

Turnkey solutions

# 2021-2022

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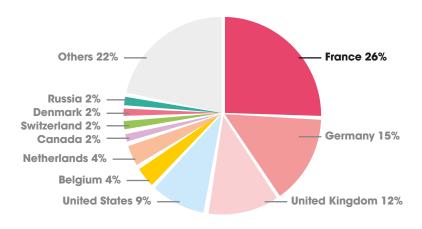
## PROVENCE, CRADLE OF ROSÉ

### French know-how, international market

The production of rosé has been increasing constantly since the early years of this century, in response to an increasing worldwide demand. increase is noticeable in France but it is also highly significant across the world. France nevertheless remains the first worldwide producer of rosé, closely followed by Spain, the United States and Italy. These 4 countries represent 77% of the world production of rosés. But the rosé is crossing yet more borders and new producer countries are beginning to emerge such South Africa (production multiplied by 2.5 over the last 10 years), Chile (4.7%) and Argentina. The rosé is becoming international and winegrowers seek to rely on solid references to develop their rosé wines. French rosés are internationally known for their colour and their characteristics which are just as numerous as there are grape varieties and winemakers in France. Among the various French appellations valued by consumers of rosé wines and coveted by the winegrowers of the world, Rosé de Provence has a true reputation and is clearly distinctive and recognised. With a top of the range image, it is an international reference for the development of rosé wines of quality. Mainly dry, Provence offers rosé wines whose very specific typicality makes people envious. The soil, the vines, the climate are all parameters that create rosé de Provence such a qualitative and recognized wine.

An ancestral know-how since Provence is none other than the cradle of this fruity wine so appreciated. At the heart of your winemaking process, with its teams of experienced consultant oenologists and its Innovation Research and Development service, Martin Vialatte® is here to support you in the creation and personalization of your rosé wines.

## The main importers of rosé wine in 2018 (as a % of total rosé wine imports by VOLUME)



France Agrimer 2018 data
Worldwide Economic Observatory to rosé wines

### **ROSÉ WINE IN FIGURES**

+31%

percentage of increase in the production of rosé wines between 2002 and **2018**.

26.4

million hectolitres of rosé wines produced worldwide in 2018. 11.2%

of overall still wine consumption for the three colours (2018).



After **30** years in **Provence** working with 15 enologists and more than 500 winemakers, including some of the most iconic brands, Martin Vialatte<sup>®</sup> has built a solid expertise in **Rosé winemaking** and offers a Provence Kit providing an easy solution to **maximize the potential of your grapes**.







#### **ORIGIN SH**

Next generation fining agent.

- Maximizes the grapes aromatic potential and limits thiol breakdown by fixing heavy metals,
- Protects from oxidation through the precipitation of polyphenols,
- Vinification of white and red grape varieties rich in precursors of volatile

**Dosage:** 30 to 70 g/hL, on must before yeasting.

Packaging: 1 kg and 5 kg.





#### **NUTRICELL® AA**

Nutrient made exclusively from inactive yeast.

- Regulates the alcoholic fermentation of Rosé wines,
- Optimizes the aromatic profile by maximizing the production of fermentation aromas and the expression of thiols.

**Dosage:** 20 to 40 g/hL, during yeasting. **Packaging:** 1 and 10 kg.





#### VIALATTE FERM® W28 Yeast

Production of modern-style aromatic rosé wines.

- Increases the potential of aromatic grape varieties rich in thiol precursors,
- Excellent fermentation capacities, even under difficult conditions.

Dosage: 20g/hL.

Packaging: 1 kg and 10 kg.

## A TECHNICAL APPROACH

# Protection and treatment in prefermentative step. Management of oxidation phenomena.

Céline SPARROW1

Research and Development Director at Martin Vialatte®

Rosé winemaking has been in constant evolution over the last 20 years, in search of the trendy colour and most expressive aromas to offer the market the "Rosé de Provence" style, easy to drink, with a pale colour and an intense aromatic profile. Winemakers aiming to make this style of wine must consider that Rosé winemaking is highly dependent on the oxidation mechanisms taking place during the pre-fermentation stage as they directly affect the compounds responsible for colour and aromas. Managing oxidation means protecting the must by controlling it at all stages of the process.

