



## ***Saccharomyces cerevisiae* and non-*Saccharomyces* isolated from fermented must of grapes produced in the São Francisco Valley, Brazil**

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Yeast are unicellular fungi responsible for the alcoholic fermentation of wine and *Saccharomyces cerevisiae* is the mainly species used. São Francisco Valley wines are produced by imported yeast but have been seeking through various forms an identity, among them the possibility of producing their own wines with indigenous yeast. In this case, the aim of this work was to select *S. cerevisiae* indigenous strains and non-*Saccharomyces* yeasts isolated in the must fermented of five varieties of grapes (*Vitis vinifera* L.) farmed in the São Francisco Valley (VSF). The yeasts were grouped preliminarily according to various characteristics, including their colony morphology, standard tests for growth on different carbon and nitrogen sources, subjected to osmotolerance tests, resistance to antifungal, thermotolerance and fermentation of sugars (Kurtzman et al., 2011). All isolates previously identified as *S. cerevisiae* were compared using mitochondrial DNA restriction analysis (mtDNA-RFLP) for to distinguish between different *S. cerevisiae* strains (Querol et al., 1994). The mitochondrial DNA was digested with *Hinf*I restriction endonuclease (Invitrogen, Carlsbad, CA, USA). Non-*Saccharomyces* were characterized molecularly using the Intron Splice Site primer EI-1 and performed the sequencing of the ITS-5.8S region and D1/D2 domain of the largest subunit rDNA for identification of the species (Kurtzman et al., 2011; Rosa et al., 2007). A total of 368 yeast isolates were obtained. Among them, 259 *S. cerevisiae* and 109 non-*Saccharomyces* strains were identified. By mtDNA-RFLP technique it was possible the identification of 184 *S. cerevisiae* indigenous strains and 75 *S. cerevisiae* representing commercial strains. Twenty-two different profiles of mtDNA-RFLP were found in *S. cerevisiae* indigenous strains in comparison with the six most used *S. cerevisiae* commercial strains in the VSF. Therefore, the musts fermented grapes harvested in the São Francisco Valley region were substrates suitable for the isolation of *S. cerevisiae* indigenous strains and non-*Saccharomyces* yeasts.

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