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VISION

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IMPORTANCE OF DISEASES IN THE CULTIVATION OF CUCUMBERS (CUCUMIS SATIVUS) IN GREENHOUSES

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ABSTRACT

Greenhouses play an important role in the efficient use of land. In particular, the cultivation of cucumbers in greenhouses will provide the population with cucumbers throughout the year. In the conditions of the old irrigated light gray soils of Namangan region, setting the cucumber variety "Orzu" in greenhouses at 6 m² / piece leads to the lowest (17%) incidence of verticillium wilt.

KEYWORDS: *Squash, Family, Cucumber, Soil, Option, Yield, Disease, Wither.*

INTRODUCTION

The family Cucurbitaceae includes many plants. Of these, watermelon-citrullusvilgaris, common pumpkin-cucurbitapepo. The potato-luffa belongs to cylyndrica and cucumber-cucmussativus, which are of great importance in agriculture. That is why it is grown on large areas of irrigated lands of the republic. The composition of plant products belonging to the squash family is very rich in antioxidants, vitamins, proteins, fatty acids, as well as elements such as Cu, Ca, K, and R.

THE MAIN FINDINGS AND RESULTS

Cucumbers, which are representatives of this family, occupy one of the most important places among them. Its importance is further enhanced by the presence of varieties, especially those

grown in open fields and indoor greenhouses. This will allow the population to meet the demand for cucumbers in different seasons. That is why many scientists have done research on this.

According to G.V. Gulyaev, N.P. Dubinin [3], the thickness of seedlings is important in the cultivation of cucumbers; if cucumbers are grown in greenhouses. It is noted that an excess of the number of seedlings leads to an exacerbation of verticillium wilt.

G.V. Gulyaev [4], it is advisable to carry out separate care in greenhouses for each plant. This will reduce their susceptibility to disease and pests. Otherwise, they say, the disease of brown spot will intensify and lead to a decrease in yield by 10–12%, as well as a decrease in crop quality.

According to P.P. Vavilov [1], the importance of mineral fertilizers for cucumbers is very high. If there is a lack of mineral fertilizers, a number of diseases occur in the plant. In particular, phytophthora, brown spot, fusarium wilt cause wilting diseases. As a result, productivity falls sharply.

P.V. Lukyanenko [7] found that the increase in productivity in growing in greenhouses than in the open field of cucumbers also increases its demand for external factors several times. That is why it is necessary to create a favorable environment for the plant in greenhouses. In this case, first of all, the number of seedlings should be considered, and secondly, their demand for nutrients for the planned harvest should be studied. It is advisable to determine the number of irrigations and water regime, including the demand for water. As a result, the authors noted that the plant is less susceptible to diseases and pests, which in turn increases its productivity.

According to statisticians (Gritsay, Bepalova, [2]), one of the main factors in obtaining an abundant harvest from agricultural crops and preserving the crop grown is protection from pests, diseases and weeds. Every year, due to a single pest, humanity: 203.7 million tons of grain, 228.4 million tons of sugar beet, 23.8 million tons of potatoes, 23.4 million tons of vegetables, 11.3 million tons of fruits.

Based on the above data, we also aimed to study the number of cucumber seedlings in the conditions of Namangan region. To do this, we planted a variety of cucumber “Orzu”, created for growing in greenhouses. Our experiment was carried out in the conditions of light gray soils of Namangan region, which have long been irrigated. In the experiment, there were 3 options, arranged in one tier, the total area of one delyanka was 12 m², and the identification area was 8 m². Experimental and phenological observations were carried out according to the methodology of B.A. Dospikhov [5] “Methodology of field opyta”, soil and plant analysis was carried out according to the methodology of PUSSETITI (old SayuzNIXI) “Methods of agrochemical analysis of soil and plants” [].

We determined the number of seedlings differently according to the options in the experiment. Other agro-technical measures were taken in the same way in all variants. During the experiment, we observed physiological changes in plants. We present this information in Table 1 below.

TABLE 1 DEPENDING ON THE NUMBER OF SEEDLINGS, THE CUCUMBER IS INFECTED WITH VERTICILLIUM WILT

Control, as in the farm,	Number of seedlings				
	Total number of seedlings, m ² / pcs	Number of healthy seedlings, m ² / pcs	Number of diseased seedlings		
			m ² / dona	percent	Morbidity rate per plant, percent
1	Назорат, хўжаликдагидек, 8	6	2	25	10
2	6	5	1	17	6
3	10	7	3	30	17

As a control variant of the experiment, the seedling thickness used in Namangan region (8 m² / piece) was obtained, while in the studied variant 2, less than the control, 6 m² / piece of plant were obtained. In the 3rd variant of the experiment under study, the number of seedlings exceeded the control (10 m² / piece). During the growing season of the cucumber plant, we studied the disease of the plant with verticillium wilt; no disease was observed in the plants in the early phases of the experiment. This is probably due to the fact that the plants did not grow well and did not interfere with each other. Later, as the plant stems began to grow rapidly, the blockage between the rows caused negative changes in the plants. From 50-55 days of the growing season, the plant began to show signs of disease. Our observations show that 2 of the 8 plants available in the control variant of the experiment were found to be diseased. In the 2nd variant studied, it was 1 plant, while in the 3rd variant it was 3 plants.

If we consider the incidence rate of these infected plants relative to the total plants, in the first option it was 25%, in the second 17% and in the third option it was 30%. We also studied the incidence of diseased plants. To do this, the total number of parts of the diseased plant was found, the number of infected relative to it was found, and the incidence rate was subtracted. In control 1 of the experiment, the incidence of diseased plants averaged 10%. In the second option, it showed a level of 7% and in the third, a level of 17%. Although the control variant accounts for 25% of infected plants, we can see a low incidence rate (10%) in these plants. However, we can see that in Option 3, where the number of seedlings was much higher than the control, the incidence rate was 17% higher.

We know that the level of soil fertility is also important in obtaining high yields from agricultural crops. If the soil is poorly supplied with nutrients, it is advisable to increase the number of seedlings in them to increase crop yields. The number of seedlings of agricultural crops is determined as low in areas where the soil is adequately supplied with nutrients. At the same time, crop yields are increased due to the availability of soil. In the light gray soils of Namangan region, where we conducted the experiment, the nutrients are sufficient for agricultural crops. In particular, the fact that it is sufficient for cucumbers, the increase in the number of seedlings allows them to grow at a high rate and shade each other. This has led to many diseases of plants.

CONCLUSION

In conclusion, in the conditions of the old irrigated light gray soils of Namangan region, setting the cucumber variety "Orzu" in greenhouses at 6 m² / piece leads to the lowest (17%) incidence of verticillium wilt.

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