

ISSN: 2249-7137

Vol. 11, Issue 3, March 2021 Impact Factor: SJIF 2021 = 7.492



ACADEMICIA An International Multidisciplinary Research Journal



DOI: 10.5958/2249-7137.2021.00619.4

THE INFLUENCE OF TECHNOLOGICAL CHARACTERISTICS IN THE STORAGE OF MELON FRUIT GROWN IN THE CONDITIONS OF KARAKALPAKSTAN

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ABSTRACT

In this article, the information on research on scientific justification of reproduction of products prepared on the basis of technology of processing of melon fruit in the conditions of the Republic of Karakalpakstan was taken as the basis. At the same time, the influence of technological properties and chemical composition of zucchini on the properties of preservatives has been studied.

KEYWORDS: *Melon, Sugar Content, Consistency, Chemical Composition, Cutlet, Hemicellulose, Starch, Pectin Substances, Organic Acids.*

INTRODUCTION

In the tropical, subtropical and temperate climatic regions of the planet earth, melon crops are grown on 6.2 million hectares. In the same area 142.4 million tons are grown melon crops. In order to obtain melon seeds in seed farms in the Republic of Uzbekistan, an average of 15-20 thousand tons of products are spent every year. As a result of such a large amount of melon processing, more than 10 thousand tons of melon can be distinguished. The chemical composition of melon meat includes sugar (sucrose, fructose, glucose), cutlet, hemicellulose, starch, pectin substances, organic acids (lemon, oxalate, Apple acids), various vitamins: C, carotene, B6, B15, B1, E, macro-and micronutrients: magnesium, phosphorus, sulfur, chlorine, manganese, iron, copper, fluorine, zinc.

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ISSN: 2249-7137 Vol. 11, Issue 3, March 2021 Impact Factor: SJIF 2021 = 7.492

Purpose of the study: scientific justification of reproduction of products prepared on the basis of technology of processing of melon fruit in the conditions of the Republic of Karakalpakstan.

Research objectives:to investigate the cultivation and ripening periods of melon varieties suitable for storage and processing of crops in zone conditions; to determine the consistency and biochemical composition of the fruit flesh of local melon varieties; improvement of methods of storage and drying of fruits;

The following are the **scientific novelty** of the recearches:for the first time, samples of varieties suitable for storage and processing were allocated from the melon collection; the density and biochemical composition of the fruit flesh of local melon varieties were determined;-the methods used in the preparation of beeswax from melon fruits have been improved; the economic efficiency of processed ishlangan products was determined; -the types of technology for processing melon fruits are improved and introduced into farmer farms.

Researchs on the determination of the specificity of melon varieties. Seeds of melons, which gave low figures in 2018 year, were not sown in 2018 year, and newly brought seeds were sown. The yield of the melon varieties under study was observed to be different in terms of varieties. In melon varieties such as OltinVodiy and Qora gulobi, Mestnaya (212), Saxovat, higher yield in 2017 year compared to other varieties, and in 2018 Qora gulobi, OltinVodiy, Saxovat varieties gave good indicators on productivity (Table 1).

		2017 y.	-	2018 y.		
Nº	Varieties	An early harvest	Total yield	An early harvest	Total yield	
1.	B/nomer, K-199	10,3	26,4	9,5	22,5	
2.	Rizil-asani	9,7	24,5	9,6	21,0	
3.	Qoragulabi	14,5	35,6	13,2	30,2	
4.	Mestnaya (212)	13,8	35,1	12,4	31,4	
5.	Mestnaya (783)	12,1	26,3	8,4	-	
6.	Bargi (578)	7,1	17,2	5,8	16,1	
7.	Shakar-palak (582)	9,2	18,7	7,3	16,8	
8.	Shirin-pechak (433)	9,3	10,3	8,4	10,0	
9.	Taluk-aktila (826)	12,1	23,4	11,2	21,4	
10.	Qora-kokcha (785)	14,2	26,4	10,2	-	
11.	Kari-kiz (902)	14,6	27,4	12,3	-	
12.	Ak-navat (390)	18,0	32,6	17,0	29,6	
13.	Saxovat	17,5	34,3	16,8	30,2	
14.	Suyunchi-2	16,4	30,4	16,0	27,3	
15.	Oltinvodiy	17,0	35,4	15,9	31,5	
16.	Zargulabi	16,5	30,3	15,8	28,0	
17.	Oltintepa	13,8	26,3	12,4	-	
18.	Dilxush	12,4	28,4	12,5	25,6	
19.	HoneyOhm	-	-	10,1	27,8	