The biochemical reactions taking place in the must, as well as its composition, are directly related to its turbidity, making it a key parameter to control as those reactions can lead to the apparition of off flavours and herbaceous, green characters. It has been shown that targeting an average turbidity of 150 NTU allows for enough precursors of varietal aromas like thiols in the lees and prevents from the apparition of unwanted aromas (Dufourcq, 2009).

When combined with fining agents, flotation is an adequate soft clarification process that leads to the regulation of turbidity and to the elimination of polyphenols and quinones that lead to browning. The cap of flocks formed at the surface also limits must oxidation.

Synergistic combination of plant proteins and chitin derivatives, KTS® FLOT ensures fast, thorough settling of musts with improved compaction of the cap during flotation. It also helps to protect against oxidation by acting on acid phenols and decreases the yellow hue of the must before alcoholic fermentation.





Must flotation

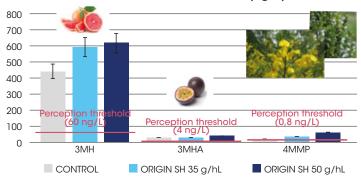
The mechanisms of oxidation of phenolic acids into quinones involving PPO (Polyphenoloxydases) and laccase in the presence of oxygen are dependent on heavy metals (iron and copper ions are enzymatic co-factors). The reducing elements naturally present in the must (such as glutathione) are trapped by quinones, making the must unprotected against oxidation when they are fully consumed during pressing and settling. The addition of products containing yeast derivatives rich in these elements, ensures the protection of the precursors and therefore of the aromatic potential.

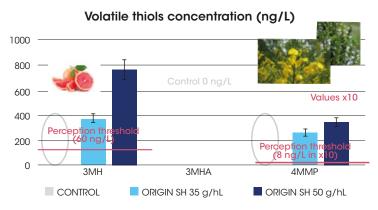


Must settling

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#### Volatile thiols concentration (ng/L)





**Figure 1.** Volatile thiols concentrations in Sauvignon blanc (2016 Val de Loire), treated with **ORIGIN SH** at 35 g/hL and 50 g/hL, just after bottling **(A)** and 4 years later **(B)**.

Added just after settling and before yeasting, ORIGIN SH eliminates heavy metals and allows for the protection of thiols (Figure 1). It also helps in the management of oxidation phenomena and in the release of reductive compounds during AF for an improvement of wine longevity.



Another path to protect polyphenols in must involves nutrition. It is known that yeast is a major bioresource providing compounds that are potentioxidationally useful in oenology. The choice of yeast strain and nutrition enables the aromatic potential to be exploited and the desired aromatic profile to be achieved.

Nutrient exclusively made up from specific yeast derivatives rich in amino acids, NUTRICELL® AA enables good alcoholic fermentation management and optimizes the

aromatic profile of wine by promoting the production of superior esters and superior alcohol acetates (derived from breakdown of amino acids) along with revealing thiols during alcoholic fermentation.



Selected for the expression of thiols during vinification of grape varieties rich in aromatic precursors, VIALATTE FERM® W28 is a *S. cerevisiae* yeast which intensifies citrus and passion fruit notes, giving wines a very

contemporary style. It has excellent fermentation capacity even under difficult conditions (low temperature, high alcohol levels, nitrogen deficiency, etc).





The protection against oxidation and the choice of the type of fermentation (T°, turbidity, yeast, nutrition) allow the optimization of the raw material and the desired wine profile. However, the post-fermentation part should not be neglected.

Understanding the leverage of the Colombard wine aromatic quality produced in Gascony by modeling climatic, agronomical, enological and analytical data.T. Dufourcq, A. Desprats, E. Serrano, J. Lallemand and S. Roussel. OIV 2010.

