

## Microbiological and Sensory Effects of Musts Treated by High-pressure Homogenization

1. [A. Puig](#)
  1. Institut Català de la Vinya i el Vi (INCA VI) -IRTA. Plaça Àgora, 2. Polígon Industrial Domenys , 08720 Vilafranca del Penedès, Spain, [apuigpujol@gencat.cat](mailto:apuigpujol@gencat.cat)
1. [P. Olmos](#)
  1. Institut Català de la Vinya i el Vi (INCA VI) -IRTA. Plaça Àgora, 2. Polígon Industrial Domenys , 08720 Vilafranca del Penedès, Spain
1. [J.M. Quevedo](#)
  1. Centre Especial de Recerca Planta de Tecnologia dels Aliments (CERPTA) Departament de Ciència Animal i dels Aliments, Facultat de Veterinària Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain
1. [B. Guamis](#)
  1. Centre Especial de Recerca Planta de Tecnologia dels Aliments (CERPTA) Departament de Ciència Animal i dels Aliments, Facultat de Veterinària Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain
1. [S. Mínguez](#)
  1. Institut Català de la Vinya i el Vi (INCA VI) -IRTA. Plaça Àgora, 2. Polígon Industrial Domenys , 08720 Vilafranca del Penedès, Spain

### Abstract

The winemaking sector needs to ensure the microbiological quality of its products to guarantee acceptance and wide commercialization. There are treatments such as high pressure homogenization (HPH) that, apparently, do not affect the final nutritional and sensory food properties. This study is presented to evaluate possibilities of utilizing HPH treatments to reduce the indigenous flora accompanying wine musts, as well as their effects on the fermentative process, oenological parameters, color, aroma, and taste properties. Two different must varieties were used: a white must (Parellada variety) and a red one (Trepát variety). Results showed that the use of HPH at 200 MPa is capable of reducing the microbial load of musts. Residual populations of total bacteria were detected, but neither fungi, nor yeasts, nor lactic acid bacteria were detected after the treatment in either musts. Furthermore, as a result of the decrease of the wild microbiota of the musts, the implantation of the selected yeast for alcoholic fermentation was improved. Sensory assessments of the must and wines showed that there were no significant changes caused by the treatment.

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