

MaloBacti™ PR1

THE STANDARD FOR MALOLACTIC FERMENTATION IN RED AND WHITE WINE

Freeze dried bacteria strain without citric acid metabolism

No diacetyl in wine and intended for Super Premium and Ultra Premium wines

PROPERTIES

MaloBacti™ PR1 represents a new generation of freeze dried MLF starter cultures of *Oenococcus oeni* with unique properties. **MaloBacti™ PR1** has the ability to avoid diacetyl formation from citric acid degradation. A new adaptation method ensures an optimal adaptation of the MLF starter culture to the conditions the wine

- Increase of the survival rate of the bacteria at inoculation.
- Better adaptation to difficult condition in wine such as low pH or low temperature.

WINE-MAKING CHARACTERISTICS

MaloBacti™ PR1 allows:

- Protection of the varietal characters and flavours in the wine after MLF.
- No increase in the volatile acidity in the wine because no acetic acid production.
- No buttery or butter-scotch flavour because no diacetyl production.

OENOLOGICAL PROPERTIES

- No formation of diacetyl
- pH range from 3.2 to 4,2
- Ethanol tolerant to 14.0 % vol
- SO₂ tolerance: 20-30 mg/L
- Temperature range: 16-26°C
- For red and white wine

PRACTICAL APPLICATION ADVICE:

1. Dissolve the freeze dried product of **MaloBacti™ PR1** for 600GAL in 1 litre and for 6 000GAL in 3 litres in non chlorinated water at 23-28°C. Stir for approx. 5 - 8 minutes until it's fully dissolved.
2. Keep the solution in a warm environment (23-28°C) for 8-12 hours. During the activation stir suspension twice
3. Within 12 hours the pH should drop to 3.8-3.6, the bacteria are completely activated. For an optimal result verify the pH with a pH meter. At inoculation please take care that the bacteria suspension is homogeneously distributed in the tank.
4. It's recommended to inoculate at the end of the primary ferment. **Maintain wine temperature between 13-20°C.**

STORAGE

Min 2 years at -18°C, 4 weeks at 4°C

PACKING

Dose for 600 or 6 000GAL

CONFORMS TO THE INTERNATIONAL OENOLOGICAL CODEX

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To make a success of the malolactic fermentation it is necessary to maintain the temperature and not to exceed 25°C.

Additional Information

After activation the suspension can be stored at 4-6°C for **max. 5 days**. The temperature of the suspension has to be adjusted to the wine in order to avoid a temperature shock. Stir again well before inoculation

For a correct suspension it's important to use exactly **1 litre of water for a 600GAL and 3 litres for a 6 000GAL** pouch of **MaloBacti™ PR1**.

The addition of **PREFERM EC** is recommended, at the beginning of malolactic fermentation with 100 ppm.

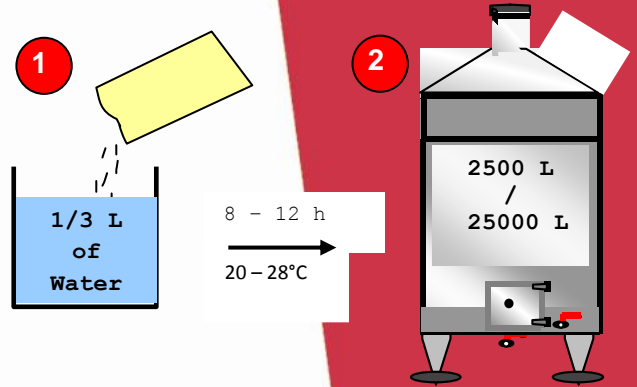
Packet content

Contains freeze-dried *Oenococcus oeni* with a minimum cell count of > 1 x 10¹¹ CFU/g. strain: 22827

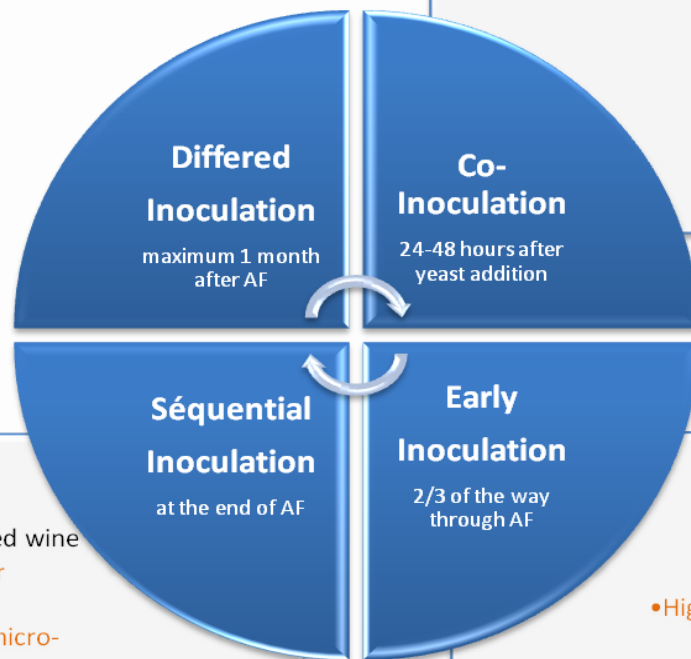
Evaluating the timing of malolactic ferment inoculation:

