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Biochemical Indicators of Fruits of Melon Varieties Suitable for Storage in the Conditions of the Republic of Karakalpakstan

Sultanov Jetkerbay Davletbayevich
Independent researcher of Tashkent State Agrarian University
E-mail: Jetkerbaysultanov1989@gmail.com

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Abstract: This article presents information on the biochemical parameters of the fruits of melon varieties grown in the climate conditions of the Republic of Karakalpakstan.

Keywords: freshness, sugar content, flesh thickness, fruit weight.

Introduction

Melon is important among agricultural crops due to its sweetness. Melon varieties differ in quality of taste, sugar content, colors and shapes [1; 2; 3; 4]. In folk medicine, melons are widely used against kidney, atherosclerosis, tuberculosis, rheumatism and anemia diseases. Asian countries account for more melon exports than other countries. Of this, the People's Republic of China exports 55% of melon products. In addition, Turkey, the USA, Iran, Egypt and Mexico are leading exporters of local varieties of melons. 1.5 billion annually worldwide. melons are exported around the dollar [5].

Among the continents, the European Union is 44.1%, North American exporters are in second place with 34.7%, and Asian countries are 9.1%. These are the countries of Mexico, Spain, USA, Italy, Holland, Greece, Morocco, Vietnam, Brazil, China, Guatemala, Panama, Malaysia, Costa Rica, Iran [6].

In recent years, due to the changes in the agriculture of our republic by the government of the Republic, attention has also been paid to policing. It is also necessary to especially in the era of a market economy, when food is a problem. For this purpose, in the development of Uzbekistan's policing, it is necessary to restore and expand the area of rare melon varieties that are disappearing and are rarely cultivated, and to improve methods of storage and processing of melon products.

Materials and methods

Melon seeds were sown in double rows (210+70): 2x70cm in the experimental field according to the following scheme.

The experiment was carried out in 4 repetitions and 10 samples were left in each variant. 30 kg/ha of phosphorus and 50 kg/ha of nitrogen were applied after the seeds were planted, and 50 kg/ha of nitrogen fertilizers were applied during the flowering period.

All information obtained on the basis of experience B.A. Statistical analysis was performed based on the methodology of Dospekhov (1985) and with the help of MC Exel computer program.

The quality of melon products is based on the Interstate standard number GOST 7178-85, on the basis of the EEC OON FFV-23 standard of the United Nations Economic Commission for Europe, the staff

of the Karakalpakstan Research Institute of Agricultural Research and the Scientific Research Institute of Vegetables, Vegetables and Potatoes.

Results

The appearance of varieties, freshness and taste of the product are of great importance in the sale or delivery of melon crops abroad.

In the experiments, changes in the fruit weight of melon varieties according to the period, blood content, soluble dry matter and long-term storage were studied. These characteristics are of great importance in the cultivation of melons intended for export.

Table 1. **Indicators on economic and biochemical characteristics of melon varieties**

№	Variety name	Soluble dry matter content, %	Total sugar content, %	Glucose, %	Fructose, %	Sucrose, %
1.	Qizil asani	15,5	12,4	2,9	2,6	6,9
2.	Kukcha	8,5	10,4	2,0	1,9	6,5
3.	Qora puchoq	11	12,3	3,1	2,5	6,7
4.	K-199	11	11,6	2,7	2,1	6,8
5.	K-212	11	10,3	2,2	1,8	6,3
6.	Bargi	13	10,3	2,4	1,9	6,0
7.	Shakar palak	13	10,4	2,5	1,9	6,0
8.	Shirin pishak	-	-			
9.	Talik aktila	14	11,2	2,7	2,1	6,4
10.	Honey ohm	13,5	10,8	2,6	1,9	6,3
11.	Dotter-F_1	-	-			
12.	Ak novat	13,5	10,8	2,4	1,9	6,5
13.	Saxovat	13,5	10,8	2,5	1,8	6,3
14.	Suyunchi-2	16,4	13,8	3,7	2,8	7,3
15.	Oltin vodiy	12	9,9	2,2	1,7	6,0
16.	Zargulobi	13	10,4	2,0	1,9	6,5
17.	AFX-36068	12	9,7	2,0	1,7	6,0
18.	Dilxush	12	9,6	2,0	1,6	6,0
19.	Qoragulobi	7,5	8,6	1,8	1,6	5,2

Among the varieties of melons, the amount of sugar was 12.5%, the amount of soluble dry matter was 15.5%, and the weight lost in 52 days was 630 grams. It was found that Oltin vodiy, Zargulobi, AFX-36068 and Saxovat varieties had higher economic characteristics than other varieties (Table 1).

During the experiments, 5 pieces of melon fruits were taken from the studied varieties and sent to the laboratory in order to study the density, appearance, color, shape and biochemical composition of the fruits. Among the studied varieties, the Aq novot variety with a high weight (4.2 kg.) was isolated. Fruits of the following varieties were included in the minimum weight: the K-212 sample was 1.4 kg, and the Honey Ohm variety was 1.6 kg.

According to the thickness of the meat, the following varieties had high indicators: Black Puchug - 4-5.5 cm, Ak Novat - 5.0 cm, Zargulobi - 4.5 cm.

The weight, shape, sugar content and soluble solids of melon varieties are of great importance in the commercial properties

Productivity is especially important when exporting abroad. All tested varieties of melon crops are kept under special conditions in the collection of varieties of Karakalpakstan Agricultural Research Institute.

Conclusion

1. According to the results of the laboratory analysis, the amount of sugar in the Kyzil Asani variety of melon was 12.5%, the amount of soluble dry matter was 15.5%, and the weight lost in 52 days was 630 grams. It was found that the values of the Oltin vodiy, Zargulobi, AFX-36068 and Saxovat varieties are higher than other varieties.

2. The thickness of the shell of polys crops is of great importance for long-distance transportation and storage. Among melon varieties, the thickness of the peel was 4-5 cm in Qora puchoq, K-199, Oltin vodiy and Zargulobi varieties.

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