

Influence of Culturing Conditions on Biomass Yield, Total Lipid and Fatty Acid Composition of Some Filamentous Fungi

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Abstract : In this work the effect of culturing conditions of filamentous fungi *Penicillium raistrickii*, *Penicillium anaticum*, *Fusarium* sp. on biomass yield, the content of total lipids and fatty acids was studied. It has been established that in time the process of lipids accumulation correlated with biomass growth of cultures, reaching maximum values in stationary growth phase. Biomass yield and accumulation of general lipids was increased by adding zinc to the culture medium. The more intensive accumulation of biomass and general lipids was observed at temperature 18°C. Lowering the temperature of culturing has changed the ratio of saturated: Unsaturated fatty acids in the direction of increasing the latter.

Keywords : biomass, culturing conditions, fungi, fatty acids (FA), growth dynamics, lipids

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