This neutrality is actually what makes Palomino an ideal grape because it is so easily enhanced by the Sherry winemaking style.

Pedro Ximenez: used typically to produce sweet wines.

Moscatel: used similarly to Pedro Ximénez, but it is less common.

When the grapes are picked, the bunches are laid out in the sun to shrivel and increase their sugar content.

The grapes are harvested in early September, and pressed lightly to extract the juice. Musts are heavily acidified.

The must is then fermented in stainless steel vats until the end of November, temperature of fermentation usually around 25-30'C, producing a dry white wine with 11-12% alcohol content.

The sherry is fortified with distilled wine, because the fortification takes place after fermentation, most Sherries are initially dry, with any sweetness being added later.

Flor (flower in Spanish) is Saccaromyces bayanus, S. capensis and S. fermentati. Flor works best at 15-20'C.
Finos: 14.5 → 15.5% abv.
Olorosos: 18% abv.

The fortified wine is stored in 600-litre casks (commonly known as butts) that are made of American oak, the butts, are filled 5/6ths full, to facilitate oxidation.

Solera (aka: running of the scales) is a system of fractional blending.

No more than 1/3rd drawn from each cask during the solera process.

Wines are chilled to -8'C to help precipitate out high tartaric acid content. Wines are then fined and filtered.

Botrytis (*botrytis cinerea)/* botrytized or botrytis-affected

A fungal disease that potentially has a positive effect on quality. On unripe or damaged grapes, or in humid weather, it can have a negative effect in the form of grey rot.

Botrytis is best if it affects ripe, healthy, whole, light-skinned grapes during favourable weather conditions. In this benevolent form it is referred to as noble rot.

Botrytis spores germinate on either the wet surfaces of grape skins or when the ambient humidity is greater than 90%. Optimal infection temperatures are between 15º to 20ºC.

Varieties with compact bunches of high sugar content are the most susceptible to botrytis. Sémillon, Sauvignon Blanc, Muscadelle, Carignan and Pinot Noir are quite easily affected. Chardonnay is moderately susceptible and Cabernet Sauvignon quite tolerant.

Tokaji

The word Aszú means nobly rotted grapes. The botrytis affected grapes are separated from the healthy grapes, the latter of which are made into a dry white wine. The botrytis grapes are pounded into a paste and then added to the dry wine to produce a desired sweetness.

Traditionally, the paste was measured in a 20 kg bucket or *puttony* and then added to a 136 litre wooden cask.

An important part of Tokaji is the thick black mould (*racodium cellare*) which is a film-forming yeast similar to Flor.