



## EXPLORING THE NUTRITIONAL SENSORIAL AND HEALTH BENEFITS OF AVOCADO CREAM CHEESE

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**Abstract:** *The aim of this project was to develop a cream cheese incorporated with avocado that can be acceptable in appearance and quality for consumers. The study's specific objectives were to determine the effect of different proportions of cream cheese and avocado puree on physico-chemical characteristics, and to carry out consumer sensory evaluation tests.*

### • Introduction

A mild taste of buttery cream and a slight sour dairy flavor, the total absence of bitterness, together with a creamy texture and a consistency that ranges from fragile to spreadable with a glossy appearance, characterize this acid-coagulated fresh cheese product. Its versatility allows for many different applications throughout the food industry. The cheese provides an adequate matrix to add flavors, fibers, herbs, spices, or fruits. Avocado (*Persea americana* Mill.) is defined as a pear-shaped fruit with a single seed that can be considered compatible in flavor, taste, and texture with cream cheese. Cream cheese type products with added avocado are not currently available on the market.

### • Material and method

The raw materials and ingredients used in the production of cream cheese in the Dairy Industry Technologies laboratory (Faculty of Food Engineering) were the following: i) homogenized whole cow's milk (Olympus, Braşov) with the following chemical composition containing 3.3% protein, 3.4% fat, and 4.8% carbohydrates; ii) organic concentrated milk (Half & Half, Olympus, Braşov) containing 2.8% protein, 18% fat, and 3.8% carbohydrates; iii) natural sea salt, purchased from a local store specializing in materials for cheesemaking; iv) lyophilized fresh cheese starter culture; rennet and avocado puree.



### • Results and discussions

Table 1. The effect of adding avocado puree on the composition (%) of cream cheese products

Sample	Humidity (%)	Proteins (%)	Fat (%)	Yield (%)
AVP0	35.19 ± 3.09 <sup>a</sup>	7,65 ± 0,15 <sup>c</sup>	42.94 ± 2.49 <sup>b</sup>	23.50 ± 1.38 <sup>a</sup>
AVP5	41,21 ± 1,71 <sup>b</sup>	7,53 ± 0,12 <sup>c</sup>	35,21 ± 1,80 <sup>a</sup>	24.94 ± 0.17 <sup>ab</sup>
AVP10	44,11 ± 0,70 <sup>cd</sup>	6,65 ± 0,13 <sup>b</sup>	32,75 ± 1,96 <sup>a</sup>	26.13 ± 1.12 <sup>ab</sup>
AVP15	46,28 ± 0,84 <sup>d</sup>	6,26 ± 0,17 <sup>a</sup>	30,60 ± 0,71 <sup>a</sup>	26,87 ± 0,91 <sup>b</sup>

Table 2. The effect of adding avocado puree on the soluble nitrogen content (%) in cream cheese products

Sample	Storage period (days)			
	0	7	14	21
AVP0%	3.95 ± 0.25 <sup>b,a</sup>	4.44 ± 0.09 <sup>b,b</sup>	5.04 ± 0.02 <sup>bc,c</sup>	5.43 ± 0.07 <sup>cd,D</sup>
AVP5	3.25 ± 0.02 <sup>a,a</sup>	4.04 ± 0.17 <sup>a,b</sup>	4.43 ± 0.24 <sup>a,b</sup>	5.16 ± 0.03 <sup>b,C</sup>
AVP10	3.50 ± 0.09 <sup>a,a</sup>	4.16 ± 0.03 <sup>ab,B</sup>	4.50 ± 0.01 <sup>a,c</sup>	4.85 ± 0.01 <sup>a,D</sup>
AVP15	3.82 ± 0.41 <sup>b,a</sup>	4.77 ± 0.18 <sup>c,b</sup>	4.69 ± 0.17 <sup>ab,B</sup>	5.39 ± 0.15 <sup>c,C</sup>

### • Conclusions

The results of this study could expand the use of avocado fruit in cheese products and will provide a theoretical basis for creating cheese varieties adapted to the preferences of Romanian consumers.

