

The biological effectiveness of the drug Entobronate 12% s.p. as a dressing agent for cotton seeds against gommosis on cotton crops in the conditions of the Andijan region

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Abstract: *Under the influence of variable temperatures, the survival of bacteria decreases, and sharp fluctuations in temperature. At high environmental humidity, they cause their death not only in a pure culture, but also in the tissues of the remains of a diseased plant. Therefore, depending on the climatic features of winter in different cotton-growing regions, the role of infected plant residues in the overwintering of the pathogen may be different.*

Key words: *Dalbron 12% standard, Entobronate 12% s.p, Andijan - 35, growth and development, gommosis, yield.*

The rapid multiplication of bacteria and their spread in the intercellular spaces lead to the death of the cells of the affected tissue. Within the affected area, the tissue turns into a mucous gum containing bacteria. Pre-sowing treatment of seeds was carried out by repeated batchwise application of a suspension of the drug to the seeds and shoveling the layer. Seed dressing was carried out 1 month before sowing at the rate of 25 liters of working fluid per 1 ton of seeded seeds and 15 liters per ton of bare seeds. The experiments were carried out on the Andijan-35 variety.

Field studies have established that the 12% cotton seed disinfectant entobronat with doses was obtained in 1 variant, the remaining variant seedlings were observed at 64.9-72.5 percent. Pay attention to this data that the positive aspects of the new drug showed that its activity is stronger than the drug of the reference variant. It should be especially noted that the energy of their germination did not have a negative effect on the germination of seeds. This performance was always higher than the control variant without treatment. According to the data of phenological observations on the variants of the experiment, they indicate that in the experimental variants, the plant height of the 3rd variant is higher by 10.2 cm compared to the control variant.

According to the formation and accumulation of the fetus elements 1.9 pieces more than from the control. According to a set of boxes 5.5 pcs. more. During the observation and accounting showed that among the seedlings of cotton, obtained from treated seeds, the number of plants with gommosis on the 25th day after emergence in the control variant was 9.7%. In the variant at a dose of 7g/t 1.6%. In the reference variant, where the preparation Dalbron 12%

was used, the susceptibility to gommosis was 1.7%; the biological effectiveness in all variants for the first 15 days was 100%.

The average yield values for repetitions were as follows: at a dose of 6 kg/t 36.4 c/ha. In the variant at a dose of 7 kg/t 37.2 kg/ha. In the reference variant, where the drug dalbron 12% p. was used, the yield was 35.6 q/ha. As a result, in the reference variant, 3.9 q/ha was obtained, in the variants with consumption rates of 6 and 7 kg/t, 44.7 and 5.5 q/ha of additional yield, respectively, relative to the control variant. In the control variant, the average yield for repetitions was 31.7 q/ha.

At the present stage of development of agricultural production in the Republic of Uzbekistan, improving the quality and productivity of agricultural crops, including cotton fiber, is a very important task.

However, cotton, like many crops, is susceptible to many diseases, the most dangerous of which are gommosis. Several methods of control are used against them.

But it should be noted that the most effective is the chemical method. In order to minimize the negative consequences of it, a competent approach is needed. One way to solve this problem is to select the most effective, less toxic, and fast acting drugs.

In the conditions of the Andijan region, gummosis does not appear too often, but is considered one of the most harmful diseases.

Under the influence of variable temperatures, the survival of bacteria decreases, and sharp fluctuations in temperature. At high humidity of the environment, they cause their death not only in pure culture, but also in the tissues of the remains of a diseased plant. Therefore, depending on the climatic features of winter in different cotton-growing areas, the role of infected plant residues in the overwintering of the pathogen may be different.

The spread of the causative agent of gommosis from plant to plant is usually carried out with the help of wind, which carries bacterial dust from small fragments of the affected plant tissue and pieces of hardened gum, where the bacteria are in a state of anabiosis. With precipitation or heavy dew, bacteria quickly become active. They enter the plant through the stomata into the substomatal air cavity. The rapid multiplication of bacteria and their spread in the intercellular spaces lead to the death of the cells of the affected tissue. Within the affected area, the tissue turns into a mucous gum containing bacteria. Speaking on the surface of gommous spots, the gum dries up and becomes a source of infection.

Less manifestation of gommosis is observed on early sowings than on late ones, which is explained by the difference in temperature and sowing of unnoticed seeds [1], further indicating that *X.campestrispv malvacearum* is a highly specialized parasite. It only infects cotton and has not been found on other plants[2]. That bacteria can enter the plant through damaged hairs, as well as through mechanical damage. Within a single plant, gommose lesions can be localized. Sometimes bacteria move along xylem vessels and then plants are affected diffusely, which often explains their penetration into seeds [3].

Sometimes bacteria move through the vessels, and then diffuse damage to plants occurs, which often explains the penetration of infection into seeds [4].

Studied preparations Entobronat 12% w.p. carried out in a production environment using mechanized equipment.

The experiments were carried out on cotton crops of the educational farm of the State Unitary Enterprise "INFORMATION AND CONSULTATION CENTER (EXTESION Center)" at the Andijan Institute of Agriculture and Agrotechnologies.

Pre-sowing treatment of seeds was carried out by repeated portionwise application of the suspension of the preparation to the seeds and shoveling the layer. Seed dressing was carried out 1

month before sowing at the rate of 25 liters of working fluid per 1 ton of seeded seeds and 15 liters per ton of bare seeds. The experiments were carried out on the Andijan-35 variety.

Table 1
Experience

№	Experience options	Disease	Consumption rate. Prepar. kg/ton
1	Control without processing	Gommoz	-
2	Dalbron12%p standard		7,0
3	Entobronat12% s.p		7,0
4	Entobronat12% d.p.		6,0

The size of the plots was 1 ha for each variant of the experiment in triplicate. Field studies have established that the 12% cotton seed disinfectant entobronate with doses received 1 variant, the remaining variant seedlings were observed 64.9-72.5 percent. Pay attention to this data that the positive aspects of the new drug showed that its activity is stronger than the drug of the reference variant. It should be especially noted that the energy of their germination did not have a negative effect on the germination of seeds. This performance was always higher than the control variant without treatment.

According to the data of phenological observations on the variants of the experiment, they indicate that in the experimental variants, the plant height of the 3rd variant is higher by 10.2 cm compared to the control variant.

According to the formation and accumulation of the fetus elements 1.9 pieces more than from the control. According to a set of boxes 5.5 pcs. more. When carrying out observations and records, it was shown that among the seedlings of cotton obtained from treated seeds, the number of plants with gum disease on the 25th day after emergence in the control variant was 9.7%. In the variant at a dose of 7g/t 1.6%. In the reference version, where the drug was used.

Conclusions

1. Field studies have established that the cotton seed disinfectant Entoborate 12% d.p., at doses of 6 and 7 kg/t, has a positive effect on the germination and development of the crop.

2. In variants where the drug Entobronat 12% s was used. in doses of 6-7 kg / t, the maximum biological efficiency was 81.4% and 83.5%, respectively. In the reference variant, where Dalbron 12% was used, the maximum biological efficiency was 82.4%.

3. In the course of experiments in the reference variant, 3.9 c/ha of additional yield was obtained. In the variants with consumption rates of 6 and 7 kg/t, 44.7 and 5.5 centners/ha of additional yield were obtained, respectively.

Concerning the control variant. In the control variant, the average yield per repetition was 31.7 c/ha.

Literature:

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