A large number of parameters are involved in triggering malolactic fermentation (MLF). Choosing the right moment for inoculating one's wine with selected ferments is a factor for successful MLF.

Choosing the right moment for lactic bacteria inoculation enables MLF to be reasoned according to the type of wine one wishes to produce, and also to adapt to technical



- PRODUCT OBJECTIVE
- TECHNICALS CONSTRAINTS



- Primer-type wine
- Varietal fruity white wine
- Fresh fruity red wine
- Short post-fermentation maceration
- Red musts with high pH
- Risk contamination by *Brettanomyces*

- Complex and structured red wine
- Low colour stability and/or extractability
- Willingness to work with micro-oxygenation

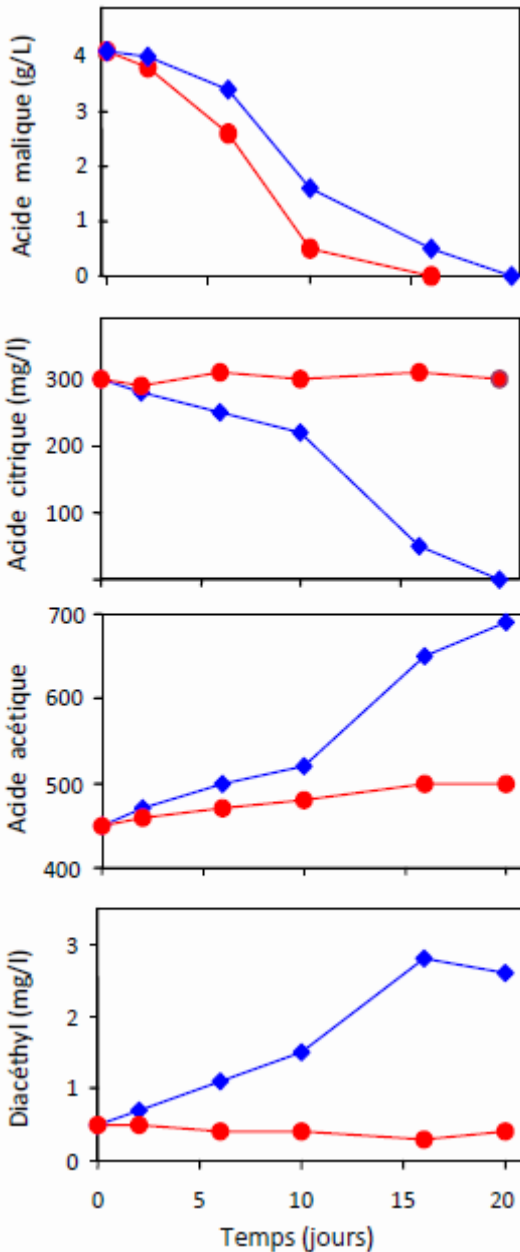
- Mature fruit red wine
- Fleshy white wine
- High-risk alcoholic fermentation
- Bad thermal control
- High potential alcohol degree

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Practical example **MaloBacti™ PR1**

Pinot Noir, pH 3,5; 13% vol alc; 15 ppm SO₂; Temp. 18°C



Graph 1

MaloBacti™ PR1 has no lag phase and performs a fast and more reliable degradation of all the malic acid in the wine due to activation of the culture before use.

Graph 2

MaloBacti™ PR1 protects the fruity flavors in the wine because the culture does not degrade the citric acid as normally observed during malolactic fermentation. This also reduces the risk of haze in the wine because the citric acid forms stable compounds with metal ions.

Graph 3

MaloBacti™ PR1 does not produce acetic acid from the citric acid. Therefore no increase in volatile acidity as normally observed during malolactic fermentation. Even in wines from highly botrytis infected grapes, the formation of VA is very much limited.

Graph 4

The graph shows that **MaloBacti™ PR1** does not produce any additional diacetyl from citric acid which normally gives the buttery notes in wine as normally observed in standard starter cultures for the malolactic fermentation.

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