

## Genetic Study of Endemic Strains of *Saccharomyces Cerevisiae*

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One of the forms of demonstrating competition within *saccharomyces cerevisiae* is micocinic toxic protein released by “killer” cells and another is elimination of susceptible cells. Within natural environment “killer” strains while obtaining food substances compete with susceptible forms and either expel them from environment or restrict their replication and accommodation.

In natural population of Kindzmarauli’s Saperavi has been determined Killer (K) phenotype of *saccharomyces cerevisiae* which produces exotocin; Susceptible (S) which is fatally affected by toxin and Neutral (N) which is immune to toxin.

Population has been found polymorphic according to the studied feature. 21 morphs have been detected in population according to attitude to test-strains. Killer strains with various frequencies are distributed in 9 morphs and susceptible strains – in 11 morphs. Frequency of killer strains proved to be 7.6%, of susceptible strains – 57% and of neutral 35.4%. Micro-populations have also been found to be polymorphic in which strains of K, N and S phenotypes are represented with various frequencies.

Population analyzed by us and its composite micro-population is interesting because of the fact that in the process of fermentation S phenotype strains hold a dominant place.