



LACTOENOS® BERRY DIRECT

Acclimatised *Oenococcus oeni* strain intended for direct inoculation of white, rosé and red wines.

Qualified for the elaboration of products for direct human consumption in the field of the regulated use in Oenology.
In accordance with the current EU regulation n° 2019/934.



SPECIFICATIONS AND OENOLOGICAL APPLICATIONS

LACTOENOS® BERRY *Direct* is a strain of *Oenococcus oeni* resulting from a mass selection programme conducted in association with IFV. It has been selected for its fermentation performance and its ability to enhance fruit intensity and freshness in wines. Its sensory contribution is partly explained by its slow citric acid degradation metabolism, leading to preservation of significant proportion of its initial concentration.

- Very low production of volatile acidity and diacetyl.
- Robust strain over a wide spectrum of pH, alcohol, SO₂ and temperature for all types of wine.
- Phenol-negative bacterium: absence of cinnamoyl esterase activity, thus avoiding the production of volatile phenol precursors by *Brettanomyces*.

ABV (% vol.)	≤ 16
pH	≥ 3,2
total SO ₂ (mg/L)	≤ 60
Temperature	≥ 16°C

Optimal spectrum of activity of the bacterium
LACTOENOS® BERRY *Direct*

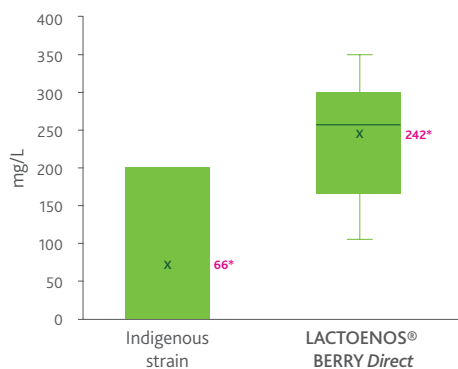
NB : These parameters are interdependent.

EXPERIMENTAL RESULTS

Because LACTOENOS® BERRY *Direct* has a slow citric acid degradation metabolism, it preserves the initial concentration and guarantees low production of volatile acidity.

Wines produced with LACTOENOS® BERRY *Direct* are fresher, with more intense fruit expression.

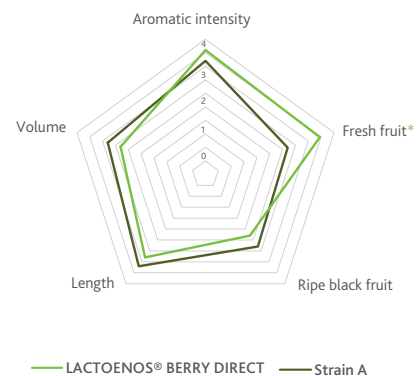
Residual citric acid concentration at end of MLF



Summary of 9 field trials (sequential inoculation).
Dose of LACTOENOS BERRY *Direct*: 1 g/hL.

* Mean citric acid concentrations.

Sensory profile of a red Gamay wine



Sequential inoculation – ABV 12.2% vol. –
TA 5,82 g/L TA – pH 3.23 – Initial malic acid 1.32 g/L

* Statistical validation – ANOVA test.

PHYSICAL CHARACTERISTICS

Aspect powder

Colour cream

CHEMICAL AND MICROBIOLOGICAL ANALYSIS

Humidity (%) < 8

Bacteria counted on each Petri dish (CFU/g) > 10¹¹

Mould (CFU/g) < 10³

Yeast (CFU/g) < 10³

Acetic acid bacteria (CFU/g) < 10⁴

Salmonella (/25 g) None

Staphylococcus (/g) None

Coliforms (CFU/g) < 10²

E. coli (/g) None

Lead (ppm) < 2

Mercury (ppm) < 1

Arsenic (ppm) < 3

Cadmium (ppm) < 1

PROTOCOL FOR USE

- Inoculate as soon as possible. There are several inoculation methods:
 - **Early co-inoculation** (bacteria inoculation 24 – 48 h after the alcoholic fermentation start). *For musts with pH ≤ 3.4, late co-inoculation or sequential inoculation is recommended.*
 - **Late co-inoculation:** density 1020 - 1010 (5.2-2.6°Bx).
 - **Sequential inoculation.**

• Adjust the temperature of the tank to 20°C (68°F). Take out the bacteria 30 min, before use. Open the sachet and empty the contents directly into the tank*. Mix thoroughly without air contact.

• Maintain the temperature of the tank (at around 20°C / 68°F) throughout the MLF.

• Under difficult conditions (sluggish AF, high total SO₂, low pH, nutrient deficiency or high alcohol) and for faster MLF kinetics, add 20 - 40 g/hL of the bacterial activator **MALOBOOST®**.

• Dose: follow the volume of wine indicated on the packaging (2.5 hL, 25 hL or 250 hL)

* *Rehydration is also an option: Rehydrate the contents of the freeze-dried bacteria in 20 times its weight in non-chlorinated water at 20°C (68°F) for 15 minutes maximum and add to must/wine.*

STORAGE RECOMMENDATION

• On reception, keep refrigerated (-18°C/-0.4°F or +4°C/32°F) in its unopened original packaging.

• Optimal date of use: 30 months at -18°C/-0.4°F.
18 months at +4°C/32°F.

• Do not use opened packaging.

• Unopened sachets of oenological bacteria can be transported and stored for 7 days at ambient temperature (< 25°C/77°F) without any significant loss of activity or efficacy.

PACKAGING

• Dose for 2.5 hL, 25 hL and 250 hL.



LAFFORT

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