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Biological Efficiency Of Herbicide (Elymis) Against Weeds In Crops Corn

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Abstract. *The Rubbish plants reduce the productivity of the agricultural cultures, worsen the quality to product. Under average sowing productivity falls on 20-25%, but under strong in general possible not to get the harvests. On result of the studies is revealed that damage from weed exceeds the general losses from insect, diseases and consequence of the hail together taken.*

Keywords: corn, weeds, herbicide, preparation, plant, maize fields, biological efficiency.

INTRODUCTION

Clearing weeds around corn fields, ditches before their seeds are ripe reduces their spread by water. In addition, manure which is not well-rotten is a source of weed seeds. Therefore, it is recommended to use rotten manure to feed around fields and crop fields. If necessary, it is advisable to use a well-rotted or composted.

In addition, non-usage of crop rotation and chronic sowing of the same crops, the lack of timely and quality agro-technical measures are among them. Weed proliferation is also observed when corn is planted too sparsely.

The spread of weeds is prevented by the application of internal and external quarantine measures. Among the seeds imported from abroad, it is expected that the most dangerous weeds will enter and pass from one region to another.

There are several ways to control weeds. To do this, agro-technical measures will be taken, as well as measures to prevent the spread, as described above. Examples of such activities are tillage and plowing.

To reduce the amount of weeds, crop areas are plowed at the required level with two-tiered plows in the fall. Weed seeds should be buried to a depth of 32-36 cm. To do this, the use of pliers is effective. Perennial weeds (Bermuda grass, Johnson grass) that reproduce through some root buds will need to be removed by scratching the roots using a chisel. In addition, the results of plowing at different depths each year are also good. For example 25, 30, 40 and so on. In this case, the layer of weed seeds does not come to the surface.

Proper setting of planting dates and norms, mulching, and the use of crop rotation also lead to a reduction in the number of weeds.In addition, a chemical method of weed control can be used. Along with the beneficial aspects of this method, the harmful properties should also be taken into account. This type of weed control pesticide is called a herbicide. Herbicides are toxic substances with different levels and also have a negative effect on cultivated plants, soil, flora and fauna. Therefore, extreme caution is required when using herbicides.

The dosage of exposure to herbicides varies. These include mass influences and selective influences. Mass-effect herbicides should be applied where crops are not planted, after crops have been harvested, and at field edges. Because the level of toxicity of these herbicides is very high, it is likely to dry out cultivated plants, even shrubs and trees. It also releases toxins into the air and slowly pollutes the soil, leaving its own residue in the soil. Poison from the soil infects humans and animals through the respiratory tract.

MATERIALS AND METHODS

The experiments were conducted on irrigated lands of DostonUychi farm, Uychi district, Namangan region, the number of annual dicotyledon weeds under control, clearly without herbicide, was 4.9, the number of perennial dicotyledon weeds averaged 5.3.

The effectiveness of the used preparations was determined in 15, 30, 60 days.

It was observed that the amount of humus and other nutrients in the top layer of the soil of the experimental area (0 - 30 cm) was relatively high, while in the lower layers it was significantly reduced. It was observed that the amount of nutrients in the mobile form in the soil also decreased as the soil layer deepened. The amount of humus in the soil (0–20 cm) decreased from 1.92% to 0.99%, the amount of mobile nitrogen in the upper layer was 9.7 mg / kg, while in the lower layer this figure decreased by almost 2 times. The amount of mobile phosphorus was 11.5 mg / kg.

Experimental scheme:

1. Control (without herbicide)
2. Miladar duo 1,2 / ha (standard)

3. Elymis 105, l/ha
4. Elymis 105, 2/ha

15 days after application of herbicides to corn fields, the number of dicotyledon weeds in the control variant per 1m^2 area: lamb's quarters - (Ch. Album L) -5.3 pieces, - wild saltbush (A. flabelium Bunge) -5.5, Sowing buckwheat - (F. esculentumMoench) -4.6, wild cabbage - (B. campestris L.) - 6.3, shepherd's purse - (C. bursa-astoris) -5.5, common datura - (D. stramonium L) -5.6, wild radish - (R. Raphanistrum L) -4.5, spiny cocklebur- (X. spinosum L) -4.6, medicinal groomwell - (Lithospermumofficinale L) -5.3, average 5,9 pieces,clearly 3 points, perennial dicotyledonous weedswhile rumexgrass - (R. rechingerIanus) -5.3, sticky grass - (Galiumaparine L.) - 4.5, hedge bindweed - (Convolvulus sepium L.) - 5.1, mugwort - (Artemisia vulgaris L.) - 4.3, an average of 4.3, or 2 points.

