

SELECTION OF FIRST-GENERATION HYBRIDS IN SOUTHERN UZBEKISTAN

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Abstract

The article provides information on the study of new F1 eggplant hybrids. In the research work F1 Zamin, st., F1 L-29xGel, F1 SsxSur.g, F1 GelxL-29, F1 MkxSur.g, F1 MkxL-29 hybrids and their parent forms were obtained. F1 MkxL-29 hybrids were classified as hybrids with a high heterosis effect in terms of total and early yield

Keywords: productivity, eggplant, standard, heterosis, resistance, hybrid, pear-shaped, selection, early ripeness.

Introduction

The President of the Republic of Uzbekistan and the Cabinet of Ministers pay great attention to the issue of ensuring the sustainable supply of food to the people of the republic, fully meeting consumer demand at the expense of products produced in the country, as well as improving the export potential of agricultural networks, creating and improving the vegetable network, creating and improving the first generation (F1) hybrids of the garden. Scientific expansion of the use of subsistence farming and the cultivation of it at the level of demand are among the most pressing problems of this day.

The variety of endurance genes in hybrids and the resilience of the environment to abiotic factors, The integration of early mornings, crop yields, and fruit quality with preservation is one of the most durable characteristics of ghettois selection, notes Ju.I.Avdev (1982), A.W. Alpatév (1981), A.A. Jucenko (1988).

(Matthew 24:14; 28:19, 20) Jehovah's Witnesses would be pleased to discuss these answers with you. Among vegetable crops, peanuts are a crop with its own valuable characteristics. To illustrate: Imagine that a man who is walking on a finds that it becomes two stretching to the horizon.

Baglajon is one of the most important crops in vegetables. When the fruit is technically ripe, it contains 6-11% dry matter, 2.5-4% sugar, 0.6-1.4% protein, and 0.2-0.4% oils.

Constant consumption of peanuts is one of the most important vegetables in the prevention of cardiovascular disease and strengthening of the heart muscle.

It makes it an important task to create varieties and hybrids that are resistant to tomorrow, fertile, useful nutrition and high technological quality, are valuable farming, and are resistant to the most dangerous diseases and adverse environmental factors in the region. Since 1997, selection work has been carried out at the SPE and KITI Surxondary Scientific And Experimental Station to create varieties and hybrids that meet market demand and are resistant to quadruple nematodes.

As a material of the research, some 50 varieties of samples from Russia, India, China, the United States, Canada, Japan, Spain, France, Hungary, Belarus, Nepal, Rocky, Syria, Korea, and more than 30 first-generation hybrids of our own selection were served.

LITERATURE ANALYSIS AND METHODOLOGY

Baqlajon (*Solanum melongena* L.) is one of the most important vegetable crops in the world. It is widely grown in temperate and tropical regions of the world, mainly for its uncouth fruits as vegetables. Since India is the main center of the origin of the ceasum (Vavilov, 1931 and Bhaduri, 1951), the peanut butter has a significant diversity. Because of the cold resistance of the crop, the large-scale abundance of flowers, the ease of carrying out chatting, and the ability to obtain ghettois hybrids, the flowers that are pollinated in squeating crops belonging to other families are one of the main vegetables. Today, consumers around the world are demanding that F₁ hybrids be created and implemented in providing highly productive bags.

The use of first-generation hybrids is considered to be economical. One of the best methods used to improve productivity is hybridization. Nagai and Kida (1926), probably the first to notice the economic efficiency of first-generation hybrids in chatting some Japanese varieties [7, 10-12-pp.]. Since then, many public and private companies in India have developed various hybrids, but these have not given regional practical importance on whether or not hybrids contain colors, shapes and thorns, as well as insignificance in the preparation of certain products. However, the use of first-generation hybrids in the cylinder is recognized as a practical tool that allows the selector to increase productivity and other economic indicators.

In the study of baqlajon varieties, 3 summer donor baglajon varieties with farm-valuable characters were separated in the study of baqlajon varieties, Mestican scroche, Black Draeon Fl, and Scuke varieties have learned that each sample is 18-26 days early than the standard Diamond. Bin, Black Draeon Fl, 9344S50041 varieties have an unfavorable standard rate of 24.6-45.3% and commodity yields 4.9-8.9%; In the selected sample of Black Draeon Fl, there was a high sugar content, and in Black Bird, 944710074 varieties, vitamin C was also high. Varieties Black Draeon Fl and Bin are separated from the varieties as a comprehensive donor for selection [1, 21-bet].

