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EFFECT OF PRETREATMENT ON ORGANOLEPTIC EVALUATION OF SUBLIMATION-DRIED APRICOT PRODUCTS

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Abstract

The article presents data from studies on the organoleptic evaluation of freeze-dried apricot products. In particular, freeze-drying technology and primary processing processes have a significant impact on the organoleptic properties of apricot products.

Keywords: Apricot, apricot varieties, dry product, drying, organoleptic evaluation.

Introduction

The technology and primary processing methods chosen to preserve the organoleptic properties of apricot products during the drying process are of great importance. Freeze drying is one of the most effective methods in this process. This analysis investigates the effect of pretreatment methods on sublimation drying for different apricot cultivars. The evaluation is based on indicators such as the appearance, color, taste, aroma and consistency of the products. General results are the basis for making important conclusions about the quality of products and their processing technologies.

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Table 1 Effect of preliminary treatment on the organoleptic evaluation of sublimation-dried apricot products, score (2021-2023)

Apricot varieties	Indicators					Overall grade, points
	Appearance	Color	The taste	Aroma	Consisteny	
	Significance coefficient					
	3	3	6	4	4	
When dried in two pieces						
Yubileynyy Navoi (control)	4,4	4,3	4,4	4,4	4,4	88,3
Kandak	4,5	4,4	4,3	4,5	4,5	89,2
Subkhoni	4,5	4,8	4,2	4,5	4,7	90,0
Isfarak	4,7	4,9	4,3	4,7	4,8	93,2
When dried into four pieces						
Yubileynyy Navoi (control)	4,6	4,6	4,5	4,5	4,5	89,7
Kandak	4,6	4,7	4,8	4,5	4,7	92,9
Subkhani	4,6	4,7	4,8	4,7	4,6	93,4
Isfarak	4,7	4,8	5,0	4,8	4,7	96,6
When the kernel is removed and dried whole						
Yubileynyy Navoi (control)	4,8	5,0	4,7	4,5	4,7	94,2
Kandak	4,7	4,7	4,9	4,9	5,0	97,0
Subkhani	4,8	4,9	4,7	4,7	4,9	95,3
Isfarak	4,9	5,0	4,8	4,8	5,1	98,6

Apricots dried in two pieces gave effective results in terms of quality indicators. In the Yubileynyy Navoi variety, the total score was 88.3 points. The appearance and color of the product were rated 4.4 and 4.3 points, and the overall result was high. In the Kandak variety, these indicators are slightly higher, and high

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evaluations are noted in terms of taste and aroma. The fact that the color of the Subkhani variety reached 4.8 points indicates that it has high organoleptic properties. In Isfarak variety, the total score reached 93.2 points, which shows the effectiveness of this method in preparing high-quality products.

Products dried in four pieces recorded high results. The overall score for the Yubileynyy Navoi variety was 89.7 points, while the Kandak and Subkhani varieties were rated at 92.9 and 93.4 points, respectively. This method has been shown to be effective in preserving the taste and consistency of the product. The Isfarak variety had an overall quality score of 96.6 points, with color rated at 4.8 points and aroma rated at 4.8 points. These results show the effectiveness of the four-parting process to maintain the organoleptic parameters of the products at a high level.

Products that were completely dried, with their kernels removed, received the highest ratings. In this method, the total grade of the Yubileynyy Navoi variety reached 94.2 points. The appearance and color of the product were evaluated with 4.8 and 5.0 points, and high quality was noted.

The taste and aroma indicators of the Kandak variety were highly evaluated, and the overall result was 97.0 points. The overall quality of the Subkhani variety was 95.3 points, and the color of the product reached 4.9 points. Maximum results were recorded in Isfarak category, the total score was 98.6 points. This method preserves the color and consistency of the products to the highest degree.

The results of the Yubileynyy Navoi variety in all processing methods were high, and sublimation drying helped to preserve its organoleptic properties. All indicators of the Kandak variety have been highly evaluated, and its quality and marketability have increased. The Subkhani variety received high marks for color and aroma, and this variety showed the best quality in product processing. In the Isfarak variety, maximum results were recorded for all indicators, which ensures that it is recognized as a high-quality product.

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In general, freeze-drying technology and primary processing processes have a significant impact on the organoleptic properties of apricot products. Whole-grain drying gave the highest results across all indicators, demonstrating the effectiveness of this technology.

From this analysis, it can be concluded that the sublimation drying technology is effective for the production of high-quality dried apricot products. The appearance, taste and aroma of the products can be preserved by choosing the right pre-processing methods. This makes it possible to produce high-quality and affordable products.

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