

CELLAR TEMP YEAST REHYDRATION WITH DYNASTART™ / SUPERSTART™

July 26, 2024 · By Lisa Strid



Preliminary trials support DYNASTART™ / SUPERSTART™ as effective for cellar temp yeast rehydration and carrying out healthy fermentations from these conditions. DYNASTART™ / SUPERSTART™ can improve fermentation performance and wine aromatics even at cellar temp rehydrations.

At **LAFFORT®**, we know that our **DYNASTART™ / SUPERSTART™** yeast rehydration products are at the top of the industry in ergosterol and long-chain fatty acid content, providing yeast with the essentials they need to build healthy cell membranes during that crucial period of rehydration. Moreover, our products can also improve the release of aroma compounds by the yeast during fermentation. Yeast rehydration has been an operation that requires much time and attention of a skilled cellar hand, in particular in acclimatizing yeast to appropriate pitching temperature. With that in mind, we decided to put our **DYNASTART™ / SUPERSTART™** yeast rehydration nutrient to the test to see how it performed under lower temperatures and in challenging conditions.

Our team in France set up myriad lab-scale trials on whites and reds, using both workhorse yeast, and more finicky strains. We set up “typical” conditions, as well as more challenging, such as low NTU white juices. Then we rehydrated yeast at 20°C (68°F) with **SUPERSTART™** and inoculated.

Each yeast trial set consisted of three trial arms:

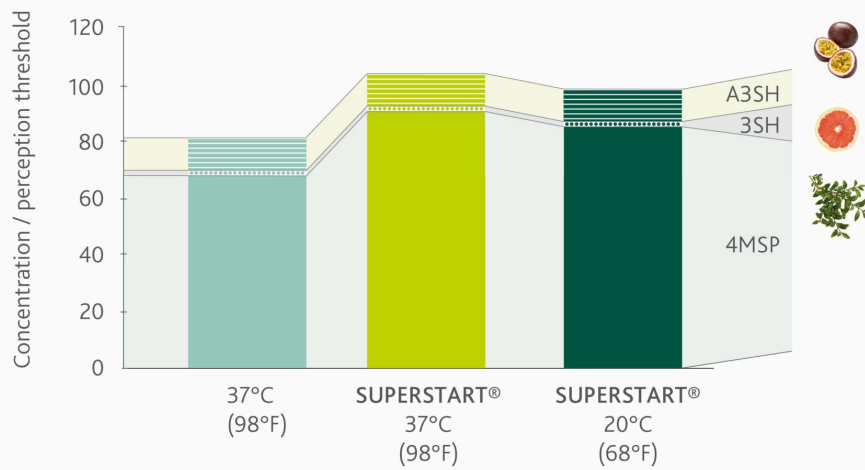
- **Trial Arm #1** – Control – no rehydration nutrients at 37°C (98°F)
- **Trial Arm #2** – **DYNASTART™** / **SUPERSTART™** at 20°C (68°F)
- **Trial Arm #3** – **DYNASTART™** / **SUPERSTART™** at 37°C (98°F)

We found improved fermentation kinetics in the trial arms using the rehydration nutrients at all temperatures compared to the control without yeast rehydration nutrient at 98°F. There was no significant difference in the fermentation kinetics of **Trial Arms #2** and **#3**. We did measure increased thiol production in **Trial Arm #2** and **#3** compared to the control, in line with increased aromatic intensity confirmed via sensory analysis.

In short – **rehydrating yeast at cellar temp with SUPERSTART™ works.**

*Check out our full range of **SUPERSTART™** rehydration products:*

- **DYNASTART™** / **SUPERSTART™** – The original formulation for all wine types.
- **SUPERSTART™ Blanc** – Specific formulation rich in vitamins and minerals for improving yeast aromatic production.
- **SUPERSTART™ Rouge** – Specific formulation rich in sterols for yeast membrane integrity at higher temperatures.
- **SUPERSTART™ Spark** – Specific formulation for enhancing membrane strength when yeast cultures are added to wine (tirage or fermentation restarts).

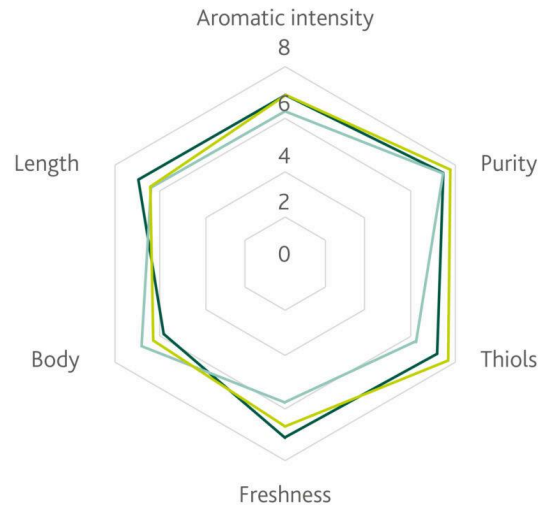


About 20% more thiols with **SUPERSTART™**, irrespective of temperature. The differences between 37°C and 20°C are within the analytical error. **ZYMAFLORE™ X5** ferment. No differences in DELTA.

ZYMAFLORE® X5	37°C (98°F)	SUPERSTART® 37°C (98°F)	SUPERSTART® 20°C (68°F)
Glu + fru (g/L)	< 0.20	< 0.20	0.21
Alc. (% vol)	13.2	13.2	13.2
VA (g/L acetic)	0.44	0.42	0.40
SO ₂ T (mg/L)	29	28	28
TA (g/L H ₂ T)	5.4	5.5	5.4
pH	3.2	3.2	3.2

Negligible analytical differences between tested modalities.

ZYMAFLORE™ X5 SENSORY



— 37°C (98°F) — SUPERSTART® 37°C (98°F) — SUPERSTART® 20°C (68°F)

