

## MELON AND ITS ENVIRONMENTAL CHARACTERISTICS

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### Abstract

Melons from Central Asia have a great reputation for their unique flavour and sweetness. They have several useful properties. They contain 85–92% water, 8–15% dry matter, 0.8% protein, 1.8% cellulose and 6.2% other carbohydrates, 0.9% fat, 0.6% ash, 20–30 mg% vitamin C, 0.03–0.07 mg% of other vitamins and microelements, such as Zn, Fe, Ca, Mg, K, and P. Sugar content in Central Asian melons can reach up to 14–16%. Sugar can be represented by glucose and/or fructose. This fact adds to relevance to the use of melons as a health food and as medicinal plants. When fructose is prevalent melon pulp is very sweet, and when glucose is prevalent it is somewhat sweet. All these factors define the dietary value of melons, their medicinal properties, and use in human medicine. This article analyses the growth development and yield of the melon species cultivated in the lower Amudarya and the amount of sugars in the melon fruit, the size and weight results. Studied species of melon have been preserved not planting since 1980. Afterwards information has analyzed above their development in the 1980s, the collection melon of local varieties was carried out in all areas of the Republic by the Institute of Vegetable, Ornamental and Potato Studies. Nowadays the institute has a collection of melon varieties of more than 350 local melons. This large collection of seeds of local varieties of melon is kept in the institute. Keeping this collection for future generations, using them as the first source is a practical innovation for learning, breeding and selection, and showing their characteristics in today's environmental conditions.

**Keywords:** Sugar, species, flowering period, fruit, humidity, melon, soil, water recycling.

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### INTRODUCTION

Along with astounding fragrance and sweetness the melon boasts a rich set of useful qualities. One of the most important is the ability to induce endorphins, which makes it a good remedy for depression and spleen. The useful substances in the plant have a pronounced toning effect, and vitamin C reinforces the immune system. Rich in iron salts melon is good for treating anemia and various heart diseases. A high content of silicon in this paradise fruit is inspiring for women. This element is very important for the hair and skin health, which makes melon the number one cosmetic from all the foods. The melon ability to improve skin, hair and nerves was noted back in antiquity, at the same time with the fact that melon seeds benefice male strength was noted. In addition, the melon is rich in fiber, so it can be used for detox.

Despite the low calorie content melon can serve as an independent dish. Even nowadays a dekhkanin's (local for «farmer») lunch can consist of several wonderfully smelling slices and flat bread. It may seem not enough, but on a hot summer day, when usual food gets stuck in throat, melon and flat bread for a dinner satisfy hunger remarkably, as well as invigorate, strengthen for further activity and drive away laziness. Chilled melon helps to cope with superheating. This is really important while working in the sun, where the thermometer's rises up to sixty degrees Celsius. Uzbek melons The history of cultivating melons on the territory of Uzbekistan goes back hundreds of years. Both written sources and archeological sites prove it. Seeds of melon cultigen found during excavations of Toprak-kala site (I-IV century AD). It is certain that back then melons were already exported to China, Iran and India. To present day local melons' aroma and taste continue to fascinate those who try them. The climatic conditions of Uzbekistan are ideal for cultivating these paradise fruits - as they also called the melon in antiquity. They are the reason why we have a huge number of melon breeds that differ

both in look and taste. Even a small change in the sunny days' number can lead to poor harvests, so the breeding does not stop. To this day Uzbekistan has grown more than 160 varieties of melons.

There are no melons like Khorezmian melons," he wrote, "maybe with the exception of Bukharian ones, and the third best are Isfahan melons. Their peels are green, and the flesh is red, of extreme sweetness and firm texture. Surprisingly, they cut melons into slices, dry them in the sun, put them into reed baskets as it is done with Malaga figs, and take them from Khorezm to the remote cities in India and China to sell. They are the best of all dried fruit." Six hundred and eighty-one years later, I arrived in Urgench in early August after a bone-jarring, 12-hour drive by vintage, Russian-built Lada taxi from Bukhara across the forbidding wasteland of the Kyzyl-Kum ("Red Desert"). I had come in search of Ibn Batutta's melon.

Cucumis melon, the sweet dessert melon that we know today, belongs to the family Cucurbitaceae - the gourd family, which also includes zucchini, pumpkins, squash and cucumbers. The sweet melons of Central Asia have a convoluted and complex history that continues to confound taxonomists and botanical experts. According to the book *Melons of Uzbekistan*, which was based on a scientific survey by the Uzbek Research Institute of Plants carried out in 2000, Cucumis melon is thought to have come from the subspecies *agrestic* Pang, a bitter, sourtasting melon still found growing wild in Central Asia.

It is unclear exactly when sweet melons were first developed in Khorezm, an area encompassing much of modern Uzbekistan, Turkmenistan, Tajikistan, Afghanistan and northern Iran, as well as ancient Persia, which included part of northeastern Iraq. These two areas are likely the source of all sweet melons grown throughout the world today.

