Q&A

NON-SACCHAROMYCES YEASTS

Non-*Saccharomyces* strains are multi-purpose tools for winemaking and either offer BIOprotection from microbes that can negatively impact quality and organoleptics, or add complexity and aromatic interest to wines.

1. How do I use non-Saccharomyces with Saccharomyces cerevisiae?

For sensory complexity, use a combination of *Torulaspora delbrueckii* (**ZYMAFLORE® ALPHA**^{TD}) followed by *Saccharomyces cerevisiae*. This is a sequential pitching that closely matches the natural hand-off between organisms in the fermentation process. Use **ZYMAFLORE® ALPHA**^{TD} at 300 ppm, allow fermentation to begin, and then after approximately a 6-9° Brix drop, pitch a **ZYMAFLORE®** yeast of choice. This process is like a 'controlled' native fermentation with lower risk, high mouthfeel, and aromatic complexity.

For BIOprotection on incoming fruit, **ZYMAFLORE® ÉGIDE**^{TDMP} combines *T. delbrueckii and Metschnikowia pulcherrima.* They are perfectly suited to implant quickly, out-compete spoilage organisms, and not start fermentation or uptake nutrients depending on time and temperature of the must. Extremely effective, this product works well when dry pitched on cold fruit and at low doses of only 20 - 50 ppm.

2. What are the main differences between Torulaspora delbrueckii & Metschnikowia pulcherrima?

M. pulcherrima implants favorably as a dry pitch and at very cold temperatures down to near freezing. This allows it to dominate immediately on incoming fruit. *T. delbrueckii* prefers slightly warmer temperatures and rehydration. It will still implant dry, albeit with a little lag time. This allows *T. delbrueckii* to take over right where *M. pulcherrima* leaves off. *T. dulbreuckii* has a greater contribution to aromatic complexity and mouthfeel.

*3. Do **ZYMAFLORE® ÉGIDE**^{TDMP}, **ZYMAFLORE® ALPHA**^{TD} or **ZYMAFLORE® KHIO**^{MP} require rehydration?*

ZYMAFLORE® ALPHA^{TD} requires rehydration at 25-30°C/77 - 86°F. **ZYMAFLORE® ÉGIDE**^{TDMP} and **ZYMAFLORE® KHIO**^{MP} can be simply added dry to incoming fruit or into receiving vessel, or rehydrated with the same protocol as **ZYMAFLORE® ALPHA**^{TD}

*4. Why does **ZYMAFLORE® ÉGIDE**^{TDMP} show little use of YAN and not ferment, while **ZYMAFLORE® ALPHA**^{TD} will utilize YAN and ferment up to 8%?*

ZYMAFLORE® ÉGIDE^{TDMP} has a dose rate only 1/10th of normal yeast, allowing for enough population to out-compete negative organisms at cold temperatures but not kick off fermentation. **ZYMAFLORE® ALPHA**^{TD} is pitched at normal rates to allow for a population large enough that fermentation does begin. When using **ZYMAFLORE® ALPHA**^{TD} for building mouthfeel and aromatics, add an additional 50 ppm YAN to account for the growth of the *Torulaspora delbreuckii.*

5. What does Lachancea thermotolerans do?

L. thermotolerans is a new yeast that can reduce alcohol and increase acidity, great for high brix and ultra-ripe fruit. Ask your **LAFFORT®** Technical Representative for more information.