



Isolation, Selection, Identification, and Characterization of Yeasts with Oenological Importance in the Food Industry and Alcoholic Beverages

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Abstract: There were isolated 54 pure yeast cultures from Albanian autochthon variety of grape Merlot. Isolations were carried out from grape juice (must) before fermentation for obtaining strains that belongs to genera and species of oenological importance, but not responsible for fermentation (*non-Saccharomyces*) and from must in fermentation process for obtaining strains of genus *Saccharomyces*, which are the main agent of alcoholic fermentation. After preliminary screening, there were selected 20 yeast strains for characterization and identification and further study. Results of identification shows that was achieved isolation and selection of yeasts, belonging to 8 genera and 12 species, from which 3 species of *Saccharomyces*, 1 specie of *Shcizosacharomyces*, 1 specie of *Debaromyces*, 1 specie of *Hansenula*, 1 specie of *Brettanomyces*, 2 species of *Kloeckera*, 2 species of *Candida* and 1 specie of *Rhodotorula*. Fermentation activity (alcoholic power) was estimated for 8 strains of the genus *Saccharomyces* and results: 4 strains have alcoholic power over 11%, of which 2 strains over 14%. These two strains also have high speed fermentation. They produce 1.5% acohol/day, *ie.* about a week they achieve to produce over 10.5% alcohol. These strains are recomended in small-scale wine producing and in the case of a positive result, using them in the controlled fermentation in the wine industry in our country (Albania).

Keywords: *yeast, isolation, selection, identification, alcoholic power, oenological.*

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