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INFLUENCE OF THE MINERAL FERTILIZATION LEVEL AND FOLIAR NUTRITION ON THE FODDER BEANS YIELD IN THE CONDITIONS OF THE WESTERN FOREST-STEPPE

Analysis of scientific researches concerning the mineral nutrition of fodder beans has been carried out. It was found that the growth and development of plants depends on the ratios of mineral fertilizers and foliar nutrition. Beside this, the application of nitrogen fertilizers prolonged the vegetation period of fodder beans for 4–7 days depending on the fertilizers' rate. Usage of micro-fertilizer wuxal microplant increased duration of the vegetation for 1–3 days. The use of only phosphorus-potassium fertilizers did not affect on the duration of the vegetation period.

Dependence of plant heights on rates of mineral fertilizers and foliar nutrition has been established by means of biometric methods. The highest plants were in the variant with separate application of nitrogen + wuxal microplant – 171,9 cm, which is 42,3 cm higher compared with control.

A direct link between the application of mineral fertilizers and an addition crop to control was found in the conditions of the western Forest-Steppe. In particular, the highest yield was on variants with separate application of nitrogen – respectively 3,81 and 3,94 t/ha without and with application of wuxal microplant. It was 1,29 and 1,42 t/ha more than the control variant.

The investigations have revealed that the application of phosphorus-potassium fertilizers provided 0,31–0,72 and 0,41–0,74 t/ha of addition crop respectively without and with micro-fertilizer wuxal microplant.

The application of micro-elements in the form of wuxal microplant suspension contributes to the crop growth on 0,11 t/ha without use of mineral fertilizers and 0,13 t/ha on variant with separate nitrogen application ($N_{30}P_{60}K_{90} + N_{30}$).