

# Amar∩4®

# STRAIN OF MALOLACTIC BACTERIA SELECTED FROM AMARONE WINE FOR BIOLOGICAL BREAK DOWN OF MALIC ACID IN WINES

CHARACTERISTICS

AMAR04 is a strain of *Œnococcus oeni* selected from the wine Amarone by the Scientific and Technological Department of the University of Verona.

It turned out to be of immediate interest due to its quick fermentation, very low production of acetic acid and excellent organoleptic qualities it adds to wine.

It is able to ferment without major problems even with high alcohol content.

It is a direct inoculation mixture to be added to the wine without having to prepare a yeast starter. This is possible to the feat that the fea

due to the fact that the freeze-dried culture preserves the bacteria's ability to survive direct inoculation in the wine. **AMAR04** is thus ready for use and does not require reactivation or rehydration.

### **APPLICATIONS**

AMAR04 is used for biological de-acidification of wines.

In order to correctly develop lactic bacteria, the wine cannot have residual pesticides and sulfur dioxide cannot be added after the alcoholic fermentation. Since malolactic fermentation is inhibited by sulfur dioxide, the maximum quantity tolerated in wines to be inoculated is 30-40 mg/L of total SO<sub>2</sub> and 10mg/L of free SO<sub>2</sub> For this reason it is a good idea to limit the quantity in the prefermentation phase (max SO<sub>2</sub>: 70 mg/L for red wines, 40 mg/l for white wines). It is also important that there is an adequate quantity of nutritional elements necessary for the development of the bacteria. Malolactic develops better in young wines at the end of fermentation (residual sugar less than 2 g/L) where the fine lees have not been removed; it is unadvisable to attempt malolactic fermentation during alcoholic fermentation.

The optimal temperature is 21°C, however malolactic fermentation must be carried out at a temperature not under 15°C and not over 25°C.

The pH of the wine must be over 3.1, if not deacidify until obtaining a pH of at least 3.2.

In the most traditional meaning, the malolactic fermentation occurs better in young wines at the end of fermentation (residual sugars lower than 2 g/L), which are not lacking of fine lees.

By following the specific Official Procedures of yeast-bacteria co-inoculum, it is possible to employ AMAR04® to carry out the malolactic fermentation during the alcoholic fermentation.

### INSTRUCTION FOR USE

It is advisable to follow the dosage recommended since a low inoculation level may cause a delay in malolactic fermentation and the wild microflora may prevail over the selected one.

To obtain the correct acclimation, wait 15 minutes before opening the packages after removing them from the freezer. Shake it, add the mixture directly to the top of the full (contact with the air should be avoided) and keep mixing for around 20

minutes. If it is difficult to mix the product, the culture can be mixed in a small container with the wine: use at least 10 liters of wine for every "25 hL package", then add the mixture to the tank immediately after preparing it.

Avoid exposing the freeze-dried culture to air, even for brief periods, because humidity may damage the culture. For this reason it is necessary to inoculate the wine immediately after opening the packages, once they are opened they must be used immediately and cannot be stored for later use.

Periodically check the progress of the malolactic fermentation.

At the end of the process it is advisable to rack and proceed with a light sulfuring.

#### **PACKAGING**

AMAR 04 is produced exclusively for Enologica Vason by Christian Hansen in two sizes:

- for fermenting 25 hL of wine
- for fermenting 100 hL of wine

## **STORAGE**

At least 24 months at - 18°C At least 6 months at +5°C

#### WARNING

The compound is classified: not hazardous.

