



The Effects Of Weed Control Methods On Weeds In Cotton And Autumn Wheat Fields

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ABSTRACT

This article provides the results of harmonized weed control measures, which annual and biennial weeds in cotton and autumn wheat fields have been reduced by 80.2-82.7% in cotton fields and by 93.5% in autumn wheat fields.

KEYWORDS

Cotton, Wheat Fields, Plowing Depth, Soil.

INTRODUCTION

Taking into account the facts that cotton and grain growing areas are not always achieved by improving the phytosanitary situation with only agrotechnical measures, the addition of herbicides in combination with other measures which creates favorable conditions and the increase in the yield of grain in cotton is a very urgent issue.

Field experiments on the above issue were conducted in the conditions of hungry soils of Andijan region; the mechanical composition of the soil of the experimental area was moderate, watered from ancient times, not saline.

Our study was conducted on the basis of the following experimental system.

MATERIALS AND METHODS

1-experience system

| № | Variants | | Herbicide rate, l / ha |
|---|---|------------------------|------------------------|
| | Plowing depth | Name of herbicides | |
| 1 | Plowing at a depth of 28–30 cm on a normal plow | Control, no herbicides | - |
| 2 | | Dafosat (standard) | 6,0 |
| 3 | | Stomp33% e.k. | 2,0 |
| 4 | Plowing at a depth of 28-30 cm in two-sided plows | Control, no herbicides | - |
| 5 | | Dafosat (standard) | 6,0 |
| 6 | | Stomp33% e.k. | 2,0 |

2-experience system

| № | Variants | | Herbicide rate, l / ha |
|---|--|------------------------|------------------------|
| | Plowing depth | Name of herbicides | |
| 1 | Cultivation of cotton using a cultivator to a depth of 15–20 cm between rows | Control, no herbicides | - |
| 2 | | Granstar75% DF | 20,0 |
| 3 | Restoration of past | Control, no herbicides | - |

| | | | |
|---|---|------------------------|------|
| 4 | crop-grown buds | Granstar 75% DF | 20,0 |
| 5 | Plowing to a depth of 28–30 cm on a normal plow | Control, no herbicides | |
| 6 | | Granstar 75% DF | 20,0 |

In the research, as shown in the first experimental system, the weeds present in the field were taken into account before the soil was treated in different ways. In this case, the experimental field took into account the occurrence of annual weeds, kurmak (crabgrass), olabuta (silybum), yovvoyi gultojixoroz (pigweed), ituzum (solanum), semizot (purslane) and koytikan (thistle) and perennial weeds such as gumay (noxious weed), ajrik (noxious weed), koypechak (bind weed).

Observations were made 20 days, 40 days, and 60 days after the application of the herbicide to determine the biological effectiveness of different types of weed control and herbicides in the cotton field.

In our first observation (without herbicide), 20 days after herbicide spraying on a simple plowed field in the first field, the number of annual weeds averaged 32.7 pieces / m² significantly reduced compared to the option.

When Dafosat herbicide was applied at a depth of 28-30 cm in a normal plow at a rate of 6.0 l / ha, the number of annual weeds was 4.8 pcs / m², with control up to 85.3% compared to option 1 and the same treated in this way, Stomp 33% herbicide was found to be 6.0 pcs / m² when sprayed at a rate of 2.0 l / ha and reduced to 81.7% compared to the control.

The soil was treated with a two-tiered plow to a depth of 28-30 cm in autumn, but the number of annual weeds was 22.3 / m² in the control option, which did not use herbicides less than m² in the spring.

Using a two-tiered plow to a depth of 28-30 cm, Dafosat herbicide was applied at a rate of 6.0 l / ha in the spring with the sowing of seeds. , Up to 9%, so tillage in the background, when sowing Stomp-33% herbicide at a rate of 2.0 l / ha, respectively, this figure is 4.15 pieces / m², respectively, compared to the control of 81.3% was reduced to. The use of herbicides in the control of weeds has once again proved the need to take into account the methods of tillage.

Given the effect of applied herbicides on perennial weeds, Dafosat and Stomp showed that 33% average coefficient herbicides affected germination of perennial weeds. using a depth of 28-30 cm using Dafosat and Stomp 33% average coefficient in the variants in which herbicides were used (2-3 var.), their number was 2.65 and 2.8 units / m², respectively, which was 11.1-15.9% lower than the control.

The soil was plowed to a depth of 28-30 cm in a two-tier plow, and in the herbicide-free control option the perennial weeds were reduced to 0.65 pcs / m² compared to the herbicide-free control option in the ordinary plow, while in the Dafosat and Stomp

herbicides, it was found to be less than 3-0.45 units / m².

