

ABSTRACT

WINE GRAPE YEAST INTERACTIONS

Fermentations co-inoculated with *Saccharomyces cerevisiae* and *Hanseniaspora uvarum* at different inoculation regimes and control fermentations of each yeast at three different inoculation levels were studied. Comparison of yeast growth, sugar consumption, and ethanol production in the mixed and control fermentations revealed significant interactions between the two yeasts. The initial viable cell concentration affects the degree of interaction between the two yeasts. *H. uvarum* has a stimulatory effect on the growth of *S. cerevisiae* towards the end of fermentation, when the latter is inoculated at high concentrations. *S. cerevisiae* stimulates the growth of *H. uvarum* during the early stages of fermentation and has an inhibitory effect on the maximum viable cell concentration of *H. uvarum*. Both the *S. cerevisiae* control and the mixed yeast fermentations went to completion. All the *H. uvarum* control fermentations stuck. No significant differences in TA or VA concentration were observed in the wines.

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