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GROWING NEW VARIETY SAMPLES OF POTATOES IN THE FUTURE

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Abstract

Samples of potato varieties belonging to the foreign selection of the scientific research institute of vegetables, pulses, and potatoes were planted and studied in the experimental fields of Bostonliq and Tashkent to develop the technology of growing varieties in the conditions of the Tashkent region.

As a result of the research, it was recommended to selectively produce varieties suitable for cultivation in the climatic conditions of the Tashkent region.

INTRODUCTION

Potatoes are in second place after wheat, rice, and corn in world agriculture, and in terms of importance. Potatoes are a source of protein, starch, various vitamins, elements, and mineral salts important for humans.

The biochemical composition of potato tubers consists of 75% water and 25% dry matter. 70-80% of the dry matter is starch, its amount in the pulp is 13-20%, protein 2-3%, fiber -1%, oil -0.2-0.3%, sugar -1%, ash 0.8-1 is 0%.

Today, potatoes are sold in more than 130 countries for a total of 21.5 million. 351 mln. per hectare more than tons of potatoes are being grown. In the world, potato is the second most important crop after wheat, rice, and corn. Potatoes are a source of protein, starch, various vitamins, mineral salts, and macro and micro elements important for humans.

Keywords: potato, collection, gene pool, stem number, plant height, productivity.

Research results and discussion

In the next term, in the conditions of the Tashkent region, to develop the technology of cultivation of potato varieties brought from foreign countries and to enrich the gene pool of the institute, samples of potato varieties belonging to the Dutch selection of the Scientific Research Institute of Vegetables, Field Crops, and Potatoes were planted in the experimental fields of Bostanliq and Tashkent.

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4 samples of potato varieties "Picasso", "Evolution", "Manitou" and "Arizona" belonging to the Dutch selection were planted in a plot of 70x25 cm in the experimental field and compared with the local "Pskom" variety as a control.

Before planting, the samples of potato varieties were placed for germination in a special room with an air temperature of +14-18 C^0 and air humidity of 70-80%.

The area around the experimental field was cleared and the field was cleared of weed roots. In the fall, 20-25 tons of organic fertilizers per hectare were applied to the experimental field.

Phenological observation works were carried out on the samples of the variety planted in the next term.

According to the results of the research, the germination of seedlings of the "Pskom" potato variety planted as a control was 10% in 17 days, 75% in 25 days, 10% in 27 days, 75% in 35 days, flowering 10% in 38 days and 75% in 45 days. 10-75% of seedlings of Picasso, "Arizona" and "Manitou" cultivars sprouted, sprouted, and flowered 2-3 days earlier than the control variant, while "Evolution" and "Picasso" cultivars sprouted and flowered after germination. The fact that it was 1-2 days later compared to the variant was reflected in the phenological observations.

The indicators of potato varieties belonging to the Dutch selection in terms of stem weight, number of leaves, and leaf-level per plant were also studied. Control of the potato variety samples on the weight of the stem per plant, the number of leaves, the level of leaves per plant per bush, and the area of one hectare. In the "Pskom" variety, the weight of the stem was 320 g, the number of leaves was 410 pieces, and the level of leaves was 60.7 dm^2. , "Picasso", "Evolution", and "Arizona" potato samples have 12.9-16.6% higher stem weight per bush, number of leaves, leaf level of plants per bush, and per hectare than the control option, "Manitou" variety the stem weight per plant, the number of leaves, and the number of leaves per plant per hectare were 1-2% lower than the control "Pskom" variety.

The weight of tubers per bush of potato varieties belonging to the Dutch selection was 430 g in the control "Pskom" variety, while the average weight of tubers in "Picasso", "Evolution", and "Arizona" varieties was 565 g when the total yield was calculated. , 560, 580, 465 g, and the average yield per hectare is 32.2; 31.9; 33.0; was t/ and it was higher than the control variant from 31.4 to 34.7 percent, it was reflected in the experiments. The weight of buds per bush of the "Manitou" variety was 428 g, and the yield per hectare was 24.4 t/h. It was reflected in the experiments.

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CONCLUSIONS

1. The average yield of the standard "Pskom" variety was 20.5 t/ha, while the highest yield was 23.9 for the "Picasso", "Evolution" and "Arizona" varieties, respectively; 24.5; 23.9; 23.1 t/ha, or compared to the standard 12.7 – 19.5 percent higher. According to the results of one-year experiments, the average yield of the "Monitou" variety was 4.4% less than the control variety.

2. In the samples of the tested variety, Fusarium disease was more common, while in the control variety, the affected plants were 16%, in the samples of the varieties "Picasso", "Evolution", and "Arizona" it was 8-10%, "Mantou" 18 percentage was observed, damage by phytophthora disease was 12%. The samples of other varieties were not affected by phytophthora disease compared to the standard variety.

3. Based on one-year of experience, it is recommended to plant "Picasso", "Evolution", and "Arizona" varieties in a 70×25 scheme in Tashkent climatic conditions.

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