

ARTICLE  
LALVIGNE 



LalVigne® is a new product line from Lallemand's worldwide research and development network. It provides new, innovative and natural options to viticulturists and winemakers that were unknown until now.

**WHAT IS IT?**

LalVigne is an organic yeast derivative product that is applied in the vineyard as foliar spray at veraison. The yeasts used in its production were sourced from the Lallemand wine yeast collection. A single vineyard treatment with a LalVigne spray consists of two applications. The first is done at 5% veraison and the second 10–12 days later.

LalVigne is easily suspended in water and applied using a spray rig or hand sprayer. In warmer wine regions ideal conditions for spraying are before the heat of the day. In the cooler regions, a window of 24 hours between rains is needed to get maximum effect. Intermittent rain after this point will not affect the efficacy of the product.

**WHY USE IT?**

All winegrowers face the harvest challenge of achieving phenolic and enological maturity at the same time. Application of LalVigne has been shown to encourage the concentration of aroma precursors in grapes and it can have a noted impact on the timing of the phenolic maturity.

**Cool Climate Scenario**

In cooler climates, phenolic maturity can be difficult to reach. Complicating factors can include the onset of rain, early frosts, the grape variety itself, and vines susceptible to *Botrytis*. In many cases, the harvest date ends up being determined by external factors and not by grape maturity.

A 2014 Washington State trial involved treating a Merlot vineyard with LalVigne. In this trial, the winemaker picked the treated vineyard six days earlier than the control block. Picking was done based upon the winemaker's judgment about the flavor and perceived phenolic maturity of the grapes. Wines made from the treated and control blocks demonstrated strong similarities, despite the large disparity in harvest dates. The opportunity for the winemaker to harvest a week earlier and achieve the "same" wine greatly reduces the risk of quality loss, due to unforeseen weather conditions.

**Warm Climate Scenario**

In warm climates, optimal sugar levels are often reached far in advance of other critical factors such as phenolic maturity. This means that the harvest date is often chosen primarily due to potential alcohol levels rather than other wine quality parameters.

Trials were done on Merlot and Cabernet Sauvignon in one of the warmer growing regions in California.

For both varieties, the control and treated blocks were picked at the same time. The decisions to pick were based on sugar levels. Blind sensory tastings showed differences in color, mouthfeel and aromas, with tasters preferring the wines that were treated with LalVigne. The vineyards yielded 10 tons/acre, thereby allowing the winery to improve maturity on vines with heavy yields.

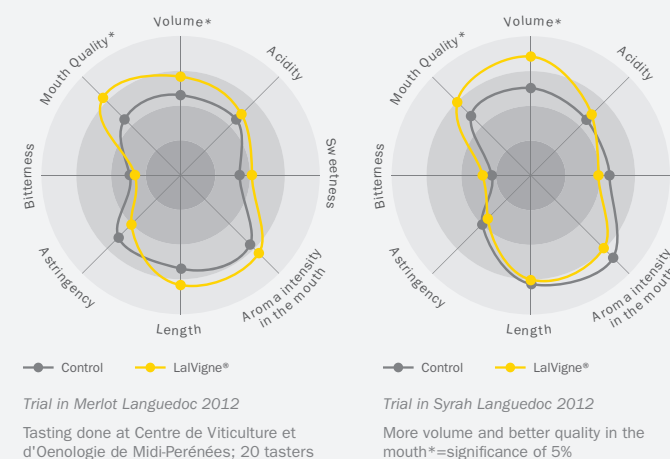
**WHERE IS IT USED?**

For the last several years, Lallemand has been conducting trials with LalVigne sprays in vineyards all over the world. The goal was not only to establish efficacy, but also to gauge enological impacts that may not have been observed in the lab.

**Observed Impact on Mouthfeel and Volume**

The trial below (Figure 1) was conducted on Merlot and Syrah vines in Languedoc in 2012. A tasting was done by 20 professionals at the Centre de Viticulture et d'Oenologie de Midi-Pyrénées. In the LalVigne treated Merlot and Syrah, an increase in mouthfeel and volume was observed. The Merlot also showed an increase in aromatic intensity.

Figure 1: Languedoc Trial 2012

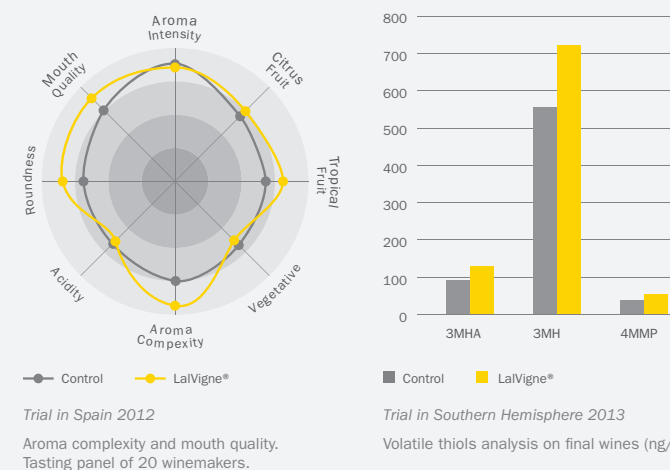


**Observed Impact on Aromatic Intensity**

A Sauvignon Blanc trial done in Spain in 2012 (Figure 2) was tasted by a panel of 20 professional winemakers. The wine made from the LalVigne treated vineyard scored better in mouthfeel, roundness and aroma complexity.

In 2013, trials were done on Sauvignon Blanc in the Southern Hemisphere. Laboratory analysis on the LalVigne treated samples showed an increase in thiols.

Figure 2: Sauvignon Blanc Trials



**Observed Impact on Green Characters (IBMP)**

The natural decrease of methoxypyrazine (3-isobutyl-2-methoxypyrazine) or IBMP, during the ripening phase is a good indicator of aromatic and phenolic ripeness for grapes. It has been observed that virtually all the IBMP present in grapes ends-up in finished red wines, regardless of winemaking practices. Thus, vineyard practices have a huge impact on finished wines.

Trials from the 2014 U.S. harvest were tested for differences in IBMP. It was observed that wines from the LalVigne treated vineyards showed a trend toward lower levels of IBMP. Furthermore, as we increase our trials, the trend seems to be that a greater reduction of IBMP is occurring when the baseline amount of IBMP is higher. Figure 3 below illustrates this.

Figure 3: Observed Impact on IBMP