The earliest written mention of the sweet melons of Khorezm appears in Paradise of Wisdom, written in 850 ce by Ali ibn Sahl al-Tabari, who mentioned long, sweet melons in his chapter on vegetables. In the Arabic translation of Dioscorides' first-century ce De Materia Medica (On Medical Matters) produced around 990 in Samarkand by Al-Husayn ibn Ibraim al-Natili, there is an illustration depicting the vines and ripe yellow fruit

of Cucumis melo. The caption names it qawoun; in modern Uzbek, the word for sweet melon is qovun. Writing a bit earlier, in 955, Muhammad Abu al-Qasim ibn Hawqal, who traveled widely in Khorezm, described a long melon that was qabih al-mandar(ugly), but ghaya fi al-halawa (highest sweetness). He also mentioned that the melons were cut up, dried and "sent to numerous places in the world."



**Picture 1. The varieties of Central Asian Cucumis melo that Mkrтчhyan found adapted best to California's soil and climate were Obinavat and Mirza, above left and right. At his melon stand at the Santa Monica Farmer's Market, Mkrтчhyan, below, helps restaurateur and celebrity chef Wolfgang Puck make a selection.**

Central Asian melons, they explained, are roughly divided into the following groups: Early ripening Khandalaks; early-summer, soft-pulp Bukharica and Gurvak; summer solid-pulp Amiri; summer and autumn-winter Cassabas and autumn-winter Zard. Many of the 160 varieties also had different common names according to regional dialects. One variety named after a certain breeder in one area might be known elsewhere by the distinctive color pattern on its rind, or even by an "expression of feelings."

At lunch that day, Turdieva, whose title is forest genetic resources scientist, described her work assessing the distribution, diversity and conservation of local tree species, fruit crops and melons in Central Asia. Sustainable use of local varieties and conservation of their wild relatives are some of her special interests. During the melon expedition in 2000, she was involved with the survey of melon-growing areas, the study of farmers' plots, the listing of melons grown and the description and collection of melon seeds from old varieties. In addition to cataloging melon varieties, her work aimed at "enhancement of the use of melon genetic resources."

Uzbekistan's melons enjoy their well-earned reputation for their unusual flavor and sweetness. Of the countries in the

region, Uzbekistan has the largest amount of land devoted to melons. The total cultivated area comes to nearly 40,000 hectares of land, which yields approximately 450,000 - 500,000 tons of melons every year. Domestic consumption is high, and the largest export market is Russia. Turdieva expressed her concern about the loss of old melon varieties not only due to agribusiness pressures but also because generations of farmers and amateurs were no longer saving seeds the way they used to. To help protect the diversity of these historic and precious melon varieties, scientists now carry out regular seed-collecting expeditions and seed exchange programs to save these melon varieties for future generations of growers, breeders and researchers. To protect the old varieties, Uzbekistan now has one of the largest melon germplasm collections in the world with 1,330 accessions.

Marco Polo, in the late 13th century, had also sampled these: "They are preserved as follows: a melon is sliced, just as we do with pumpkin, then these slices are rolled and dried in the sun, and finally they are sent for sale to other countries, where they are in great demand for they are as sweet as honey."



**Picture 2. The traditional drying sheds ("melon house") mentioned by Burnaby**

#### MATERIALS AND METHODS

The nature of the melon is its richness in useful substances. The melons grown in our country contain 85-92 % water, 8-15 % dry matter, 0.8 % protein, 1.8% fibre, 6.2 % other carbohydrates, 0.9% fat, 0.6 % ash, there are 30 mg % ascorbic acids, 0.03-0.07 mg % other salts, microelements such as phosphorus, sulphur, manganese, zinc, bromine, iron, calcium, magnesium, potassium, pectin, organic and mineral salts. The sugar content of melon varieties in Uzbekistan reaches 14-16 %. The amount of fructose in its composition is sweet to the melon and the taste may be higher when glucose is present.(Buriev H.Ch., Ashurmetov O.A., 2000)The endocrinology institute of the Ministry of Health of the Republic

of Uzbekistan recommends , that every day 270 g of melons, including 100 g watermelons, 150 g melons and 20 g pumpkin.(Mavlanova R., Rustamov A., Khakimov R., Khakimov A., Turdieva M., Padulosi S., 2005) Expanding the range of melon foods, therefore, requires the storage and introduction of ripening, preserving, varieties of fruit at different times.

Nowadays, the problem of preserving the gene pool of plants is of world importance. More than 2.5 million samples of cultivated plants worldwide are stored in more than 90 countries at the gene pool.

Genbank's largest grown-ups include the National Laboratory of Reproductive Health in the United States, the World

Vegetable Centre in Thailand, the Laboratory for Genealogy Laboratory in Japan, the Institute for Plant Breeding (VIR), the All-Union Scientific Research Institute of Vegetable Crops Selection and Seeding Nordic gene banks in Norway [Roberts E.N., 1978; Burenin V.I., 2003].

