

# LESSON 7

# SPARKLING AND SPECIAL WINES

(BY FRANCO DALMONTE)



# **SPARKLING**

Wines are defined as sparkling when the overall alcohol proof is not less than 11% vol with an absolute pressure of no less than 3.5 bar at a temperature of 20° C. Bottled with mushroom corks fixed by a wire muzzle or similar and with a long aluminium capsule.

If the sparkling wine is produced in France, in the Marne, Aube and Ain regions a champagne method is used.

Naturally sparkling wines can be produced in two ways: with the champagne method or with the charmat method.

## THE CLASSIC OR CHAMPAGNE METHOD

Consists in a slow fermentation in the bottle and a lengthy ageing in the presence of yeasts and lees. The grapes destined for sparkling wines are generally harvested slightly earlier, so as to maintain a certain level acidity to preserve the wine and to avoid a too mature grape skin causing loss of colour.

The most widely used grape varieties are Pinot Nero, Pinot Bianco and Chardonnay.

The winemaking process is the classic method for white wine.

The principal phases are:

## Bottling of the base wine (Tirage)

Yeasts, activating agents, activating substances, clarifiers and sugars are added in sufficient quantities to develop 6-6,5 bar of pressure (4.25 g/l produces 1 bar). Particular yeasts are used because they must be able to ferment at low temperatures (11-13°), at high pressures and in the presence of alcohol

#### Bottle fermentation

The corked bottles are lain in a horizontal position in dark cellars at around 12° where they remain for moths. In this period a very slow fermentation occurs due to which the sugars are transformed into

ethyl alcohol and carbon dioxide. The longer the fermentation the finer, more numerous and lingering will be the bubbles in the final product.

#### Maturation on the lees

At the end of the fermentation the wine is sparkling but not yet the quality product ready for consumption. There is still another 24-36 months to wait until the sparkling wine can develop fully, and in some cases many years. In this phase, about every six months, the bottles are "" and repositioned to eliminate those broken by the pressure and put back in suspension the yeast deposits

After the desired period of maturation, the sparkling wine is ready. But first the yeast precipitate (the lees) need to be removed; the bottles are shaken and then placed in special supports called riddling racks to carry out the remuage: with the right and experienced manipulation of the cellar masters, the bottles are periodically rotated and inclined so that all the substances to eliminate from the liquid are deposited in the bidule in the neck of the bottle. At the end of the remuage the bottles are vertical.





#### Dègorgement

This the operation that allows the elimination of the crown cap with the lees deposit. The operation can be carried out "à la volée", in other words manually by highly qualified personnel or "à la glace" which means immerging the top of the bottle into a liquid at -25°C that solidifies the deposit so that when they are uncorked the cap and the deposit are eliminated at the same time.

The loss of liquid caused by this operation are compensated for with a "liqueur d'expedition" a solution of wine, cane sugar and distilled wine which determines the final sweetness. If this liquor is not added the sparkling wine is classified as "pas dosé".

At this point the bottle can be corked with the characteristic mushroom cork on which is placed the containing wire muzzle. Finally the label and the foil sheath are attached.

## THE CHARMAT OR MARTINOTTI METHOD

This consists in obtaining the fermentation in pressure tanks and the bottling taking place when the product has reached the desired pressure.

The second fermentation occurs over a period of a few weeks to a number of months. The wine having become sparkling is then clarified, filtered and put

into another pressure tank for the final additions and finally bottled with isobaric fillers.

This technique is used when one wants to produce fruity and fragrant sparkling wines such as Asti Spumante and Prosecco.

## CLASSIFICATION

On the basis of the sugar content sparkling wines are classified as:

Extra Brut I ess than 6g/l Brut less than 12g/l Extra Dry less than 20g/l
Secco less than 35g/l
Semisecco less than 50g/l
Dolce more than 50g/l

# SPECIAL WINES

According to Italian law wines considered as special are dried grape wines, liqueur or fortified wines, aromatic wines and sparkling wines

# DRIED GRAPE WINES (PASSITI)

These wines are sweet wines produced from grapes treated in a particular way ie. dried out.

The drying out phase is characterised by a loss of liquids (reduction of 20-35% which brings about an increased sugar concentration but also the possibility to obtain a product with more aroma, more extract and more glycerine (giving more body).

There are different methods for producing a dried grape wine:

- drying grapes in the sun on matting, trellises, or hanging: this consists of putting the harvested grapes on the ground or on the specific supports where they are left in the open for a certain length of time or under cover paying the maximum atten-

tion to the humidity of the environment (an excessive humidity would cause common rot). With this process many of the dried grape wines on the market are produced: Caluso, Vinsanto del Trentino and Tuscany, the various Recoito of Sova and Valpolicella, Montefalco Sagrantino, the vernaccia of Serrapetrone, the muscat of Pantelleria and our Albana.

- Drying on the vine (late harvest or twisting of stalk): the grape is left on the vine beyond the normal moment of maturation. In some cases, to interrupt the flow of liquids from the plant, the stalk is twisted. Piccolit is produced in this way.

- Drying on the vine with the onset of "noble rot": this can only occur in certain geographic areas with particular climatic conditions (alternating humiddry). This is the case with Sauternes in france, Tokai in Hungary, some wines from the Rhine Valley in Germany and some wines in the Orvieto area.
- Induced drying in conditioned rooms: an artificial method where the grapes are dried in an environment with controlled temperature and humidity
- Cryoextraction: an extraction method that uses cold; the grapes are pressed after being at a temperature of -7°C, taking advantage of the fact that the less mature grapes freeze and therefore must is only obtained from the more mature ones.

# LIQUEUR WINES

The most famous and select Italian liqueur wine. The grape undergoes white wine fermentation and is then put in barrels of 3-4 hectolitres which are not completely filled so as to facilitate the oxidisation. Then there is the addition of marc or ethyl alcohol,

The ageing method follows a procedure called "soleras" which consists in various rackings in barrels (not completely full) placed one on top of the other, that contain wine from different years, the oldest

and in some cases of cooked must.

mixtures being right on the ground.

On the basis of the sugar content Marsala is classified as:

Dry: less than 40 g per litre

Semi dry: between 40 and 100 g per litre

Sweet: more than 100 g per litre

#### ION THE BASIS OF THE ALCOHOL CONTENT AND AGEING THEY ARE CLASSIFIED AS:

Denominazione	Years of ageing	Alcohol minimum
Fine	1	17
Superior	2	18
Superior Reserve	4	18
Virgin and/or Soleras	5	18
Vergine and/or Soleras Stravecchio		
or Vergine and/or Soleras Reserve	10	18

Marsala Fine, Superior and Reserve can be defined as Amber ( with 1% added cooked must), Oro ( cooked must not to be added) or Ruby ( produced with at least 70% of red skinned grapes with no added cooked must).

In Marsala Vergine neither cooked or concentrate must can be added.

### AROMATIC WINES

Aromatic wines are wines with alcohol of less than 21% vol with added alcohol, sugars and aromatic substances.

The most famois aromatic wine is Vermouth which

was invented in 1789 by Benedetto Carpano. Il vino aromatizzato per eccellenza è il Vermouth che fu inventato nel 1789 da Benedetto Carpano.

Bibliographic references:

Tecnologia dei vini spumanti – De Rosa – AEB

Tecnologia dei vini liquorosi e da Dessert – De Rosa - AEB

Il sommelier - Nozioni Generali" - AlS

L'assaggio del vino – ONAV

Il piacere del vino – Slow Food Editore