

Different application dosages of a specific inactivated dry yeast (SIDY): Effect on the polysaccharides, phenolic and volatile contents and color of Sauvignon blanc wines

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Aim: The aims of this study were to (i) study the effect of different application dosages of a commercial specific inactivated dry yeast (SIDY) on several compounds (polysaccharides, phenolic and volatile compounds) and attributes (color parameters) related to the quality of white wines, and (ii) acquire better knowledge about the use of different dosages of SIDY in white wines with the objective to improve their quality. **Methods and results:** Three different dosages were applied (10, 20 and 40 g hL⁻¹). Treated wines were followed after a contact time period of two months and after a bottle aging period of three months. Total phenolic content, color intensity, CIELab coordinates, polysaccharides, low molecular weight phenolic compounds and volatile compounds were evaluated. **Conclusions:** Higher dosages of this SIDY resulted in a greater release of polysaccharides into the wine. In parallel, a positive effect on the reduction or prevention of wine oxidation was observed due to the interaction with certain phenolic compounds. The application of the highest dosage seems to lead to an adsorption or retention effect of the major identified volatile compounds. This effect seems to be more evident after the contact time period than after the bottle storage period. **Significance and impact of the study:** This study can contribute to improve our knowledge on how applying different dosages of SIDY affects the physical and chemical quality of white wines. © Université de Bordeaux (Bordeaux, France).

Cell wall polysaccharides

Color

Inactivated dry yeast

Phenolic compounds

Volatile components