The largest varieties of vegetable crops around 50,000 are being kept in Russian Grows Institute (RGI), [Sazanova L.V., 2000], Up to 50,000 varieties are kept at Russian Vegetable Growing Selection and seeding's Scientific Research Institute, around 46,000 varieties at the World Vegetable Centre [Muralo I.L., 2005] [Pivovarov N.I., 2005].

The collection of 2148 melons and 561 varieties of watermelons are kept at the Kazakhstan Cardiovascular Research Institute Genobank [Lukyanets V.N., Kiseleva N.A. and so on. 2011].

It is important to maintain the human food productivity, including the availability of melons and gourds, to improve the population's supply of melon and to increase the gene pool by introducing varieties of these crops.

We plan to cultivate the gene pool in the conditions of Khorezm region and study about their growing development in today's ecological state.

The 125 species of melon varieties of Khorezm oasis have been studied by planting 1.5 hectares of experimental area at the Khorezm Scientific Research Station of Vegetable, Soil and Potato Studies Research Institute.

The experiments were carried out under conditions of grassroots soils with heavy mechanic content.

In the autumn-winter (November-December 2017) and in the spring (February-March), saline was washed. The earth was levelled and breaking. On the 4th of May the seeds were experimented and sown on the furrows.

The plants were cultivated 3 times during the growth period, 2 layers of chromosomes, 4 times chewing gum and cuttings. The pallid shrunk 5 times.

The plants were fed with 200 kg amorphous, 400 kg of ammonium sulphate and 150 kg of potassium fertilizers. Watered only one time. Anti-flies and antifungal have been staged every 10-15 days with Senafos, Agrofos, Nurel-D chemicals.

The cultivation technology was based on a manual developed by the Scientific Research Institute of Vegetables, Melons and Potatoes (1975).

During the plant growth period the following observations and measurements were made: the main stages of growth stage (10-75%), the opening of father and baby flower, observation of fruit ripening;

- When the plants grow to maintain purity, three flowers for one flower bouquet will be isolated in the evening and bind to the dish and date label from morning to night;
- Biometric measurements of plant palsy (length of main and lateral horns, number of horns) in 3 plants;
- Estimation of plants on morphological and naval symptoms;

Each fruit is evaluated according to the following characteristics: shape, colour, flower; Weight, kg; Length, width and thickness of meat, cm; colour, taste, fat content, sugar content (by refract meter, %).

**RESULT AND DISCUSSION**

Seeds were grown in 15-16 days, and two samples of species were not released. Out of the 123 grades, 25 % varieties of colour have been observed.

The results of the phonological observations have shown that 5 varieties of melons are aged 65-75 days and ripe early ripe handles. 32 varieties have been found in 80-105 days, with the average summer melon varieties, 86 varieties of 100-140 days and fall winter varieties.

**Table 1 Examples of melon variety of phonological monitoring indicators(2018-year)**

Species Samples	Catalogue number	The sprouting of a seed	flowering, period		Ripping period
			paternity	maternity	
Zamcha – gurbek	1	16	32	40	70
Zamcha – krupno plodnaya	2	16	33	41	72
Xandalak ornjiviy krasi	3	16	30	32	65
Xandalak	4	16	35	43	75
Ak kalaposh	5	16	35	42	75
Ak bosvoldi	6	16	35	45	87
Ala burikalya	7	16	33	40	80
Tarnok s risunkam	8	16	35	40	89
Tornok	9	16	35	40	89
Xan kizi	10	16	35	41	95
Ak gurbek	11	16	38	48	98
Tarvuz- gurbek	12	16	38	48	98
Ala gurbek	13	16	45	58	105
Ala gurbek zel.myas	14	16	44	56	104
Alaxake	15	16	38	49	98
Alaxake kr. Myas	16	16	38	49	98
Non gusht Xorazm	17	16	35	42	95
Kolbyaze gurbek	18	16			
Kzil urug bel. myas	19	16	35	45	95
Bargi (ne- tipich)	20	16	32	40	85
SHirozi kr. Myas	21	0	0	0	0
Xtoi krasn. Myas	22	16	32	40	90
Xtoi II forma kr.myas	23	16	33	42	92
Djuda yuprak b/sh	24	16	35	42	95
Djuda yuprak II forma	25	16	35	42	95
Djuda yuprak III forma (dl.pl)	26	16	35	45	96
Ermak kaun Xorazmsk	27	16	33	42	95
Ak sut	28	16	32	40	90

