YEAST

Excellence® CELSIUS

Resulting from a partnership research project with ISVV, Excellence® Celsius is a yeast selected for its capacity to reduce alcohol in wines, improving their balance.

PRODUCT CHARACTERISTICS

- **Formulation :** Active dry yeasts - *Saccharomyces cerevisiae.*

- **Enological benefits:** The latest microbiology innovations offer further insight into the selection of Saccharomyces cerevisiae yeasts. This has led to the successful development of Excellence® Celsius. This yeast is particularly efficient at achieving lower fermentation yields (alcohol/sugar). Selecting through Breeding enables Excellence® Celsius to have QTLs specifically related to the reduction of alcohol in wines. This means that its sugar consumption metabolism is directed towards products other than ethanol (glycerol, for example).

  Moreover, using Excellence® Celsius improves wine freshness by producing L-malic acid during alcoholic fermentation, which has a direct effect on increasing total acidity and lowering pH. Thanks to its excellent fermentation capacity and its ability to develop quickly in the must, it enhances the expression of a harmonious 'fresh fruit' aromatic profile, combined with volume and tension on the palate.

  These exclusive properties make Excellence® Celsius a must when it comes to managing wine balance, particularly in a context of climate change.

DIRECTIONS FOR USE

- In difficult fermentary conditions (high Potential Alcohol, extreme temperatures, low turbidity, etc.) or for an optimal revelation of aromas, we highly recommend the use of ŒnoStim®.

- **With ŒnoStim®:** Dissolve progressively Œnostim® (30 g/hL)* in 20 times its weight of warm water (37°C) while continuously stirring to avoid the lumps formation. Then, add the selected yeast (20 g/hL)*, stir gently and wait 20 minutes before adding the same volume of must from the tank to inoculate. Repeat this operation until the difference between the starter culture and the tank is less than 10°C. This step should last between 10 and 20 min. Add the yeast to the tank and mix.

  *Based on the must volume to be fermented.

- **Without ŒnoStim®:** Add the selected yeast in 10 times its weight of hot water (35 to 40°C) and mix gently. Wait 20 minutes, then add an equal volume of must from the tank to be inoculated. Repeat this operation until the difference between the starter culture and the tank is less than 10°C. This step should last between 10 and 20 minutes. Add the yeast to the tank and mix.

- **Dosage:** 20-30 g/hL.

TRIAL RESULTS

Trial characteristics : Merlot, graves, 2023

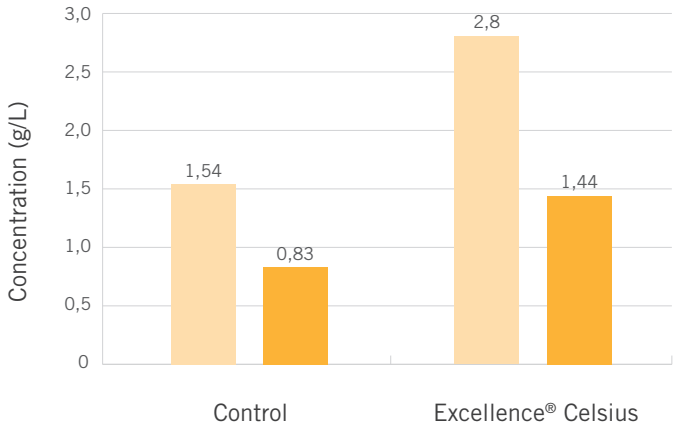
Must characteristics : TAP (%vol.) : 12,47 ; AT (g/L H_2SO_4) : 2,82 ; pH : 3,45 ; L-malic acid : 1,96 mg/L

PARAMETERS	CONTROL	EXCELLENCE® CELSIUS
TAV at 20°C (% vol.)	12,75	12,28
AT (g/L H_2SO_4)	4,79	6,29
pH	3,44	3,33
Glycerol (g/L)	9,1	11,5

L-malic acid (g/L) end of AF

L-lactic acid (g/L) end of MLF

Malic and lactic acid concentrations in wine.



- The same must was fermented with conventional red wine yeast (control) and Excellence® Celsius yeast. The following parameters were measured at the end of alcoholic fermentation.

- Fresh profile of the wine is enhanced, with +1.3 g/L L-malic acid after alcoholic fermentation and +0.6 g/L L-lactic acid after malolactic fermentation. This increase is noticeable in both total acidity and pH.

SPECIFICATIONS

PHYSICAL

- **Appearance & colour:** Light brown fine granulates

MICROBIOLOGICAL

- **Other yeasts**: < 10^5 UFC/g
- **Mould**: < 10^3 UFC/g
- **Lactic bacteria:** < 10^5 UFC/g
- **Acetic bacteria:** < 10^4 UFC/g
- **Salmonella**: Absence/25g
- ***Escherichia coli*:** Absence/1g
- **Staphylococci:** Absence/1g
- **Coliforms**: < 10^2 UFC/g

COMPOSITION

- **Revivable yeasts**: ≥ 10^{10} UFC/g
- **Humidity**: < 8 %

LIMITS

- **Lead**: < 2 mg/kg
- **Mercury:** < 1 mg/kg
- **Arsenic:** < 3 mg/kg
- **Cadmium**: <1 mg/kg

PACKAGING & CONSERVATION

- Packets of 500 g (in 10 kg box).
- Store in its original packaging hermetically sealed, in a cool and dry place without odors. Respect the optimal date of use written on packaging. Use quickly after opening.

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