Article
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THE USE OF SOME EXOMETABOLITES FROM MICROMYCETES FOR THE FORTIFICATION OF RESISTANCE INDICES IN BEE

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Abstract

Abstract. The goal of the proposed research was focused on the use of exometabolites of micromycetes to increase the physiological resistance of bee families after the winter period, as well as to stimulate their productive indices. From the 21 strains of micromycetes taken from the National Collection of Nonpathogenic Microorganisms of the Institute of Microbiology and Biotechnology, TUM, were selected 3 strains (Ps.sp.11, Ps.sp.19 and Ps.sp.62) which showed more productive indices of the development on culture media, as well as more pronounced bactericid properties. Exometabolites were prepared from the mentioned strains and administered to 3 experimental grups of bee familes in doses of 10, 25 and 50 ml per kg of wheat flour cakes. The productive indices of the bee families were examined over 12, 24 and 36 days after the administration of the biomass of exometabolites. As a result, it was established that the highest index - 47.1 squares of hatched brood, was registered at 24 days after the administration in the 1st experimental group of bees which was fed with a dose of 25ml/kg of wheat flour cakes. The difference between this group and the control group was 19.4 squares of hatched brood. At the same time, the honey collection per beech was 3.4 kg in the 1st experimental group of bees, representing 0.8 kg more compared to the control group and the prolificacy index was 34.5% higher compared to the control group.

Key words: exometabolites, micromycetes, bees, honey, culture media, prolificacy