SHirin pichek kr.myas	29	16	34	42	95
SHirin pichek zel. M	30	16	34	42	95
Ez beshak ranniy	31	16	35	40	96
Djuda guli	32	16	35	45	95
Bijir	33	16	36	48	115
Bijir	33A	16	36	48	115
Beshek I forma	35	16	35	45	110
Beshek I forma	36	16	35	45	111
Beshek I forma	37	16	35	44	100
Ez beshek I forma	38	16	35	45	102
Kara kosh beshek	38A	16	35	40	112
Beshek 11 forma	39	16	35	44	110
Beshek II forma	39A	16	35	45	112
Beshek II forma	40	16	36	48	115
Beshek II forma	41	16	36	47	108
Ez beshek II forma	42	16	35	40	101
Ez beshek II forma	43	16	35	40	100
Beshek 8 forma m.pl.	44	16	35	40	100
Beshek	45	16	36	48	115
Beshek 3 forma	46	16	36	48	115
Beshek 3 forma	47	16	36	47	114
Beshek 3 forma	47A	16	35	44	113
Beshek 4 forma	48	16	35	42	110
Beshek 4 forma	49	16	35	42	115
Beshek 4 forma( s/msun)	50	16	35	42	115
Ez beshek 4a forma	50A	16	35	40	110
Beshek 4a forma	51	16	35	46	112
Beshek 5 forma	52	16	36	47	116
Beshek sigroidnaya	53	16	36	45	112
Klichboy beshek	53A	16	37	46	114
Beshek kara kash	54	16	35	45	110
Beshek 5 forma kutur bosh	55	16	36	46	112
Kara kosh (tilich)	55A	16	36	45	115
Beshek 5a forma	56	16	36	45	116
Ala xama beshek	56A	16	38	52	135
Beshek 6 forma	57	16	37	45	120
Kzil kutur bosh	57A	16	36	46	117
Beshek 6 forma	58	16	36	46	118
Beshek 6 forma uzun	59	16	36	46	118
Beshek 6a forma	60	16	36	47	116
Beshek Yez beshek	61	16	35	45	100
Beshek Yez beshek	61A	16	35	45	100
Beshek Yez beshek	62	16	35	45	100
Beshek 7 forma uzun	63	16	35	47	110
Ak kash beshek	63A	16	35	48	110
Ez beshek 7 forma	64	16	35	46	109
Ez beshek zelen	65	16	35	46	100
Ez beshek zelen	66	16	35	46	100
Beshek 7v forma	67	16	35	46	101
Beshek 7v forma	67A	16	35	46	101
Beshek 7v forma zelen	68	16	35	46	101
Beshek 7v forma zelen	69	16	35	46	101
Beshek 8 forma zelen	70	16	35	46	101
Beshek 8 forma	71	16	35	40	100
Beshek 9 forma shar	72	16	35	46	108
Beshek 9 forma shar	73	16	35	46	108
Beshek 9 forma shar	74	16	35	46	108
Ez beshek 10 forma	75	16	35	46	108
Gulyabi zelenaya	76	16	42	58	125
Beshek forma	77	16	42	56	120
Beshek	78	16	42	50	120
Gavrok beshek	79	16	42	50	120
Kara gulyabi I forma	80	16	40	58	125
Kara gulyabi I forma	81	16	40	58	125
Kara gulyabi I forma	82	16	42	56	126
Kara gulyabi II forma	83	16	38	50	122
Kara gulyabi 3 forma yaytsevod	84	16	38	50	123
Olmurti gulyabi 2 forma	85	16	45	55	130

Navruzboy	86	16	35	45	98
Olmurti gulyabi	87	16	45	55	130
Olmurti gulyabi (tipich)	88	16	45	55	125
Olmurti gulyabi (melkaya)	89	16	35	45	99
Non gusht (krot myas)	90	16	35	45	99
Kora gulyabi 2 forma	91	16	45	55	140
Gulyabi zelenaya 1402	92	16	42	50	135
Kara gulyabi (yaytsevod)	93	16	35	48	115
Kara gulyabi	94	16	38	50	125
Kok gulyabi krup	95	16	38	50	125
Kok gulyabi krup	96	16	38	50	125
Kok gulyabi	97	16	38	50	125
Tuya kaun	98	16	35	45	119
Sarq gulyabi. uzun	99	16	35	45	120
Gulyabi oronjievaya	100	16	35	45	125
Kari kiz rannaya	101	16	35	45	115
Kari kiz (krup pl)	102	0	0	0	0
Kari kiz (pozdnaya)	103	16	45	58	145
Kari kiz krup pl.	104	16	45	58	140
Kari kiz	104A	16	45	55	140
Kutur beshek Ala Xamma	106	16	35	45	123
Alla xamma sharovidnaya	106A	16	35	45	123
Shoi kaun	107	16	35	45	115
Shoi kaun	107A	16	35	45	114
Shoi kaun	107B	16	33	42	113
Shoi kaun	108	16	33	42	113
Tuya kaun 2 forma	109	16	35	45	120
Kutur 2 forma	110	16	35	45	123
To'yona		16	35	45	105

According to the results of biometric measurements, the varieties of handalak were determined from 150 to 210.6 cm, the total length of the bush from 706 cm to 822.9 sm, the number of sacks from 3 to 3.7. The main varieties of semi-summer melon varieties were from 80.5 cm to 179.7 sm, the

total length was 406 cm to 944.7 sm, and the number of sidewalks ranged from 3 to 5. The main varieties of autumn winter melon varieties are from 82.5 sm to 200 sm, and the number of sacks from 445.5 sm to 982.5 sm in total length is 3.5 to 5.

