FERMAID O™

Organic yeast nutrient

DESCRIPTION

FERMAID O™ is a nutrient resulting from Lallemand's research on nitrogen metabolism during fermentation.

FERMAID O™ is a unique yeast autolysate with a high content of free amino-acids and peptides, selected by Lallemand. It contains 100% of organic nitrogen and therefore does not contain any ammonia salts (DAP or SDA).

BENEFITS & RESULTS

FERMAID O™ supplies well balanced nutrients for yeasts:

- highly bio-available amino-acids and peptides. Amino-acids are more efficiently used by yeast than inorganic nitrogen.
- natural sources of survival factors to help yeast in stressed conditions.
- natural sources of essential micronutrients such as as vitamins (thiamine, biotin, panthotenic acid) and minerals (magnesium, manganese, zinc).

FERMAID O™ as a source of organic nitrogen greatly impacts the organoleptic qualities of wine where it increase the expression of some aromatic fruity esters.

With FERMAID O™, nitrogen is assimilated more steadily than inorganic nitrogen preventing fermentation activity peak while limiting temperature peaks.

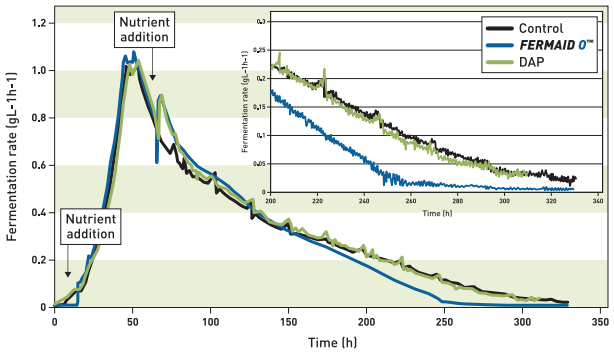

Figure 1: Addition of 16 mg/L of YAN at 2 stages of fermentation (at the beginning and at 1/3 of the alcoholic fermentation -AF-) in 2 different forms: inorganic nitrogen (DAP) and organic nitrogen (FERMAID O™).

In the figure 1, it is shown that for an equivalent amount of yeast (YAN) assimilable nitrogen added, the addition of organic nitrogen results in an efficient fermentative kinetics. In fact, in a high nitrogen deficient grape must, organic nitrogen will enable all sugar to be consumed, whereas the same amount of YAN provided in the form of inorganic nitrogen does not allow for a complete fermentation. No difference can be seen between the control fermentation (no nutrient added) and the fermentation with added DAP addition. In these two cases, a stuck fermentation is observed.

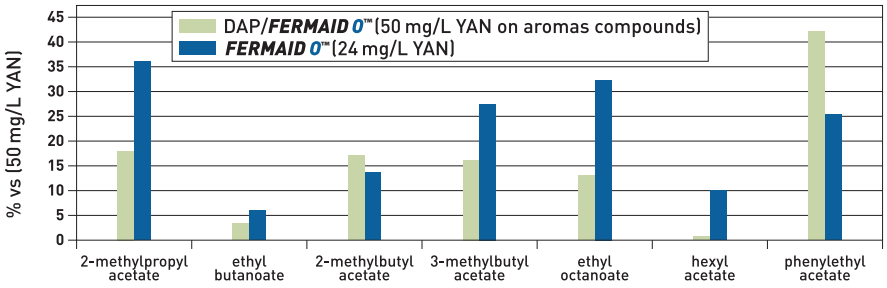

Figure 2: Effect of inorganic/ organic nutrition on a Chardonnay fermented at 16 °C (AWRI, 2009). DAP at 50 mg/L YAN on aromas compounds production.

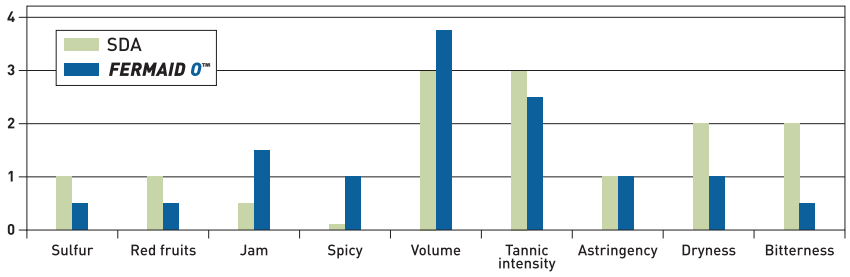

Figure 3: Effect of FERMAID O™ on the sensory profile of a Syrah (ICV R&D Dpt, 2007).

INSTRUCTIONS FOR OENOLOGICAL USE

	YAN (Yeast Assimilable Nitrogen) in mg/L	
	30 g/hL added product	**40 g/hL added product**
FERMAID O™ YAN	12 mg/L	16 mg/L
FERMAID O™ YAN equivalent	36 mg/L	48 mg/L
DAP (YAN)	63 mg/L	84 mg/L

YAN vs YAN Equivalent

Lallemand Oenology in collaboration with different Institutes have done several studies to show the importance of the source of yeast assimilable nitrogen and its impact on fermentation performance. Those studies have demonstrated that the "organic" YAN supported by specific yeast autolysates is 3 times more efficient than inorganic YAN (mainly DAP). Hence, a 40 g/hL dose of FERMAID O™ has a YAN equivalent (to inorganic YAN) of 48 mg/L.

Recommended dosage: 2 x 20 g/hL (to supply the must with 15 - 20 mg/L organic YAN)

- 20 g/hL at the beginning of AF
- 20 g/hL at 1/4 to 1/3 of AF

- Suspend in 10 times its weight of water or must and add to the must during alcoholic fermentation.

OMRI LISTED
For Organic Use

OMRI (Organic Materials Review Institute) is a US national nonprofit organization that determines which input products are allowed for use in organic production and processing.

PACKAGING AND STORAGE

- 10 kg (4 x 2.5 kg bags) and 10 kg box.
- Store in a cool dry place.
- To be used once opened.

Distributed by:

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