15 days after application of the herbicide Miladar duo 1,2 /ha (standart)for annual dicotyledon weeds: lamb's quarters - (Ch. Album L) -83.7%, wild saltbush- (A. flabelium Bunge) -89.2%, Sowing buckwheat - (F. esculentumMoench) -90.6%, wild cabbage - (B. campestris L.) - 89.3%, shepherd's purse - (C. bursa-astoris) -86.6 common datura- (D. stramonium L) –89.7%, wild radish - (R. Raphanistrum L) -86.3%, spiny cocklebur - (X. spinosum L) -90.5%, medicinal groomwell- (Lithospermumofficinale L) -89.3%, average perennial dicotyledonous weedsrumexgrass (R. rechingerIanus) -90.1%, sticky grass - (Galiumaparine L.) - 90.3%, hedge bindweed - (Convolvulus sepium L.)-89.7%, mugwort- (Artemisia vulgaris L.) - 87.5%, the average yield was 86.9%.

Elymis 105, l/ha15 days after herbicide application. Annual dicotyledonous weeds when applied: lamb's quarters - (Ch. Album L) -91.4%, wild saltbush- (A. flabelium Bunge) -90.8%, Sowing buckwheat - (F. esculentumMoench) -89.2%, wild cabbage - (B. campestris L.) - 87.7%, shepherd's purse - (C. bursa-astoris) -90.5%, common datura- (D. stramonium L) -87, 9%, wild radish - (R. Raphanistrum L) -89.8%, spiny cocklebur - (X. spinosum L) -93,2%, medicinal groomwell - (Lithospermumofficinale L) -87.7%, average 89,5%, perennial dicotyledonous weeds, rumex grass - (R. rechingerIanus) -87.7%, sticky grass - (Galiumaparine L.) - 89.9%, hedge bindweed - (Convolvulus sepium L.) - 89.4 %, mugwort(Artemisia vulgaris L.) - 89.7%, yielded an average of 88.8%.

Table 1

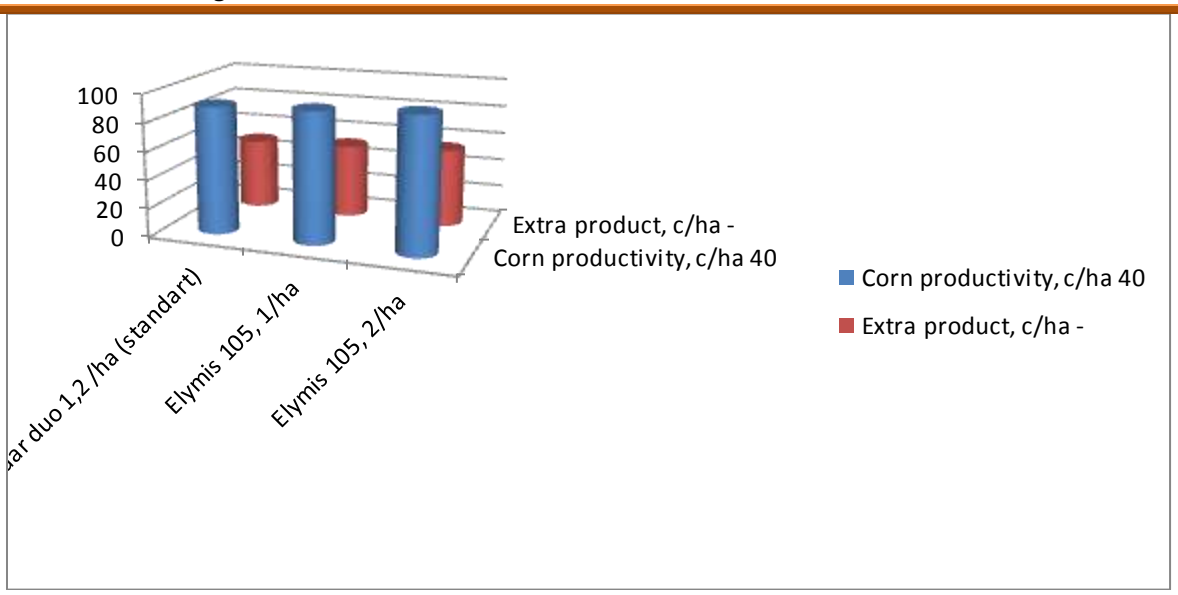
Effects of herbicides on annual and perennial dicotyledon weeds applied simultaneously with planting in corn fields (Namangan region, Uychi district, DostonUychi farm, 2018-2020)

