## THE EFFECT OF SOIL MAINTENANCE AND HERBICIDES APPLICATION ON WINTER WHEAT SEEDS GERMINATION

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**Abstract:** Effects of integrated weed control in a cotton field maintained as a previous crop on weeds in a winter wheat field and a cultivator at a depth of 15-20 cm between cotton rows Processing with the help of winter wheat seeds has a positive effect on the germination and actual seedling thickness.

**Key words:** Winter wheat, soil, main treatment, weed, annual weeds, perennial weeds, option, return, agronomy, control, efficiency, yield, rotation control planting herbicides.

33 million people from more than 80 countries of the world. Cotton is grown on about 100,000 hectares, and winter wheat is grown on more than 200 million hectares in more than 100 countries, and 10-15% of the harvested crop is lost due to weed infestation. In a number of other countries of the world, such as China, Germany, USA, Brazil, Argentina, India, Pakistan, Australia, South Korea, Russia, Ukraine, Kazakhstan, more than 3000 types of weeds are spread, of which more than 200 types damaging the main agricultural crops. The urgent issue of today is the joint implementation of agrotechnical and chemical control measures against weeds.

In our republic, it is very important to carry out research on the improvement of agro-technologies for the cultivation of high and quality crops from cotton and winter wheat crops, along with the main methods of soil cultivation, using herbicides in harmony in different periods and rates. From this point of view, it is appropriate to carry out scientific research on determining the

effectiveness of the combined use of herbicides and the main methods of soil cultivation in the fight against weeds in cotton and grain fields, as well as their widespread implementation.

Field experiments were conducted in 6 variants, 4 replications and 1 layer. The area of each option was 720 m2, the area of consideration was 360 m2. In our winter wheat field trials, we used Granstar 75% DF for annual weeds and Granstar plus herbicide for perennials. The winter wheat variety "Krasnodar-99" was cultivated in the experiment.

In our conducted scientific research, observations were made on the germination, wintering of winter wheat and the effect on the actual seedling thickness at the end of the period of operation.

In the first year of our research in winter wheat, herbicides were applied at 28-30 cm depth with plowing with a two-tier plow to the weed control soil in the cotton field maintained as a predecessor crop of winter wheat seed germination. as a result of the effect of combined application, it has a positive effect on the soil compared to the options plowed with a simple plow at a depth of 28-30 cm, the highest it was observed that the indicator was 87.1% in the 6th option and was 2.1% higher than the control option.

It should be noted that in the months of November, December, January, and February of 2019-2020, when the research was conducted, there was no significant difference in air temperature compared to perennials, a significant negative impact on the wintering of winter wheat meadows in the experimental area. did not show, but it was observed that the effect of the treatment methods on the previous crop was slightly different.

According to the results obtained from the research, depending on the cultivation methods of the previous crop, the germination of seedlings per 1 m2 was 28-30 cm deep plowed into the soil against weeds, and no herbicide was applied in the 1st control option. on average was 411.3 units/m2, in this method of soil cultivation at the rate of 6.0 kg/ha per hectare It was found that the

germination of seedlings was 412.1-425.2 units/m2 in the options where Dafosat and Stomp herbicides were used at the rate of 2.0 l/ha.

It was observed that the above pattern was preserved in the variants plowed with a two-tiered plow at a depth of 28-30 cm. 435.6 pieces/m2, compared to the variants plowed with a simple plow to the soil, 13.6; 23.4; It was noted that it is more than 10.1 units/m2.

It should be noted that the effect of the types and rates of herbicides used against winter wheat weeds on the emergence and survival of the plant was also observed at the end of the wintering period and at the end of the period of operation.

The obtained data show that when the number of winter wheat seedlings that emerged from the winter was analyzed in the section of options, the previous crop

in the field treated with cotton, against weeds in a simple plow at a depth of 28-30 cm compared to the plowed background with a two-layer plow at a depth of 28-30 cm to the soil with a two-layer plow at a depth of 28-30 cm. It was observed that the difference between the thickness of the chat was significant, in the control option it was 9.4-12.4 units/m2, in the options where Dafosat herbicide was used at the rate of 6.0 kg/ha per hectare, it was 29.8-35.8 units/m2 up to 24.8-31.8 pieces/m2 in the options where Stomp herbicide was used at the rate of 2.0 l/ha per hectare.

Based on the above data, it can be concluded that the combined weed control in the cotton field maintained as a predecessor crop has a subsequent effect on the weeds in the winter wheat field and cotton. It was observed that cultivation with a cultivator at a depth of 15-20 cm between the rows had a positive effect on the germination of winter wheat seeds and the thickness of the actual seedling. It was observed that similar data were obtained in the following years of research, keeping the above rules.

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