**Table 2 Examples of melon variety of biometric measurements and indicators(2018-year)**

Species Samples	Catalogue number	The length of the main stem sm	The length of the side branchesm	Total length sm	The number of side branches
Zamcha - gurbek	1	210,6	612,3	822,9	3,7
Zamcha - krupno plodnaya	2	161,3	544,7	706	3
Xandalak orajivnqy krasi.	3	197,7	539	736,7	3,3
Xandalak	4	165,3	615	780,3	3,7
Ak kalaposh	5	150	623,6	773,6	3,7
Ak bosvoldq	6	176	574,5	750,5	3
Ala burikalya	7	118,7	578,3	697	4,3
Tarnok risunkam <sup>s</sup>	8	118,7	415,3	534	3
Tornok	9	147,3	486,7	634	3,7
Xan kqzq	10	161,3	667	828,3	3,7
Ak gurbek	11	131,7	471,3	603	3,3
Tarvuz- gurbek	12	118	420,7	538,7	3,3
Ala gurbek	13	152,7	514,7	667,4	3,3
Ala gurbek zel.myas	14	150	593	743	3,7
Alaxake	15	179,7	765	944,7	4
Alaxake kr. Myas	16	165	635,7	800,7	3,7
Non gusht Xorazm	17	157,3	580,7	738	3,7
Kolg'yaze gurbek	18	159,3	646,7	806	3

Kzql urug bel. myas	19	179	693	872	4
Baryi (ne- tipich)	20	150	639	789	4
SHirozi kr. Myas	21	120	437	557	3,5
Xtoi krasn. Myas	22	124	534	658	4
Xtoi II forma kr.myas	23	127,5	556,5	684	4
Djuda yuprak b/sh	24 -	80,5	325,5	406	4
Djuda yuprak II forma	25	96,5	326	422,5	4
Djuda yuprak III forma (dl.pl)	26	147,5	684,5	832	4
Erkak kaun Xorazmsk	27	141,5	545	686,5	4
Ak cV'T t&-	28	120	599	719	4
SHirin pichkek kr.myas	29	166	653,5	819,5	4
SHirin pichkek zel. M	30	167	575	742	4
Ez beshak ranniy	31	105	433,5	538,5	4
Djuda guli	32	125,5	519,5	645	4
Bijir	33	174	631	805	4
Bijir	33A	177,5	707	884,5	4
Beshek I forma	35	131	479,5	610,5	4
Beshek I forma	36	160	566	726	4
Beshek I forma	37	138,5	514	652,5	4
Ez beshek I forma	38	97	614,5	711,5	4
Kara kosh beshek	38A	99	602,5	701,5	4
Beshek 11 forma	39	138,5	525	663,5	4
Beshek II forma	39A	138,5	539,5	678	4
Beshek II forma	40	128,5	560	688,5	4
Beshek II forma	41	115	426,5	541,5	4
Ez beshek II forma	42	173	594	767	4
Ez beshek II forma	43	163	513,5	676,5	3,5
Beshek 8 forma m.pl.	44	142,5	385	527,5	3
Beshek	45	126,5	619	745,5	4,5
Beshek 3 forma	46	100	383	483	4
Beshek 3 forma	47	82,5	388,5	471	4
Beshek 3 forma	47A	177	588	765	4
Beshek 4 forma	48	152,5	564,5	717	4
Beshek 4 forma	49	123,5	521	644,5	4
Beshek 4 forma (s/msun)	50	146	540	686	4
Ez beshek 4a forma	50A	145,5	712	857,5	5
Beshek 4a forma	51	128	504	632	4
Beshek 5 forma	52	121	480	601	4
Beshek sigroidnaya	53	132,5	495	627,5	4
Klqchboy beshek	53A	116,5	504	620,5	4
Beshek kara kash	54	170	696	866	4
Beshek 5 forma kutur bosh	55	142	633,5	775,5	4
Kara kosh (tilich)	55A	132,5	587	719,5	4
Beshek 5a forma	56	107,5	450	557,5	4
Ala xama beshek	56A	157,5	580	737,5	4

