THE ECOLOGY, SELECTION AND THE MORPHOLOGICAL CHARACTERIZATION OF THE S.D. BANU MARACINE YEASTS ECOTOPE

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SUMMARY

The cells’ identification of the yeasts isolated from soil, grapes, must, during the alcoholics fermentation and wines from the Winegrowing Center Banu Maracine, has been made on yeasts’ purified biocultures and their submission to the standard identification tests (Barnett, J. A., R. W. Payne, D. Yarrow, 1990) certain: morphological tests (the cells’ shape and dimension, collonial characteristic, behaviour in liquid medium) and physiological tests (the sugars’ fermentation and assimilaition, the nitrates assimilation, the use of the ethilic alcohol as the only source of carbon, the arbutine scission, growth in the absence of vitamins, growth in the presence of ciclohexamid, etc).

There has been followed the duration of the alcoholic fermentation, determining the sugar quantity, the final number of the yeast cells, function the temperature that the must has been submitted, the endogenous ethilic alcohol and the ethilic alcohol obtained as a result of the alcoholic fermentation. In order to identify the studied yeasts isolated and purified there has been used the procedures describe by Kreger van Rij, Barnett et al. and Kurtzman. The results has been recorded after 3, 7, 14, 21 and 28 days.

The researche has follow the assimilation degree of the carbon and nitrogen sources, there has been made 61 physiological and biochemical tests. In this research there has been used 17 carbohydrates, 2 polysacharides, 2 glycoside, 10 alchoois, 5 organic acids and 5 nitrogen sources. During the assimilation tests there has been used 12 yeast strain isolated from the spontaneous flora belonging to the viticultural area Banu Maracine, purified and maintained in the collection.

The purpose of this set of physiological tests has been to generate preliminary information reagarding the systematical determination of the isolated species, correlated with the morphological features analyzed previously. We can mention that from the 12 tested species, 7 formed thelyospores and balistospores, 5 formed asospores, that beeing the reason why we have included the first 7 species on Deuteromycotina Order (imperfect yeasts) and the other 5 on the Ascomycotina Order.

BIBLIOGRAPHY


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