



Obtaining and qualitative and nutritional characterization of a chickpea and shrimp spread

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Abstract

The aim of this work is to obtain a chickpea and shrimp spread and characterize it from a sensory, physicochemical and nutritional point of view, by comparing it with a commercial hummus preparation. From a sensory point of view, the taste, smell, consistency, external appearance and general acceptability were assessed. From a physicochemical point of view, the moisture, fat, protein, carbohydrate and salt content were determined and the energy value of the product was calculated.

CONCLUSIONS AND RECOMMENDATIONS

1. The obtained product, namely the chickpea and shrimp spread, is an innovative product, by using seafood and sesame paste, for a high protein intake, with a homogeneous consistency, with significant nutritional properties.
2. Following the sensory evaluation, the shrimp and chickpea spread obtained a higher score on the General Acceptability criterion, compared to the commercial sample, the results obtained highlighting a clear preference of consumers for the shrimp sample.
3. The nutritional comparison showed that shrimp paste contains almost double the protein (19.2%) compared to commercial hummus (7.35%), while the ratio of fat, moisture and minerals clearly reflects the advantages brought by the addition of sesame and shrimp. As a recommendation, in the future, this recipe can become the basis of a premium product line, and optimization of the formula – either by adjusting the proportion of shrimp or by adding functional spices – can further extend the health benefits.

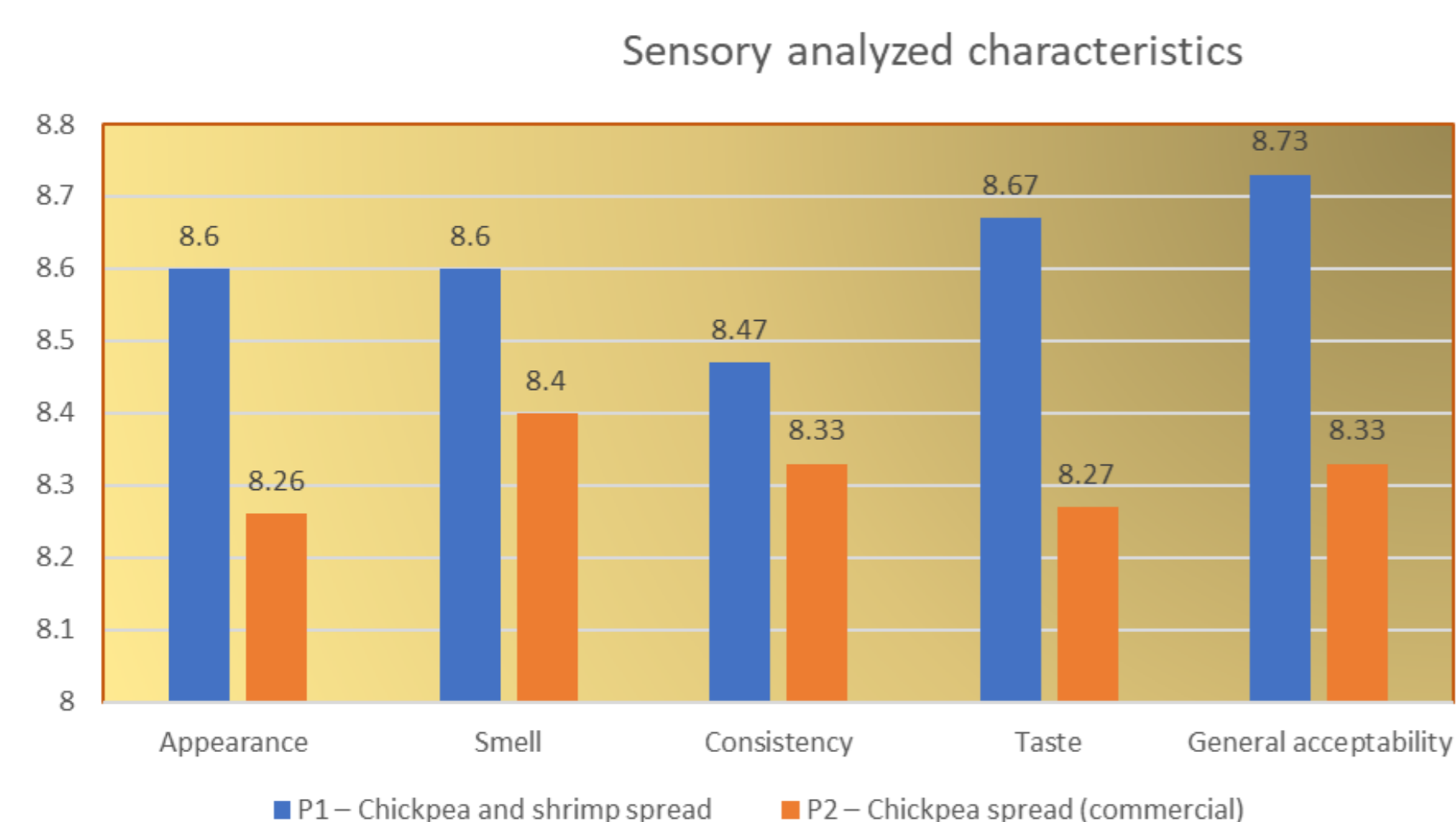
Also, further studies on long-term stability and evaluation of the antioxidant potential of the constituent compounds will contribute to the shaping of a category of functional spreads, with real added value for the consumer.

