Developed measures of fighting by means of TOP-KRON chemical substance of different norms against alternariosis disease of potatoes

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Annotation. ***This article is focused on the experiments carried on developed measures of top crone chemical substance in different norms against alteriosis disease of potatoes and studying the influence of these substances on the growth, development and fertility of potatoes and the results gained from them.***

Key words. ***Alternariosis, sort, fertilizer, irrigation, fertility.***

Introduction. Till the time when Uzbekistan reached its independence, the demand of population to potatoes was supplied by Russsia and Belorussia. However, after that Uzbekistan gained its independence, potato fields were extended and one thousandtons of crop was gained. With the initiative of the President of the Republic of Uzbekistan Sh.M.Mirziyoyev, it was established that the demands of the population to potatoes and vegetables would be developed and supplied by shortening cotton fields is of today's important topic. Over the past years due to the fact that potato fields were extended we had an opportunity to get increased productivity also, due to developing seeding the bases of seeds have been increased.

The harvest gained at present time does not answer the demands, because, one part of the crop brings into reduction of the crop due to the spread of disease and pesticides. Because of efforts of our scientists, considerable measures of fighting against diseases and pesticides are being carried.

In the result of working out a number of researches against dust diseasesaccomplished by our scientists, the potato diseases have been decreased. For example, alternariosis disease of potatoes gets developed during the period of potato blooming[1]. The complication of potato macrosporiosis disease of potatoes is in that when the plant is nutritied with nitrogen mineral fertilizer during the phase of general blooming macrospores get developed quickly, there appear circle shaped spots on the leaf surface, the main stem gets impaired and then the same spots start appearing in the root fruit. This process even continues when the crop is stored in [2; 3]. Taking all these into consideration, we carried out an experiment which consisted of studying the influence of numerous chemical substances on potato alternariosis diseasein the educational experimental field of Andijan agriculture and agro technologies Institute.

Experiment was carried out as in the following scheme

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Experiment versions	Norms	Working solution	Period of application of the working solution
Control			
TOP-KRON 0.3l/ha	0.3 l/ha	300 l/ha	
TOP-KRON 0.4l/ha	0.4 l/ha	300 l/ha	During the growing period
TOP-KRON 0.5l/ha	0.5 l/ha	300 l/ha	During the growing period

The experiment consisted of 4 repetitions and 4 versions. All versions were placed in one tyre. Each version consisted of 8 raws and the length of one version was equal to 60m. The sowing scheme was as 60 x20-1. As the main sort we chose Santa sort of potatoes.

In farming it is important to sow the seeds on time, because with the help of the humidity in the soil the whole hectare is occupied. As a result, the baby plants will have started growing correctly thus they will grow fast. The earlier the roots are nutritied with minerals, the earliernew morphologic signs start to appear in them, along with it, changes in morphologic signs start to occur too. We can see the same sceneray in our experiment too. As it is known from the carried observations, we gained the references that the height of potato stems were similar to each other in every version on the 1st of August. I.e. the stems were between 17.3 cm and 18.1 cm (Table 1).

Table 1

Influence of TOP-CRONE chemical substance of different norms on the growth and development of potatoes

Experiment versions	Height of the growing stem	Number of leaves	Height of the growing branch	Number of the fruit branches	Number	Height of the growing stem	Number of fruit branches	Number of blooms	Height of the growing branch	Number of fruit branches	Number of ripen fruits
	August 1			August 15		September 1			September 15		
Control	17.6	4.5	31.6	4.1	-	52.3	7.2	3.2	76.6	12.8	-
TOP-KRON-3 l/ha	18.1	4.4	37.3	4.9	0.8	58.7	7.9	5.6	84.1	14.1	3.2
TOP-KRON 4l/ha	17.3	4.4	39.7	5.2	4.6	63.1	8.4	6.9	90.0	15.3	5.6
TOP-KRON-5l/ha	17.4	4.1	40.2	5.4	5.0	67.2	8.7	8.4	95.2	15.9	7.9

However, in the following data, this rule was violated. As of August 15, the best option was 4 versions, in which the height of the growing stem of the plants was 40.2 cm, which is the most common version. formed what. Good growth and development always leads to good features in plants.

