



ECONOMIC AND BIOLOGICAL CHARACTERISTICS OF PROMISING PRECOCIOUS VARIETALSAMPLES OFTHE NEW TOMATO VARIETY

Nurmatov N.Zh.

Vice-Rector for Research and Innovation of the Termez Institute of Agricultural Technologies and Innovation Development, Ph.D.

Abdurakhmonov Sh.Kh. – Applicant

Article history:	Abstract:
Received: 7 th August 2022	The article presents the results of a study of collection varieties of ordinary tomato varieties. Promising specimens have been identified for general and early harvest. And also a group of well-ripening variety samples was identified.
Accepted: 7 th September 2022	
Published: 11 th October 2022	
Keywords: Tomatoes, variety, total harvest, early harvest, ripening friendliness, early maturity index.	

The success of precociousness breeding depends largely on the use of effective, reliable and diverse precociousness donors. In order to isolate the starting material for the selection of tomatoes for precociousness in the conditions of Uzbekistan, we studied a collection of 110 samples obtained from Russia, Ukraine, Moldova and other countries. The research was carried out in accordance with the Methodological Guidelines for the Selection of Tomato Varieties and Hybrids for Open and Protected Soil (Pivovarov, Dobrutskaya, 1986), the Methodological Guidelines for the Study and Maintenance of the World Collection of Vegetable Nightshade Crops (D., 1977), the Method of Field Experience (Armor, 1985).

The experiment was laid without repetition, 20 plants on the plot. Seeds were sown in cold (unheated) greenhouses on February 15-20. Seedlings were grown without picking by sparse sowing of seeds. Seedlings were planted on April 10-15. The area of the accounting plot is 5.4 m. Planting scheme (180/2) x 30 cm. Agricultural equipment is generally accepted for the Surkhandarya region (Aramov, Asamova., 1987).

The standard was the early-ripe variety Talalikhin 186, which was regionalized in the Republic. The standard variety was arranged through every 8-10 grade samples.

In this article, here is a description of promising specimens of the common tomato variety. There were only 98 of them.

The study was carried out according to the main economic and biological signs and properties, taking into account the indicators necessary for precocious varieties. When isolating promising varieties of samples, the main attention was paid to the low-growing type of plants, friendly formation and ripening of fruits, the index of precociousness, the duration of both the growing season and individual phases of development, the quality of fruits, etc.

The determining factor in the suitability of a variety for agricultural production is its yield.

Data analysis Table. 1. shows that according to the total harvest, samples of Elan, Pladon, Severyanin, Siberian precocious, DE-79, Subhidam, F₁ Rublen, F₁ Dmailz with a yield of 70.4 to 84.9 t / ha, against 49.4 t / ha for the standard - Talalikhin 186.

However, in terms of the main indicator for precocious varieties, early harvest, a small number of samples exceeds the standard.

The highest early yields were recorded in the samples Elan, Pladon, Rubin, Severyanin, Cherry Elite hibryde, Siberian precocious, No. 39, Atma, Agatha, No. 7, F₁ Dmailz, Bodeg Cut, F₁ Rublen. The early yield of these samples ranges from 31.3 to 45.4 t / ha, which exceeds the standard by 16.3-68.7%.

The listed variety of samples for the friendliness of ripening of fruits are at the level of the standard or slightly inferior to it.

Table 1.
Economic and biological characteristics of collection variety of samples of the common tomato variety

Variety, line and hybrid name	Total yield, t/ha X ± S _x	Early harvest g/ha X ± S _x	Index precociousness, %	Friendliness of maturation, %
Talalikhin 186, art.	49,4 ± 1,3	26,9 ± 0,8	100,0	54

Elan	76,6 ± 1,6	45,4 ± 1,0	168,7	59
№ 39	55,3 ± 1,4	41,9 ± 0,6	155,7	76
Throw	45,0 ± 1,2	38,9 ± 0,5	144,6	86
Siberian precocious	71,5 ± 1,8	38,4 ± 1,0	142,7	54
Agatha	51,6 ± 1,7	37,9 ± 0,7	140,8	73
Pladon	78,1 ± 1,5	36,9 ± 0,4	137,2	47
F ₁ Dmailz	70,7 ± 1,5	35,0 ± 0,6	130,1	49
Bodeg Cut	57,3 ± 1,3	35,0 ± 0,6	130,1	61
№7	47,9 ± 1,6	34,0 ± 0,8	126,3	71
Northerner	71,1 ± 1,9	33,8 ± 1,1	125,6	56
Ruby	58,3 ± 1,4	32,8 ± 0,8	121,9	56
Cherry Elite hybr.	61,1 ± 1,5	31,4 ± 0,5	116,7	51
F ₁ Рублин	83,9 ± 1,9	31,3 ± 1,2	116,3	37
Alfa	37,1 ± 1,0	29,4 ± 0,5	109,2	79
K-16-6	43,3 ± 1,3	28,3 ± 0,6	105,2	65
Barnaul canning	60,7 ± 1,7	27,9 ± 0,8	103,7	45
Subhidam	77,4 ± 1,8	27,9 ± 0,9	103,7	36
Liana	61,2 ± 1,3	27,5 ± 0,5	102,2	45
DE-79	70,4 ± 1,5	27,4 ± 0,6	102,0	39

Thus, as a result of a comprehensive assessment of 98 samples of tomatoes of the common variety, valuable starting material was identified for the selection of precocious varieties and hybrids.

1. По общему урожаю выделяются Elan, Pladon, Северянин, Сибирский скороспелый, Субхидам, DE-79, F₁ Рублин, F₁ Dmailz (70,7-84,9 т/га).
2. A high early yield was noted in the samples of Elan, Pladon, Rubin, Sevryanin, Cherry Elite hybride, Barnaul canning, Liana, Siberian precocious, Agatha, Atma, Bodeg Cut and others (27.5 - 45.4 t / ha against 26.9 for the standard).
3. A group of amicably ripening variety of samples has been allocated; Atma, Salto, Alfa, Santa, VIR-173, VIR-100, Brylant , etc. (up to 90%). However, they are low-yielding, small-fruited, and do not stand out for an early harvest.

The use of selected samples in breeding work intensifies the breeding of precocious tomato varieties and hybrids in the conditions of Uzbekistan.

REFERENCES:

1. Aramov M.Kh., Asamova Kh.T. Cultivation of tomato, pepper and eggplant in the conditions of Surkhandarya region. - Termez, 1987. - P.17-31.
2. Dospekhov B.A. Methods of field experience - M. - 1985. - 351 p.
3. Guidelines for the study and maintenance of the world collection of vegetable nightshade crops. - L. - VIR. - 1977. -23 p.
4. Pivovarov V.F., Dobrutskaya E.G. Methodical instructions for the selection of tomato varieties and hybrids for open and protected soil. - M. - VNIISOK. - 1986. - 52 p.