

THE SIGNIFICANCE OF ASSESSMENT THROUGH ORGANOLEPTIC METHODS IN THE STORAGE OF EVENING MELON VARIETIES IN LOCAL METHODS

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Annotation

In this article, the organoleptic characteristics of melon varieties such as Kara-puchak-3744, Umirvaki-3748, Zargulobi, Sahavat, Tuyona, Kok gulobi, Amudaryo, Koybosh-476 and Qaragulobi have changed during the storage of late-ripening melon varieties by local methods, and among them analysis of storage-resistant varieties Kara-puchak-3744, Umirvaki-3748 and Koybosh-476.

Kalit so'zlar: Kara-puchak-3744, Umirvaki-3748, Zargulobi, Sahavat, Tuyona, Kok gulobi, Amudaryo, Koybosh-476 and Qaragulobi, organoleptic, importance coefficient.

Relevance of the topic

Currently, the field of storage and processing of agricultural products is one of the most urgent issues in our country. This network includes the most important areas in ensuring food safety. In recent years, in our country, special attention has been paid to the radical increase in the volume of production of food products, their assortment and export potential. The export of poly products worldwide increased by 6% and amounted to 2.3 million tons. Melon imports: USA-25%; Netherlands-10%; France-9%; Great Britain-9%; Canada-8%; other countries make up 39%. of 2020.

As of November 1, the value was equal to 22.1 million US dollars More than 54.7 thousand tons of melon products were exported abroad. This figure is 32,000 tons more than the same period last year. Currently, in our republic, more than 52.3 thousand hectares of land are cultivated with melon crops, 20.8 percent of which are planted with melons, and the average yield is 19.7 tons per hectare.

Research object. Kara-puchak-3744, Umirvaki-3748, Zargulobi, Sahavat, Tuyona, Kok gulobi, Amudaryo, Koybosh-476 and Kara gulobi evening varieties of melons kept in the gene fund of the scientific research institute of plant science, scientific research institutes of vegetable, vegetable and potato growing were selected.

Research methods. Changes in organoleptic and marketability characteristics of melon fruit during hanging were studied. In this case, melon fruits are stored whole at room temperature (14-22°C) and relative humidity of 70-75%, as well as cut into slices and cooled at a temperature of (+2...+4°C and relative humidity of 80 -90%) research was conducted on short-term storage. The experiment was carried out in the following ways:

Hanging melons

In the news - control

when stored for 30 days;

when stored for 60 days;

When stored for 90 days;

When stored for 120 days, its organoleptic and marketability properties, as well as its biochemical composition, were studied.

An expert commission consisting of 5-7 people was formed to evaluate the researched varieties. The average value of the evaluations of each expert on each indicator was calculated. These obtained data made it possible to calculate the quality level (Sd) in percentages for each variety using the following formula.

$$Sd = (\sum \text{study sample scores} / \sum \text{maximum score}) \times 100$$

Table 1 shows the scale for evaluating the quality of melon fruits.

We used the methodology developed by Ye.P.Shirokov and V.I.Polegaevlar (2000) for evaluating the quality of fruits and vegetables to determine the coefficients of importance.

Melon fruit quality evaluation scale

Table 1

Overall grade, points	Quality level, %	Sample quality assessment
90-100	90-100	Excellent
80-89	80-89	Good
70-79	70-79	Satisfactory
<69	<69	You are not satisfied

In the description, we determined the standard deviation (S) for each indicator when summing up the experts' ratings. The standard deviation of experts on a 5-point scale did not exceed ± 0.5 points.

Research results. Melon fruits selected for the experiment were hung and their organoleptic characteristics were analyzed every 30 days during storage. The total grade of Kara-pochoq-3744 melon variety was 92.6 points in freshness, 90.7 points in 30 days, and 88.0 points in 60 days when evaluated according to 8 indicators when stored for 30 days, 60 days, 90 days and 120 days. It was evaluated by experts with 82.7 points at 90 days and 73.6 points at 120 days.

Umirvaki-3748 melon was evaluated by experts with 96.4 points when fresh, 94.5 points at 30 days, 92.6 points at 60 days, 87.0 points at 90 days, and 74.0 points at 120 days.

Koybosh-476 melon variety in freshness, 30 days, 60 days, 90 days and when it was stored for 120 days, it was observed that its shape changed according to its appearance. In our observational analyses, we scored on a point system. In particular, the shape of our product is 4.8 points when it is fresh, 4.7 points when stored for 30 days, 4.5 points for 60 days, 4.4 points for 90 days and during 120 days, it was evaluated with 3.7 points. During the storage process, it was observed that the changes in the appearance of our products occurred mostly within 90 and 120 days. That is, it changed from 4.4 to 3.7 points.

The color change was evaluated with 4.6 points when fresh, 4.4 points at 30 days, 4.3 points at 60 days, 4.2 points at 90 days and 3.5 points at 120 days of storage. Changes in this storage process occurred during 90 and 120 days. It changed from 4.2 to 3.5 points in 90 days and 120 days.

When we analyze our product as a whole, it is in its new state 4.4 points, 4.3 points at 30 days, 4.2 points at 60 days, 4.0 points at 90 days and in 120 days, it was evaluated with 3.4 points. It was 4.4 points when it was new, but it dropped to 3.4 points when stored for 120 days.

When we calculated the size of the products during our storage period, it was 4.7 points for freshness, 4.3 points for 30 days, 4.4 points for 60 days, 4.3 points for 90 days, and 3.6 points for 120 days. Between 90 and 120 days, the product size dropped from 4.3 to 3.6 points.

During product storage, eti concentration decreased by 4.1 points, 4.0 points for 30 days, 3.9 points for 60 days, 3.8 points for 90 days and 3.2 points for 120 days. In this indicator, both 90 and 120 days of storage were rated from 3.8 to 3.2 points.

When evaluating the taste of the product in storage, it was 4.6 in freshness, 4.4 in 30 days, 4.3 in 60 days, 4.2 in 90 days and 3.5 in 120 days. That is, it was evaluated with 3.5 points after 120 days of storage out of 4.6 points when it was new. Changes in the taste of products were observed in 60, 90 and 120 days.

When analyzing the aroma of stored products, they are fresh 4.8, 30 days 4.7, 60 days 4.5, 90 days 4.4 and 120 days 3.7. The results of the study show that during 90 and 120 days of storage it was evaluated with 3.7 points out of 4.4 points.

When evaluating the internal structure (ripeness) of our preserved melon product, i.e. 4.6 points for freshness, 4.4 points for 30 days, 4.3 points for 60 days, 4.3 points for 90 days rated 4.2 points and 3.5 points in 120 days. 4.6 points in the news and when 120 were saved, it was rated with 3.5 points.

The organoleptic evaluation of Koybosh-476 variety after 120 days of storage was 71.1 points and retained its edible properties.

Summary. Among the varieties selected for research, Kara-puchak-3744, Umirvaki-3748 and Koybosh-476 varieties did not lose their edible properties when stored for a long time, i.e. more than 120 days, and were evaluated with a total score of more than 70 points. Therefore, these varieties have been evaluated as resistant to storage and are recommended for production.

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