



Erasmus project

Lycée E. J. Marey 2018



Vegetative cycle of the vine



Erasmus+



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Production graphique :
Bac Pro Réalisation de Produits Imprimés et Plurimédia
Promotion 2015-2018

January

The vine starts its dormancy and can undergo negative temperatures. However, very hard freezing can damage the vines.

There are ways of protecting the vine. To thwart freezing, winegrowers use fuel and gas-powered heaters, or they water the vine continually to form a protective layer.

There aren't many ways of protecting against hail.



Winter buds
*Winter rest, buds
covered by 2
brownish scales.*



February

At the beginning of February, the vine “sheds tears”, the sap escapes through injuries caused during the pruning.



Bleeding

Vine awakening. The sap flows from pruning cuts.





Green tip

The young leaf shoot's green tip is visible.



Woolly buds

The scales separate, giving way to the bud down.



Leaves appear

Appearance of leaves in a rosette.

March/April

It's the bud breaking season : when the buds start to open up, little leaves appear. The temperatures slowly increase, the sap begins to rise. Buds appear and a lot of new branches develop. If the temperature goes down to -2°C , the forming buds die and so there are no more fruits.

Leaves unfold

The leaves grow and unfold.



May/June

May : it's the time of inflorescence or the appearance of tiny grapes bearing the start of blossoming.

At the end of May and beginning of June : pollination.

The flowers are pollinated by insects. The flowers turn into little grapes. After blossoming, the pollinated flowers give birth to some fruits (on average 30 % of flowers are pollinated). If the temperature is too low or when the rain is too important during this period, the grapes can remain too small or not blossom at all.

June : small grapes start to appear on the vine.



Bunches visible
Inflorescences visible.



Bunches separated
Inflorescences elongate and separate.



Separated flower buds
The future flowers separate from each other.



Flowering
The flowers appear (1 flower per flower bud).

July/August

July (herbaceous period) : the green-colored grapes start to swell and the branches turn brown and become vine shoots.

Then in August, the grapes grow and the skin of the grapes starts to change color. This color indicates the beginning of the maturation which can be blocked in case of serious draught.



Fruit set

The flowers are fertilized, small green berries form.



Peas

The berries reach 50% their final size. The bunch falls to a vertical position.



Bunch closure

The berries grow and start to touch each other.

September

The berries swell and accumulate sugar.



Veraison

The berries progressively change colour. The bunch becomes more compact. Vine shoots turn brown: lignification begins.



September-October

September-October: the sugar intake of the grapes increases and the acidity is reduced when maturation is optimal. It's time to harvest. After the grape-picking, the leaves start to turn golden and autumn is about to begin. The sap starts to come down into the wine stock.

Ripeness – harvest

The berries are ripe, their growth complete. Composition analysis establishes their maturity level in order to harvest at the right time.



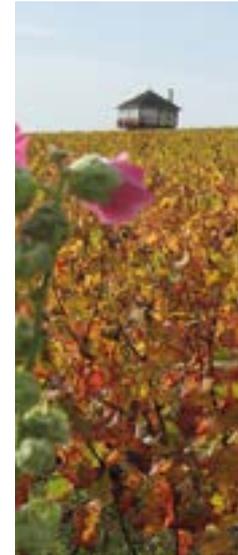
November-December

November : the leaves then finally turn red and brown, they dry up and then fall.

December : it's when the vine becomes dormant for the winter.

Leaves fall

The canes are all brown, the leaves change colour and fall. This is the beginning of the dormancy.





Harvesting time

The harvest lasts for 2 to 3 weeks. The grapes are picked by hand or sometimes with machines and then taken to a place where the fruits are separated from the stalks. Then the fruits are squeezed and left to ferment in large tanks. When fermentation is over, the fruits are squeezed again and the juice is poured into barrels where it is left to ferment again.



From fermentation to cellar

About 6 months later, when the wine has stopped fermenting, it is transferred into another barrel so that the deposits formed during the fermentation is left at the bottom. The operation is carried out 2 or 3 times during the wine's first year.

The wine is left to age for 18 months in the barrels, then it is bottled and can be left to age for several years.

An oak barrel in Burgundy contains about 228 litres of wine.



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