Wine yeast
selected from nature

LEVEL² INITIA™

Metschnikowia pulcherrima

Natural bioprotection against oxidation and spoilage microorganisms

DESCRIPTION

LEVEL² INITIA™ is a non-*Saccharomyces* yeast (*Metschnikowia pulcherrima*) isolated from nature in Burgundy with the IFV (Institut Français de la Vigne et du Vin). LEVEL² INITIA™ is an innovative and complete bioprotection tool developed to face the challenges of reducing SO_2 use in white and rosé prefermentative steps. LEVEL² INITIA™ is the first bioprotection yeast developed to limit oxidation phenomena in the early steps of winemaking due to its dual action of consuming oxygen and decreasing copper levels. Indeed, LEVEL² INITIA™ has been selected from more than 100 strains of *Metschnikowia pulcherrima* for its high dissolved oxygen consumption capacity. When used during pre-fermentative steps, it can partially decrease copper content, known as a catalyzer of oxidation reactions.

LEVEL² INITIA™ has the capacity to control a wide range of undesirable microorganisms with a proven high efficiency towards oxidative yeasts (*Kloeckera apiculata* / *Hanseniaspora uvarum*) and acetic acid bacteria (*Gluconobacter oxydans*). As it is non fermentative and able to grow and survive at low temperatures (from 0 °C), LEVEL² INITIA™ is a great biological tool particularly well adapted to manage prefermentative steps in white and rosé vinification. LEVEL² INITIA™ is suitable for organic wine production in the EU.

BENEFITS & RESULTS

LEVEL² INITIA™ helps to reduce the use of sulfites use in white and rosé winemaking while preserving key wine quality components and freshness:

- Limits browning
- Preserves aroma including those sensitive to oxidation, such as thiols (figure 1)
- Avoids organoleptic deviations from microbiological origins (figure 2)

Figure 1: Thiols analysis measured in bottled Sauvignon blanc (Spain). Winery trial comparing LEVEL² INITIA™ to a regular non-*Saccharomyces* bioprotection yeast both added at 10 g/hL before a cold stabulation at very low temperature (5 days of extended juice lees contact at 4°C).

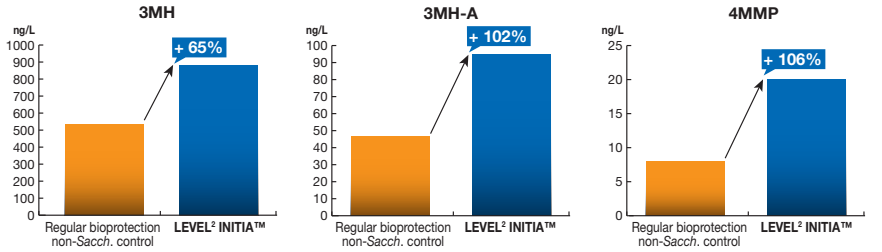
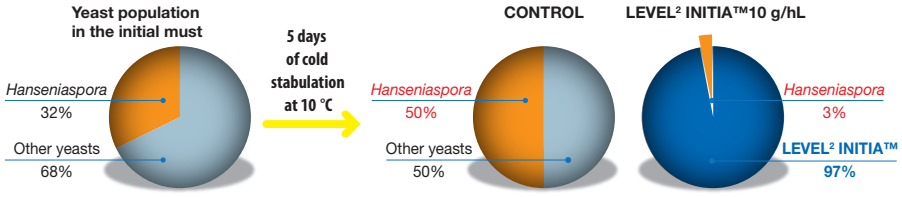


Figure 2: Yeast count in a Chardonnay (Beaujolais, France). Winery trial comparing a control without bioprotection to LEVEL² INITIA™ added at 10 g/hL before a cold stabulation (5 days of extended juice lees contact at 10°C).



LEVEL² RANGE

One of the objectives of our Lallemand Oenology R&D program is to explore the non-*Saccharomyces* biodiversity found in nature. Our R&D team continues to select interesting and original non-*Saccharomyces* yeast and offer them within our LEVEL² range. These non-*Saccharomyces* LEVEL² yeast provide winemakers with exciting new aromatic complexities and possibilities.

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PROPERTIES*

- Pure culture of *Metschnikowia pulcherrima*
- SO_2 tolerance: < 40 mg/L of total SO_2
- Resistant to low pH
- Alcohol tolerance: very low
- Fermentative capacity: very weak to none
- Implantation and growth capacities: high
- Recommended temperature of use in white and rosés conditions for optimal results in prefermentative steps: from 0 to 18 °C
- Even though LEVEL² INITIA™ can withstand temperature up to 30 °C, such temperatures are not recommended in a white and rosé bioprotection perspective. In this case, maximum inoculation rate is recommended.
- No production of undesirable compounds (such as volatile acidity, SO_2, H_2S, etc.)
- Requires inoculation of selected *Saccharomyces cerevisiae* yeast for alcoholic fermentation
- Nutrition management: systematic nutrient addition with *Saccharomyces cerevisiae* inoculation is recommended
- High oxygen consumption capacity to synthesize its own polyunsaturated fatty acids

**subject to fermentation conditions*

INSTRUCTIONS FOR OENOLOGICAL USE

Recommended dosage: 5 to 20 g for 100L of must or 100 kg of grapes to be adapted depending on the process (temperature, degree of risk for microbial contamination, duration of the prefermentative steps, timing of the inoculation, etc.).

- Add as early as possible.
- Rehydrate LEVEL² INITIA™ in 10 times its weight of clean water (temperature between 20 and 30°C).
- Stir gently to suspend and wait for 20 minutes.
- Inoculate the grapes or must. The difference in temperature between the grapes must to be inoculated and the rehydration culture suspension should not be higher than 10°C (if necessary, acclimatize the temperature of the culture by slowly adding must).
- Always rehydrate the yeast in a clean container.
- In some cases (mechanical harvest when juice is present) addition without rehydration can be considered (please refer to your supplier or Lallemand). In this case the highest dosage should be considered.
- The suspension can be kept in water alone for 9 hours. If used later, add must to the suspension after 45 minutes of rehydration.

PACKAGING AND STORAGE

- Available in 500 g
- Store in a dry place at 4-11°C
- To be used once opened

Distributed by:

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