



LACTIC® CO-FA

Strain *Oenococcus oeni* selected by the *Institut Français de la Vigne et du Vin* (IFV, Unité de Beaune).

ESPECIALLY FOR CO-INOCULATION – SHORT ACCLIMATISATION PERIOD.

For the fast and secure malolactic fermentation of white, red or rosé wines



VITILACTIC® CO-FA is a malolactic culture kit containing selected and freeze-dried *Oenococcus oeni* bacteria and its specific activator. When used following the simple rapid 2 hours acclimatization protocol (under specified conditions) called 1-STEP® (developed by Lallemand), this combination of activator and bacteria allows for malolactic fermentation under extreme conditions (pH and temperature).

Malolactic fermentation is a crucial stage in the winemaking process. Successful MLF and its duration are two important criteria that winemakers are increasingly taking into account to ensure early marketing for red wines. Synergy between the performance of the VITILACTIC® CO-FA bacterium and its usage in co-inoculation makes it a well-adapted tool for fast, effective MLF.

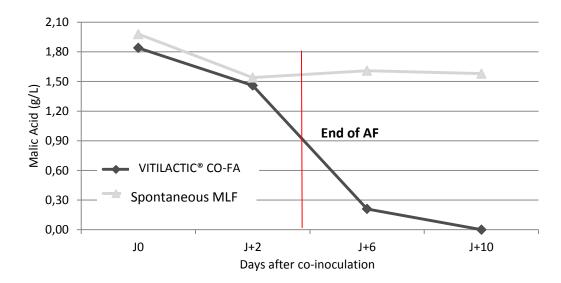
--- MICROBIOLOGICAL AND OENOLOGICAL PROPERTIES ---

VITILACTIC® CO-FA is an efficient tool to implement fast and secure malolactic fermentation of red wines in a broad range of action: on musts with a pH of >3.3 and an Alcoholic Strength by Volume (ASV) of up to 15% volume.

Characteristics and properties:

- Good implantation and fast fermentation kinetics.
- Resistant to temperatures > 17 °C.
- Resistant to alcohol levels of up to 15% vol.
- Resistant to pH levels ≥ 3.3.
- Total SO₂ levels < 50 mg/L and free SO₂ levels < 10 mg/L.
- Low production of biogenic amines.
- Low production of volatile acidity.
- "Phenol negative" bacteria, which means that VITILACTIC® F cannot degrade coutaric acid into coumaric acid which is the origin of volatile phenol precursors responsible for the development of the off-odors associated with *Brettanomyces*.
- Maintains the quality of the wine aroma and brings out a roundness on the palate without producing a lactic taste.

Malic acid degradation after co-inoculation with VITILACTIC® CO-FA Trials 2011 - Syrah (pH 3.63 - sugar content 220g/L - malic a. 1.9g/L)



--- PROTOCOL FOR IMPLEMENTATION IN CO-INOCULATION ON MUST, I.E. ADDITION OF BACTERIA BETWEEN 24 AND 48 H FOLLOWING YEAST ADDITION ---

These instructions are valid in the following conditions: must pH > 3.4. - sulphite addition to grapes/must < 8 g/hL - potential degree of alcohol < 15% vol. - temperature < 27° C - controlled yeast addition and nutrition.

- 1/ Dissolve and mix the contents of the activator sachet into 25 litres of drinking water (temperature between 17 and 25°C).
- 2/ Then add the contents of the bacteria sachet and mix gently. Wait 2 h maximum.
- 3/ Transfer this preparation into the fermentation tank:
 - 24h after yeast addition, if the SO_2 dosage used to sulphite the harvest/must is below 4 α/hL .
 - 48h after yeast addition, if the SO₂ dosage used to sulphite the harvest/must is below 8 g/hL.

Ensure that the bacteria are properly dispersed in the tank. Control MLF activity (malic acid degradation) every 2 to 4 days as well as volatile acidity.

--- POSSIBLE USAGE IN EARLY INOCULATION (DENSITY 1020-1010) OR SEQUENTIAL INOCULATION (END OF AF)--

This protocol has been developed for the inoculation of 250 hL of fermenting must/wine using the entire malolactic inoculation kit **VITILACTIC® CO-FA** (dosage for 250 hL).

1/ Rehydration stage

- Dissolve the content of the **reactivator 1** sachet into 25 L of clean chlorine-free water (temperature between 17°C and 25°C).
- Add and carefully dissolve the contents of the bacteria sachet 2 into the previous mixture. Wait 20 minutes maximum.

2/ Acclimatization stage

- As in stage 1, carefully mix the rehydrated bacteria preparation into 25 litres of fermenting must/ wine at pH>3.5 (temperature between 17°C and 25°C).
- Acclimatize the starter preparation at a temperature between 17°C and 25°C for 18 to 24h. If malic acid content is <1.2 g/L, wait only for 8 to 12h.

3/ Transfer to the tank

- Add the starter preparation to the 250 hL of must/fermenting wine to be inoculated.
- Maintain a temperature range between 18°C and 25°C for red wines. In limiting conditions (alcohol > 14.5% volume SO₂> 45 mg/L), maintain the temperature between 18 and 22°C and add 20 g/hL of MALOVIT® to the wine after the end of alcoholic fermentation and prior to the addition of acclimatising bacteria.
- Regularly control the activity of the malolactic fermentation (analyse for malic acid every 2–4 days).

--- PACKAGING ---

Dose for 250 hL.

--- STORAGE AND TRANSPORT ---

Store unopened original package:

- 18 months at 4°C.
- 36 months at -18°C.

Once opened, use rapidly.

Can withstand several days at room temperature.

The quality of the VITILACTIC® CO-FA is preserved if the product is stored at room temperature at a temperature below 25°C during 1 week. Similarly, their quality is not affected by temperature variations during transport provided that their frequency and intensity are limited:

- Do not expose the product at a temperature above 30°C.
- Limit the number of temperature peaks between 25 and 30°C.

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