## A TECHNICAL APPROACH

## Colour management

The first thing that comes to mind when we speak of rosé, and – in fact – what meets the eye first, is its colour. But one single colour would not be enough to describe rosé as it is widely shown on the chart designed by the French Institute in Provence (Centre du Rosé) dedicated to rosé wines.

The management of the colour begins at harvest. The identification of the technological maturity of the grape is key: this notion combines the right amount of extractable colour while maintaining an acidity that favors the cationic forms of anthocyanins (flavylium ions), responsible for the red hue.

Grapes selection must be the most selective possible to avoid rotten grapes that will cause, due to the presence of oxidative enzymes in this type of harvest, a premature evolution of the colour (increased risk of browning).

The pressing must be achieved quickly after in order to minimize the maceration time of the grapes, which would result in too much extraction. Using heavy metals chelating agents and products rich in reducing elements can help in the management of these oxidation phenomena.

Several solutions are possible in the case of rosés that are too colourful, like Rosé de saigné or last-fraction of pressing juice (especially on varieties such as Syrah):

- the use of a decolorizing winemaking charcoal can correct an overly important excess in colour.
- for less colourful musts, it is possible to reduce the colour by using soft **fining agents**.

The settling is imperative and will need to occur quickly after pressing in order to minimize the time during which the must will be exposed to oxygen. Static settling or flotation can be used efficiently in rosé winemaking.



Developed in 2006 on the basis of the French national rosé colour chart, this reference system makes it possible to position Provence rosé wines and their pale hues. Nowadays trend appear in the box.

In a tasting room with lighting close to that of natural light, the taster holds the glass 5 cm from the white table and 40 cm from his or her eye, at an angle.

He/she analyses the colour of the wine by observing the centre of the glass, as shown below.

Le Nuancier des Vins Rosés - version Provence.

SOURCES: Centre du Rosé.

## How to reduce colour - using activated charcoal

The CIELab colour space, invented at the end of the 1930s, is the most commonly used tool in modern colourimetry. It uses a system of opposite colour coordinates, based on the postulate that a colour can be neither red and green at the same time, nor blue and yellow at the same time, but can be both red and yellow (orange) or red and blue (purple, magenta). The CIELab colour space allows, thanks to its different axes (of colour and luminosity), to obtain the hue and saturation of a colour, like those of a rosé. Martin Vialatte® used this tool to study the impact and efficiency of several charcoals on the color of rosé wines.

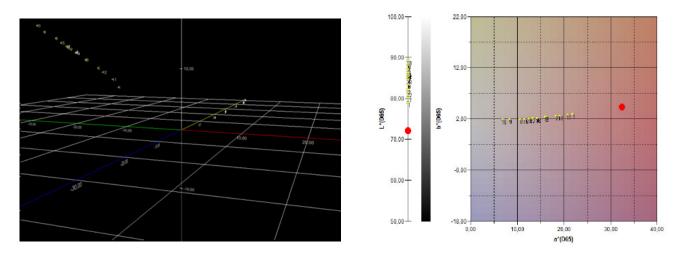


Figure 2. CIELab analysis on various charcoals used on rosé wines at different concentrations (20, 30, 40, 50 and 60 g/hL).

All treated wines (symbolized by the small yellow dots - Figure 2) are on the same line in the diagrams, which means each sample has a proportional impact on the same colors, with different intensities.

However, **Noir Activa Max** appears to be the most efficient. A concentration of 20 g/hL results in the same decrease of OD 520 (purple hues) than around 35-40 g/hL of the two other products tested (Figure 3).



#### **NOIR ACTIVA MAX**

Hyper activated decolorizing charcoal.

 Highly effective due to its larger specific surface area of 1800 m²/g.

**Dosage:** Consult your oenologist. **Packaging:** 1 kg, 5 kg and 15 kg.

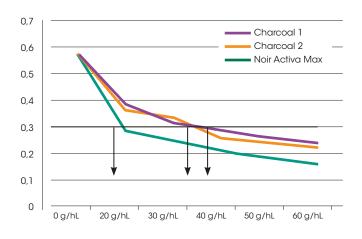


Figure 3. OD520 of the three charcoals tested.



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