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Winter Wheat Weed Control Measures In Grain - Vegetable Rotation System

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Abstract. *In the scientific article, in the fight against winter wheat weeds, the main tillage of the soil is carried out at 30-35 cm, and herbicides Pik 15 g/ha + Axial 50, KE 0.75 l/ha are used as a mixture in the ratio of low and perennial monocots and dicotyledons. and it is stated that it destroys spiky weeds by 84.7-97.4% and ensures the cultivation of high-quality grain crops.*

Keywords. *Winter wheat, weed, perennial, tillage, herbicide.*

Introduction

There are more than 30,000 types of weeds in the world's agriculture, of which 1,800 species cause significant damage. More than 2,000 types of weeds have been recorded in the CIS countries [1].

More than 400 types of weeds are spread in the irrigated lands of Uzbekistan, of which 209 types are considered dangerous for farming, of which: 80 types of weeds are considered extremely dangerous, and 129 types are relatively dangerous. 57 percent of them are annual and 43 percent are perennial weeds, and these dangerous weeds belong to 59 botanical families [4,6]. Weeds are also divided into 4 groups depending on their spread in the fields: 1) broad; 2) average; They are divided into 3) rare and 4) rare or very rare weeds [5,7].

Materials and methods.

Taking into account the above, we are conducting field experiments in the conditions of typical gray soils of Samarkand region specialized in grain and vegetable growing. The research program consisted of different tillage methods (ploughing 20-25; 30-35 cm and chiselling 18-22 cm) and single-phase spiked weed control Axial 50, KE (0.75 l/ha) and annual and perennial two-phase Peak, 75% (15 g/ha), field experiments to study the rates of herbicides in 12 variants and 3 replications are being carried out in generally accepted methods [2, 3].

The obtained results and their analysis. In our research, the effects of different tillage methods and depth and herbicide rates on weeds in winter wheat fields were investigated. In the field experiments, before the main tillage, it was found that the total number of weeds in the options was 44-53 units/m^2, of which the annuals were 38-47 and the perennials were 4-9 units/m^2. In this case, it was taken into account that the number of weeds increased from year to year in the variants treated with a chisel at a depth of 18-22 cm on the surface of the soil, where no herbicide was applied.

According to the results of the main tillage methods and depths and the effect of herbicides used against winter wheat weeds in the experimental field (Table 1), it was shown that tillage methods and herbicides had different effects on the number of weeds. For example, in variant 1 of the experiment without herbicide control, before tilling the soil, the total number of weeds was 46 per 1 m^2, of which 40 were perennials and 6 were perennials. After plowing at a depth of 20-25 cm, in early spring Before herbicide application, the average number of weeds was 39, and plowing 20-25 cm decreased by 23.9% (24.4% of perennial weeds, 20.3% of perennial weeds). By the winter wheat tuber period, in the control option 1, it was observed that the number of perennial weeds increased by 4 (34) and perennial weeds by 2 (7) per 1 m^2. It should be noted that in the experimental field, with the further increase of plowing depth, it was observed that their effect on weeds, especially perennials, was more effective. For example, in the option without herbicides, when plowing was carried out at 30-35 cm, during the tuber period of winter wheat, annuals decreased by 41.3% (27 units/m^2) and perennials by 42.8% (4), while these indicators were plowed at a depth of 30-35 cm. , in winter wheat in the flowering phase, Axial 50 herbicide at the rate of 15 g/ha, KE herbicide at the rate of 0.75 l/ha in more significant indicators, i.e. short years by -97.4%, and perennials by -84.7% decrease was noted.

In our research, it was observed that the number of weeds in the 18-22 cm tillage treated with a chisel (no herbicide was applied) in the minimum tillage technology during winter wheat cultivation increased from year to year. According to the data obtained in the experimental field, the total amount of weeds in the options treated with a chisel at a depth of 18-22 cm, compared to the options with no control herbicide, plowing at a depth of 20-25 cm, was 27-33 pieces/m^2, annuals 20-33, and perennials 20-33, respectively. and it was found that it caused 4-6 pieces/m^2 to be more.

Also, when the herbicide Peak 15 g/ha + Axial 50, KE 0.75 l/ha is used together with different tillage methods, the highest biological efficiency is plowing 30-35 cm, Peak 15 g/ha + Axial 50, KE 0, It was observed that when applied at the rate of 75 l/ha, it reduced annual weeds by 97.4% and perennial weeds by 84.7% in two years, with an average efficiency of 92.3%. Tillage surface (chiseling) 18-22 cm, herbicides Pik 15 g/ha + Axial 50, KE 0.75 l/ha in the standard options, the reduction of weeds is 84.3-89.0%, plow 30- 35 cm + Peak 15 g/ha + Axial 50, KE 0.75 l/ha was found to be lower by 3.3-8.0% compared to the standard option.

Conclusion.

In the conditions of typical gray soils of Samarkand region, plowing against weeds of winter wheat at 30-35 cm and applying herbicides Pik 15 g/ha + Aksial 50, KE 0.75 l/ha as a mixture, annual and perennial dicotyledons and spikes It was noted in our experiments that it destroys weeds by 84.7-97.4%, creates favorable conditions for the growth and development of winter wheat, and ensures the cultivation of high-quality grain crops.

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