



## **INTERVIEW WITH MRS SYLVIANE LEPLATRE - ENGINEER IN AGRONOMY AND OENOLOGIST GIVING ADVICE TO THE WINEMAKERS IN THE REGION OF PARIS.- 08/17/2017**

The goal of this interview was to understand the main climate changes affecting the vineyard in France and more specifically the south of France affected by very hot summer. We discussed about the dangers of cold and hot temperature and also how winemakers can reduce the impact of frost and heat with the help of particular devices.

### **VINEYARDS IN THE REGION OF PARIS**

The region of Paris is composed of approximately 15 hectares of vineyards and 5 of which are in Paris itself. The most important one is called "Les clos de Montmartre". Last year, the harvest was bad because of the composition of the soil which is sandy and therefore poorly filtered the water. There has been a poor vegetative development of the vines and therefore a poor yield this year.

### **WHAT ARE THE MOST SIGNIFICANT CLIMATE CHANGES AFFECTING VINEYARDS FOR THE MOMENT IN THE SOUTH OF FRANCE?**

This year, it was the first time that the south of the France has suffered from frost. There has been 10 % to 15% less production this year because of hail, frost or drought. More specifically the region of Languedoc-Roussillon which was affected by frost due to a bubble earlier in the year. This was really destructive for the vineyards because the temperatures dropped down until - 8 ° C during the spring season.

Southern countries in general such as California (USA), Australia or even Argentina are suffering of huge damage on their vineyards due to global warming. Thirty years ago, the grape harvest was carried out towards mid-September while this year, the harvest of a certain grape variety was made in July. It was completely new showing perfectly the first huge impact of the global warming on vineyards.

The heat increases the quantity of sugar in the grapes which leads to an increased degree of alcohol of the wine, that can be up to 17 or 18°. This phenomenon has been observed for the past 30 years.

If the weather is too hot, it can also stop the maturation because the stomata of the plant closes and prevents the photosynthesis. Some sorts of grapes are more sensitive than others to drought.



Such phenomenons have serious consequences on the wine because an increased degree of alcohol or sugar quantity changes completely the features that make a wine famous, and the change in the characteristics denaturates the style of the wine. Moreover, for the Champagne, that is fermented twice, the first wine must not have a high percentage of alcohol.

### **WHAT ARE THE TECHNIQUES USED IN ORDER TO REDUCE THE FROST ?**

In the south of France, the frost period are very rare so the winemakers are not equipped for such conditions.

The use of candles is too expensive, the winegrowers cannot afford them. This measure is unsuitable for the economy of Languedoc-Roussillon.

To fight the frost, they found few tricks like preparing the soil during the winter and the spring. They cut the grass at the level of the soil like that, cold does not pass near the leaves.

### **WHAT ARE THE TECHNIQUES USED IN ORDER TO REDUCE THE HEAT ?**

In some area such as "Les corbières" in the region of Narbonne , it is practically impossible to find source of water in order to fight against the hot season. Consequently, there is no irrigation in this region and the vineyards suffer a lot from drought.

The solution for the next years, will be to import some grape varieties living in very hot countries such as Greece. But also , to find yeasts with a lower alcohol yield in order to keep the authenticity of the wine.

### Opinion of Mrs Leplatre on our product

We discussed about our product and the acceptance of GMO by the public because it is a topic very controversial specifically in France. People in your country is afraid by GMO'S because they no nothing or little about what is a GMO so it is difficult sometime to talk about our project without have some negative remark.

Mrs Leplatre think that our project is a good idea because global warming affecting the vineyards are the problem of the year. As long as your product has no impact on health, she sees no inconvenience in advising the vine growers in order to use this solutions on their vineyards.



She also give us some advice with our product. Because even if the solution are working on the vine it will be necessary to irrigate the vineyard in addition because the soil will be dry too and it will be not enough to have only our solution.

## **CONTACT PERSON**

Syndicat des vins Côtes de Provence - Déclaration ODG => People who can give us statistics about the loss of vineyard from frost.

Languedoc-Roussillon => "Laboratory" for the consequence of water stress on vineyards.

Inra Pech Rouge (Montpellier) => Professor Manural Ojeda working on the water stress.

Chambre d'agriculture de l'Hérault => Statistical studies of hot and cold temperature for many years.

Association climatologique de l'Hérault => Statistical studies of hot and cold temperature for many years.

Inra de colmar => develop some GMO vine ( there is a species capable of combating frosts).  
demander le contact à Madame leplatre

Fruition science => company helping the hot countries such as Australia or California in order to optimize the quantity of water that the plants need in order to growth well.

Inra Alsace => CIVA with VEZIEN for director

Fête de la vendange => the 7th of October..

Centre agrimer Montreuil => Statistical studies of hot and cold temperature for many years.