

Annotation

Furmanets M.G., Furmanets Yu.S.

Impact of biological preparations on buckwheat crop productivity

Since ancient times cereal crops have played a significant role in the nutrition of the Ukrainians, one of those crops is buckwheat. Buckwheat proteins are of not worse quality than those of legume crops. Buckwheat contains many useful compounds of phosphorous, potassium, copper and organic acids. It is rich in vitamins B₁, B₂, P₁, that is why buckwheat is considered to be dietetic one.

Nowadays the implementation of biological agriculture is in high demand, particularly while growing buckwheat as an organic and healthy product.

There are results of the study on the impact of biological preparations on buckwheat productivity and quality. Researches on the degree of the biological preparation impact on buckwheat productivity and quality of Ukrainka variety were carried out in the dark-grey podzolic soil of the experimental plot of Institute of Agriculture of Western Polissia. Liquid organic fertilizer Humisol manufactured by the agrarian firm "Germes" Ltd in combination with microbiological preparation Diazobacterin and biological preparation Planriz of Institute of Agricultural Microbiology and Agroindustrial Production were studied.

Applying biological preparations provides the best conditions for the growth and development of buckwheat plants, natural weight of buckwheat grain increases up to 477-516 g/l, thousand-kernel weight increases up to 25.1-26.1, protein content in the buckwheat grain is 12.5-13.0 %.

It is found that the most efficient for buckwheat planting is applying complex of biological preparations (Diazobacterin+Humisol (IV, VII et.) + Planriz (IV, IX et.)) on the background of organic fertilization, where buckwheat yield was obtained – 1.60 t/ha, while the yield of the control variant (without fertilizers) is 0.86 t/ha.

Foliar feeding of plants with Humisol in main phases of development on the background of organic fertilizing had the advantage in comparison with the variant where Planriz was used at buckwheat vegetation, buckwheat harvest accordingly was 1.52 t/ha and 1.40 t/ha.

Key words: *biological preparations, buckwheat, productivity, quality.*