№	Name of weeds	Control without herbicide, number/m^2	Miladar duo 1,2 /ha (standart)		Elymis 105, l/ha		Elymis 105, 2/ha	
			number/ m^2	%	number/m^2	%	number/ m^2	%
15 days after spraying herbicide								
1	Lamb's quarters	5,7	0,6	87,7	0,6	89,4	0,5	90,3
2	Wild saltbush	4,5	0,5	86,6	0,5	88,8	0,4	89,4
3	Sowing buckwheat	4,1	0,4	90,2	0,5	90,2	0,4	91,8
4	Wild cabbage	5,3	0,4	88,6	0,5	86,7,	0,4	90,5
5	Shepherd's purse	5,2	0,5	86,5	0,6	90,3	0,5	91,4
6	Common datura	4,6	0,4	89,1	0,5	86,9	0,4	89,1
7	Wild radish	4,4	0,5	86,6	0,4	88,8	0,4	88,7
8	Spiny cocklebur	4,2	0,4	90,2	0,4	90,2	0,3	91,2
9	Medicinal groomwell	5,2	0,4	88,7	0,5	86,7	0,3	90,4
	Average:	4,9	0,5	88,1	0,5	88,7	0,5	90,0
10	Rumex grass	5.6	0,6	89,2	0,7	87,5	0,6	89,2
11	Sticky grass	5,7	0,7	87,7	0,6	89,4	0,6	89,4
12	Hedge bindweed	4,7	0,6	87,2	0,5	89,3	0,5	89,3
13	Mugwort	4,9	0,6	88,4	0,6	88,4	0,5	89,3
	Average:	4,9	0,5	88,4	0,5	88,6	0,4	89,3
30 days after spraying herbicide								
1	Lamb's quarters	5,1	0,7	86,2	0,5	90,1	0,6	88,2
2	Wild saltbush	4,2	0,5	88,0	0,4	90,4	0,4	90,4
3	Sowing buckwheat	5,8	0,6	89,6	0,7	87,9	0,7	87,9
4	Wild cabbage	4,6	0,5	89,1	0,6	86,9	0,5	89,1

