

Annotation

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Productivity of buckwheat's crops under biological

The article tells about the results of studies on the effects of various norms of bacterial drug Diazobakteryn (150, 175, 200 ml) and methods of application of plant growth regulators Radostym (seed treatment before sowing - 250 ml/t, spraying crops - 50 ml/ha) on net photosynthesis productivity and yield of buckwheat.

In order to modern resource support agriculture in terms of ecological crisis one needs to develop technological measures that would mobilize the potential of natural processes connected with the development of plants to ensure the stability of agro-ecosystems, increasing of their productivity. One of these solutions can be using of biological products in crop cultivation technology. However, the impact of complex use of biological agents on the formation of the productivity of crops of buckwheat is virtually unknown.

In this regard, it would set how different drug microbiological standards and methods of making of growth regulator influence the formation of photosynthetic efficiency and yield of crops buckwheat.

The studies found that the average for the years 2010-2012 studies combined use of different standards of ILO Diazobakteryn growth regulator Radostym positively influences the productivity of photosynthesis of buckwheat. However, in joint application for seed treatment Diazobakteryn in norm 200 ml and Radostym in norm 50 ml/ha formed the highest level of net productivity of photosynthesis, which is 20-21% higher than the figure in control option.

The resulting figures of photosynthetic productivity of crops in options of complex use of biological products are conformed with datas of the highest yield crops of buckwheat in the years of research, which is associated with the most intensive work over a long period of puff device buckwheat.

The highest yield of cultures are seen in options of the experiment with using of Diazobakteryn 150; 175; 200 ml and 250 ml/t Radostym for seed treatment before sowing of the subsequent processing of crops by Radostym in norm 50 ml / ha, where excess of control made 0.38; 0.42 and 0.46 t/ha, in accordance.

Thus, microbiological preparation Diazobakteryn submitted separately as well as in mixtures with growth regulator Radostym imposes a significant imprint on the formation of the productivity of crops buckwheat. However, the highest net productivity of photosynthesis and yield of buckwheat formed in crops by use of Diazobakteryn in norm 200 ml and Radostym in norm 250 ml/t for seed treatment before sowing with the next crop spraying by Radostym in norm 50 ml/ha, this shows the positive impact of various methods of Radostym's application (seed treatment + crop treatment) on the growth processes of plants buckwheat, which together with Diazobakteryn microbiological elements, for which the larger surface colonization of the root system is created, provides activation of physiological processes in plants aimed at the formation of high-yield crops.

Keywords: *buckwheat, net photosynthesis productivity, yield, microbiological preparation, plant's growth regulator.*