

USE OF COLLOIDAL SOLUTIONS OF NANOSIZED BIOGENIC METALS FOR SEED AND SOWING TREATMENT OF SPRING BARLEY UNDER CONDITIONS OF RIGHT-BANK FOREST-STEPPE OF UKRAINE.

I. Kachura, PhD

O. Bachinskiy, PhD

National University of Life and Environmental Sciences of Ukraine

The influence of nanosize biogenic metals on spring barley plants productivity has been studied. It is established that nanosize biogenic metals have a positive effect on plant yield, grain quality and seed sowing qualities.

Spring barley, nanosize biogenic metals, seed treatment, plant care, yielding capacity, quality.

Conclusions. Thus, the use of nanoscale biogenic metals for pre-treatment of seeds and spraying in tillering stage had a clear positive effect on yield, germination and survival of plants of spring barley. In preferred embodiments of productivity growth relative to controls was 0.41 t / ha. The content of protein and starch in the grain of spring barley was in inverse dependence and ranged from 8.9 to 9.7% and the starch within 50.8-58.8% depending on the type and version of the experiment. Application of nanoelements did not significantly affect the starch and protein in the grain.

Application of nanoelements significantly affected the germination and seed vigor. Yes, sort of seed germination germination increased by 2.4%, and further processing plants in tillering phase by 3.1%, Hetman grade respectively 2.0 and 2.2%. Vigor seed-com This complex application of nanoelements grades germination and Hetman increased by 2.3 and 2.7% respectively. Application of nanoelements increased crop suitability for seed to 0.8-2.1% and 100 seeds per lot 0.3-2 g depending on the variety and all-variant experiment.