

SELECTION OF PROMISING SWEET POTATO VARIETIES SUITABLE FOR THE SOIL AND CLIMATIC CONDITIONS OF THE TASHKENT REGION.**Nortojiyev Bobosher Sheraliyevich**

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Abstract: In this article, sweet potato seedlings with stem lengths of 15–20 cm and aged 41–46 days in the greenhouse were ready for field planting. To increase the survival rate of the seedlings in the greenhouse, they were dipped into a working solution prepared with the growth stimulator Kornevin before being transplanted into the open field. During planting, the seedlings were hand-planted in a double-row belt method with a row spacing of 70 cm, belt spacing of 140 cm, and 40 cm between seedlings. Six varieties imported from Russia were studied in the experiment. The trial was conducted with four replications, and the feeding area was 16.8 m². The seedlings were planted according to the 140+70/2×40 cm double-row belt scheme. The total experimental area was 740 m², with each plot measuring 8 m in length and 2.1 m in width, and 40 plants were placed in each plot.

Keywords: Sweet potato, seedlings, planting dates, survival rate, temperature, moisture.

Introduction. In the countries of the world, sweet potatoes are widely used in industry for the production of bioethanol, as well as in the canning industry, confectionery, alcohol and starch production. It is also used as feed in animal husbandry. In countries such as China, India and Indonesia, research is underway on the technology of creating and growing high-yielding varieties.

The development of complete technologies for growing new varieties of this sparsely distributed crop, expanding the acreage, and increasing yields is of great importance in our republic. Sweet potato is considered a very favorable plant for breeders, it shows great changes in the process of vegetative and generative reproduction. As for the improvement of its varieties, there are three ways to choose tukanak. The first way is to select good tubers in the field and plant them in the following years. Of great importance in our republic is the development of complete technologies for growing new varieties of this sparsely distributed crop, expanding acreage, and increasing yields. Sweet potato is considered a very favorable plant for breeders, it shows great changes in the process of vegetative and generative reproduction. As for the improvement of its varieties, there are three ways to choose tukanak. The first way is to select good tubers in the field and plant them in the following years. In this case, tukanaks will also have mixed varieties. This selection is carried out depending on the size of the tubers, which, when selected separately, are considered to be a single selection method. Plants obtained by single selection are separated into separate ones and a tag is hung on them, on which the name of the variety and the number of the individual plant are recorded. In the spring, when individual tubers grow, attention is paid to them, as they can intertwine, and it will be difficult to plant them in the field.

Of the sweet potato varieties of Russian breeding, the best are: Spartak - medium-ripened varieties with tender juicy flesh; Japanese purple-high-yielding medium-ripened varieties; Bellevue, Burgundy-sweet varieties that replace potatoes. The Japanese variety was studied in Uzbekistan and received good results.

6 introduced varieties of Russian breeding were planted from seedlings in the open ground in the first decade of May, the complex was evaluated according to valuable economic characteristics. In the experiments, sweet potato seedlings weighing 90-150 g were planted in a film greenhouse

in the first decade of March to produce seedlings. The Russian-bred varieties were planted from seedlings in the open ground in the first decade of May and the complex was evaluated according to valuable economic characteristics. In the experiments, sweet potato seedlings weighing 90-150 g were planted in a film greenhouse in the first decade of March to produce seedlings. At the same time, a separate soil mixture was prepared, i.e. corms were planted in a mixture of 20% field soil, 40% humus and 40% sand. The temperature in the greenhouse was 15-18 °C. The planted tubers were covered with a 4-5 cm thick soil mixture and kept moist.



Figure 1. Planting and growing sweet potato tubers

The study revealed the appearance of young sprouts from sweet potato tуганaks, the number of sprouts and the number of seedlings obtained from one tуганak.

The average weight of the interport tуганaks in the experiment ranged from 90 to 150 grams, for the Burgundy and Japanese varieties – 90 g, for the Spartak variety – 110 g, for the Belvu variety – 120 g, for the Tata koto variety – 130 g, for the Japanese purple variety – 135 g. the weight of the interport tуганaks in the experiment was from 90 up to 150 grams, for the Burgundy and Japanese varieties – 90 g, For the Spartak variety – 110 g, For the Belvu variety – 120 g, For the Tata Koto variety - 130 g, For the Koto variety.

**Batat varieties used in the experiment
growths from tubers, indicators of obtaining seedlings (2024.).**

Varieties name	Tugan weight, g	Emergence of sprouts from a single tuber		Seedlings from one tuber	
		day	piece	Number, Piece	St Number of pieces per variety
Spartak	110	15	8	66	21
Yaponskiy fioletoviy	135	15	7	65	20
Belvu	120	20	3	55	10
Tata koto	130	20	2	5	-40

Burgundi	90	19	4	24	-21
Yaponskiy	90	15	6	55	10

According to Table 3.4, the highest indicator in terms of the number of first shoots is in the varieties Ochakinur, Spartak, Toloki and Japanese purple, with shoots of 7-8 each. The varieties Belvu and Tata Koto were relatively low (2-3 pieces) in this indicator.