Beshek 6 forma	57	126,5	558,5	685	4,5
Kzql kutur bosh	57A	156	623	779	4,5
Beshek 6 forma	58	145	618	763	4
Beshek 6 forma uzun	59	140	643,5	783,5	4,5
Beshek 6a forma	60	107,5	611,5	719	4
Beshek Ez beshek	61	127,5	533	660,5	4
Beshek Ez beshek	61A	147,5	538	685,5	4
Beshek Ez beshek	62	162,5	717,5	880	4
Beshek 7 forma uzun	63	100	409,5	509,5	4
Ak kash beshek	63A	90,5	365	455,5	4
Ez beshek 7 forma	64	128	506,5	634,5	4
Ez beshek zelen	65	135	514	649	4
Ez beshek zelen	66	150	548	698	4
Beshek 7v forma	67	135	757,5	892,5	5
Beshek 7v forma	67A	145	583,5	728,5	4
Beshek 7v forma zelen	68	160	616,5	776,5	4
Beshek 7v forma zelen	69	160	563	723	4
Beshek 8 forma zelen	70	142,5	538,5	681	4
Beshek 8 forma	71	109	551,5	660,5	4
Beshek 9 forma shar	72	167,5	544,5	712	4
Beshek 9 forma shar	73	152,5	595	747,5	4
Beshek 9 forma shar	74	118	513	631	4
Ez beshek 10 forma	75	139	528	667	4
Gulyabi zelenaya	76	145	638,5	783,5	4,5
Beshek forma	77	190	780	970	4
Beshek	78	140	572,5	712,5	4
Gavrok beshek	79	147,5	477,5	625	4
Kara gulyabi I forma	80	132,5	533,5	666	4
Kara gulyabi I forma	81	157,5	630	787,5	4
Kara gulyabi I forma	82	146,5	667,5	814	4,5
Kara gulyabi II forma	83	157,5	617,5	775	4
Kara gulyabi 3 forma yaytsevod	84	137,5	600	737,5	4
Olmurti gulyabi 2 forma	85	157,5	560	717,5	4
Navruzboy	86	140	567,5	707,5	4
Olmurti gulyabi ( )	87	192,5	777,5	970	4
Olmurti gulyabi ( tipich )	88	157,5	652,5	810	4
Olmurti gulyabi (melkaya)	89	185	737,5	922,5	4
Non gusht (krot myas)	90	165	752,5	917,5	4,5
Kora gulyabi 2 forma	91	117,5	437,5	555	4
Gulyabi zelenaya 1402	92	180	682,5	862,5	4
Kara gulyabi (yaytsevod)	93	165	662,5	827,5	4
Kara gulyabi	94	175	637,5	812,5	4

Kok gulyabi krup	95	177,5	637,5	815	4
Kok gulyabi krup	96	145	600	745	4
Kok gulyabi	97	200	782,5	982,5	4
Tuya kaun	98	170	612,5	782,5	4
Sarq gulyabi. uzun	99	137,5	565	702,5	4
Gulyabi oronjievaya	100	175	697,5	872,5	4
Kari kiz rannaya	101	175	762,5	937,5	4
Kari kiz (krup pl)	102	185	782,5	967,5	4
Kari kiz (pozdnaya)	103	147,5	692,5	840	4
Kari kiz krup pl.	104	200	632,5	832,5	4,5
Kari kiz	104A	147,5	542,5	690	4
Kutur beshek Ala Xamma	106	162,5	670	832,5	4
Alla xamma sharovidnaya	106A	152,5	727,5	880	4
SHoi kaun	107	172,5	660	832,5	4
SHoi kaun	107A	140	587,5	727,5	4
SHoi kaun	107B	177,5	780	957,5	4,5
SHoi kaun	108	137,5	697,5	835	4
Tuya kaun 2 forma	109	165	615	780	4
Kutur 2 forma	110				
To'yona					

According to a brief description of the economic characteristics, the varieties of handalak have an average yield of 0.6 kg to 3.1 kg, thickness from 2.6 cm to 6.5 cm, the content of solids content varies from 7.5% to 10% . Average fruit weight of semi-summer melons ranges from 1.1 kg to 9.5 kg, thickness from 2.8 cm to

7.7 cm, content of solids content from 5.4% to 15.8%. The average weight of melon-winter melon fruits is from 3 to 11.5 kg, and the thickness from 4.2 cm to 9.3 cm is found to be 7.2% to 15.8%.

