

Practical guide to vinification

Successful yeast/malolactic ferment co-inoculation: white wine vinification

N°5

Why?

- Co-inoculating a must with yeasts and malolactic ferments accelerates malolactic fermentation (MLF) start-up or renders it possible in difficult cases.
- This gain of time can be decisive for manufacturing fruity and/or fast turnover wines, but also for carrying out MLF in a less oxidative medium, which reduces the production of buttery and musty odours.

Key points



ON WHICH MUSTS?

- musts intended for fruity white wines or those requiring fast marketing;
- musts with a low pH (3,1 3,3): co-inoculation increases the chances of MLF start-up;
- for MLF start-up if the cellar and wine temperatures are not too low.



• GOOD MANAGEMENT OF YEAST DEVELOPMENT: yeast protection and complex nutrition must be implemented to avoid stuck alcoholic fermentation (AF) and to promote MLF.



THERMAL CONTROL: excessively high fermentation temperatures are detrimental both to yeasts and malolactic ferments.



• AVOID EXCESSIVELY HIGH POTENTIAL ALCOHOL DEGREES (> 14%): these wines present more risks of problematic alcoholic fermentation completion.



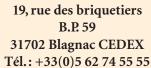
• AVOID EXCESSIVE SULPHITING: the SO₂ rapidly kills malolactic ferments. Yeast/malolactic ferment coinoculation should not be implemented if the harvest is contaminated.





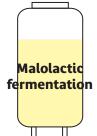
Co-inoculation for white wines

- 1 pH > 3,1Must > 16°C **Alcoholic** Must > 16°C fermentation
- Selected, rehydrated and protected yeast.*
- Choose a yeast with low nitrogen requirements and adapted to the desired style of wine.
- Sulphiting < 5 g/hL : wait 24 hours
- Sulphiting 5 à 8 g/hL : wait 48 hours
- Sulphiting > 8 g/hL : wait 72 hours
- Selected rehydrated malolactic ferments (1 g/hL of must).
- Choose a ferment that is adapted to the conditions (pH, SO₂, alcohol) and to the desired style of wine.
- Incorporate with homogenisation away from air.
- Complex nutrition one third of the way through AF (see practical guide n° 3).
- Regular monitoring of malic acid and volatile acidity.
- Tank is filled following AF.
- If MLF finishes during AF, monitor volatile acidity in the case of a 0,1 g/L increase per day: sulphite at 2 g/hL or use lyzozyme.
- If MLF finishes after AF: rack and stabilise the wine after MLF.



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Wine > 16°C

*For yeast rehydration and protection please refer to practical guides n°1 and n°2