



ULST Timisoara
**Multidisciplinary Conference on
Sustainable Development**
30-31 May 2024



Characteristics of walnuts and peanuts sweet spreadable cream

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Abstract

This study aimed to obtain a spread using walnut kernels and peanuts. Two variants were designed: with carob (A) and with cocoa (B). After the optimization of the recipe, the sensory and physico-chemical examination was performed, following which it was found that the carob version had better acceptability (8.2 points) than the one with cocoa (7.95 points). The energy value of carob cream was lower (519.07 kcal/100 g) than cocoa cream (523 kcal/100 g). The carob cream variant had higher moisture (6.2%) and fat content (86.72%) than the one with cocoa (4.8% and 81.95%, respectively), but lower carbohydrate content (7.05% in A and 8.57% in B) and proteins (4.18% in A and 6.13% in B). The pH values were lower in the version with carob (6.37) compared to the one with cocoa (6.16). Through their sensory and physical-chemical properties, the two variants are an alternative for spreadable creams, fillings for desserts or as a ready-to-eat dessert.

Introduction

It is known that cocoa powder (*Theobroma cacao* L.) stands out for its high content of dietary fibers and phytochemical compounds and is found on the list of ingredients in chocolate and spreads alongside fats and carbohydrates, giving them high energy value (Caliskan *et al.*, 2022). Due to its allergenic potential, cocoa is often substituted with carob powder (*Ceratonia siliqua* L.) which has high nutritional value, low fat content, high dietary fiber content and low energy value, sweet taste and nutty aroma (Morais & Rodrigues, 2018) and is caffeine-free (Hgazy *et al.*, 2018; Ibrahim *et al.*, 2020).

There are a variety of delicious carob and cocoa spreads available. Carob and cocoa spreads can be used as peanut butter, on toast, fruit or crackers. They can also be used as an ingredient in various recipes, such as cakes, energy bars or smoothies.

Materials and methods

It was formulated two variants of sweet spreadable cream on the basis of kernel walnuts and peanuts: one with cocoa, and other with carob.

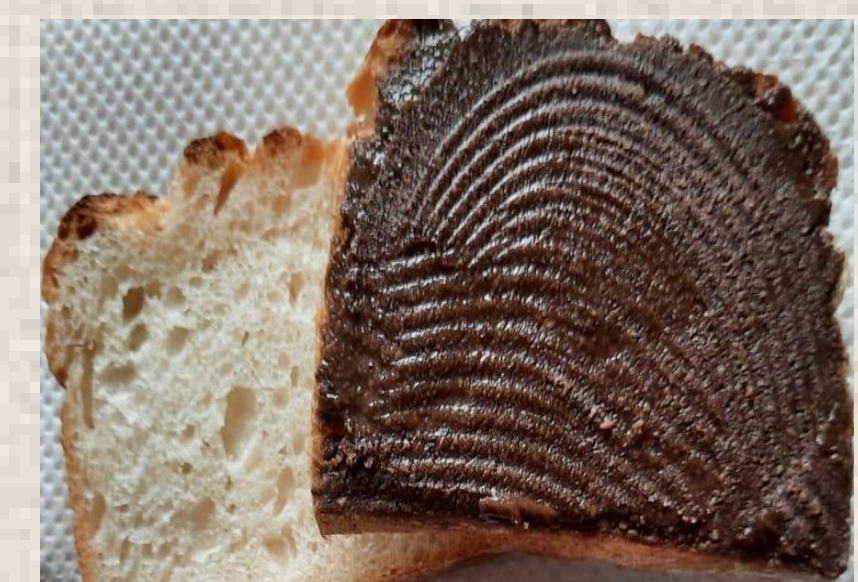
The obtained creams were analyzed by sensorial and physical-chemical point of view.

Ingredients/ receipe

Ingredients	Cocoa spreadable cream	Carob spreadable cream
Walnuts kernel	200 g	200 g
Peanuts kernel	200 g	200 g
Honey	60 g	60 g
Vanilla extract	20 g	20 g
Salt	3 g	3 g
Cocoa powder	50 g	-
Carob powder	-	50 g