**Table 3 Brief description of the melons economic signs (2018-year)**

Species Samples	Catalogue number	The weight of the fruit kg	The thickness sm	The amount of soluble dry matter%
Zamcha - gurbek	1	0,6	2,6	8,5
Zamcha - krupno plodnaya	2	1,2	3	9,1
Xandalak orajivngy kraski.	3	1,5	3	7,5
Xandalak	4	3	5	9,5
Ak kalaposh	5	3,1	6,5	10
Ak bosvoldq	6	2,4	4,2	13
Ala burikalaya	7	2,7	5,9	13
Tarnok risunkam	8	2,5	4,4	14
Tornok	9	1,5	3	5,4
Xan kqzq	10	3	5	12,1
Ak gurbek	11	2	3	11,5
Tarvuz- gurbek	12	1,8	2,8	12,1
Ala gurbek	13	3	4,4	8,5
Ala gurbek zel.myas	14	3,2	3,8	12,8
Alaxake	15	3,3	5	11
Alaxake kr. Myas	16	3,9	4,9	14,1
Non gusht Xorazm	17	3,1	4,2	7,9
Kolg'yaze gurbek	18	2,8	4,7	11,7
Kzql urug bel. Myas	19	3,5	4,6	13,3
Baryi (ne- tipich)	20	3,8	5	12,5
SHirozi kr. Myas	21			
Xtoi krasn. Myas	22	4,3	4,7	13,4
Xtoi II forma kr.myas	23	2	3,7	12,8
Djuda yuprak b/sh	24 -	1,4	3,1	13,2



Djuda yuprak II forma	25	2,1	3,5	13,6
Djuda yuprak III forma (dl.pl)	26	3,8	4,5	11,7
Erkak kaun Xorazmsk	27	2,4	3,5	13,9
Ak cV'T t&-	28	2,1	3,7	15,2
Shirin pichkek kr.myas	29	3,7	4,5	12,1
Shirin pichkek zel. M	30	3,9	4,2	13,3
Ez beshak ranniy	31	2,1	4,3	10,3
Djuda guli	32	5,7	4,9	10,4
Bijir	33	7,1	7,1	12,2
Bijir	33A	7,1	7,5	13,1
Beshkek I forma	35	5,7	5,3	11,9
Beshkek I forma	36	5	4,7	9,5
Beshkek I forma	37	4,8	5,7	13,1
Ez beshkek I forma	38	7,4	6,1	12,9
Kara kosh beshkek	38A	6,9	6	12,2
Beshkek 11 forma	39	6,3	5,5	11,1
Beshkek II forma	39A	6,3	5,4	12
Beshkek II forma	40	5,9	5,5	11,6
Beshkek II forma	41	7,2	5,9	10,8
Ez beshkek II forma	42	4,6	5,5	15,8
Ez beshkek II forma	43	5,5	5,9	13,3
Beshkek 8 forma m.pl.	44	3	4,7	15
Beshkek	45	3,5	4,8	12,2
Beshkek 3 forma	46	6,1	6,8	13,3
Beshkek 3 forma	47	5,2	6,3	15,2
Beshkek 3 forma	47A	6,8	5,8	13,3
Beshkek 4 forma	48	5,1	5,2	12,5
Beshkek 4 forma	49	5,3	6,9	11
Beshkek 4 forma (s/msun)	50	7	6,3	9
Ez beshkek 4a forma	50A	8,9	6,8	8
Beshkek 4a forma	51	10,8	7,2	7,4
Beshkek 5 forma	52	6,3	6	13,8
Beshkek sigrovidnaya	53	3,4	4,5	15,7
Klqchboy beshkek	53A	6,5	5,2	11,5
Beshkek kara kash	54	7,7	6,6	11,3
Beshkek 5 forma kutur bosh	55	6,5	6,3	12,3
Kara kosh (tilich)	55A	7	6	10
Beshkek 5a forma	56	4,5	6	8,5
Ala xama beshkek	56A	7,1	5,3	11,3
Beshkek 6 forma	57	4,4	5	11
Kzql kutur bosh	57A	11,3	7,3	7,2
Beshkek 6 forma	58	6,2	6	11
Beshkek 6 forma uzun	59	4,2	4,7	12
Beshkek 6a forma	60	2,7	5	10,4
Beshkek Ez beshkek	61	4,4	5,3	14
Beshkek Ez beshkek	61A	4,3	5,5	12,5
Beshkek Ez beshkek	62	4	5,5	14,3
Beshkek 7 forma uzun	63	2,8	4,2	8,7
Ak kash beshkek	63A	4,5	4,7	11,8
Ez beshkek 7 forma	64	5,8	5,8	13,3
Ez beshkek zelen	65	4,8	5,9	11,7
Ez beshkek zelen	66	6	6,3	10,3
Beshkek 7v forma	67	4,2	4,5	11,8
Beshkek 7v forma	67A	6	5,5	11,5
Beshkek 7v forma zelen	68	5,5	5,7	12,5
Beshkek 7v forma zelen	69	5,9	6,8	12,5
Beshkek 8 forma zelen	70	6	5,5	10