TABLE 1. YIELD OF MELON VARIETIES

 (Chimboy district, OODITI senior Experimental Station, t/ha)

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ISSN: 2249-7137		Vol. 11, Issue	e 3, March 2021	Impact Factor: SJIF 2021 = 7.492		
20.	Dotteks	-	-	13,2	26,5	
21.	AFX-36068	-	-	12,3	24,7	
22.	Kukcha	-	-	11,4	25,6	
23.	Qorapuchok	-	-	10,8	26,4	



Picture 1. Yield of melon varieties (2017 year)

Biochemical indicators of the freshness and fruiting of melon varieties. The external, internal appearance and taste of the varieties are of great importance when selling the melon crop or delivering it abroad. In cooperation with the scientific staff of the laboratory "selection of carrots and melons" of the scientific research institute of carrots, melons and potatoes, morphobiological signs of melons varieties were studied.

TABLE2. SHELF LIFE AND CONVENIENT TRANSPORTATION OF THE STUDIED VARIETIES, (REPUBLIC OF KARAKALPAKSTAN, OODITI, 2018 Y.)

N⁰	Name of the varieties	Thickness	Hardness	Transportability				
Ков	Қовун							
1.	Qariqiz (K-902)	thick	solid	comfortable				
2.	AkNovvot (K-390)	thick	solid	comfortable				
3.	Talikaktila (K-826)	thick	swelling	uncomfortable				
4.	Shirinpeshak (K-433)	thin	average	uncomfortable				
5.	Bargi (K-578)	average	solid	uncomfortable				
6.	Saxovat	thick	solid	comfortable				
7.	Dilxush	average	average	uncomfortable				
8.	Oltintepa	average	average	uncomfortable				
9.	Zargulobi	thick	solid	comfortable				
10.	Suyunchi-2	average	solid	uncomfortable				

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11.	Mestnaya (K-783)	average	average	uncomfortable
12.	Qoragulobi (K-246)	thick	solid	comfortable
13.	Shakarpalak (K-582)	thin	average	uncomfortable
14.	Qorakukcha (K-785)	thick	average	uncomfortable
15.	Q\Kizilasani (K-500)	thin	swelling	uncomfortable
16.	Mestnaya (K-212)	thick	solid	comfortable
17.	Beznazvaniya (K-199)	thin	swelling	uncomfortable
18.	Oltinvodiy	thick	solid	comfortable

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In the experiments, it was studied that the fruit weight of melon varieties varies over time, the amount in the blood, the soluble dry matter and long-term storage. These signs are of great importance in the cultivation of melon intended for export.

Among melon varieties, sugar content in the Kara asani variety was 12,5%, the amount of soluble dry matter was 15,5%, the weight lost on 52 day was 630 Gramm. It turned out that the indicators of the economic indicators of the Oldinvodiy, Zargulobi, AFX-36068 and Saxovat varieties are higher than those of other varieties.

From the varieties studied during the experiments, 5 pieces of melon were selected to be sent to the laboratory for the purpose of studying the density, appearance, color, shape and biochemical composition of the fruits. Of the studied varieties, Ak novot variety with a high weight was distinguished (4.2 kg.). The minimum weight was included in the fruits of the following varieties: when the sample K-212 was equal to 1.4 kg, the honey Ohm variety was equal to 1.6 kg. The following varieties with respect to the meat Fortress had high indicators: Qorapuchok - 4-5,5 cm, Ak novat 5,0 CM, Zargulobi 4,5 CM.

