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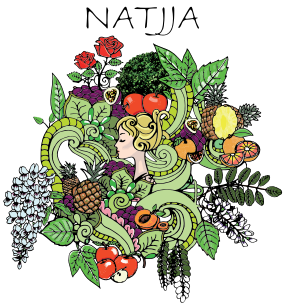
Révélons votre différence

DATA SHEET



NATJJA™

OPTIMIZING FERMENTATION

Boosts the healthiness of yeast and optimizes its abilities to bring out aromas

ŒNOLOGICAL APPLICATIONS

NATJJA™ an innovative 100% bio-based yeast nutrient ideal for enhancing and protecting the healthiness and physiological state of œnological yeasts. By combining a balanced organic nutrition with the anti-free radical effect of fungal-origin chitosan and yeast-origin zinc, it not only helps optimize the secondary metabolism for bringing out yeast aromas, but also secure alcoholic fermentation and preserve aromas released during this stage from oxidation.

IMPLEMENTATION AND PRECAUTIONS OF USE

Dosage and protocol: just after yeasting, add 40 g/hL of **NATJJA™** to the must.

Adding 40 g/hL of **NATJJA™** corresponds to adding 35 mg/L of available nitrogen (as a technical equivalent). Depending on the original level of available nitrogen in the must, it may be recommended to supplement any deficiencies with complementary nitrogen nutrition at the one third stage of alcoholic fermentation. If there is a high level of deficiency (available nitrogen <120 mg/L), also supplement **NATJJA™** at yeasting by an equivalent nutritional addition of 30 mg/L of available nitrogen.

Place **NATJJA™** in suspension by shaking rapidly in 10 times its volume of warm water or must. After incorporating, homogenize the must thoroughly via mixing by pumping over. Once prepared, the formulation must be used within the day.

CHARACTERISTICS

Composition :

- Yeast autolysate (*Saccharomyces cerevisiae*) : organic nitrogen content <11.5% of dry matter (nitrogen equivalent) and amino-acid content between 10% and 20% of dry matter (glycine equivalent).
- Inactivated yeasts (*Saccharomyces cerevisiae*) : organic nitrogen content <9.5% of dry matter (nitrogen equivalent).
- Chitosan (origin *Aspergillus niger*).

PACKAGING AND STORAGE

- 1-kg bags.

To be stored in a dry, odour-free place, at a temperature of between 5° and 25°C. Once the sachet has been opened, it must be used rapidly and may not be stored.

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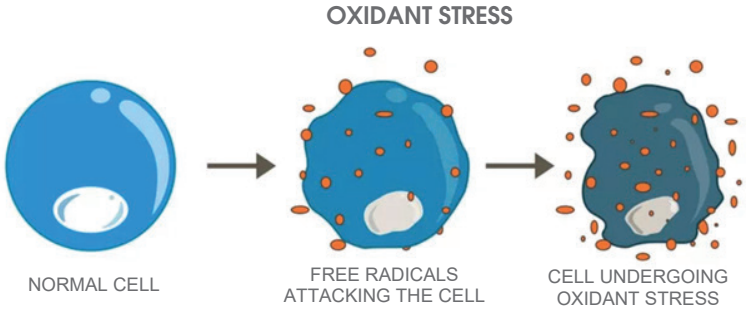
NATJJA™

Synergetic anti-free radical actions which protect the yeast's physiological state

Faced with the increasing presence of ethanol in the must, œnological yeast produces a large quantity of free radicals which in particular cause:

- alteration in the yeast's DNA,
- onset of cell death,
- damage to the plasma membrane (likely to bring about reduced internalisation of aromatic precursors),
- destruction of enzymes and amino-acids (possibly limiting the conversion of aromatic precursors).

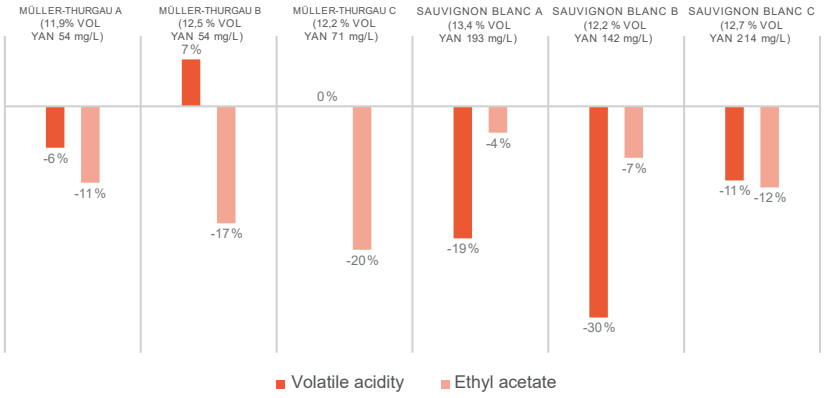


Rich in exclusively organic nitrogen, **NATJJA™** ensures better regulated nutrition to avoid excessive growth in population, there by limiting the associated phenomena of induced deficiency.

In addition, the high zinc content level in **NATJJA™** as well as the presence of dedicated chitosan help reduce the harmful activity of free radicals and oxidant stress to enhance overall yeast healthiness and express its secondary metabolism for bringing out the aromas in grapes.

Confirmed results on limiting yeast stress

VARIATIONS OF VOLATILE ACIDITY AND ETHYL ACETATE CONTENT OBTAINED USING NATJJA™ NUTRITION IN RELATION TO THE CONTROL (ADDITION OF DAP)

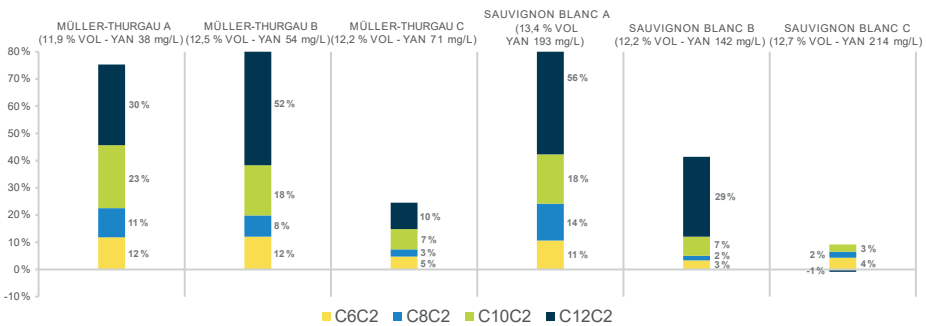


In a stress situation, œnological yeasts tend to produce more acetic acid and sometimes its ester, ethyl acetate.

After nutrition using **NATJJA™**, resultant wines generally have lower volatile acidities and ethyl acetate contents. These observations tend to confirm that yeast oxidant stress is limited by **NATJJA™** at the beginning of fermentation.

Heightening yeast healthiness is the sure way to achieve optimum fruity-aroma expression

VARIATION IN FATTY ACID ETHYL ESTER CONTENTS POST AF OBTAINED USING NATJJATM NUTRITION IN RELATION TO BENCHMARK ORGANIC NUTRITION



Our aromatic and sensory analysis results confirm the interest of **NATJJA™** as an innovative nutrition solution. The anti-free radical impact of **NATJJA™** combines reduced oxidant stress of yeast while preserving aromas that have been released. The resultant wines better express their aromatic potential at varietal (thiols) and fermentation (fatty acid ethyl esters) levels.

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