



STUDY OF THE CHEMICAL COMPOSITION OF MELON PEEL

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Abstract. Melon is one of the main polish products. It is not only valuable for consumption when it is ripe, but it does not lose its taste even after processing.

Key words: Melon, glucose, fructose, sucrose, dried melon rind, drying in the sun.

Currently, there are more than 160 cultivated varieties of melons in Uzbekistan, they differ from each other in terms of ripening period, productivity, taste, shelf life of fruits, and most of them have gained world fame.

Currently, 36 varieties of melon are included in the State Register, of which: 9 are early ripening, 15 are medium ripening, and 12 are late ripening varieties. Eight of the varieties in the State Register belong to local varieties. Most of these melon varieties have been cultivated for several decades.

In the works of great scientists and physicians Iskari Olim (IV century BC) and Abu Ali ibn Sina (X century AD) it is mentioned that melon is used in the treatment of many diseases. Medicinal properties of melon have been confirmed by modern medical science. Its consumption helps to control many physiological processes. It is used as a medicine for kidney, stomach, liver diseases, atherosclerosis, bronchitis, tuberculosis, kidney diseases and anemia. Melon seed tinctures are used to treat cough, skin and stone diseases.

The Republic of Uzbekistan is the largest policing region in Central Asia. More than 35,000-40,000 hectares of land are allocated to poliza crops here every year, and the total yield is 450,000-500,000 tons. amount of gross harvest is being obtained.

Melon contains sugar compounds such as glucose, fructose and sucrose, as well as a large amount of fiber, hemicellulose, pectin and other substances. In addition to planting melon seeds, oil is extracted from it, and its peel is used as fodder for cattle. Melon fruit has excellent taste and many useful properties. It contains 85.0-92.0% water, 8.0-15.0% dry matter, 0.8% protein, 1.8% fiber and 6.2% other carbohydrates, 0.9% fat, 0.6 % ash, 20.0-30.0 mg% C, 0.03-0.07 mg% other minerals, trace elements such as Mg, Fe, Ca, Mn, K, P, organic and mineral salts. The amount of sugar in the fruits of Central Asian melon varieties reaches 14.0-16.0%. Due to the excess amount of fructose in the composition, the flesh of the melon is very sweet, and when there is more glucose, the flesh has a mild taste.

15,000 to 20,000 tons of melon seeds are spent annually on seed farms in Uzbekistan. As a result of the processing of such amount of melon, more than 1000 tons of melon can be obtained. This allows farms to earn additional income.

The existing sun drying and improved drying methods are used in the production of melon rind. During the mechanical examination of the melon, it was found that the components are different. Therefore, different amounts of rind are extracted from different types of melons during slicing and drying. "Kokcha", "Bosvoldi" and "Gurbek" varieties yield

4.5-5.4 percent. 7.5-10.7 percent of products are made from other types of fruits. 11.7-15.2 tons of raw materials are used to produce one ton of melon rind. Half of the sugar in the melon is sucrose.

According to Koreysha, the sugar content of winter melon varieties does not decrease for a long time, but the ratio between monosaccharides and disaccharides changes and increases to sucrose. After a certain time, the total amount of sugar contained in the stored melons decreases significantly.

Pectin content in melon is 0.1-0.4%, while in watermelon it is 1.2-2%. The amount of cellulose and hemicellulose in melon is low compared to other pulp products. This increases the softness of the melon flesh and ensures that there are no stringy fibers.

Table 1

Amount of vitamins in Polyz products. %

Crops	Ascorbic acid	Carotene	Thiamin	Riboflavin
Watermelon	8	1,0	0,03	-
Melon	-	-	-	-
Pumpkin	10	-	-	-

In Uzbekistan, dried melon peels contain vitamin C in the range of 15.4–83.7 mg%, the total sugar content is 38–75.7%, and the dry matter content is 76–91.4% (Table 2).

Table 2

Chemical composition of dried melon (percentage)

Melon varieties	vitamin C, mg	Total sugar content	Dry matter
«Kokcha»	22,35	75,7	81,9
«Orange rose»	16,4	66,3	91,4
«Gurbek»	21,6	62,3	82,1
«Garden of Life»	15,4	54,3	82,9
«Bread and meat»	83,7	59,8	86,0
«Blue Rose»	39,8	51,4	86,0
«Pink»	34,7	49,6	76,0
«Rocky»	78,0	55,8	89,3
«Allahomma»	72,5	38,4	76,0

Melon pulp must meet the requirements of the GOST 7178-85 standard. According to this standard, during the quality examination of melon rinds, special attention is paid to their appearance, smell and taste, ripeness, diameter of the largest cross-section, degree of injury.

Summary: Thus, it can be said that the external appearance of melon pods according to the standard requirement is a generalized indicator, which includes indicators such as wholeness, cleanliness, healthiness, lack of excessive moisture, shape and color of the pods.

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