

Performance Analysis of Promising Clones

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Abstract. The article describes the K-24, K-81 clones with relatively late- ripening bulbs that are well-preserved given. These clones ripen 16- 20 days later than the comparative variety, but the bulbs keep very well until february-march next year. They are also distinguished by the size of the bulbs (68-103g).

Keywords: garlic, comparative variety, clone, bulbs head, bulbs, choice, shirt shell, flower branch.

Garlic has a special place among vegetables due to the richness of nutrients and medicinal properties Garlic (*Allium sativum* L.) belongs to the bulbs family and is native to Central Asia. Garlic has been cultivated for over 6,000 years. Today, the total amount of garlic in the world is 1,438 mln . planted per hectare the average yield is 16.9 t/ha, and the gross yield is 24.3 mln. is a ton. The countries that grow the most garlic are China, India, South Korea, and Egypt. The highest yield was recorded in Egypt (25.2 t/ha), China (24.7 t/ha) and Tajikistan (20.0 t/ha) (Mamedov M.I., 2015) .

Garlic grows and yields both in dry hot climate regions and in humid subtropical and temperate climate regions (Boriev, 1999). Yujno-fioletovy (1972) and Maisky VIRa (1978) varieties of garlic are regionalized in our country (State register, 2015). All three zoned varieties belong to the group of autumn varieties that produce stems. In addition, in the territory of the republic, various local varieties of autumnal garlic, created by folk selection, are grown. However, their yield is low and they are not suitable for long-term storage, so they do not fully meet production requirements, scientific research work on this crop selection and seed production was not carried out enough in our country. The goal of our winter research was to create storable varieties of garlic with a high yield (20 t/ha and more), bulb weight up to 100 g and the number of bulbs up to 8-10, and to develop elements of seed production technology.

Since 2011, SPE and KITI Surkhondarya scientific experimental station have been carrying out selection work on the creation of new varieties of garlic . In 2011-2015, more than 30 samples of imported and local varieties and more than 100 clones selected from them were studied. The resistant variety created as a result of research was included in the State Register in 2016.

In this article, a description of the relatively promising clones of evening primrose and bulbs heads, suitable for storage, created in the course of research is presented.

Methods and materials. K -81 and K - 24 clones are serviced as the research material. Comparative Since 2011, SPE and KITI Surkhondarya scientific experimental station have been carrying out variety South-violet. Comparative variety was planted on September 10 and clones K -81, K-24 on September 20 in the field in a plot of (40+15+15) x 8 cm in the experimental garden.**Methods and materials.** K -81 and K - 24 clones are serviced as the research material. Comparative variety South- violet. Comparative variety was planted on September 10 and clones K -81, K-24 on September 20 in the field in a plot of (40+15+15) x 8 cm in the experimental garden.

The area of the account is 2.1 m² and the number of plants in it is 90. The experiment was carried out without feedback. Researches were carried out on the basis of "Metodicheskie ukazaniya po ekologicheskomu ispytaniyu ovoshchnyx kultur v otkrytom grunte" (M., 1987), OST 4671-78 (M., 1997). Garlic has lost its ability to propagate through seeds during cultivation, and currently selection works are carried out on the basis of clonal selection.

A clone is a single generation of a vegetatively propagated plant, a complex of genetically identical individuals, the change of which occurs under the influence of mutagenesis, (I. A. Prokhorov, 1995).

Results and analysis. The period from planting of bulbss to germination until winter was 10-12 days in the comparative variety and studied clones.

The period from germination to flowering was 195 days in the comparative variety, and 203 days in K-81 and K-24 clones. Emergence of flower stalks occurred 8 days later in the studied clones compared to the comparative variety.

The period until the yellowing of stems was 216 days in the comparative variety, and 233 days in K- 81, K-24 clones. This process was observed to occur as late as 17 days in promising clones. period from sprouting to the technical ripening of bulbs was 220 days in a comparative variety. The duration of this period was 238 days in clones K-24 and K-81, and it was observed that it took place 18 days later than in the comparative variety.

Plant height (root node to last leaf) was 26 sm in the reference cultivar, 30 sm in clone K-81, and 45 sm in clone K-24. The height of the plant combined with the length of the inflorescence is 57 sm in the comparative variety, 68 cm in the K-81 clone, and 112 sm in the K-24 clone, which is a very variable character, Table 1.

At the end of the period of operation, the average number of leaves in the experimental clones was 8.5

-9.0 pieces. It should be mentioned that the number of leaves in a plant is characteristic of the variety and depends on the environmental conditions, and it can be from 7-8 to 12-15 in garlic (Pivovarov, Ershov, Agafonov, 2001). The length

of the leaf plate was 45-48 cm in the comparative variety and clone K-81. In the K-24 clone, the largest bulb, the leaves were short, and their length was 42 cm. The widest leaves were observed in clone K-24 and its width was 5.2 cm.

In the study of clones, the information about the bulbs head and bulbs is considered the most important. Bulbs height was 3.9-4.0 sm in the comparative variety and K-81 clone, and 4.5 sm in the K-24 clone bulbs the diametr is consistent 5.4 respectively 5.4; 6.4 sm was established.

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Description of garlic clones, bulbs and bulbs, 2021-2022.

Clones	Bulbs				Pi is the number of cottages, Pcs	one pi cottage g
	height, sm	diametr, sm	index	average weight, g		
south-fioletov, st	3.9	5.4	0.7	58	14	4.1
K-81	4.0	5.4	0.7	64	13	4.6
K-24	4.5	6.4	0.7	1 03	6.5	14.5

One of the most important signs is the number of bulbs in the crop is considered dead is measured . Now the garlic is fresh varieties one of the requirements is that the bulbs are suitable for long-term storage, the number of bulbs is small and their average weight is high . Although creating such varieties faster based on clonal selection is a difficult task, we are on our way we set ourselves the goal of studying the effectiveness of the selection work aimed at these signs.

. Crops in the book the number of bulbs is relative variety and 13-14 pieces in K-81 clone organized. It was observed that 6.5 units of died in K-24 clone was 4.1-4.6 g in the comparative kind and K-81 clone . observed. This indicator was 14.5 g in the K -24 clone, which was 9.9-10.4 g higher than the K-81 clone.

The largest bulbs were observed in clone K-24 and amounted to 103 g. This to the comparative kind compared to 45 g and K -81 clone it means 39 g more.

It should be noted that clone K-24 produces up to 10-12 additional bulbs on the root and between the bulbs. These bulbs are similar to air bulbs and produce single-bulb bulbs when planted. When K-24 and K-81 clone bulbss were stored at home temperature, it was observed that they are well stored until february-march of the

next year . In practice, the cultivated garlic bulbs fully germinate and become unproductive already in september-october.

Conclusion, K-81, K-24 clones were created from Yuzhno-fioletovy and other cultivated local varieties , which ripen 17-20 days later , and the bulbs are kept very well. Of these, K-24 clone bulbs are very large is its average weight is 103 g and in it the number of bulbs was 5-7. K-24, K-81 clones. In 2016-2020, the selection test was conducted. These clones were given to the Intellectual Property Agency for obtaining a patent in 2020-2022 .

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