Inspiring innovation.

HOW TO IMPROVE THE PROTEIN STABILITY OF WHITE WINES

While waiting for the research to find a solution to permanently eliminate the use of bentonite to obtain protein stability, we can try to reduce the dose by adopting a winemaking strategy to improve protein stability in white and rosé wines. Experience shows that it is important to act at an early stage of winemaking: the combined use of tannins, enzymes and polysaccharides helps to reduce and, in some cases, eliminate the use of bentonite.

EnartisZym Arom MP, a maceration enzyme with secondary protease activity, hydrolyzes proteins in must and reduces their ability to form aggregates responsible for haze in wine exposed to high temperatures. When used during maceration or in the press, Enartis Zym Arom MP alone can reduce the dosage of bentonite up to 25-30%.

EnartisTan Arom, a mixture gallotannins of different molecular weight, reacts with proteins in must, flocculating them. Small additions in the press or during fermentation improve protein stability, while having little impact on sensory characteristics or the color of future white wines.

EnartisPro Uno and EnartisPro Blanco are products made from yeast cell walls rich in immediately soluble mannoproteins. Soon after addition to must, the mannoproteins block the factors involved in the phenomena of aggregation of proteins resulting in improved wine stability.

Effect of EnartisZym Arom MP during Fermentation on Protein Stability

Heat stability test performed at end of alcoholic fermentation. Values expressed in ΔNTU.		
	Sauvignon blanc	**Pinot Grigio**
Control (no enzyme added)	**11**	**3.7**
Control (no enzyme added) + 40 g/hL Pluxbenton N (bentonite) added to the wine	**5.3**	**2.1**
Control (no enzyme added) + 80 g/hL Pluxbenton N (bentonite) added to the wine	**0.27**	**0**
2 g/hL Enartis Zym Arom MP in fermentation + 40 g/hL Pluxbenton N (bentonite) added to the wine	**0**	**0**

Wine is considered protein stable when ΔNTU < 2.

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Enartis USA Inc.
7795 Bell Road | Windsor, CA 95492 | Tel. +1 (707) 838 6312 | Fax + 1 (707) 838 1765 | **www.enartis.com**