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ECOLOGICAL AGRICULTURE: DYNAMICS OF THE BIOLOGICAL ACTIVITIES IN SOILS CULTIVATED WITH MAIZE UNDER THE INFLUENCE OF ORGANIC FERTILIZATION

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Abstract

The current paper presents several experimental results achieved by using either organic (10t/ha and 20t/ha compost) or chemical ($N_{100}P_{50}K_{50}$) fertilizers for fertilization of maize grains within the Iasi Didactic Station from the Moldavian plateau in the period 2009-2010. The aim of this work consisted in isolating and quantifying the microbial population existent in soil (G^+ and G^- bacteria, mycromicetes) by determining the percentage of participation, the main species and the level of their activity in each studied variant. From the analysis of the achieved results, one may observe a significant increase of the soil microbial activity for soils fertilized with compost compared to the non-fertilized samples. These results evidence the possibility of applying the organic fertilization with husbandry compost for maize crops within the ecological farms.

Key words: compost, ecological agriculture, microbial activity, organic fertilization

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