

II.3.3.16 Use of Aspergillopepsin I to remove haze-forming proteins

Definition:

The addition to wine of Aspergillopepsin I from *Aspergillus* spp. to remove haze-forming proteins

Objective:

To prevent protein haze in still white and rosé wines and sparkling wines.

Prescription:

- a) After addition of Aspergillopepsin I preparation, one short-term wine heating must be applied as it contributes to the unfolding of haze-forming proteins and facilitates their enzymatic degradation by proteases, as well as leads to a denaturation of the protease itself.

This single heat treatment must take into account:

- the activity of the Aspergillopepsin I preparation as regards temperature
- the quantity of Aspergillopepsin I used
- The minimum temperature of treatment should be at or above the denaturation temperature of the proteins, generally comprised between 60 and 75 °C.
- the heating time, generally around 1 minute. Too long heating time could induce negative organoleptic impact.

This loss of three-dimensional conformation of TLPs (Thaumatococcus Like Proteins) is reversible, so the heating has to be simultaneous to the addition of enzymes for optimal efficiency.

- b) The wine is immediately cooled to an appropriate temperature.
- c) A filtration must be performed to remove the residual proteins (including added proteases and other proteins).
- d) The enzymes used must comply with the prescriptions of the International Oenological Codex.

Recommendation:

Admitted