EFFICIENCY OF PREPARATION ”REAKOM” ON CHORNOZEM ORDINARY ON GROWING WINTER WHEAT

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The article describes the importance of using micronutrients in the dry climate of the Southern Steppe of Ukraine on degraded soils under conditions of atmospheric pollution, violation of traditional schemes of crop rotation of crops and deficiency of organic fertilizers. The main purpose of the study, taking into account that the fertilization was carried out in a single scheme, both in terms of norms and technology, was to investigate the influence of soil ecological factors on the yield of winter wheat against the background of differentiation of the extracorporeal fertilization with the trace elements of Reakom (Zn, Cu, B, Mo, Co, P_2O_5, K_2O) in a dose of 2.5 l/ha and 5 l/ha. The research was carried out on chernozem in the usual low-humus and its eroded abnormalities: weak and medium-sized, which marked the rise of carbonates due to some blurring of the upper accumulative genetic horizon and deterioration of qualitative soil fertility indices.

The yield of winter wheat on chernozem was almost 1.17% higher than that of 2.5 l/ha, compared to control, whereas there was no effect on the washed offs. For application of 5l/ha Reakom at discarded crop yields increased to 13.8% on medium-chernozem.

Effectiveness of the drug for foliar application of winter wheat in arid conditions on the abovementioned soil abnormalities is described by the regression equation, the use of which will allow the efficient allocation of funds when planning purchases of trace elements of trace elements.

Anthropogenic soil changes in the conditions of the Southeast of Ukraine are mainly due to the processes of erosion and pollution. In this case, there is a decrease in the power of the genetic horizons of soils, as well as the quality of the fertile layer. These processes mutually complement each other, determine the deep changes in the potential and effective fertility of the soil. To the important negative

consequences of their action on soils is the change in the micronutrient nutrition of plants, especially on eroded soils, where the upper genetic horizon is washed out and the carbonates are tightened to the surface. Soil carbonates are found in the form of metastable and polymorphic forms. Calcite is the most common and relatively moving form of calcium carbonate. It is rather dispersed and affects the pH of the soil, but as a consequence of the behavior of trace elements. Carbonates reduce the mobility of trace elements due to the sorption of their own fine fractions, as well as iron oxide and manganese deposited on the surface of carbonates. The weak mobility of trace elements in carbonate soils is negatively reflected in the mineral nutrition of crops. Without trace elements it is fundamentally impossible to fully absorb the basic fertilizers (nitrogen, phosphorus and potassium) plants, in addition, their lack of metabolism violates the physiological processes in the plant. The trace elements contribute to the synthesis of plants with a full spectrum of enzymes, which allow more intensive use of energy, water and macro elements.