Wine yeast
selected from nature

LEVEL² BIODIVA™

Torulaspora delbrueckii

Enhance aromatic complexity and mouthfeel in white and red wines

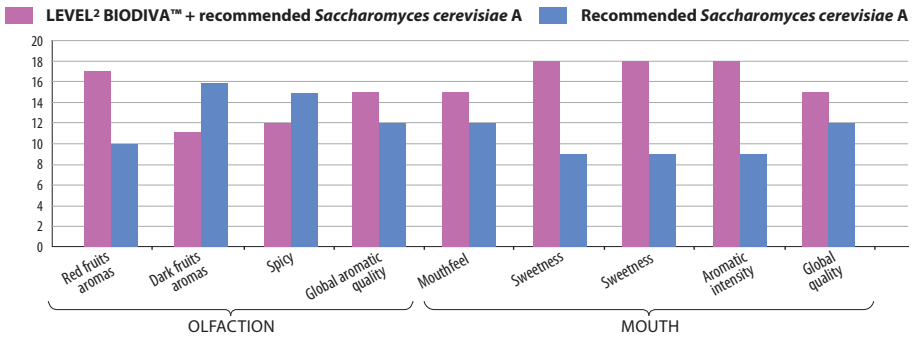
DESCRIPTION

LEVEL² BIODIVA™ is a pure culture of *Torulaspora delbrueckii*, selected to enhance wine aromatic and mouthfeel complexity. Used in sequential inoculation with a compatible selected *Saccharomyces cerevisiae* yeast recommended by Lallemand Oenology, LEVEL² BIODIVA™ will help control development of the wine's aromatic complexity by favouring the perception of certain esters without overwhelming the wines. The exceptional ability of LEVEL² BIODIVA™ to overproduce polyols contributes to enhance the mouthfeel in white, rosé and red wines.

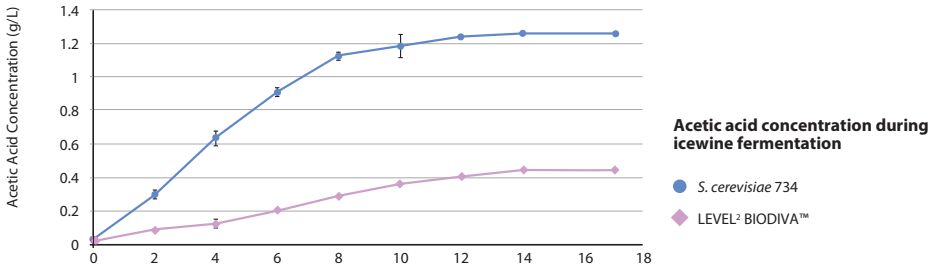
Due to its low volatile acid production and its tolerance to osmotic shock, LEVEL² BIODIVA™ is also particularly adapted for fermenting late harvest and ice wines.

BENEFITS & RESULTS

Comparative trial on Syrah (Rhône valley): impact of LEVEL² BIODIVA™ on the sensory profile - Blind tasting, 27 tasters.



Cool Climate Oenology and Viticulture Institute (CCOVI), Brock University. Vidal Icewine Juice



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.

LALLEMAND
LALLEMAND OENOLOGY

PROPERTIES

- Pure culture of *Torulaspora delbrueckii*
- Lag phase: Moderate
- When used for fermenting high initial sugar sweet wine, usage of GO-FERM PROTECT EVOLUTION™ during rehydration is recommended
- Optimal fermentation temperature: >16°C
- Volatile acidity production: Very low
- Very good compatibility with malolactic fermentation
- To be used in sequential inoculation with a suitably paired *Saccharomyces cerevisiae*.

- Nitrogen needs:

YAN level (mg/L)	< 80	80 < YAN < 150	> 150
YAN (Yeast Assimilable Nitrogen)	1-Add complex nutrition* just after BIODIVA™ inoculation		
	2-Add complex nutrition* just after *Saccharomyces cerevisiae* inoculation	1-Add complex nutrition* just after *Saccharomyces cerevisiae* inoculation	1-Add complex nutrition* just after *Saccharomyces cerevisiae* inoculation
	3- Add DAP** after a drop of 45 points from original density	2- Add complex nutrition* after a drop of 45 points from original density	

* For dosage rates, follow good nutrition practices ** Diammonium Phosphate

INSTRUCTIONS FOR OENOLOGICAL USE

TO BE USED IN SEQUENTIAL INOCULATION AS FOLLOW

Before inoculation, make sure that the free SO_2 level is lower than 15mg/L and the temperature of the juice /must is greater than 16 °C.

1st INOCULATION: LEVEL2 BIODIVA™

Rehydrate 25 g/hL of yeast in 10 times its weight of water at 20-30 °C. After 15 minutes, stir gently. To help the rehydrated yeast acclimatise to the cooler juice temperature and avoid cold shock, slowly combine an equal amount of juice with the yeast rehydration solution (this step may need to be repeated), until the yeast suspension is within 10 °C of the juice to be inoculated. Total rehydration time should not exceed 45 minutes. Allow the ferment to proceed until the Baumé has reduced by approximately 2 °Be, and then over-seed with a suitably paired S. cerevisiae yeast (2nd inoculation)

2nd INOCULATION: *Saccharomyces cerevisiae*

After a density drop of approximately 2 Baumé, proceed to the second innoculation with 25g/hL of one of the recommended *S. cerevisiae* yeast. Follow the classical rehydration acclimatisation and handling protocol for *S. cerevisiae*.

COMPATIBLE *SACCHAROMYCES CEREVISIAE* YEAST STRAINS

The final sensory outcome of LEVEL2 BIODIVA™ is the contribution from both the non-*Saccharomyces* yeast and the paired *Saccharomyces cerevisiae* yeast. Lallemand has extensively researched and trialled many combinations of *T. delbrueckii* and *S. cerevisiae*. We have found that there are compatible and also incompatible yeast:

Incompatible - the paired *S.cerevisiae* yeast does not have desirable fermentation kinetics. This could be due to numberous reasons such as amensalism, where the metabolites of one yeast are inhibitory to another, or due to competition, where both yeasts use the same substrates which can result in a mutually detrimental interaction.

Compatible - the paired *S. cerevisiae* yeasts that have desirable fermentation kinetics and desirable organoleptic outcomes.

PACKAGING AND STORAGE

- Available in 125 and 500 g
- Store in a dry place at 4-11 °C
- To be used once opened

Distributed by:

C.A.L LTD

3-34 Mihini Road,
Henderson, Auckland 0610

john@cal.org.nz | www.cal.org.nz

+64 21 505 331