

APPLICATION OF HERBICIDES ON CORN CROPS AS ONE OF THE FACTORS TO GET HIGH YIELDS

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At present, the crops occupied by corn are heavily polluted by weeds, which negatively affects the growth and development, and thus the yield of the future crop. It should be noted that weed vegetation degrades the root layer of the soil, water and light modes, consumes a large amount of nutrients required for cultivated plants, etc. Therefore, properly planned actions for the destruction of harmful weed plants with the help of herbicides, will significantly reduce labor costs and accordingly reduce the cost of the harvest.

For example, the staff of the Department of Maize Breeding and Seed Production of Agricultural Institute of KBSC of RAS, together with the laboratory of agriculture, annually conducts studies to evaluate the effect of herbicides on weed vegetation in maize crops. In this scientific article, we consider the use of modern herbicides (Lumax, SE at a dose of 3.0l / ha; Elumis, MD - 1.4l / ha; MeisTer, VDG – 0.125 g / ha, Milagro, COP + Banvel – 1l + 0, 5l g / ha; BP DUBLON Super, VDG + Aegis, SK – 0,30,25 g / l; Escudo, VDG + Callisto, SK – 0,2 + 0,02 g / l) for weed plants. The most effective among them were: Elumis, MD, MeisTer, VDG and lateral mix Dublon Super VDG + Aviation VDG. After application of these herbicides, after 28 days, the number of weed plants decreased compared to the control by 98%, in the variant with the use of the herbicide Elumis, MD, in the variant with MeisTer, VDG by 92.5%, and in the variant where the crops were sown with a mixture of Escudo, VDG + Callisto, SC – by 98.9%. The herbicides used in the experiment were Elumis, MD, MeisTer, VDG, and the lateral blend of Dublon Super VDG + VDG Aid, which resulted in high grain yields and crop yields, depending on the maturity group of the maize hybrids. Thus, the variant where the herbicide Elumis was applied, MD, the crop was from 7.7-9.0 t / ha, the increase from 2.7-2.9 t / ha; in the variant with Meister, VDG, the crop was from 7.5-9.3 t / ha, the addition of 2.7-3.0 t / ha and the variant where the lateral mixture of Escudo, VDG + Callisto, SK was made, the harvest was from 7, 6-8.9 t / ha and an increase of 2.8-2.9 t / ha respectively. Therefore, these herbicides will be further used in the fields of the Institute of Agriculture of the Kabardin-Balkar Scientific Center of the Russian Academy of Sciences, (IA KBSC RAS) and will be recommended to agricultural producers of the republic.

Keywords: corn, weeds, herbicides, grain yield, herbicide efficiency, weediness of crops.

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