

APPLICATIONS



The wide variety of selected natural yeasts reflects the biodiversity, and yet this diversity is still underexploited despite the large number of species and subspecies (other than *Saccharomyces cerevisiae*) that are present in most grape musts. During spontaneous fermentation, actual microbial population dynamics result in successions of enzyme activity that undoubtedly contribute, positively or negatively, to the aromatic complexity and diversity of the wine. Thanks to Lallemand R&D research program, the management of alcoholic fermentation (AF) introducing the use of non-conventional selected yeasts such as *Torulaspora delbrueckii* and *Metschnikowia pulcherrima* in sequential inoculation with *Saccharomyces cerevisiae* opens new possibilities for winemakers.

TO ENHANCE AROMA & MOUTHFEEL COMPLEXITY

Biodiva™ is a pure culture of *Torulaspora delbrueckii*, selected for its properties to enhance wine aromatic and mouthfeel complexity. Used in sequential inoculation with compatible selected *Saccharomyces cerevisiae* yeast studied and recommended by Lallemand, Biodiva™ will help to control development of wines aromatic complexity by favoring the perception of certain esters without overwhelming the wines.

Due to its low volatile acidity production and its tolerance to osmotic shock, Biodiva™ is particularly adapted for fermenting late harvest and ice wines.

TECHNICAL CHARACTERISTICS

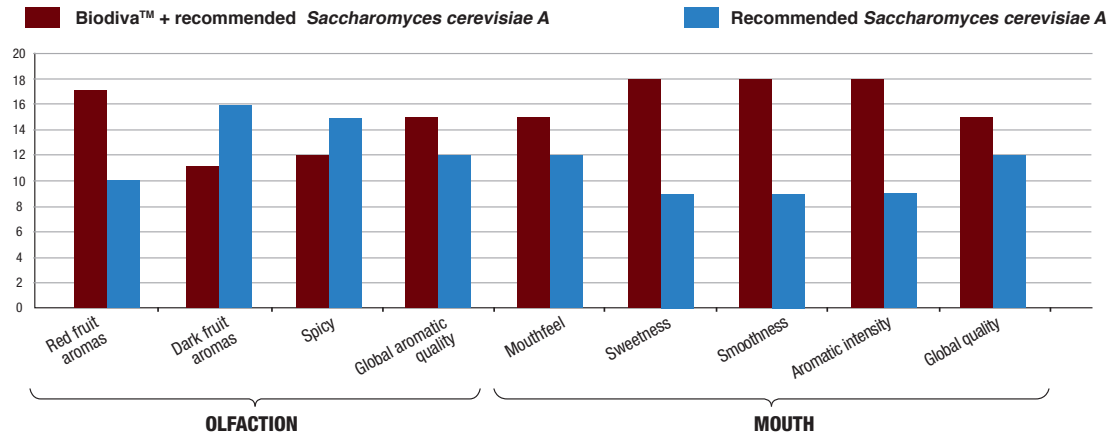
- Species: *Torulaspora delbrueckii*
- Lag phase: Moderate
- Alcohol tolerance: when used for fermenting high premium sweet wine, usage of yeast protectant such as Natstep® is recommended.
- Optimal fermentation temperature: > 16°C/61°F
- Volatile acidity production: Very low
- Very good compatibility with malolactic fermentation
- Nitrogen needs:

YAN level (mg/L)	< 80	80 < YAN LEVEL < 150	> 150
YAN = Yeast Assimilable Nitrogen	1- Add complex nutrition* just after Biodiva™ inoculation		
	2- Add complex nutrition* just after <i>Saccharomyces cerevisiae</i> inoculation	1- Add complex nutrition* just after <i>Saccharomyces cerevisiae</i> inoculation	1- Add complex nutrition* just after <i>Saccharomyces cerevisiae</i> 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	

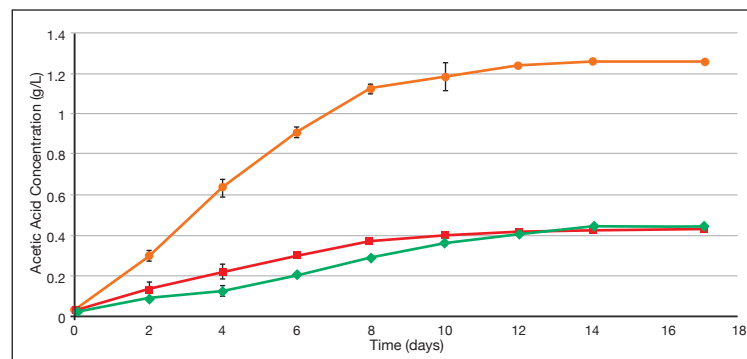
* For inoculation rate, follow good nutrition practices

** Diammonium Phosphate

Comparative trial on Syrah 2011 (Rhône valley): impact of Biodiva™ on the sensory profile
Blind tasting, 27 tasters



SENSORY PROFILE



Cool Climate Oenology and Viticulture Institute (CCOVI), Brock University, Vidal Icewine Juice 2011

Acetic acid concentration during icewine fermentation.

- *S. cerevisiae* 734
- Biodiva™ 0.5 g/L inoculation rate
- ◆ Biodiva™ 0.25 g/L inoculation rate

TO BE USED IN SEQUENTIAL INOCULATION AS FOLLOWS

Important:

Before inoculation, make sure that the free SO₂ level is lower than 15 mg/L.

1ST INOCULATION: BIODIVA™

Inoculate at 25 g/hL: rehydrate the yeast in 10 times its weight of water at 30°C/86°F. After 15 minutes, stir very gently.

To help the yeast rehydrated acclimate to the cooler juice temperature and avoid cold shock, slowly combine an equal amount of juice with yeast Rehydration solution (this step may need to be repeated).

Total rehydration time should not exceed 45 minutes.

2ND INOCULATION: THE SACCHAROMYCES CEREVISIAE A

After a density drop of 10 to 15 points (1.5 to 3°Brix) from the starting juice density, proceed to the 2nd inoculation of the recommended selected *Saccharomyces cerevisiae* yeast at 25 g/hL with standard *Saccharomyces cerevisiae* yeast rehydration protocol (clean water, 37°C/99°F, 20 to 30 minutes).

For more information, please contact your Lallemand representative

Available in 125 & 500 g pack.

Store 24 months at 4°C/38°F, in original unopened packaging.

INSTRUCTIONS FOR USE

PACKAGING AND STORAGE