RESOLUTION OIV-OENO 494-2012

MONOGRAPH ON LACTIC BACTERIA - REVISION OF THE MONOGRAPH

THE GENERAL ASSEMBLY

In view of article 2, paragraph 2 iv of the agreement dated 3rd of April, 2001, establishing the International Organization of Vine and Wine,

CONSIDERING the work of the "Microbiology" expert group,

CONSIDERING resolution OIV/OENO 328/2009/COEI-1-BALACT POINT 4.6 which stipulates that the concentration for lyophilized or dried lactic bacteria must be greater than or equal to 1011 CFU/g,

CONSIDERING that some wines are characterised by low pH levels (up to 2.85) and high malic acid content (close to 10 g/L),

CONSIDERING that the specific bacteria suitable for these acidic wines:

- belong to a genetic group as demonstrated in the works on the Oenococcus oeni species (1)

- are characterised by particular phenotypic properties:
    - small cells
    - slow and weak growth
    - an impossibility of being produced in a dry form satisfying the standard of 1011 CFU/g

CONSIDERING, to the contrary, that the complete effectiveness of the inoculation of musts and acidic wines with these specific bacterial preparations needs to go through the reactivation steps (called the leaven method) where the objective is the gradual adaptation of the lyophilized or dried bacteria to the acidic environment by putting it back into a growth phase.

DECIDES to modify the resolution OIV-OENO 328-2009/COEI-1-BALACT AT POINT 4.6, by the addition of a note for the specifications of the lyophilized or dried lactic bacteria, indicating: "Except for specific bacteria intended for acidic wines (pH up to 2.85) that should be used with a pre-multiplication process in the must or wine, where the population cannot be less than 109 CFU/g."

Reference:

1. Bridier, J., O. Claisse, M. Coton, E. Coton and A. Lonvaud-Funel (2010). "Evidence of distinct populations and specific subpopulations within the species Oenococcus oeni." Appl Environ Microbiol 76(23): 7754-7764.

Appendix: Preparation of a leaven "pied de cuve malo" to innoculate 100hL of wine or any volume from the values in brackets in %, the quantities of powder are expressed in g/L

Reactivation

Must pH > 3.2 – low sulphites (SO_2 < 40 mg/L)
10 litres (3 % of the leaven)

20 litres
Temperature
25°C

Hot water to obtain a mixture at 25°C:
10 litres (3 % of the leaven)

Activator: 100 or 200 g, which is 5 or 10 g/L *

Bacteria: 80 g, which is 4 g/L

LSA: 10 g, which is 0.5 g/L

*According to the activator used

After 3 days

Leaven

Must low sulphites (SO_2 < 40 mg/L)
3 hL (3 % of the volume for inoculation)

ADY: 60 g, which is 0.2 g/L

3hL
Temperature
25°C during AF
25°C during MLF

When the malic acid
has decomposed to 2/3

Tank

100 hL of **wine**
during or at the end of AF

100hL