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**THE CONSUMPTION OF COBALT AND COPPER BY THE ARTICHOKE
IS PRICKLY AND ITS PRODUCTIVITY WHEN USING THEIR
COORDINATION COMPOUNDS.**

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The authors confirm that cobalt and copper microelements are less fixed in the soil of coordination compounds than their inorganic salts. The use of coordination compounds of the above-mentioned microelements in comparison with their inorganic salts by means of seed locking and application of ammonium sulphate in the budding phase of artichoke prickly enhances growth processes, fruiting, enhancing the biosynthesis of bioactive substances and increasing biomass yield.

The results of the research found that the yield increase (biomass) under the conditions of application of the coordination compounds of trace elements of cobalt and copper on the optimal background of the $N_{150} P_{110} K_{75}$ nutrition increases kg / ha by 27-33 centners / ha, respectively, compared to the yield of artichoke spiny trace elements, and 2.8 and 3.2 c / ha in the variants using inorganic cobalt salts and copper.

Key words: microelements, coordination compounds, fruit elements, cotton variety, inorganic salts, fruit formation, fruit-growing organs, copper, cobalt, ammonium sulfate, productivity, artichoke spiny.

Introduction. Limited information about the effectiveness of coordination compounds of microelements. Especially cobalt and copper, in the consumption and increase of productivity by the artichoke prickly, determined the direction of our research.

Field experiments were conducted in the educational and research experimental station of the Tashkent State Agrarian University and the experimental site of the Tashkent Pharmaceutical Institute[1,2,3].

Materials and methods. In 2011-2013 under field conditions, the dependence of the yield of artichoke prickly on the introduction of inorganic and coordination compounds of microelements on typical sierozem on the above experimental plots was studied.

Before sowing, the seeds of a prickly artichoke were soaked with an aqueous solution of inorganic, as well as coordination compounds of microelements with the subsequent introduction of the budding phase in the composition of ammonium sulphate to a depth of 14-16 cm.

Results and discussion. Our research results found that the height increase of the main stem of the prickly artichoke varies considerably depending on the use of inorganic and coordination compounds of microelements. In variants (1.VI) with inorganic salts of cobalt and copper, the length of the stem increases by 16.1 -19.4 cm, whereas with their coordination compounds, by 25.1 - 30.2 cm with respect to control plants (without trace elements). Coordination compounds of microelements (cobalt and copper) increase the growth of the main stem to a greater extent than their inorganic salts.

The introduction of trace elements in the composition of ammonium sulfate has a positive effect on the fruiting of the artichoke. Inorganic salts of cobalt and copper increase the formation of ovaries to the beginning by 0.9-1.2 and their coordination compounds by 2.2 -2.8 pcs. The number of fully formed fruit podorogpnov is more formed in the variants using microelements for the prickly chelated compounds of microelements - 6.2; 6.0 and 5.5 pcs. on one plant versus 4.1 pcs. in control. When using their inorganic salts, the number of fruit-producing organizations was 5.1 and 5.0 pcs.

The authors confirm that cobalt and copper microelements are less fixed in the soil of coordination compounds than their inorganic salts.

Conclusions. The use of coordination compounds of the above-mentioned microelements in comparison with their inorganic salts by means of seed locking and application of ammonium sulphate in the budding phase of artichoke prickly enhances growth processes, fruiting, enhancing the biosynthesis of bioactive substances and increasing biomass yield.

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