Material and method

After obtaining the chickpea and shrimp paste, according to the technological scheme, it was organoleptically analyzed and compared to a commercial hummus by a number of 15 panelists, previously trained to appreciate the appearance, consistency, smell, taste and general acceptability. Each characteristic was scored on a 9-point hedonic scale, where 1 represented an extremely negative assessment, and 9 – an extremely favorable assessment. The two types of pasta, commercial and the one obtained by us, were also analyzed from a physico-chemical point of view, determining the moisture, fat, protein, carbohydrate and salt content. The energy value of the product was also calculated.

Results and discussions

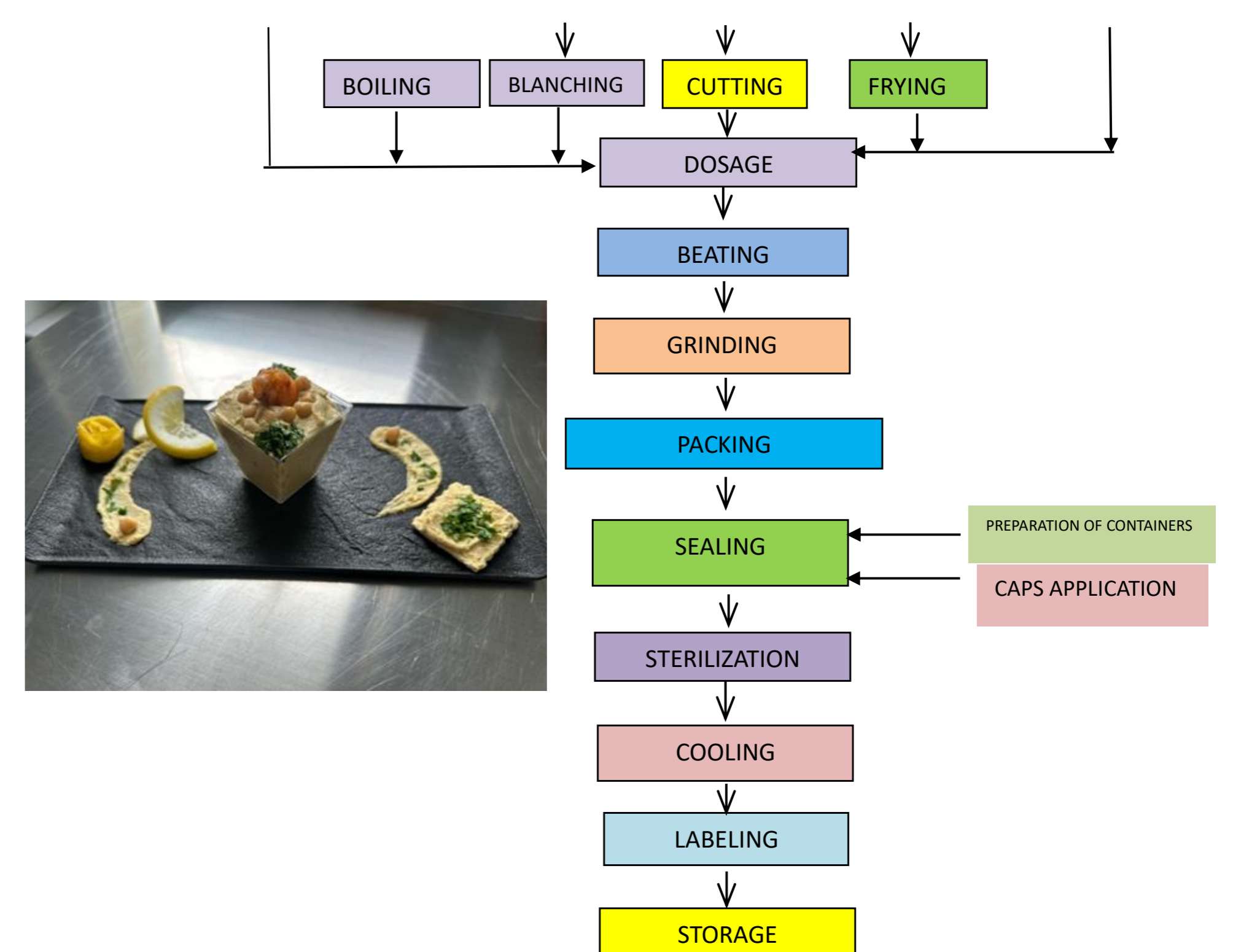
All organoleptic characteristics analyzed recorded higher values in the case of shrimp paste, compared to the commercial product.



Conclusions and recommendations

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Also, further studies on long-term stability and evaluation of the antioxidant potential of the constituent compounds will contribute to the shaping of a category of functional spreads, with real added value for the consumer.



Technological scheme for obtaining chickpea and shrimp paste

Evaluated physicochemical parameters and nutritional value of the products

Physico-chemical parameter	P1 – chickpea and shrimp spread, sesame	P2 – chickpea spread (commercial)
Energy value	260 kcal	243 kcal
Protein (%)	19.2	7.35
Moisture (%)	57.5	58.7
Fat (%)	13.5	17.1
NaCl (%)	1.8	1.9
Carbohydrates (g/100g)	6	14.9