

## THE INFLUENCE OF PRE-HERBICIDE FERTILIZING WITH MINERAL FERTILIZERS ON THE STRUCTURE OF CROPS AND THE YIELD OF CHICKPEA (CICER ARIETINUM)

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#### Abstract

Weeds reduce crop yields and worsen product quality. With average weediness, the yield is reduced by 20-25%, and with weak weediness it will not work at all.

Keywords: herbicide, drug, dicotyledonous plants, weed, corn, biological effectiveness.

#### Introduction

If we take into account the increase in population from year to year, then the demand for food will certainly increase accordingly, therefore, increasing the tolerance of existing species and varieties of each plant to external environmental factors and their productivity from year to year is advisable. One of the legume plants is very in demand at the present time and era. Chickpea (Cicer arietinum) belongs to the legume family (Fabaceae L.) - a genus of annual herbaceous plants, belongs to the legume family and is one of the largest. An important and important point is that in one season, 50-70 kg of pea roots per hectare of land accumulate nitrogen due to the pure substance; pea plants produce more than a hundred types of products from grain and protein. In general, mineral fertilizers for peas help plants to be competitive with respect to various environmental influences, including weather conditions (temperature, drought) and even soil conditions.

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Chickpea grain contains up to 45% protein and 25% vegetable oil; its bran and stems are the main feed base for the development of livestock, poultry and fisheries. On 1 hectare of land planted with chickpeas, 120-150 kg of pure nitrogen accumulates. which improves the composition of the soil and increases the activity of biological processes.

The high-quality vegetable protein and fiber content in chickpeas improve the digestion process and keep your stomach full for a long time. Weight gain due to the prevention of overeating in humans is not observed. Peas also contain a number of vitamins, including vitamins A, C and E. This product has a positive effect on the skin and immune system. Due to the absence of healthy fats in peas, vitamins are absorbed much easier. In small quantities, cooked chickpeas contain 80 percent of the daily value of manganese, which provides energy, protects cells, and also strengthens the human immune system. In addition, chickpeas contain zinc, which protects the immune system. Does not cause allergies due to the absence of gluten.

The experimental results show that after the use of the herbicide, resistance to diseases and pests decreased if the plants were not fed with mineral fertilizers. The plants have been through enough stress.

herbicides and mineral fertilizers were not used, that is, in the control, the number of plants was 518, the number of pods in 1 plant was 22, the number of seeds in 1 pod was 1.7, the weight of 1000 grains was 240 grams, and the yield was 18 t/s.

Active substances (without mineral fertilizers) Step forward 33% em.c. 1.5 l/ha when used as a standard, the number of plants is 462 pcs., the number of pods in 1 plant is 26 pcs., the number of seeds in 1 pod is 2.1 pcs., the weight of 1000 grains is 243 grams, the yield is 26 kg. /ha , Step forward 33% capacity. When applying 3.0 l/ha, the number of plants was 468 pcs., the number of pods in 1 plant was 32 pcs., the number of seeds in 1 pod was 2.4 pcs., the weight of 1000 grains was 271 g, the yield was 27 c /ha.

herbicides and mineral fertilizers were not used, that is, in the control, the number of plants was 517, the number of pods in 1 plant was 21, the number of seeds in 1 pod was 1.5, the weight of 1000 grains was 239 grams, and the yield was 17 c/s.

Active ingredient: Ugezart 50% sus.k. At a rate of 1.2 l/ha (standard), the number of plants is 472 pcs, the number of pods in 1 plant is 31 pcs, the number of seeds in 1 pod is 2.7 pcs, the weight of 1000 grains is 271 grams, the yield is 28 c/ha Gepard 50% capacity When using the drug 1.5 l/ha, the number of plants is 474, the number of pods in 1 plant is 34, the number of seeds in 1 pod is 2.8, the weight of 1000 grains is 273 grams, the yield is 29 t/ha, the drug Chepard is 3.1. When applied per hectare, the number of stems was 473, the number of pods in 1 plant was 33, the number of seeds in 1 pod was 2.7, the weight of 1000 grains was 272 grams, and the yield was 28 t/ha.



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pea crop in 2022 - 2024.							
No	Options	Mineral fertilizers	Number of plants	Number of pods on 1 plant, piece	Number of seeds in 1 pod, pcs.	Weight of 1000 grains, grams	Productivity, c/ha
	Step forward						
1	Control without herbicide	-	5 18	22	1.7	240	18
2	Control (without mineral fertilizers) Step forward 33% capacity. 1.5 l/ha	N 60 P 80 K 60	462	26	2.1	243	25
3	Super Top, 33% capacity at 3 l/ha (standard)	N 60 P 80 K 60	465	thirty	2.6	270	28
4	Step forward 33% capacity 1.5 l/ha	N 60 P 80 K 60	470	33	2.5	272	29
5	Step forward 33% capacity 3.0 l/ha	N 60 P 80 K 60	468	32	2.4	271	29
	Average		476.6	28.6	2.26	259.2	25.8
	Gepard						
1	Control without herbicide	-	5 17	21	1.5	239	19
2	Control (without mineral fertilizers) Gepard 50% capacity. 1.5 l/ha	N 60 P 80 K 60	460	25	2.3	242	23
3	Ugezart 50% sus.k. 1.2 l/ha (standard)	N 60 P 80 K 60	472	31	2.7	271	28
4	Gepard 50% capacity 1.5 l/ha	N 60 P 80 K 60	474	34	2.8	273	29
5	Gepard 50% capacity 3.0 1/ha	N 60 P 80 K 60	473	33	2.7	272	27
	Average		479.2	28.8	2.4	259.4	25.2
	General		477.0	28.7	2 33	259.3	25.5

# Table 1Dependence of herbicides and mineral fertilizers on the structure and yield of thepea crop in 2022 - 2024.

From the studies conducted, it is clear that the effect of herbicides applied simultaneously with planting peas on the experimental fields was good, especially the effective substance **Step forward 33% volume. 1.5 l/ha** and **Gepard 50% capacity 1.5 l/ha** showed the greatest effect when using drugs, that is, the number of plants was 470-474 pcs., the number of pods in 1 plant was 33-34 pcs., the number of seeds in 1 pod was 2.5-2.8 pcs. the weight of 1000 grains was 272-273 g, the yield was 28-29 c/ha.

In addition, it was observed that the pea plant received relatively less stress from these drugs and quickly recovered under the influence of mineral fertilizers.

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