5	Shepherd's purse	5,3	0,7	86,7	0,5	90,5	0,6	88,6
6	Common datura	4,4	0,5	88,6	0,4	90,9	0,4	90,9
7	Wild radish	5,7	0,6	89,4	0,7	87,7	0,6	89,4
8	Spiny cocklebur	4,1	0,4	90,2	0,5	90,2	0,4	87,8
9	Medicinal groomwell	4,6	0,5	89,1	0,6	86,9	0,5	89,1
	Average:	5,0	0,5	88,2	0,5	89,2	0,5	89,5
10	Rumex grass	4.4	0,4	90,9	0,5	88,6	0,4	90,9
11	Sticky grass	5.5	0,5	90,9	0,7	87,2	0,6	89,0
12	Hedge bindweed	5,8	0,7	87,9	0,6	89,6	0,7	87,9
13	Mugwort	6,1	0,6	90,1	0,7	88,5	0,6	90,1
	Average:	5,0	0,5	88,9	0,5	88,7	0,5	89,2
60 days after spraying herbicide								
1	Lamb's quarters	5,2	0,6	88,4	0,7	86,5	0,5	90,3
2	Wild saltbush	4,1	0,5	87,8	0,4	90,2	0,4	90,2
3	Sowing buckwheat	5,6	0,7	87,5	0,6	89,2	0,6	89,2
4	Wild cabbage	4,3	0,6	86,0	0,5	88,3	0,4	90,6
5	Shepherd's purse	5,4	0,5	90,7	0,6	88,8	0,7	87,0
6	Common datura	4,7	0,6	87,2	0,5	89,3	0,5	89,3
7	Wild radish	6,2	0,7	88,7	0,7	88,7	0,6	90,3
8	Spiny cocklebur	5,0	0,7	86,0	0,6	88,0	0,5	90,0
9	Medicinal groomwell	4,5	0,5	88,8	0,5	88,8	0,6	86,6
	Average:	5,0	0,6	88,0	0,5	88,7	0,5	89,5
10	Rumex grass	5,4	0,5	90,7	0,7	87,0	0,6	88,8
11	Sticky grass	4,3	0,6	86,0	0,4	90,6	0,5	88,3
12	Hedge bindweed	6,2	0,7	88,7	0,6	90,3	0,6	90,3
13	Mugwort	4,5	0,6	86,6	0,5	88,8	0,5	88,8
	Average:	5,2	0,6	87,7	0,5	88,9	0,5	88,9
	Average calculation							
	HCP_{05}=	-	-	3,19		1,51		1,36

Elymis 105, 2/ha, it gave better results onbuckwheat, shepherd's purse, spiny cocklebur. In areas where herbicides were applied, the number of weeds decreased dramatically.

15 days after herbicide application Elymis 105, 2/ha Annual dicotyledonous weeds when applied at l / ha: lamb's quarters - (Ch. Album L) -89.3%, wild saltbush- (A. flabelium Bunge) -88.4%, Sowing buckwheat - (F. esculentumMoench) - 91.6%, wild cabbage - (B. campestris L.) - 90.6%, shepherd's purse - (C. bursa-astoris) -90.4%, common datura- (D. stramonium L) -85, 1%, wild radish - (R. Raphanistrum L) -89.7%, spiny cocklebur - (X. spinosum L) -90.5%, medicinal groomwell - (Lithospermumofficinale L) -90.2%, average 90, 2%, perennial dicotyledonous weeds, rumex grass (R. rechingerIanus) -89.7%, sticky grass- (Galiumaparine L.) - 89.4%, hedge bindweed - (Convolvulus sepium L.) - 89.9 %, mugwort- (Artemisia vulgaris L.) - 89.5%, the average yield was 89.9%.



Effect of Elymis herbicide on corn yield

Elymis 105, 2/ha when the number of weeds is large, in moderation gives good results. This in turn affected productivity. When the drug Miladar duo 1,2 /ha, the yield was 25 c / ha, that is 16 c / ha more than the control. But overuse of herbicides is not always effective. Because the price of herbicides is expensive, as a result of the increase in cost while producing economic efficiency, there is also a decrease in the amount of conditional net income, and accordingly leaves toxins in the soil. This is the Elymis 105, 2/ha shows that the herbicide rate can be increased only when the number of weeds, which gave good results when the drug is applied at 6 l / ha, is sharply increased.

CONCLUSION AND ACKNOWLEDGEMENT

In the control variant, due to the excessive number of weeds, a sharp decrease in yield was observed, that is 40extra. When using the above herbicides, the active ingredient of which is pendemetaline, Miladar duo 1,2 /ha (standart), that means 90 c / ha extra harvest, and the yield of Elymis 105, 1/ha a is 92c / ha, that is 38.4c / ha additional yield, Elymis 105, 1/ha yield 95c / ha means. 55 ts / ha more harvest than productivity. Although the highest yield was when the Elymis 105, 2/ha little difference was observed compared to when the Elymis 105, 1/ha. Considering the cost-effectiveness, it is advisable to use the drug Elymis 105, 1/ha.. It is recommended to use the drug Elymis 105, 1/ha against perennial dicotyledonous weeds.

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