Table 1

Results and discussions

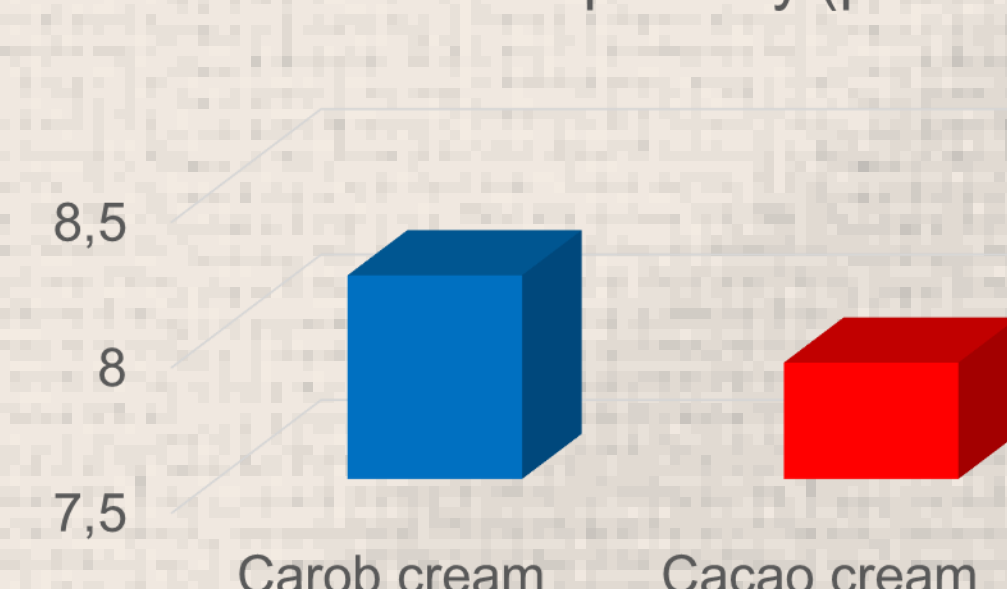


Proximate composition of spreadable cream

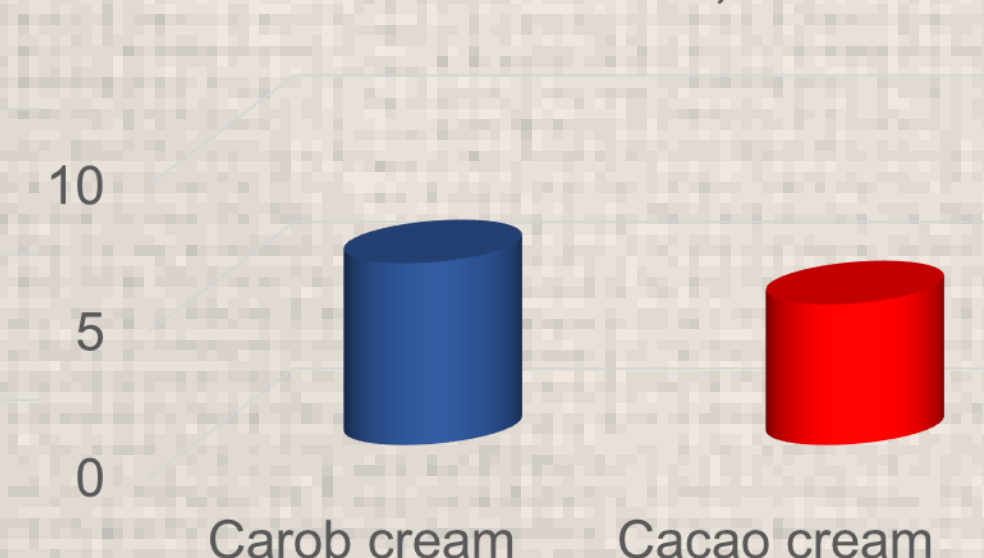
Table2

	Fats	Carbohydrates	Fibers	Proteins
Carob cream	86.72 ± 5.2	7.05 ± 1.3	2.04± 0.4	4.18 ± 0.8
Cacao cream	81.95 ± 4.7	8.57 ± 1.5	3.33± 0.6	6.13 ± 1.2

Overall acceptability (points)



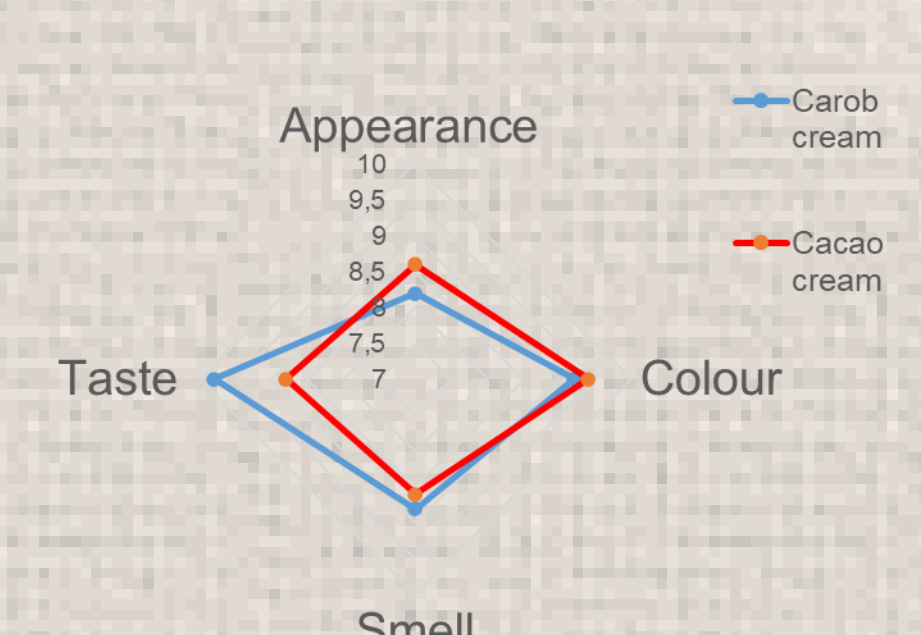
Moisture, %



pH value



Sensorial characteristics



Conclusions

Walnut and peanut cocoa/carob spread creams are a cheaper, healthy and delicious take on the classic chocolate hazelnut spread, perfect for those wanting a natural, vegan and nutrient-dense alternative. The rich chocolate taste comes from cocoa/carob powder, while providing health benefits.