The height of the growing branch of the cardamom in the control version increased to 52.3 cm, while the height of the stem in the best version4 was 67.2 cm in height. entered

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In conclusion, it can be concluded that the TOP- KRON chemical does not suppress the nutrient environment for plants, but acts as a fungicide for the pathogen.

High yields of potatoes require only a high level of attention to the soil, along with the application of high agro-technical measures, because the more grainy the soil, the greater the number of potato seedlings . In such cases, with good heating of the soil, unfavorable conditions are created for the pathogen, and at the same time its activity decreases. A new ecological environment is created in the developing plant. This can be seen in our experience. Observations show that the incidence of potato blight in the control version was 7.6% in the control version.

At the same time, in the reference version, this figure was 2.5%. No disease was observed in versions 3-4 on this date. However, according to the data obtained on August 15, no disease was observed in potato stalks in version 4 on this date, and potato stalks in version 4 were infected in 12.5% of versions. Potato peels in 4 versions treated with TOP-KRON were 17-20 days later than the control. As of September 1, the data have deepened.

According to the data obtained, the highest incidence was observed in the control version, i.e. 15.3% of the potato chips were infected, while the lowest incidence was in the 4th version, in which of the 8 potato stalks, which was the least common. According to the analysis of the data on September 15, the potato chips in the control versions are more likely to be infected with the disease than the other versions of the oligarchy . In 22.3% of plants, the incidence of this disease was 3.9% in the potato chips treated with theTOP-KRON fungicide.

Table 2

Effect of TOP-KRON chemical in different doses on potato alternariosis

experimental options	August 1st	August 15th	September 1st	September 15th
Control	7.6	12.5	15.3	22.3
TOP-KRON- 3l/ha	2.5	5.3	9.2	13.4
TOP- KRON- 4l/ha-	03	2 .2	5.7	9.2
TOP-KRON 5l/ha	-	-	0.8	3.9

From the data obtained, it can be concluded that each of the three experimental chemicals showed a fungicidal ability for the alternative fungus, but the strength of the second version of the chemical in the 4th version was higher than that of the 3rd version of the chemical.

In agriculture, there is a law that the earlier the disease is caused by the pathogen, the more the crop is lost, or the later the pathogen is infected, the less the crop is lost. This should be explained by the fact that the earlier the plants are fed, the longer they will live and the more they will develop new traits. The higher productivity can be seen from Table 3.

Table 3

Influence of TOP-KRON chemical substance of different norms on the yields of potato per hectare

Experimental options	**Repetitions**			

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	I	II	III	IV			
Control	179.4	182.2	180.5	1647	176.7	-	54.6
TOP-KRON-3l/ha	187.9	184.5	179.8	172.3	181.1	+4.4	59.3
Top- KRON-4l/ha	214.3	197.9	188.6	181.6	195.6	+18.9	67.8
ToP -KRON -5l/ha	228.1	196.7	192.0	190.5	201.8	+25.1	82.4

The highest yield was recorded in 4 versions: 201.8 c/ha, which was 176.7 c/ha in the control version. The difference between them was 25.1c/ ha, in the remaining versions it was 4.4c/ha to 18.9c/ha and in the control version the weight of one potato was 54.6gm. yield was taken into account only healthy potato peelings.

1. In general, the most effective fungicide among the experimental chemicals was 0.4% of topsoil.

2. The most acceptable standard for reducing the pathogenicity of fungi that cause alternariosis is crown-crown 0.4%.

3. The additional yield was 25.1 c/ha, taking into account the use of 0.4% of the topsoil chemical.

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