According to The Watchtow Bible and Tract Of New World Transficippe, F₁ hybrid yields are 14.5 kg/m² The standard F₁ Diamant from 20.4 kg/m² (L X LH) was 14.9 kg/m². The best hybrid combinations are LM x LG, LWal x LG, LM x 47, Lyks x 47, compared to standard 36.9; 24,8; 23,5; There were 21,5% more [2, 15-bet].

During his research, He performed a dialogue chart in Baqlajon, The average fruit weight of Hybrids F₁ (Vi h db, Vy hydM, Dicto-M, and DihVi) was observed to have an average fruit

weight of up to 43-61% over the fertile standard F 1 Maxic. Research studies showed high yields in F1 hybrid combinations of the Baqlajon Vie ridge [5, 5-bet].

As the material of the research, varieties and hybrids belonging to the selection of the Surkhandarya Research Station of the Institute of Plant Sciences and the Research Institute of Vegetables, Vegetable Crops and PotatoEs served.

During the 2021-2023 study, 44 samples of 30 first-generation hybrids were studied, of which promising varieties and hybrids were distinguished. The study was carried out for two terms, the first period was planted in a greenhouse environment in soil and biogumus feed in the cassettes on the first ten days of January of the year and the second term on the first ten days of February. On the first ten days of March, the first-term streets were transferred to the fields under a sim baggy film. In the second term, the seedlings were transferred to open fields on the first ten days of April.

Ilmiy izlanishlarimiz "Guidelines for the study and maintenance of the world collection of vegetable nightshade cultures" (tomatoes, peppers, eggplants) Leningrad, 1977; "Guidelines for Approbation of Vegetable Cultures and Fodder Root Crops" (Moscow, "Kolos", 1982); "Methods of field experiment in vegetable growing" (S.S. Litvinov, Moscow – 2011), kabi uslubiy ko'rsatmalar asosida olib borildi, Statistical analysis of data was carried out using Microsoft Excel on the basis of the dispersion method of B.A. Dossuph.

RESULTS & DISCUSSIONS

The period of harvesting was 96-107 days in the first term, of which F1 L-29xGel, F1 MxkSur.g and F1 Sur.gxMk hybrids were cooked at the same time as the standard F 1 Earth hybrid, or 96 days. Hybrids F1 SsxSur.g, F1 MxkL-29 and F1 GelxL-29 were delayed from 4 days to 11 days compared to the standard hybrid. In the first term, when the first generation of hybrids was studied compared to the parents, the F₁ MxkL-29 hybrid lasted 1 day, F₁ MxkSur.g, and F₁ Sur.gxMk up to 8 days. The rest of the hybrids were also early in the morning compared to their parents for 3-7 days.

Even in the second term, standard F 1 Earth hybrid fruits are ripened in 87 days, when the period of growth of hybrids is studied. The growing period of the hybrids studied was 87 days during this period, as was the standard of the Hybrid F 1 L-29xGel. The remaining F₁ is in SsxSur.g, F₁ GelxL-29, F₁ MxkSur.g, F₁ MxkL-29 and F₁ Sur.gxMk hybrids for 89-95 days and is considered to be up to 2-8 days later than the standard. In the second term, hybrids, which were also taken during the growing season, were compared to the parents. According to this, the growing period of hybrids is 87-95 days. Hybrids F₁ L-29xGel and F₁ MxkSur.g were ripened 3-4 days earlier than in parental form. F₁ SsxSur.g, F₁ GelxL-29, F₁ MxkL-29 and F₁ Sur.gxMk hybrids ripened 1-4 days late compared to parental form.

In both term, the growing period of Hybrids F₁ L-29xGel, F₁ SsxSur.g, F₁ MxkSur.g, and F₁ Sur.gxMk hybrids was considered very early (table 1).

