



MaloBacti™ CN1

MLF without Diacetyl and VA

MaloBacti™ CN1 has the ability to avoid diacetyl formation from citric acid degradation. This is a very rare characteristic and one that has many advantages in winemaking:

Properties

- Protection of the varietal characters and flavours in the wine after MLF
- No buttery or butter-scotch flavour due to no formation of diacetyl
- No increase in volatile acidity in the wine due to no acetic acid production
- Co-inoculate to ensure 100% strain dominance and optimum performance
- pH range from 3.2 to 4.2
- Ethanol tolerant to 14.5% vol
- TSO₂ tolerance at pH 3.3 < 20ppm
- Temperature range: 16-26°C
 - » White wine: SO₂ add max 25ppm at juice stage
 - » Red wine: SO₂ add max 50ppm at juice stage
 - » Yeast – use yeast strain with low SO₂ production

Package Content

Contains freeze-dried *Oenococcus oeni* with a minimum cell count of > 2 x 10¹¹ CFU/g. DSM22827. Min 3 years at -18°C, 4 weeks at 4°C.

TIP! Inoculation in Low pH wines

For low pH wines (pH 3.2-3.3) we recommend to firstly use a low SO₂ producing yeast and use FermControl™ in the primary fermentation to lower total SO₂ production by the yeast. For the MLF inoculation, we recommend to extend the activation time (if required) in Step 5, until the pH of the bacteria suspension has reached approx pH 3.3 (NO LOWER), then for best results, co-inoculate at ~4.5 Baumé / 8°Brix.

We recommend either a Co-inoculation (at ~4.5 Baumé / 8°Brix) or inoculation at the end of the primary fermentation.

Special Activation Feature

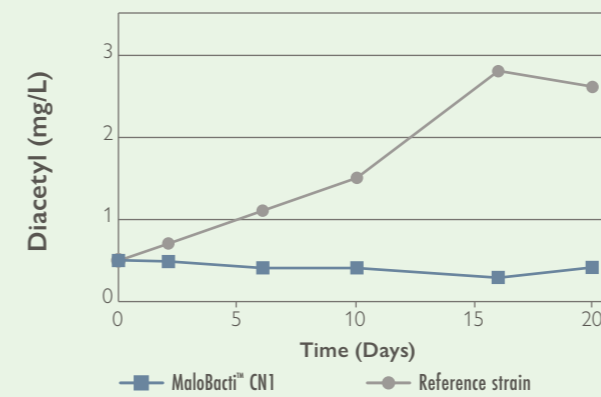
Once activated correctly (pH < 3.6), the fully viable bacteria suspension can be placed in a refrigerator at 4-5°C for five days without any loss of cell count. This gives winemakers the flexibility to activate a larger suspension of bacteria and use it over the next few days.

Simply remove the suspension from the fridge and measure out the volume required i.e. 90ml per barrel. Place remaining suspension back in fridge. Stir measured out suspension and let it warm to wine temperature, then inoculate.

Figure 1: Practical Example MaloBacti™ CN1

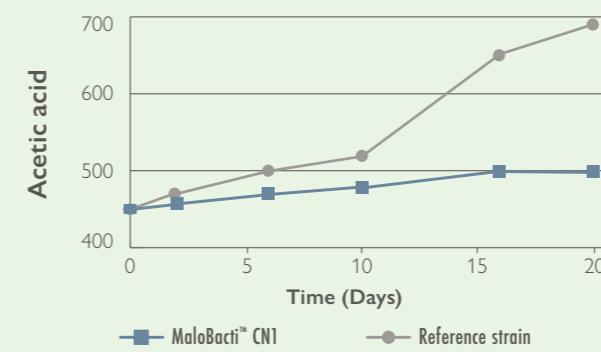
Pinot Noir - pH 3.5; alc 13%; TSO₂ 15ppm; Temp 18°C

GRAPH 1: Diacetyl Formation



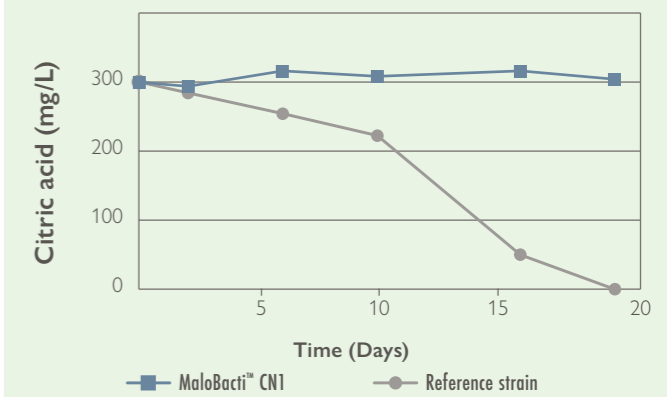
MaloBacti CN1™ has no lag phase and performs a fast and more reliable degradation of all the malic acid in the wine due to activation of the culture before use.

GRAPH 3: Acetic Acid Production



MaloBacti™ CN1 does not produce any acetic acid from the citric acid degradation. Therefore, no increase in volatile acidity, as normally observed during malolactic fermentation, is seen. Even in wines from highly botrytis infected grapes, the formation of VA is very much limited.

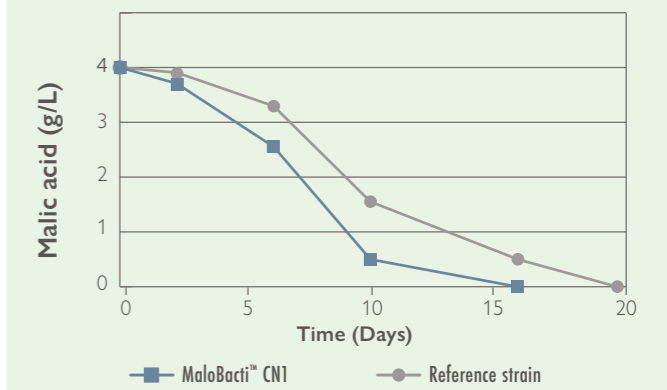
GRAPH 2: No Citric Acid Utilisation



MaloBacti™ CN1 protects the fruity flavours 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 4: Malic Acid Degradation



The graph shows that MaloBacti™ CN1 does not produce any additional diacetyl from citric acid which gives the buttery notes in wine as normally observed in standard starter cultures for the malolactic fermentation.