Beshek 8 forma	71	6	6,2	11,5
Beshek 9 forma shar	72	5,5	6	14,8
Beshek 9 forma shar	73	4,8	5,7	15,5
Beshek 9 forma shar	74	7,5	6,2	13,2
Ez beshek 10 forma	75	5,7	6	12,1
Gulyabi zelenaya	76	7,6	6,3	13,4
Beshek forma	77	7,6	5	13,5
Beshek	78	10,5	5,6	11,3
Gavrok beshek	79	5	5,5	9,4
Kara gulyabi I forma	80	6	5,5	11
Kara gulyabi I forma	81	9	5,5	12,3
Kara gulyabi I forma	82	6,5	5,3	14,3
Kara gulyabi II forma	83	7,5	6,5	11,5
Kara gulyabi 3 forma yaytsevod	84	8	6,3	11,3
Olmurti gulyabi 2 forma	85	7,5	5,3	15,1
Navruzboy	86	9,5	7,7	8,5
Olmurti gulyabi ( )	87	6,8	4,3	10,8
Olmurti gulyabi ( tipich )	88	8,3	5,5	15,1
Olmurti gulyabi (melkaya)	89	5,3	4,2	10,6
Non gusht (krot myas)	90	4,7	5	15,3
Kora gulyabi 2 forma	91	7	5,5	8,8
Gulyabi zelenaya 1402	92	5,3	6	12,2
Kara gulyabi (yaytsevod)	93	5,8	5,8	13,2
Kara gulyabi	94	6,1	6,5	11,3
Kok gulyabi krup	95	11,5	7	8,5
Kok gulyabi krup	96	11	6,3	8,3
Kok gulyabi	97	10	6,9	13,8
Tuya kaun	98	8	6,8	14
Sarq gulyabi. Uzun	99	5,3	5	13,5
Gulyabi oronjievaya	100	6,5	5,5	12,2
Kari kiz rannaya	101	6,1	5,5	11
Kari kiz (krup pl)	102	0	0	0
Kari kiz (pozdnyaya)	103	6,8	5,5	11,2
Kari kiz krup pl.	104	9,5	7,5	13,5
Kari kiz	104A	8,5	7	11,3
Kutur beshek Ala Xamma	106	6,1	7	10,7
Alla xamma sharovidnaya	106A	7,3	6	10,7
SHoi kaun	107	8,8	6,6	13
SHoi kaun	107A	6,5	6,6	12,6
SHoi kaun	107B	9	6,4	13
SHoi kaun	108	9,5	7	11,3
Tuya kaun 2 forma	109	9,5	7	11,5
Kutur 2 forma	110	9	6,5	12
To'yona		6,8	5,3	13,5

In summary, there are 228 single-choice seeds in this collection. Under the alluvial soils of the Khorezm region, Oq bosvoldi, Xon qizi, Urganchi, Olla hamma (red), Oq sut, Qotir beshak, Beshak-type of fifth and ninth, Xiva beshagi, Qora gulobi, Olmurta gulobi, Non gosht, the high flow of sugar is high in sugar content.

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#### REFERENCES

1. On additional measures for the improvement of the system of procurement and use of fresh fruit-vegetables, potatoes and soil products of the President of the Republic of Uzbekistan dated January 6, 2017 decision.
2. The assignment of the cabinet of Ministers of the Republic of Uzbekistan N 33 on February 27, 2017: Complex meeting on education and science, youth policy, culture information systems and telecommunications.
3. Abdullaev S.A., Boirov A.J., Sattorov S. Soil areas of Khorezm Region.-Tashkent: Science, 2002.
4. Azimov B.J., Azimov B.B. Methods of conducting experiments in vegetable, field and potato. Tashkent, 2002 y.
5. Buriev X.S., Ashurmetov O.A. Biology of fields and technology of cultivation 2000 y, 115 p.
6. Practical lessons from gardening 1997 y, 203 p.
7. Methods of field experiments. Tashkent 2007, 147 p.
8. Yarmatova D. Biology of fields and technology of cultivation Tashkent, 2000.
9. Hector G. Nuñez-Palenius, Miguel Gomez-Lim, Neftali Ochoa-Alejo, Rebecca Grumet, Gene Lester & Daniel J. Cantliffe. / Melon Fruits: Genetic Diversity, Physiology, and Biotechnology Features. / Critical Reviews in Biotechnology. / Volume 28, 2008 - Issue 1. Pages 13-55, 2008.
10. R. Mavlyanova, A. Rustamov, R. Xakimov, A. Xakimov, M. Turdieva, S. Padulosi. / MELONS OF UZBEKISTAN. / ISBN 978-92-9043-711-6. IPGRI Via dei Tre Denari 472/a 00057 Maccareze Rome, Italy, 2005.
11. Desai B.B, Salunkhe D.K. Fruits and Vegetables. Foods of Plant Origin, 1991, 301-412.
12. Aranceta J. Fruits and Vegetables. Archivos Latinoamericanos de Nutricion 2004; 54 (1):65-71.
13. Vijaya Anand , Varalakshmi , Prasana , Sampath Kumar , Pushpa , Agaath Hedina. "Cinnamomum zeylanicum Linn. The spice with multi potential." Systematic Reviews in Pharmacy 7.1 (2016), 24-29. Print. doi:10.5530/srp.2016.7.3