

The diversity of effects of yeast derivatives during sparkling wine aging

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Abstract

This study shows the monitoring of the physical, chemical and sensorial changes that occur in the sparkling wine along 18 months of aging due to different typology yeast-derived products; dry inactivated yeast from *Saccharomyces* (*Saccharomyces cerevisiae*) and non-*Saccharomyces* (*Torulaspora delbrueckii*) yeast strains, yeast autolysate, and yeast protein extract tested at two different doses. The addition of 5 g/hL yeast protein extract and inactivated yeast from *T. delbrueckii* helped to preserve esters in wines with 9 and 18 months of aging on lees. The addition of yeast autolysate achieved greater polysaccharide enrichment and gave rise to sparkling wines with the highest antioxidant activity. Effects on foaming properties were quite different depending on the aging time. Despite this, sparkling wines treated with 10 g/hL of yeast autolysate and Optimum White™ generally exhibited the highest foamability and foam stability. Further experiments with higher doses are needed to observe clear effects on sensory profile. © 2022 The Authors

Author keywords

Foaming; Sensory analysis; Sparkling wine; Volatile compounds; Wine aging; Yeast derivatives