Practical guide to vinification

N°4

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

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 primer and/or fast turnover wines, but also for limiting the risk of *Brettanomyces* development and the development of indigenous alteration bacteria.**

Key points

ON WHICH MUSTS?

- musts intended for primer red wines or those requiring fast marketing;
- musts with a high pH (> 3,6): these wines are sensitive to microbic alterations; the early presence of selected ferments will reduce the risks of deviation;
- recurring cases of *Brettanomyces* contamination.

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

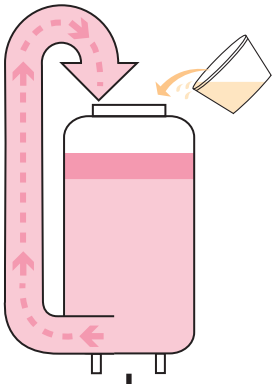
THERMAL CONTROL: excessively high fermentation temperatures are detrimental both to yeasts and malolactic ferments.

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

AVOID EXCESSIVE SULPHITING: the SO_2 rapidly kills malolactic ferments. Yeast/malolactic ferment co-inoculation should not be implemented if the harvest is contaminated.

Co-inoculation for red wines

1

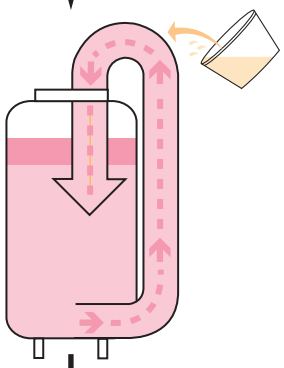


- Selected, rehydrated and protected yeast.*
- Choose a yeast with low nitrogen requirements and adapted to the desired style of wine.

- Sulphiting < 5 g/hL : wait 24 hours
- Sulphiting 5 à 8 g/hL : wait 48 hours
- Sulphiting > 8 g/hL : wait 72 hours

2

Jus > 16°C



- Selected rehydrated malolactic ferments (1 g/hL of must).
- Choose a ferment that is adapted to the conditions (pH, SO_2, alcohol) and to the desired style of wine.
- Incorporate with homogenisation away from air.

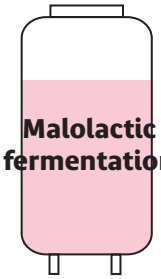
3

Acquired alcohol < 10 % vol:
Marc < 35°C
Juice > 16°C
Acquired alcohol > 10 % vol:
Juice < 25°C

- 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.

4

Wine > 16°C
< 25°C



- 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.

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

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