

MICROBIOLOGICAL RESEARCH ON SOME YEASTS ISOLATED FROM THE MOLDAVIA VINE-GROWING REGION, ROMANIA

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Abstract

Yeasts are the most important microorganisms in wine production, and their number and diversity on grape berry surfaces and stalk are influenced by grape variety, degree of grape maturity at harvest, climatic conditions, geographic location, physical damage of grapes, the intensity of pest management etc.

This paper pursues two lines of research: isolation and purification of yeast strains responsible with the alcoholic fermentation from vineyards Focșani and Bucium-Iași, and testing of the oenological characteristics of the isolated yeast strains. Presented results represents a part of a project aiming selection of new yeasts strains from indigenous flora, because they influence fermentation speed, wine flavor and other wine qualities. These informations are important for wine-makers to produce wine with high quality and typical attributes. Yeast isolation and obtaining of the pure cultures was done mainly through inoculums dissemination and loop exhaustion techniques on solid nutrient media.

Following isolation and purification a total of 15 yeasts strains were selected and further studied in the laboratory regarding degree of foam production and alcoholic capacity. After the testing procedures, three yeasts strains were retained for future research to optimize the fermentation processes and to obtain quality white wines from both vineyards. Two yeasts strains (V0101, V2101) were originally from viticultural center Bucium Iași and one strain (AC2) originates from viticultural center Focșani.

Key words: yeast strains, yeast isolation, foam production, alcoholic capacity