Effects of Pesticides on Yeasts Isolated from Agricultural Soil

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The effect of six various pesticides on the growth of yeasts isolated from agricultural soil was investigated. Two herbicides (with the effective substances lactofen and metazachlor), two fungicides (with the effective substances fluquinconazole and prochloraz), and two insecticides (with the effective substances cypermethrin + chlorpyrifos and triazamate) were tested. It is evident that there are considerable differences in inhibition effects of studied pesticides. The fungicide with the effective substance prochloraz inhibited the growth of majority of yeast strains. The insecticide triazamate at concentration 0.6 mM restricted or inhibited growth of all tested strains. The strains of the genus Cryptococcus were the most sensitive to pesticides, while the strains of the species Cystofilobasidium capitatum, Debaryomyces occidentalis var. occidentalis, and Trichosporon cutaneum were the most resistant.

Key words: Yeasts, Pesticides, Inhibition