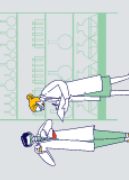


Table 1. Morphobiological description of Baqlajon F1 hybrids, 2021-2023

№	Varieties, lines and hybrids	Term of planting	The period of water, day	Plant		Fruit			
				type	height, cm	form	external view	taste	Mag'zi Ranks
1	2	3	4	5	6	7	8	9	10
1	F1 Zamin, st.	I	96	Yar. tik o's.	65,7	ovals.	q.b.s.yal.	More bitter	green
		II	87		64,0				
2	Surxon Beauty	I	101	Yar. tik o's.	69,3	cylinder s.	q.b.s.yal.	More bitter	green
		II	92		65,5				
3	L 29	I	102	Yar. tik o's.	65,8	cylinder s.	q.b.s.yal.	More bitter	and Yashil
		II	88		66,1				
4	Solyaris	I	105	Shtams.	65,3	ovals.	q.b.s.yal.	More bitter	and Yashil
		II	93		64,5				
5	L-9	I	104	Serpoya	43,6	round	q.b.s.yal.	Nimshirin	flow
		II	93		43,4				
6	Gellius	I	104	Serpoya	46,3	yumaloq	q. b.s.yal.	shirin	oq
		II	91		45,8				
7	Matrosik	I	108	Yar. tik o's.	56,1	keng noks.	Chiper	shirin	oq
		II	94		55,7				
8	F1 L-29xGel	I	96	Yar. tik o's.	64,6	round	q.b.s.yal.	More bitter	green
		II	87		64,4				
9	F1 SsxSur.g	I	100	Yar. tik o's.	69,5	keng noks.	q.b.s.yal.	shirin	and Yashil
		II	94		71,5				
10	F1 GelxL-29	I	107	Serpoya	62,1	round	binaf	More bitter	and Yashil
		II	93		61,7				
11	F1 MkxSur.g	I	96	Yar. tik o's.	72,1	Nocs.	q.b.s.yal.	More bitter	and Yashil
		II	89		72,0				
12	F1 MkxL-29	I	104	Yar. tik o's.	71,7	ovals.	q.b.s.yal.	More bitter	and Yashil
		II	95		71,2				
13	F1 on.gxMk	I	96	Yar. tik o's.	69,9	Ellipse.	q.b.s.yal.	shirin	and Yashil
		II	95		69,9				

The plant type was in two appearances in hybrids: F1 L-29xGel, F1 SsxSur.g, F1 MkxSur.g, F1 MkxL-29 and F1 Sur.gxMk hybrids, and serpent in the F1 GelxL-29 hybrid. The plant was 62.1-72.1 cm in hybrids for the first time, and in the second term it was sm.ga 61.7-72.0. During both periods, no major change was observed on the plant's neck.

The fruit structure in hybrids was as follows: round in Hybrids F1 L-29xGel and F1 GelxL-29; Non-circular and wide-circled in Hybrids F1 SsxSur.g and F1 MkxSur.g; F₁ was oval in the MkxL-29 hybrid and elliptical in the F₁ Sur.gxMk hybrid. In all the fruits, the fruit color became purple. In combinations of fruits F₁ L-29xGel and F₁ GelxL-29 hybrids in the shape of

the fruits, the sign of the Gelios variety prevailed and became namayon in the first generation. In the combination of F₁ M_kxS_ur.g hybrid, when the Matrosik navi was taken in its mother's form, it was determined that its sign passes through the first generation hybrid, and in reverse chatting, it reflected the intermediate form in the first generation hybrid. In combinations of F₁ S_sxS_ur.g and F₁ M_kxL-29 hybrids, fruit forms with intermediate shapes were formed, Table 1.

