The Influence of Biological Preparations on the Productivity of Corn Hybrids in the Conditions of Southern Ukraine

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Abstract: Corn (*Zea mays* L.), one of the most productive grain crops, plays a leading role in successfully solving the task of sustainable grain production in Ukraine. In order to increase the level of realization of the biological potential of corn, it is important to introduce into production modern effective and competitive cultivation technologies, which should be based on the selection of highly productive hybrids adapted to the conditions of Ukraine and the use of modern biological preparations Experimental research was conducted in 2023 at the experimental field of the Mykolaiv National Agrarian University. The object of research was the processes of growth and development of corn plants of Gran 6 and Tesla hybrids, their formation of productivity As a result of the research, it was established that the highest yield of grain, on average, according to biological preparations, was formed by plants of the Gran 6 hybrid - 8.35 t/ha, which is higher than the yield of the Tesla hybrid by 0.11 t/ha. It should be noted that the highest yield of corn grain was obtained with pre-sowing treatment of seeds with the biological preparation Organic-balance and foliar feeding of plants with the biological preparation Azotophyt-r - 8.40-8.51 t/ha, depending on the studied hybrid. In the conditions of the south of Ukraine, the highest yield of corn grain is provided by the combination of pre-sowing treatment of seeds with the biological preparation Organic-balance and foliar feeding of plants during the growing season with Azotophyt-r for growing the Gran 6 hybrid.

Keywords: Zea mays, grain yield, biological preparations