

Annotation

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Agroecological peculiarities of influence of humic fertilizers and microbiological drug Azoter on phosphorus-potassium mode of grey podzolized soil when cultivating spring triticales

At the present stage of developing agroindustrial complex it is important to make rational use of soils, in particular grey podzolized ones. For their protection and improving fertility it is important to study changes of agro chemical properties and developing measures on their use. That is a sufficient amount of consumed phosphorus and potassium not only improves productivity of agricultural crops but also increases the resistance of plants to stressful environmental factors.

The research results show the influence of various fertilizing systems on the content of mobile compounds of phosphorus and potassium in grey podzolized soil. The expediency of applying humic fertilizer and microbiological drug Azoter as effective agronomic measures to improve phosphorus-potassium mode of the soil is proved.

Studies show that applying humic fertilizer and microbiological drug Azoter promotes the content of mobile forms of phosphorus and potassium in grey podzolized soil. With regard to the accumulation of their content, fertilizing systems proved to be effective when applying humic fertilizer with mineral ones (Variant 5) and additionally with manure (Variant 8); they ensured the growth of content of mobile phosphorus compounds (P_2O_5) by 6.4 and 11.0%, moving potassium compounds K_2O by 14.8 and 19.1% respectively in layers of the soil 0-20 and 20-40cm.

High efficiency of fertilizing systems is found also in variants when using drug Azoter. Increase in content of P_2O_5 by 0.9–2.2 and K_2O – by 2.0 – 2.6% is marked. Low efficiency of these systems of fertilizing is associated primarily with forming the highest possible indicators in grain yield of spring triticales (5.26-6.89 t/ha) in these variants which consequently resulted in a high loss of nutrients from the soil (for 1 ton of grain removal of phosphorus from the soil is 12.9 and potassium – 25.8kg).

Key words: *phosphorus-potassium regime, gray ashed soils, humic fertilizers, microbiological agent, triticales yare.*