The experiment also determined the number of seedlings obtained from one tukanak. At the same time, the largest number of seedlings from one tukanak was obtained from the varieties "Japanese purple" and "Spartak" - 65-66 pieces, that is, 20-21 pieces more than the standard variety. Lower results compared to the standard variety were observed in such varieties as Tata coto, Burgundy and twig (20-40 pieces). The experiment also determined the number of seedlings obtained from one tukanak. At the same time, the largest number of seedlings from one tukanak was obtained from the varieties "Japanese purple" and "Spartak" - 65-66 pieces, that is, 20-21 pieces more than the standard variety. Lower results compared to the standard variety were observed in such varieties as Tata coto, Burgundy and twig (20-40 pieces). The guldu-1 variety showed almost the same result as the standard variety. In the experiment, the care of sprouts, namely watering, fertilizing, weeding and thinning, was carried out on the basis of recommended agrotechnical measures.

In field experiments, when determining the optimal sowing dates for these varieties, the seedling sowing dates were compared in the second decade of April; the third decade of April; the first decade of May and the second decade of May. In the experiment, the care of sprouts, namely watering, fertilizing, weeding and thinning, was carried out on the basis of recommended agrotechnical measures.

In field experiments, when determining the optimal sowing dates for these varieties, the seedling sowing dates were compared in the second decade of April; the third decade of April; the first decade of May and the second decade of May. The date of planting sweet potatoes in the second decade of April was taken as a control.

Experiment 4 is reversible, the feeding area is 16.8 m². The seedlings were planted using a ribbon method according to the $140 + 70/2 \times 40$ cm planting scheme. The total experimental site is located on an area of 740 m², the length of the site is 8 m, the width is 2.1 m. 40 plants were placed on the site. Experiment 4 is reversible, feeding area is 16.8 m². The seedlings were planted using a ribbon method according to the $140 + 70/2 \times 40$ cm planting scheme $\frac{(140 + 70)}{2} \times 40$ cm (feeding area 0.42 m²); $\frac{(140 + 70)}{2} \times 30$ cm (feeding area 0.315 m²); $\frac{(90 + 50)}{2} \times 30$ cm (feeding area 0.28 m²) It was

grown according to the planting scheme. In this case, as a control $\frac{(140 + 70)}{2} \times 40$ the CM planting scheme was taken. Plant feeding area with each other in planting schemes 0.42, 0.315, 0.28 m² and while the number of plants in the field was 23,809 units in control, the planting schematics were studied from 31,746,000 units to 35,714,000 units in the thickness of growth/ha. Experiment 4 is reversible, the total experimental area is located at 200 m², the length of the field is 8 m. there are 40 plants in the field. When conducting field experiments, observations, calculations and taxilies were determined: the timing of planting seedlings, the consistency of seedlings, the timing of the first and last harvest were determined. Experiment 4 is reversible, the total experimental area is located at 200 m², the length of the field is 8 m. there are 40 plants in the field. When conducting field experiments, observations, calculations and taxilies were determined: the timing of planting seedlings, the consistency of seedlings, the timing of the first and last harvest were determined. Observations were determined in two returns by counting the number of plants entering this growth phase. The plant was transferred to joppasi during the period of entering the crop. In doing so, the plant was determined by the length of the main stem, the number of side Kings, the length and the number of leaves. Measurements were taken on 5

plants in each field. Batatni was conducted at maturity. A common crop was harvested on each field, which was divided into a thawarbop and a notovar part. Each fraction was weighed separately in torozi, and the percentage of crop yields of both thawarbop and notovar was calculated. In doing so, the plant was determined by the length of the main stem, the number of side Kings, the length and the number of leaves. Measurements were taken on 5 plants in each field. Batatni was conducted at maturity. A common crop was harvested on each field, which was divided into a thawarbop and a notovar part. Each fraction was weighed separately in torozi, and the percentage of crop yields of both thawarbop and notovar was calculated. Batat was found to be the number of harvested thawarbop crops and the average weight of the fruit. Batatni's appearance, color, shape and color of the flesh part and the flavor of the products made from it were appreciated in a score of 10 points.

In conclusion, it should be noted that the soil and climatic conditions of the Tashkent region, where experiments were carried out, are considered the most favorable for the cultivation of batat, are an optimal area from a geographical aspect, where it is possible to plant promising varieties of Batat as a main and repeated crop, conduct several agrotechnical activities. The research carried out, as a result of the use of methods and techniques recommended by scientists during the experiments, statistical estimates of the scientific results obtained from our experiments on the dispersion plan, correlation relationship between signs and the minimum significant difference.

LIST OF LITERATURE USED:

1. Гордеев А.В. Решение проблем продовольственной безопасности. Мир агробизнеса. 2008;(1):4-6.
2. Иванова В.М. Рост сельскохозяйственного производства, как фактор развития пищевой промышленности и продовольственного рынка. Пищевая промышленность. 2016;(2):8-11.
3. Мачулкина В.А. Безотходная технология переработки овощебахчевой продукции. Картофел и овощи. 2017;(7):22-23.
4. Гераскина Н.В. Селекция баклажана для юга России. Картофел и овощи. 2016;(7):33-34.
5. Кигашпаева О.П., Авдеев А.Й. Новые сорта баклажана для консервирования. Картофел и овощи. 2016;(7):35-36.
6. Медико-биологические требования и санитарные нормы продовольственного сырья и пищевых продуктов. М.: Издательство стандартов, 1990. С.94-100.
7. Гигиенические требования безопасности и пищевой ценности пищевых продуктов М., 2002.
7. Ахмедов Ш.К., Нортोजийев Б.Ш., “ТАБИЙ ШАРОИТДА МАХСУС ҚУРИТИШ УСКУНАСИДА БАТАТ (ШИРИН КАРТОШКА) ҚУРИТИШ” Та’лимда замонавий трансформацияси | 11-то’лам 1-сон | тадқиқотлар.уз 2024 йил. Б.28-31