ENZYMES IN WINEMAKING:

Shaping the quality, taste and unique characteristics of wine

For any further information contact us

AMFEP represents the manufacturers and formulators of enzyme products

www.amfep.org

Oenoppia represents the producers of oenological products

www.oenoppia.com

CEEV represents the European wine companies

www.ceev.eu

Enzymes optimize winemaking from grape to glass

Enzymes are an essential element of oenological processes, having been used since the dawn of winemaking and contributing to both quality and cost-efficiency. Enzymes serve as catalysts in winemaking and play a vital role in improving the quality, taste, and distinct characteristics of wine by acceleration and support of natural processes. By introducing enzymes at various stages of the process, winemakers can achieve specific outcomes such as improved clarity, enhanced aroma potential of their grape/wine, and increased stability.

The choice of enzymes depends on their specific roles in pressing yield, maceration, clarification, flotation, and filtration or flavors/aromas enhancement. Different enzyme formulations improve juice extraction from grapes, and can facilitate the clarification of musts and improve subsequent wine filtration. They can also improve organoleptic profile and mouthfeel of different wines, as well as ensure colloidal stability, preventing precipitation of grape constituents like tartaric acid or proteins. In red wine production, enzymes support colour extraction and enhance colour stability. Enzymes can furthermore also respond to emerging consumer drinks trends and can be used in the cleaning of winery equipment.

Enzymes contribute to sustainability

Winemakers are adopting eco-friendly practices and innovative solutions to reduce the environmental impact of the sector. Enzymes are part of this solution as they contribute significantly towards the conservation of energy and resources used during production. Enzymes can optimize energy-hungry processes like cooling or heating, they can make grape and must extraction more efficient, and reduce losses during winemaking. Enzymes can be used at several steps of each production process and cover a wide spectrum of different requirements and temperatures. In other words, enzymes are remarkable tools that not only optimize the winemaking process but also contribute to energy savings and sustainability, addressing some of the industry's most pressing challenges

Safety of enzymes

The enzyme sector has over 50 years of experience ensuring the safety of enzymes in both occupational and consumer conditions, with a focus on product design and guidance to obtain exposures below the respective derived minimal effect levels (DMELs). AMFEP has created, both independently and in collaboration with downstream user associations, publicly available guidelines, webinars and posters to promote the safe use of enzymes. These tools help ensure enzyme-containing products remain safe for workers and consumers alike.