METHODS OF PLANTING FINE FLUID COTTON AND EFFECTS OF HERBICIDES

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Today, 33 million people live in 84 countries around the world. Hectares of cotton are grown on an area of about 27 million tons per year. There are more than 3,000 species of weeds in the world's agriculture, and 1,800 species of them cause enormous economic damage, of which more than 200 species cause severe damage to major agricultural crops. As a result of joint agro-technical and chemical control measures against them, high results are being achieved in the United States, Brazil, Australia, China, India, Pakistan, Germany, South Korea, Russia and a number of other countries.

Based on the above data, we conducted experiments in fine-fiber cotton fields on the effectiveness of pre-caterpillar application of herbicides with different scope of action in terms of tillage methods and timing.

Experimental Results

(2017-2019) Taking into account the effect of herbicides on weeds. , 80 units / m2. Stomp plus herbicide (4.0 l / ha) reduced annual weeds by 80.3% in the first count and perennial weeds by 10.3% in the first count when applied in moderation. Step herbicide applied at a rate of 4.0 l / ha reduced annual weeds by 81.1% in the first count and perennial weeds by 12.6% in the first count. We have observed that these herbicides have not had a good effect on perennial weeds, while annual weeds such as weevil, olabuta, semizoot, wild rose hips, and ituzum have been treated almost in close proximity to each other. When Agkosar herbicide is applied separately 3.0, 4.0, 5.0, annual weeds in the first count are 76.6, 79.6 and 80.8%, respectively, perennial weeds in the first count are 79.1, 83.7, respectively. and decreased by 85.1%. These herbicides were almost equally effective against annual and perennial weeds. In the pre-applied variant of Ancosar (4.0 l / ha) herbicides with Step (4.0 l / ha), annual weeds decreased by 88.6% in the first count and perennial weeds by 88.8% in the first count.

Annual weeds decreased by 18.6% and perennial weeds decreased by 10.0% compared to the control herbicide-free variant, which was prepared for spring sowing. In the case of autumn plowing and weeding, weeds, especially low-growing weed seeds, germinate in early spring and rot before sowing, while perennial weed seeds and root fragments also rot in the lower layers of the soil.

Stomp plus herbicide (4.0 l / ha) reduced annual weeds by 88.1% in the first count and perennial weeds by 18.2% in the first count in fine-fiber cotton fields plowed in the fall. Step herbicide applied at a rate of 4.0 l / ha reduced annual weeds by 89.1% in the first count and perennial weeds by 21.1% in the first count. When Ankosar herbicide is applied separately 3.0, 4.0, 5.0, annual weeds are 83, 1, 88.2 and 88.9% in the first count, respectively, perennial weeds are 86.2% in the first count, respectively. Decreased by 90.0% and 90.4%, respectively. In the pre-applied variant of Ancosar (4.0 l

/ ha) herbicides with Step (4.0 l / ha), annual weeds were reduced by 95.8% in the first count and perennial weeds in the first count by 94.3%.

Ankosar herbicide was applied during the period of active growth of perennial weeds (when weeds are 10-15 cm in height). Some of these herbicides: the effect on perennial biphasic weeds, such as butterbur, was observed to be moderate. However, it has been observed that the biological efficiency is high by killing perennial cereals and some dicotyledonous weeds well.

In the non-herbicide control variant, an average of 29.8 quintals per hectare of land was plowed in the fall, and in the drug-treated variants, the yield was 2.0-5.6 ts / ha more than in the control variant. In particular, the best performance is 4.0 ts / ha in the case of Stomp plus (4.0 l / ha) and 3.0-3.7 ts / ha in the case of Step 4.0 l / ha. an additional cotton crop was obtained. When Ancosar (4.0 l / ha) herbicide was applied at the rates of 3.0, 4.0 and 5.0 l / ha, an additional yield of 3.6, 5.1 and 5.0 ts / ha was obtained, respectively, compared to the control variant. In the pre-applied variant of Ancosar (4.0 l / ha) herbicides with Stept (4.0 kg / ha), an additional cotton yield of 5.6 ts / ha was obtained (Table 1).

Table 1.

Planting in the bush and impact of herbicide application on cotton yield, ts / ha (2017-2019)

№	Options	The rate of application of herbicides, kg, l / ha	Yield by years, ts / ha			Average yield, ts / ha	Additional yield, ts / ha relative to control
			2017	2018	2019		
In conditions prepared for sowing in the spring plowing in the autumn							
1.	Control, no herbicides	-	29,1	30,3	30,0	29,8	±0
2.	Стомп плюс 33,0% e.k. (etalon)	4,0	32,0	31,9	31,5	31,8	2,0
3.	Step 500, 50% e.k. (etalon)	4,0	33,1	32,8	32,5	32,8	3,0
4.	Ankosar 720 g/l s.e.	3,0	33,4	32,9	32,5	32,9	3,1
5.	Ankosar 720 g/l s.e.	4,0	34,1	33,9	33,8	33,9	4,1
6.	Ankosar 720 g/l s.e.	5,0	34,2	34,0	33,5	33,9	4,1
7.	Step 500, 50% e.k. + Ankosar 720 g/l s.e.	4,0+4,0	35,0	34,5	34,0	34,5	4,7
Under conditions of plowing and plowing in the autumn							
8.	Control, no herbicides	-	30,7	31,0	31,6	31,1	1,3
9.	Stomp plyus 33,0% e.k. (etalon)	4,0	32,9	32,0	33,5	32,8	3,0
10.	Step 500, 50% e.k. (etalon)	4,0	33,9	33,6	33,0	33,5	3,7
11.	Ankosar 720 g/l s.e.	3,0	34,2	33,2	32,8	33,4	3,6

12.	Ankosar 720 g/l s.e.	4,0	35,5	34,7	34,5	34,9	5,1
13.	Ankosar 720 g/l s.e.	5,0	35,2	35,0	34,2	34,8	5,0
14.	Step 500, 50% e.k. + Ankosar 720 g/l s.e.	4,0+4,0	35,9	35,3	35,0	35,4	5,6
		ЭКМТ$_{05}$	1,1 ц/ga	1,2 ц/ga	1,2 ц/ga		
		ЭКМТ$_{05}$	2,64%	2,82%	2,83%		

Conclusion

Based on the results of the study, the following conclusions can be drawn:

1. Ankosar reduced the number of annual weeds by 79.6-88.2% and the number of perennial weeds by 83.7-90.0% when applied in the rate of 4.0 l / ha in fine-fiber cotton fields when the soil was plowed in autumn and prepared for spring sowing. This herbicide has an almost identical effect on annual weeds such as weevil, olabuta, semizoot, wild rose hips, koitikan and ituzum.

3. The number of annual weeds is 88.6-95.8 when the soil is plowed in autumn and Ankosar with Step 500 is applied before and after (4.0 + 4.0 l / ha) against weeds in fine-fiber cotton fields when it is plowed and prepared for spring sowing. %, reduced the number of perennial weeds to 88.8–94.3.

4. In the herbicide-treated variants, the cotton yield was 4.7-5.6 ts / ha in the herbicide-treated variants compared to the control variant when the land was plowed in the fall and prepared for spring sowing, and the highest rate was 5.6 ts / ha in the pre-germinated and post-herbicide variants. an additional fine-fiber cotton crop was obtained.

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