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COMBINED EFFECTS OF NITROGEN AVAILABILITY AND CO-FERMENTATION WITH *HANSENIASPORA GUILLERMONDII* ON WINE AROMA PROFILE

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Non-*Saccharomyces* yeasts include different species which comprise an ecologically and biochemically diverse group capable of altering fermentation dynamics and therefore wine composition and flavour. In this study, single- and mixed-culture of *H. guilliermondii* and *S. cerevisiae* were used to ferment natural grape-juice, under two nitrogen regimes. In single culture the strain *H. guilliermondii* failed to complete total sugars breakdown even though the nitrogen available has not been a limiting factor of its growth or fermentative activity. In mixed culture, that strain negatively interfered with the growth and fermentative performance of *S. cerevisiae*, resulting in lower fermentation rate and longer fermentation length, irrespective of the initial nitrogen concentration. However, this co-inoculation had a positive impact on the volatile profile of the wines, particularly of those obtained from DAP-supplemented musts. The data obtained suggest that the strain *H. guilliermondii* used herein has potential to be used as adjunct of *S. cerevisiae* in wine industry, although possible yeast interactions still need to be elucidated.

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