II.2.2.10 Treatment by continuous high pressure processes

Definition:

Operation for the elimination of wild microorganisms in musts by high pressure processing (above 200 MPa or 2000 bar) in continuous. In UHPH, the pressure is usually ranging 300-400 MPa.

Objectives:

- To reduce or eliminate the load of wild microorganisms, mainly yeasts, preserving the organoleptic quality.
- To reduce the amount of SO2 used in winemaking.
- To reduce or inactivate the activity of oxidative enzymes.
- To get grape must stable from the microbiological point of view.
- To obtain partially fermented musts.

Prescriptions:

a) The ultra high pressure homogenization technique (UHPH) consists in the application of pressures higher than 200 Mpa (2000 bar) by continuous pumping.
   - UHPH: continuous process that could be better integrated in the pretreatment of musts.

b) To eliminate the yeasts of the musts, pressures of 200-400 Mpa are needed.

c) To eliminate bacteria, pressures of 200-400 Mpa are needed.

d) The treatment speed can range from 40 L / h to 40,000 L / h.

e) If necessary, the increase in temperature can be controlled with additional refrigeration.

f) Neither the increase in temperature nor the techniques used should produce significant alterations in the appearance, color, smell or taste of the wine.

g) The procedures must conform to the specifications of the International Oenological Codex.

Recommendation of the OIV:

Admitted