

NATJJA

FERMENTATION OPTIMIZATION

Nutrient for the improvement of the yeast wellbeing and for optimising its aromatic revealing capacity

↓ OENOLOGICAL APPLICATIONS

Thanks to its balanced organic nutrition, combined with the anti-free-radical effects of a specially selected fungal-origin chitosan and yeast-derived zinc, **NATJJA™** helps optimize the secondary metabolism in yeast that leads to the expression of aromas and flavours, while at the same time ensuring successful alcoholic fermentation and protection from oxidation for the aromas and flavours released at this stage.

↓ DOSAGE AND INSTRUCTIONS FOR USE

As soon as the yeast has been inoculated, add 40g/hl of **NATJJA™** to the must.

40g/hl of product corresponds to 35mg/l of YAN supply. Depending on the initial YAN content in the must, it could be prove useful to supplement the yeast's nutrition one-third of the way through alcoholic fermentation with a nitrogen-rich product.

Pour one part **NATJJA™** into ten parts warm water or must. After the required dose has been added, stir to make sure that the product spreads evenly throughout the liquid. Once the formula has been prepared, it needs to be used on the same day.

↓ CHARACTERISTICS

Composition:

- Yeast autolysate: organic nitrogen content <11.5% of dry matter (equivalent nitrogen) and amino-acid content ranging from 10% to 20% of dry matter (equivalent glycine).
- Deactivated yeast: organic nitrogen content <9.5% of dry matter (equivalent nitrogen).
- Chitosan (from *Aspergillus niger*).

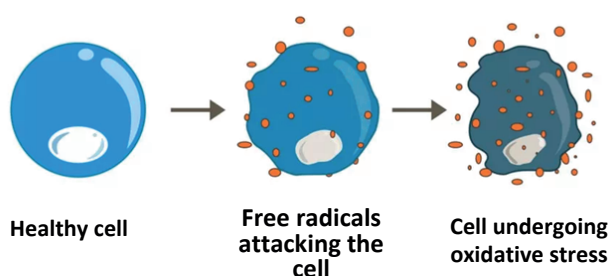
↓ PACK SIZES AND STORAGE

1kg-10kg bags.

Store in a dry, odourless place at a temperature between 5-25°C. Once opened, the product must be used within a few hours and cannot be stored further.

NATJJA

➤ Synergistic anti-free-radical action to keep yeast cells healthy



Under respiratory conditions, but also when ethanol is present, winemaking yeast produces free radicals responsible above all for:

- alterations to the yeast's own DNA
- triggering cell death
- decay of the plasma membrane (which can lead to reduced absorption of aroma precursors)
- inactivation of enzymes and amino acids (which can inhibit the conversion of aroma precursors).

Thanks to its high content of exclusively organic nitrogen, **NATJJA™** makes it possible to have control over yeast nutrition, so as to avoid overpopulation during fermentation.

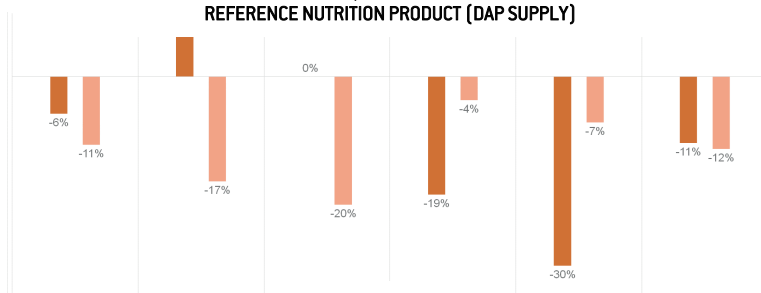
What's more, thanks to its high zinc content and to the presence of a specific chitosan, **NATJJA™** also helps reduce the harmful effects of the free radicals on the yeast's health and increase its overall wellbeing. This leaves the yeast free to fully express its secondary metabolism, releasing a full range of grape aromas.

➤ Proven results to reduce the stress suffered by the yeast

In situations of oxidative stress, winemaking yeasts tend to produce more acetic acid and sometimes its ester, ethyl acetate.

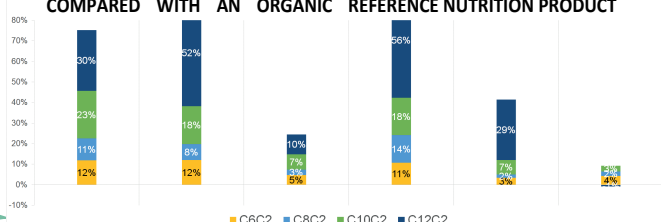
After receiving nutritional supplementation through **NATJJA™**, the wines produced present lower levels of volatile acidity and lower ethyl acetate content. This indicates that the oxidative stress suffered by the yeast is reduced by using **NATJJA™** from the beginning of fermentation.

VARIATION IN THE POST-A.F. LEVELS OF FATTY ACID ETHYL ESTERS OBTAINED THROUGH USE OF THE **NATJJA™** NUTRITION SUPPLEMENT, COMPARED WITH AN ORGANIC REFERENCE NUTRITION PRODUCT (DAP SUPPLY)



➤ Full expression of the fruity notes in the wine, thanks to significant improvements in yeast health

VARIATION IN THE POST-A.F. LEVELS OF FATTY ACID ETHYLESTERS OBTAINED THROUGH USE OF THE **NATJJA™** NUTRITION SUPPLEMENT, COMPARED WITH AN ORGANIC REFERENCE NUTRITION PRODUCT



The results of the analyses performed on the aromas, flavours and other sensory properties of the wines treated with **NATJJA™** confirm its validity as an innovative form of yeast nutrition. The free-radical-combating power of **NATJJA™** ensures that the yeast will undergo less oxidative stress and the aromas and flavours will be preserved. Wines treated with this product express their varietal characteristics (thiols) and fermentation potential (fatty acid ethyl esters) to the full.