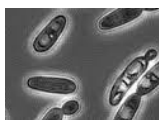




VOLUME 6: BRETT OFF

What is Brett?



Brettanomyces is a notorious yeast responsible for wine spoilage. Resistant to low pH, SO₂, and alcohol, Brett can grow on all substrates left behind by other micro-organisms and survive in nutritionally poor environments. Capable of developing under difficult conditions, at any time during the life of a wine, including post bottling, Brett is an opportunistic organism and very difficult to eliminate. By decarboxylation and reduction of hydroxycinnamic acids (naturally present in wine), Brett produces volatile phenols (4-ethylphenol, 4-ethylguaiacol); negative aromatic compounds characterized by animal (wet dog, fecal, horse), chemical/solvent (Band-Aid, metallic, gasoline, rubber/plastic) or spicy or smoky characters.

How to control Brett

In order to prevent and control the development of *Brettanomyces*, some tools are available to the winemaker; however, the best way to manage microbes and avoid spoilage is to be **PROACTIVE**.

Manage the environment

Keep your cellar clean: HYGIENE is the most important point in controlling microbes. Temperatures should be kept low and contact with oxygen limited.

Adapt your winemaking process

Because of Brett's metabolism and its adaptability to difficult conditions, at the first opportunity, it will colonize the environment and spoil wine with the production of volatile phenols. The control of fermentations (alcoholic and malolactic fermentations) with selected yeast and lactic acid bacteria, adapted nutrition and good temperature management, is essential in managing Brett populations. A stuck or sluggish fermentation provides ideal conditions for the development of bacteria and/or *Brettanomyces*. During ageing, monitoring SO₂ levels (molecular SO₂ > 0.6) helps to control the population but SO₂ doesn't eliminate them.

Diagnosis: Test your wine and your cellar (cleaning) before spoilage

When Brett is detected by tasting or volatile phenols analysis, it may be too late! To prevent this, check for the presence of *Brettanomyces* in your wine before it produces off-flavors or even in your barrel before it contaminates a new clean wine.

Veriflow® BRETT is a new, ultra-sensitive (10 cells/mL) and user-friendly class of diagnostics, developed and patented by Invisible Sentinel. In only 4 hours, it determines the quantity of *Brettanomyces bruxellensis* cells present in your wine, with the accuracy of real-time PCR and easy reading results.

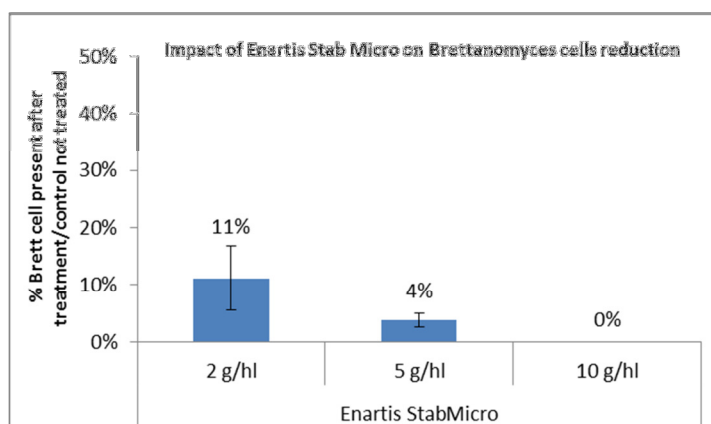




Prevention: treat your wine up front, eliminate the potential spoilage microorganism

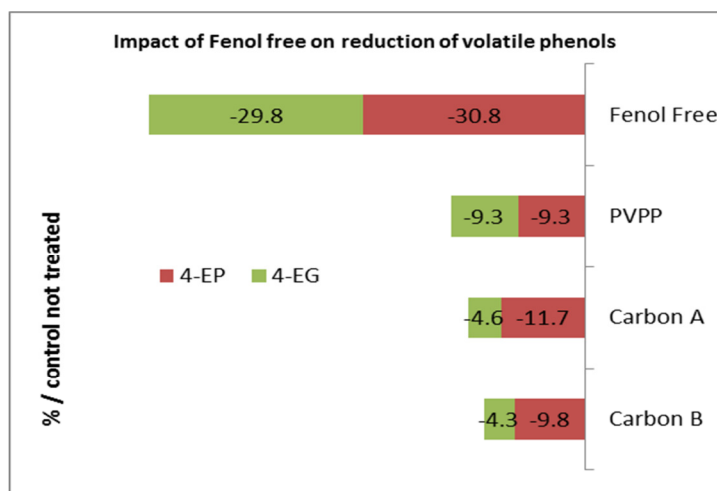
To anticipate and prevent off-flavor development, remove the micro-organism responsible for spoilage.

Enartis Stab Micro is a non-allergenic chitosan formulation. Chitosan is a natural polysaccharide, produced by de-acetylation of Chitin, a polysaccharide extracted from *Aspergillus niger*. Chitosan interacts with microorganisms via charge attraction and reduces their populations by degradation of cell walls. Enartis Stab Micro is a **pre-activated chitosan** with a high positive charge and high solubility for better activity. It eliminates wine micro-organisms, particularly *Brettanomyces*, and absorbs off-flavors (volatile phenols).



Treat your spoiled wine

In case your wine already has 'Bretty' characters, caused by a high concentration of volatile phenols, a treatment with **Enartis Fenol Free** significantly reduces volatile phenols and improves wine aromas without negatively affecting structure or wine color.



If you have any questions, please call us at (707) 838-6312.