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EFFECT OF HERBICIDES AND MICROFERTILIZER ON THE PRODUCTIVITY OF FIBER FLAX

The influence of herbicides on the sulfonylureas group (thiophenesulfuron-methyl, prosulfuron, iodosulfuron, amidosulfuron) and microfertilizer nanomix for their joint and separate application on the growth and development of fiber flax plants, the formation of productivity in the conditions of the western Forest-Steppe zone have been determined.

It has been installed reduction of the stressful influence on the fiber flax plants using the herbicides of the sulfonylureas group (Harmoni, Peak 75, Grodyl Maxi) and nanomix for their combined application.

The plants were highest when using herbicide Grodyl Maxi, 90 ml/ha and nanomix (2.0 l/ha) in a tank mixture – up to 79,6 cm. For herbicides, Harmoni and Peak 75 reduction the total height was 1,5–3,6 cm depending on the compatible and a separate application of nanomix.

The mass of weeds was also significantly lower (0,150 kg/m²) when applied to the mixture of herbicide Grodyl Maxi and microfertilizer nanomix, rather than with their separate application (0,225 kg/m²). The highest productivity (flax straw and seeds – 6,65 and 1,15 t/ha respectively) were obtained using a herbicide Grodyl Maxi of 90 ml/ha + nanomix 2 l/ha (at control – 5,68 and 0,99 t/ha). The increase in control was 0,97 and 0,16 t/ha respectively. The application of herbicides Harmoni (10 g/ha) and Peak 75 in combination with nanomix in the tank mixture and separately led to significantly lower productivity indices.

Simultaneous use of nanomix with herbicides better offset the suppressive effect of chemical preparations compared with the variants of separate application (10 days after application of herbicides). The highest proof of common and technical height (78,4 and 65,5 cm) was noted in the use of the Grodyl Maxi (90 ml/ha) in a tank mixture with a nanomix (2 l/ha), where the deviation to the control of the common height was – 0,2 cm and technical height – 1,9 cm. In this variant, 0,8 boxes per plant were formed less than control (5,8 pc. per plant). Reductions in both common and technical height compared to control were also observed for herbicide Harmony (20 g/ha) - by 1,2–2,2 cm and 0,4–0,9 cm respectively.

The highest profitability of growing fiber flax (115,0 %) was obtained when Grodyl Maxi and microfertilizer nanomix were used into the tank mixture.