In our first observation, the best biological efficiency in weed control was observed in the fall when the soil was plowed to a depth of 28-30 cm using a plow and the herbicide was applied with seed sowing.

The number of annual weeds in Option 4, which did not use herbicides at the time of sowing, was 20.2 pcs / m². The same tillage method was used in the background with Dafosat and Stomp herbicides. (5-6 var.) Is 3.5-4.0 pieces / m², control due to the use of herbicides during sowing is reduced to 82.7-80.2% compared to option 4, which is favorable for good growth and development of cotton. was created.

According to Experimental System 2, in our research in the field of autumn wheat, we set ourselves the task to improve the agrotechnology of weed control through the use of herbicides, as well as three different methods of tillage. When cultivating at a depth of 15-20 cm and observing the period of germination of autumn wheat seeds, it was observed that the number of annual weeds was 15 / m², and the number of perennial weeds was 7 / m².

The number of annual weeds is 7 pieces / m² and the number of perennial weeds is 6 pieces / m² in the one-time cotton regeneration variant, which is treated with chisel of the previous crop. indicators are 8 respectively; It was less than 1 piece / m².

The number of annual weeds was 3-11 pieces / m², and the number of perennial weeds was 2-3 pieces / m² less than in the case of tillage at a depth of 28-30 cm using a simple plow and then tilled in the area of autumn wheat was observed.

It can be concluded from our research that when plowing, plowing and mulching at a depth of 28-30 cm with the help of a plow, the

agrophysical properties of the soil are improved compared to other options and lead to a decrease in the number of weeds. high economic efficiency was observed due to the reduction in the number of agro-technical measures carried out.

In our study, the effects of Granstar 75% DF herbicide were studied in addition to tillage. In areas treated in three different ways, Granstar was applied at the same rate of 75% DF herbicide, i.e., 20 g / ha. When weed infestation of autumn wheat field before herbicide application was studied, the total number of annual weeds in the cultivated area was 30.6-28.8 pieces / m², compared to 24.1-22.8 pieces / m² in the restored variant of the previous crop. m², and in the variant plowed with a plow 13.2-12.8 pcs / m². 6 units / m², which is 1.1-1.6 units less than other processing methods.

During the autumn wheat harvest, Granstar 75% DF herbicide was applied at a rate of 20 g / ha to the areas treated in the soil in three ways. Observations on weed infestation rates were made 30 days after application of 75% DF herbicide at a dose of 20 g / ha.

In the observations, the number of annual weeds was 29.7 pieces / m² and the number of perennial weeds was 7 pieces / m² in the 1st variant without herbicide, cultivating the soil to a depth of 15-20 cm. When cultivated to a depth of 15-20 cm using cultivation, the number of annual weeds was 3.4 pieces / m² when Granstar 75% DF herbicide was applied at a rate of 20 g / ha during the accumulation period of autumn wheat, compared to the initial case of annual weed infestation 89 , A loss of up to 3% was found. The number of perennial weeds decreased to 48.3%.

The yield of the previous crop was treated with chisel at a depth of 20-25 cm, the annual number of weeds without herbicide was 28.96 pieces / m², similar agro-technical measures were taken, Granstar 75% DF herbicide at a

rate of 20 g / ha 2.5 pieces / m², compared to 88.9% compared to the figure obtained before herbicide spraying, and the number of perennial weeds decreased to 48.5%.

The area for autumn wheat cultivation was plowed to a depth of 28-30 cm with a plow, but in the area where no herbicides were used during the growing season, the annual number of weeds was 16.7 / m² and the number of perennial weeds was 6.0 / m². in the area treated at such depth, the highest result (1.1 pcs / m²) was observed when Granstar 75% DF herbicide was applied at a rate of 20 g / ha during the accumulation of autumn wheat, and up to 93.5% of weed loss was detected compared to the initial case. Among perennial weeds, there was a 67.3% decrease in weeds such as horsetail, sagebrush, cottonseed and sagebrush.

RESULTS

As a result of deep tillage and combination of herbicides with this method, the number of annual weeds was reduced to 12.2-13.0 units / m² compared to other methods of cultivation. At the same time, high and high-quality yields were ensured due to the increased efficiency of mineral fertilizers applied during the growing season of autumn wheat.

CONCLUSION

In conclusion, it should be noted that as a result of the application of coordinated weed control measures, the use of vital factors in cultivated crops will increase, ensuring high and quality yields of agricultural crops.

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