

# NATJJA FIZZ™

## OPTIMIZING FERMENTATION



Enhanced yeast healthiness for ensuring bubble formation in closed tank method and optimizing its capacities to bring out aromas

### ↙ ŒNOLOGICAL APPLICATIONS

**NATJJA FIZZ™** is an innovative, 100% bio-based yeast nutrient, designed to enhance and protect the healthiness and physiological state of œnological yeasts in bubble-formation conditions using the Charmat method. Combining balanced organic nutrition with the anti-radical effect of a dedicated chitosan of fungal origin and the anti-stress capacities of minerals (magnesium and zinc) of yeast origin, it helps optimize the secondary metabolism for bringing out yeast aromas as well as secure prime bubble formation.

### ↙ IMPLEMENTATION AND PRECAUTIONS FOR USE

Dosage and protocol: For a bubble formation process using the closed tank method, add 20 g/hL of **NATJJA FIZZ™** to the tank.

Adding **NATJJA FIZZ™** at 20 g/hL corresponds to an addition of available nitrogen (in technical equivalent) of 18 mg/L.

Place **NATJJA FIZZ™** in suspension, shaking rapidly in 10 times its volume of tepid water or wine. After stirring in, homogenize the wine thoroughly. Once prepared, the formulation must be used within the day.

### ↙ CHARACTERISTICS

Composition:

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

### ↙ PACKAGING & STORAGE

- 1-kg bags.

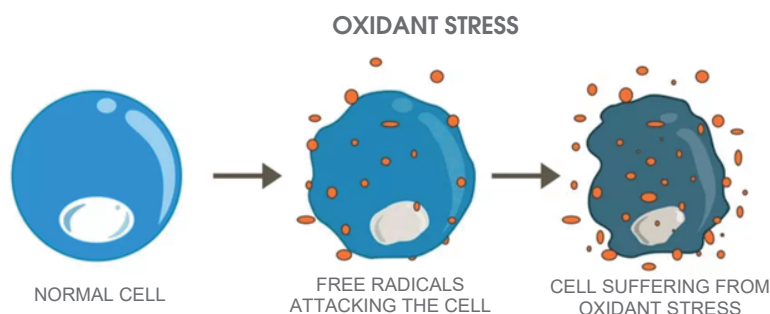
To be stored in a dry, odour-free place, between 5° and 25°C. Once the sachet is open, the product must be used rapidly and cannot be kept.

# NATJJA FIZZ™

## Synergetic anti-radical effects boosting the yeast's physiological condition

In respiratory conditions, but also in the presence of ethanol, œnological yeast produces free radicals which in particular are responsible for:

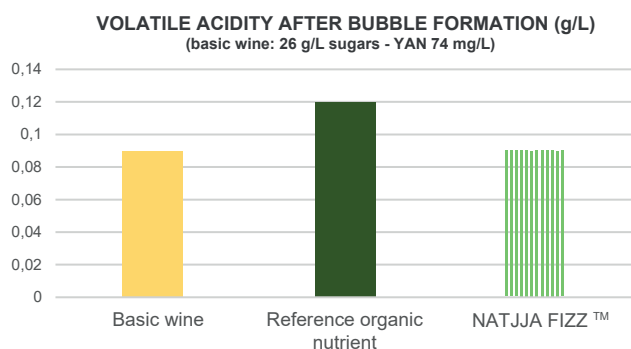
- altering the yeast DNA,
- causing induction of cell death,
- damaging the plasma membrane (likely reduction in internalisation of aromatic precursors),
- destroying enzymes and amino acids (possibly restricting the conversion of precursors into aromas).



As a result of its richness in exclusively organic nitrogen, **NATJJA FIZZ™** enables better regulated nutrition, thereby preventing overgrowth in fermentation population.

In addition, the high level of magnesium and zinc in **NATJJA FIZZ™** limits stress due to the presence of ethanol and CO<sub>2</sub>. Reducing ethanol stress and the presence of a dedicated chitosan thereby reduce the harmful effect of free radicals on yeast health, resulting in all-round benefits. The yeast can then express its secondary metabolism which helps bring out the aromas of wine in bubble formation.

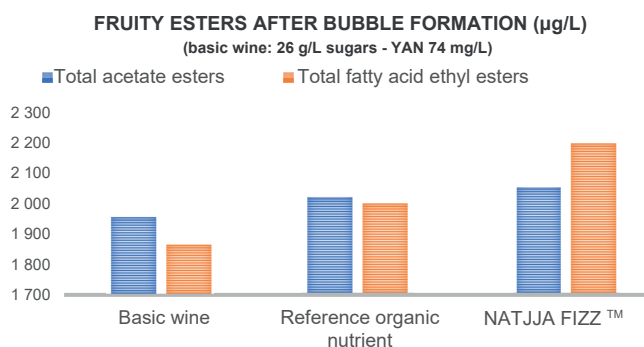
## Proven results in limiting stress undergone by yeast



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

After nutrition produced by **NATJJA FIZZ™**, the resultant wines globally have lower volatile acidities and ethyl acetate levels. These observations tend to confirm that yeast oxidant stress is limited by **NATJJA FIZZ™** from the beginning of bubble formation.

## Full expression of fruity aromas resulting from enhanced yeast healthiness



Our results of aromatic and sensory analyses validate the benefits of **NATJJA FIZZ™** as an innovative way of providing nutrition. The anti-radical impact of **NATJJA FIZZ™** helps reduce yeast oxidant stress and at the same time preserve released aromas, with the result that wines are able to express their aromatic potential even more.