

Development of the technology for obtaining a product of probiotic character based on the microbial bioconversion of sugar cane

Key words: bioconversion of plants substrates; probiotic, Pichia yeast; food

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This paper considers the solution urgent to the problem of protein deficiency in human food through the production of yeast protein. Objective: Use of microorganisms with high biological value, suitable for the bioconversion of non-hydrolyzed plant raw materials. We used traditional methods of the laboratory of the Department of Biotechnology and Technology of products bioorganic synthesis (MGUPP), that is, the method of deep and solid - phase cultivation. Large-scale studies have been carried out: isolation of yeast from the ecosystem, selection of substrates with cellulose-containing and carbohydrate-containing for the solid-phase and deep yeast cultivation. Yeast fermentation was carried out at a humidity of 40% - 60%, and temperature at 28°C - 32°C for 72 hours. The work has realized at the Moscow State University of Food Production MGUPP. The experimental on the productivity of different yeast strains on a variety of plant raw materials are presented in the tables. The perspective of the developed new technologies for the production of microbial-plant nutrients showed, that is, various types of non-hydrolyzed cellulose-containing materials could serve as a nutritional advantage.

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