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## **PRODUCTIVITY OF MUSTARD BLACK DEPENDING ON THE USE OF BACTERIAL PREPARATIONS**

The total demand to increase the production of food vegetable oil in Ukraine requires a substantive approach to the cultivation and use of farm valuable opportunities of cruciferous crops, especially in the Western region, where the soil and climatic conditions are favourable for their growth. Among the reasons that are slowing down the growth of the industry, not least the lack energy-saving growing technologies adapted to modern conditions, which would be sufficiently reduced the need for significant investment.

Test of microbial agents in modern technologies of rape growing carried out by different agencies of Ukraine. The positive results, which proved the prospects of energy-saving and environmentally valuable direction are received. However, for large-scale introduction of these drugs necessary the depth study of their impact on plant organisms, soil condition and environment.

Inoculation of mustard seeds before sowing with microbial drugs was stimulated the growth and development of plants and it was increased yield of green mass and seeds. The size of yield increase depends on the type of bacteria, culture and growing conditions. The best results are obtained with use of polimiksobakteryn.

The use of bacterial preparations during sowing affects the growth, development and yield of plants of black mustard. Increase of crude and air-dried green mass of black mustard plants is 7–8 %.

Bacterial fertilizers increase the yield of mustard seeds on the background of polimiksobakteryn and albobakteryn – to 0,26–0,42 t/ha respectively. The highest yield was obtained in areas where polimiksobakteryn used.

Thus, application of bacterial preparations in soil improves the mineral nutrition, plant growth and development that ultimately affects the growth of productivity crops. Microbial agents give increase the yield as of green mass so and seeds of black mustard that is environmentally and economically advantageous.