Table 2. Yield of Baqlajon F₁ hybrids, 2021-2023

No	Varieties, lines and hybrids	Term of planting	Common. At T/GA	General.hos. st.navga relative,%	Heterosis effect,%	Early yield, t/ga	Early in the morning. St.navga relative, %	The effectiveness of heterosis, %	I'm very important, Mr.
1	2	3	4	5	6	7	8	9	10
1	F1 Zamin, st.	I	57,8	100,0		14,4	100,0		132,3
		II	57,3	100,0		11,9	100,0		128,3
2	Surxon Beauty	I	60,8	105,2		17,2	119,4		129,1
		II	54,7	95,5		12,1	101,7		125,1
3	L 29	I	60,3	104,3		17,4	120,8		126,5
		II	56,2	98,1		13,2	110,9		121,5
4	Solyaris	I	70	121,1		17,2	119,4		144,2
		II	69,4	121,1		10,3	86,6		138,9
5	L-9	I	56,2	97,2		13,0	90,3		152,2
		II	54,1	94,4		11,0	92,4		137,8
6	Gellius	I	52,3	90,5		12,9	89,6		165,2
		II	50,6	88,3		12,5	105,0		160,7
7	Matrosik	I	64,5	111,6		9,2	63,9		182,5
		II	73,1	127,6		8,8	73,9		187,4
8	F1 L-29xGel	I	78,3	135,5	129,9	24,7	171,5	142,0	161,0
		II	75,3	131,4	134,0	19,8	166,4	150,0	154,5
9	F1 S _s xS _u r.g	I	71,8	124,2	102,6	19,9	138,2	115,7	143,7
		II	69,6	121,5	100,3	16,0	134,5	132,2	139,7
10	F1 G _e lxL-29	I	62,7	108,5	104,0	13,6	94,4	78,2	151,9
		II	69,8	121,8	124,2	10,4	87,4	78,8	154,3
11	F1 M _k xS _u r.g.	I	91,4	158,1	141,7	26,8	186,1	155,8	170,9
		II	86,6	151,1	118,5	21,1	177,3	174,4	167,4
12	F1 M _k xL-29	I	89,4	154,7	138,6	15,8	109,7	90,8	171,5
		II	95,6	166,8	130,8	13,9	116,8	105,3	172,5
13	F1 S _u r.g.xM _k	I	86,2	149,1	133,6	24,1	167,4	140,1	183,6
		II	73,5	128,3	100,5	14,3	120,2	118,2	168,5

In the first term, the total yield was 57.8 t/h per standard F1 Earth hybrid. The hybrids studied as an experiment consisted of 62.7-91.4 t/ga. During this period, the highest figure for the standard variety was returned at the F₁ M_kxS_ur.g. hybrid, with a high of 158.1%. At the rate of heterosis, F₁ was observed at the M_kxS_ur.g. hybrid and was 141.7%. During this time, the F₁ G_el_xL-29 108.5% hybrid prevailed in the yield compared to the standard, while the minimum rate for ghetosis was 102.6% at Hybrid F₁ S_sxS_ur.g. . In the first crop, F₁ was 26.8 t/ga in the M_kxS_ur.g. hybrid, which prevailed over the standard by 186.1%. The heterosis rate was 155.8%. The total yield of F₁ M_kxS_ur.g. parental forms was 60.8-64.5 t/h, and the early yield was 9.2-17.2 t/ga. The early yield at the F₁ G_el_xL-29 hybrid was less than the standard F₁ Earth hybrid at 0.8 t/h. In the early yield, the rate of ghetosis in Hybrids F₁ G_el_xL-29 and F₁ M_kxL-29 was 0.8-21.8%, table 2.

In the second term, total yields in hybrids prevailed with a standard of 121.5-166.8%. At the same time, the yield indicator of the standard F₁ Earth hybrid was 57.3 t/h. The heterosis rate was 100.3-134.0%. In the second term, the early yield was 21.1 t/ga in the F₁ M_kxS_ur.g. hybrid and produced 9.2 t/h more than the standard. The heterosexual genius was observed in the same hybrid combination, accounting for 174.4%. In the second term, the yield of the F₁ G_el_xL-29 hybrid was 1.4 t/h less than the standard for early productivity, Table 2.

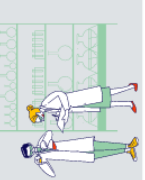
CONCLUSION

Based on the results of scientific research, F₁ L-29xG_el, F₁ S_sxS_ur.g, F₁ M_kxS_ur.g and F₁ S_ur.gxM_k hybrids were considered very early in the growing period, L-29xG_el hybrid's growth period is standard F₁ Zamin duragayi it's the same as it was. The growth period of the M_kxS_ur.g hybrid was cooked five days earlier than its parents in the first term, and in the second term, it was calculated for three days. Plant structure is also every that it was higher than the standard in both terms. The structure of their fruits was pear-shaped, black purple smooth yacht. Indicator of productivity in the first term F₁ M_kxS_ur.g. The hybrid was 91.4 t/ga. and was 2-28.7 t/h more than other hybrids. It prevailed over the standard with 158,1%. In the second term, han dominated this hybrid combination with a yield indicator of 151.1% compared to the standar. F in both term₁ M_kxS_ur.g. hybrid heterosis was higher than 118.5-141.7%.

Thus, according to the results of the study, the F₁ M_kxS_ur.g. hybrid was separated as the next day, the fruit was buyerbop, the overall and early yields were highest, and the F₁ hybrid was separated.

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