TABLE 3 INDICATIONS FOR INDUSTRIAL AND BIOCHEMICALCHARACTERIZATION OF MELON VARIETIES

		Fruit weight, kg.			Amount	The	Thickness	
№	Name of the variety	26.08.18y.	09.10.18 y.	Lost weight on 52 days,	of soluble dry	amount of sugar,	of meat, CM	Months of storage
1.	Qizilasani	2,870	2,240	630	15,5	12,4	3,5	Didnotsave
2	Kukcha	2 180			85	6.8	3.0	Didnotsave
3.	Qorapuchoq	4,175	3,790	385	11	8,8	4-5,5	Didnotsave
4.	K-199	3,500	-	-	11	8,8	5,0	Didnotsave
5.	K-212	1,615	1,395	220	11	8,8	4,0	Didnotsave
6.	Bargi	1,505	-	-	13	10,4	3,5	Didnotsave
7.	Shakarpalak	2,855	2,545	315	13	10,4	4,0	Didnotsave
8.	Shirinpishak	-	-	-	-	-		-
9.	Talikaktila	2,500	-	-	14	11,2	4,5	Didnotsave
10.	Honey ohm	1,820	1,610	210	13,5	10,8	3,5	Didnotsave
11.	Dotter-F ₁	-	-	-	-	-		-
12.	Aknovat	5,205	4,180	1025	13,5	10,8	4,0-5,0	Did not save
13.	Saxovat	3,090	2,435	655	13,5	10,8	4,0	Stored

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14.	Suyunchi-2	3,035	2,500		16,4	14,5	3,0	Stored (20)
15.	Oltinvodiy	2,600	2,430	170	12	9,6	4,5	Stored
16.	Zargulobi	2,800	2,700	100	13	10,4	4,5	Stored
17.	AFX-36068	2,985	2,870	115	12	9,6	4,0	Stored
18.	Dilxush	3,385	3080	305	12	9,6	4,0	Stored
19.	Qoragulobi	3,180	2640	540	7,5	6,0	4,0	Stored

The weight, shape, sugar content and soluble dry matter of the varieties of melon crops are of great importance in their salinity properties. Especially important is its soundness in overseas exports. All tested varieties of melons are kept in special conditions in the varieties collection of Karakalpakstan Agricultural Research Institute.

In our experiments, varieties of melons, of which high figures were obtained, were grown under the farmer's Farm Act and poured into storage in special rooms for delivery to peasant farms.

CONCLUSIONS

According to the results of laboratory analysis, the sugar content in the Kizil asani variety of melon was 12,5%, the amount of soluble dry matter was 15,5%, the weight lost on 52 day was 630 Gramm. It turned out that the indicators of the economic indicators of the OltinVodiy, Zargulobi, AFX-36068 and Saxovat varieties are higher than those of other varieties. The yield of melon varieties has changed from 17,1 to 37,3 tons per hectare. The highest (from 26.9-36.8 t/ha and quality (dry matter in the composition from 14.0%, confectionery more than 12.0%) commodity harvest melon summer Toshloqli - 862, Novotkalla, L-152, blue tinni - 1087, transverse lace, white-baker, Samarkand obi novvoti, Lazzatli, OltinVodiy, Saxovat, Tuyona, Ich-kizil, Dilkhush, Ok kovun - 557, Kukcha - 588 varieties were obtained. The thickness of the bark of melons is of great importance in transportation and storage in remote areas. Among the melon varieties, the thickness of the bark was black birch, K-199, 4-5 cm in the varieties of OltinVodiy and Zargulobi.

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ISSN: 2249-7137 Vol. 11, Issue 3, March 2021 Impact Factor: SJIF 2021 = 7.492

P.1227-1231 (№12-Index Copernicus ICV=79.57; №23-SJIF, IF=7.426; №40-Research gate, IF=0,28).