



WINE QUALITY SOLUTIONS

« DIRECT RESULTS READING WITH THE POLYSCAN ALLOWED US REFINE WHITE MUSTS MANAGEMENT »

Laurent Maynadier, Winegrower at Château Champ des Sœurs

A COMPLEMENTARY TOOL TO DEFINE THE HARVEST

«Each vintage, we perform numerous trials, from vines to bottles, with the aim of constantly progressing in quality, explains Laurent Maynadier, owner of Château Champ des Soeurs. This is how we drove trials with the NomaSense PolyScan analyzer during the 2016 vintage». The sulfur-free white winemaking process is well established. In each plot of Corbières blanc, Maynadier fractionates the harvest, so as to obtain different maturities. A part of the harvest, made up of slightly acidic grapes, is supplemented by a more ripened part a few days after. «PolyScan analysis during ripeness monitoring was pretty clear. The polyphenolic content also increased with ripening. PolyScan results give an additional indication to traditional analyzes. In case of doubts about the harvest, the device can help in decision-making, especially in non-typical vintages, where the usual benchmarks may change or if a change in the vineyard is made, such as the degree of disbudding for example», indicates Maynadier.

Château Champ des Sœurs

- Laurent and Marie Maynadier, winegrowers for 13 generations
- Vineyard of 17 ha
- 5 ha of white grapes: Grenache Blanc, Roussanne, Muscat
- 12 ha of red grapes: Carignan, Grenache Noir, Mourvèdre, Syrah
- 3 AOP: Fitou, Corbières (blanc), Muscat de Rivesaltes
- 1 VDP: Muscat sec
- Hand-picking harvest
- Low sulfite wine: 50 to 70 mg/L total SO₂ maximum
- Bottle ageing under the sea

NOMA Sense: PolyScan P200



JUICE SEPARATION DURING PRESSING

Once hand-picked in boxes, the grapes are stored in a cold room until 6 to 8 °C. Then, it is the pressing step. « We worked a lot on this step, for several vintages, to get the first finest juices well separated from the press juices, by doing both analysis on acidity and tastings. This is how we found the best pressing protocol according to us, which is close to the pressing technique used in Champagne », recounts Laurent Maynadier.

A first pressure rise, very soft, is applied without cage rotation, up to 550 millibars for one and a half hour. « We get the first juices: the best one ». After this first pressing, the second and third press fractions, which correspond respectively to two pressure rises, up to 800 and 1250 millibars with a retousse (cage rotation) in between, are separated from the first fraction.

« In 2016, we monitored directly the polyphenols level of our white juice during the pressing with the PolyScan by performing analysis each every 50 to 100 millibars of pressure rise. Real-time results have confirmed that our separating method was good. The polyphenolic content increased after the first press fraction, with the difference that proof and confirmation were done in-live ! », points out Maynadier.



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Laurent Maynadier, Vigneron, Château Champ des Sœurs

« Direct analysis reading is a real advantage

When monitoring white grapes pressing with the PolyScan, we could observe, in real-time, the juice's polyphenolic content augmentation. Our pressing protocol was already well established, and results confirmed that first juices were low on phenolics which has reinforced our practices. But we also discovered that after the first press fraction, the quality of the juice was, for a while, still the same as the first juice, which means that we could have gained more first quality juice than what we used to get. Thanks to this real-time polyphenol analysis, real-time juice separation can be achieved, which is a big advantage! The PolyScan makes decisions easier »

DECREASE SULFITE ADDITION BY ELIMINATING THE OXIDIZABLE POLYPHENOLS FRACTIONS

Another goal of the winemaker is to further reduce the sulfur doses without damaging the quality of the wines. « For tow years now, we no longer use sulfur until bottling, in neither white nor in red. But for the whites, this requires to manage well the unstable polyphenols fraction to avoid losing the aromas ». And for this, the winemaker does not hesitate to work with oxygen, at different levels, to eliminate this unstable fraction. Firstly during pressing, done with an open-cage style press, that constitutes a first oxygenation of musts. Then, for the second and third press fractions, a pumping through a sintered metal is performed to saturate the juice with oxygen. « Until now, we had no way of verifying the effect of this practice, other than by observing. That was guesswork », revels Maynadier. « The PolyScan allowed us both to quantify the polyphenols in our juices and to check the oxygen impact on oxidizable polyphenols. Concretely, the analysis showed that the amount of polyphenols decreases. And if this has not been sufficient, it is possible to go further with a fining and check its effectiveness by the analysis ». Analysis performed with the PolyScan also revealed that this must oxygenation, which was used on all the musts in the cellar, was not useful on the Muscat grape variety. « From now on, we will no longer oxygenate the musts for this grape variety. »

MANAGING RED EXTRACTION

The device was also used to monitor polyphenolic extraction during the red maceration. « The analysis perfectly demonstrated the phenols increase during maceration. The aim would be now to complete our extraction techniques and tastings with PolyScan analysis, to limit the polyphenols release in some cases », says Maynadier.