



## EFFICIENCY OF APPLICATION OF SOIL HERBICIDES ON CHICKPEAS AGAINST ANNUAL DICOTYLEDONOUS WEEDS

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### ABSTRACT

*The Weeds reduce the productivity of the agricultural cultures, worsen the quality to product. Under average sowing productivity falls on 20-30%, but under strong in general possible not to get the harvests.*

At present, one of the main problems of agriculture is the problem of nutrition, in which the nutritional productivity of each plant and the amount of growth compared to weeds are becoming increasingly important. Weeds reduce the yield of cultivated plants and cause great damage to agriculture, causing a human need for this plant, as well as a change in the valuable and useful traits of the plant, and the species and varietal composition of the plant gradually decreases over the years. and keeps disappearing.

Weeds use more nutrients and moisture in the soil than cultivated plants, as well as their competitiveness and rapid growth, as well as the fact that they occupy the area occupied by cultivated plants faster due to a more stable and developed root system with strong and fast growth than cultivated plants, causing great harm to cultivated plants, which are the basis of agriculture and are more efficient and necessary for food. Chickpea, one of the leguminous plants, is a self-pollinating heat-loving plant, does not require heat during flowering and fruiting, is a light-loving plant of a long day, a drought-resistant plant among legumes. Today, 11 varieties of chickpeas are grown in Uzbekistan. Weeds are deadly, they suck nutrients directly from the cultivated plant itself and kill it.

Most weeds are very susceptible and able to absorb the plant's most important nutrient stores. To develop a system for combating them, it is necessary to have information about the types of weeds and know their main characteristics.

The need of the present is one of the problems facing humanity today, the need for food is such that it is impossible to completely limit the growth of weeds, unless a certain amount of herbicide is applied to them, this leads to an increase in human labor and hard work. In the



case of weeds, yields can be reduced or even impossible if they are not controlled, the level of partial and full yields of a large part of crops will be greatly reduced.

At present, insufficient scientific work has been carried out in our republic on the use of herbicides on leguminous crops. In general, it aims to achieve an effective result through minimal spraying, using the optimal dose of herbicides. When applying herbicides against annual and perennial dicotyledonous weeds, the air temperature should be below 20-24°C, soil moisture not higher than 55-65 degrees, wind speed not higher than 2-3 m/s.

With sufficient soil moisture, herbicides act faster and the level of action is much higher. The main indicator of the action of herbicides is that after a certain period of time after they are sprayed, the weeds stop growing, unable to compete for water, air, nutrients and sunlight, the weeds turn yellow and begin to dry out. This process begins to be noticeable to weeds after ten to fifteen days.

When using Step Forward at a rate of 3.0 l/ha, on average *Amaranthus hybridus* L and *Atriplex blitoides* 90.00%, *Brassica juncea* L - 77.27%, *Capsella bursa-pastoris* L - 91.12%, *Amaranthus rubrum* L - 90.86%. , *Atriplex tatarica* L - 91.12%, *Fagopyrum yesculentum* Moench - 79.68%, *Stellaria media* L - 91.15% met on average 0.5 or 87.31%.

**1-table**

**Effectiveness of application of soil herbicides on Chickpeas against annual dicotyledonous weeds**

№	Weed names	Control without herbicide, units/m <sup>2</sup>	Super stomp, 33% em.c. 3 l/ha (reference)		Step forward 33% em.c. 1.5 l/ha		Step forward 33% em.c. 3 l/ha	
			units/m <sup>2</sup>	%	units/m <sup>2</sup>	%	units/m <sup>2</sup>	%
1	<i>Amaranthus hybridus</i> L	5,1	0,7	86.27	0,57	88.82	0,51	90.00
2	<i>Amaranthus rubrum</i> L	5.8	0,71	87.75	0.59	89.27	0.53	90.86
3	<i>Atriplex tatarica</i> L	6.2	0.75	87.90	0.63	89.83	0.55	91.12
4	<i>Brassica juncea</i> L.	6.4	0.77	87.96	0.65	89.84	1.3	79.68
5	<i>Fagopyrum yesculentum</i> Moench	6.6	0.79	88.03	0.68	89.69	1.5	77.27
6	<i>Stellaria media</i> L	6.9	0.8	88.40	0.69	90.00	0.61	91.15
7	<i>Capsella bursa-pastoris</i> L	7.1	0.82	88.45	0.7	90.14	0.63	91.12
	<b>Average</b>	<b>6,3</b>	<b>0,76</b>	<b>87.82</b>	<b>0.64</b>	<b>89.65</b>	<b>0.76</b>	<b>87.31</b>

In conclusion, it can be said that it is impossible to completely eliminate weeds, they should not be allowed to exceed a certain level, so in the case of Chickpeas, which is one of the



legumes, "Step Forward" had a relatively good effect. when applied at a dose of 3 l/ha, the largest share of which was 90.00%, cabbage mustard 77.27%, red sedge 91.12%, red stoncrop 90.86%, common sorghum 91.12%, mustard seed 79, 68%, on average 87.31%, and in other cases, with a high number of weeds, the use of Stomp at a rate of 3 l / ha gives a good effect, which in turn has a good effect on productivity. It can be seen that the yield increased by 25 c/ha when using Stomp at a dose of 3 l/ha, that is, it gave an additional yield of 16 c/ha compared to the control. A year-long study of application rates of Stomp against dicotyledonous weeds in plots with Chickpeas showed a significant effect fifteen days after spraying at the same time as Chickpeas were planted..

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