



UNIVERSITY OF LIFE SCIENCES "KING MIHAI I" FROM
TIMISOARA
"YOUNG PEOPLE AND MULTIDISCIPLINARY RESEARCH
IN APPLIED LIFE SCIENCES"



"Young people and multidisciplinary
research in applied life sciences"

21-22 November 2024

PHYTOBIOCHEMICAL AND NUTRITIONAL VALORIZATION OF SAMBUCUS NIGRA FLOWERS USED AS AN ADDITIVE IN HOMEMADE CAKE

Maria I. Spafiu¹, Camelia E. Stoianovici¹, M.Maria Stanciugelu^{2,3}, Ariana-Bianca Velcirov¹, G. Sofia Popescu^{1*}

¹Faculty of Food Engineering, University of Life Sciences "King Michael I" from Timisoara,, Timisoara, Romania

² Faculty of Sciences, "Lucian Blaga" University of Sibiu, Sibiu, Romania
Brukenthal National Museum, Natural History Museum, Sibiu, Romania

*Corresponding author: sofiapopescu@yahoo.com

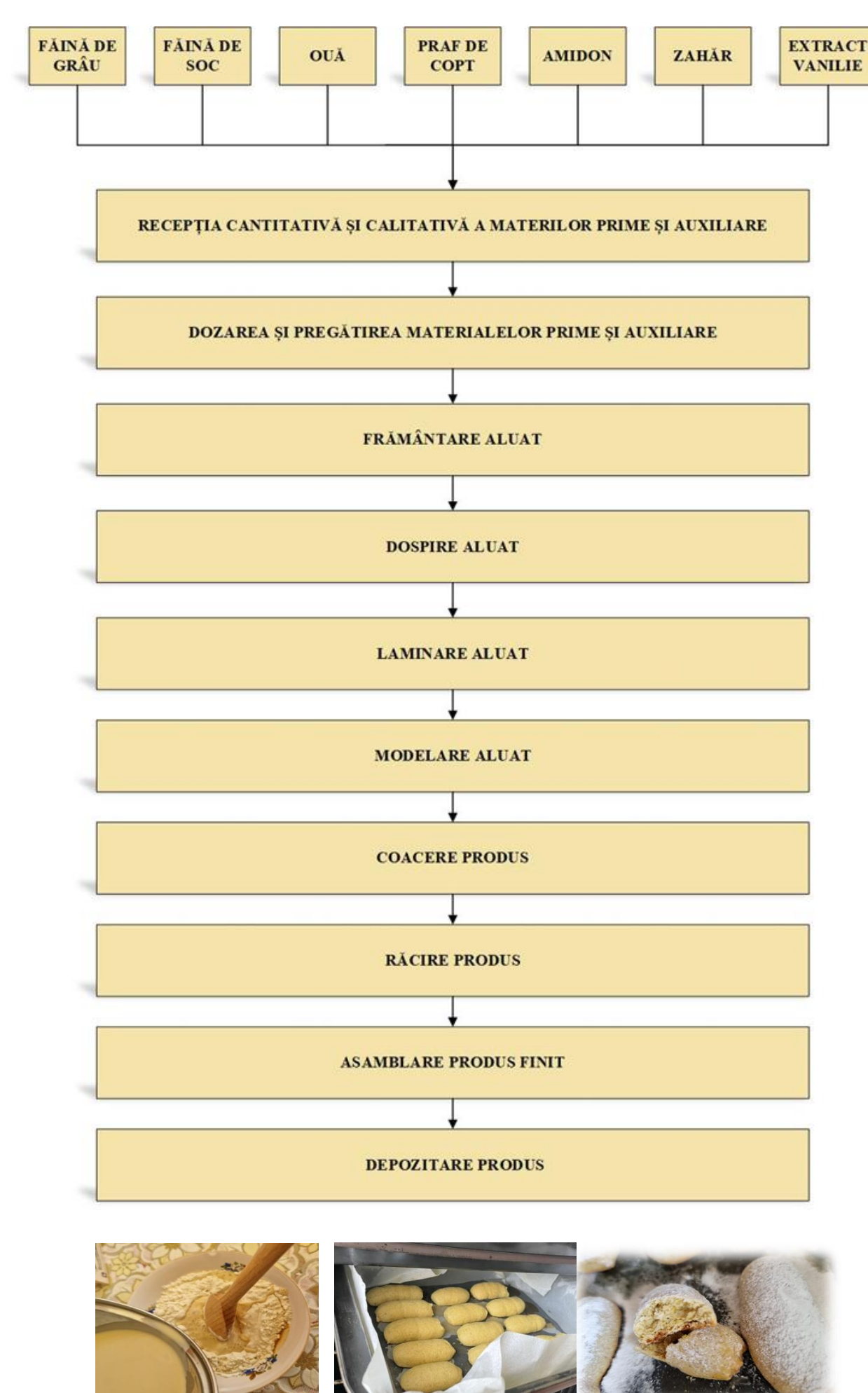
Abstract: The purpose of this study was to develop a new recipe to obtain a special innovative sweet product (cake) using elderflowers, to develop the manufacturing process, technological stages, and sensorial and nutritional analysis of the final product. Our product was prepared at home and used various products obtained from elderflowers (syrup, cracker, cookie, tea a.o)

Also, this study was conducted to evaluate the Hazard Analysis and Critical Control Points (HACCP) implemented in the homemade cake processing line.

The elder (*Sambucus nigra*) is a shrub native to Europe and North America. Elderberry is known for its edible and medicinal properties and has been used for centuries in traditional medicine. Elderflowers are well known for the health benefits of their consumption, such as: strengthening the immune system, relieving cold and flu symptoms due to the content of flavonoids and other antioxidants that directly help protect the skin, improving digestion due to the mild laxative effect, beneficial effect on blood pressure, regulates cholesterol levels, etc. Following the research that have been undertaken in this work, the obtained product (cake) with fruit) can be included in the category of secure products of consuming. From an organoleptic point of view, these sweet product were in line with the rules previously established.

This work demonstrate that this prototype can be considered a food variant due to its high nutritious properties and to its distinguished taste too.

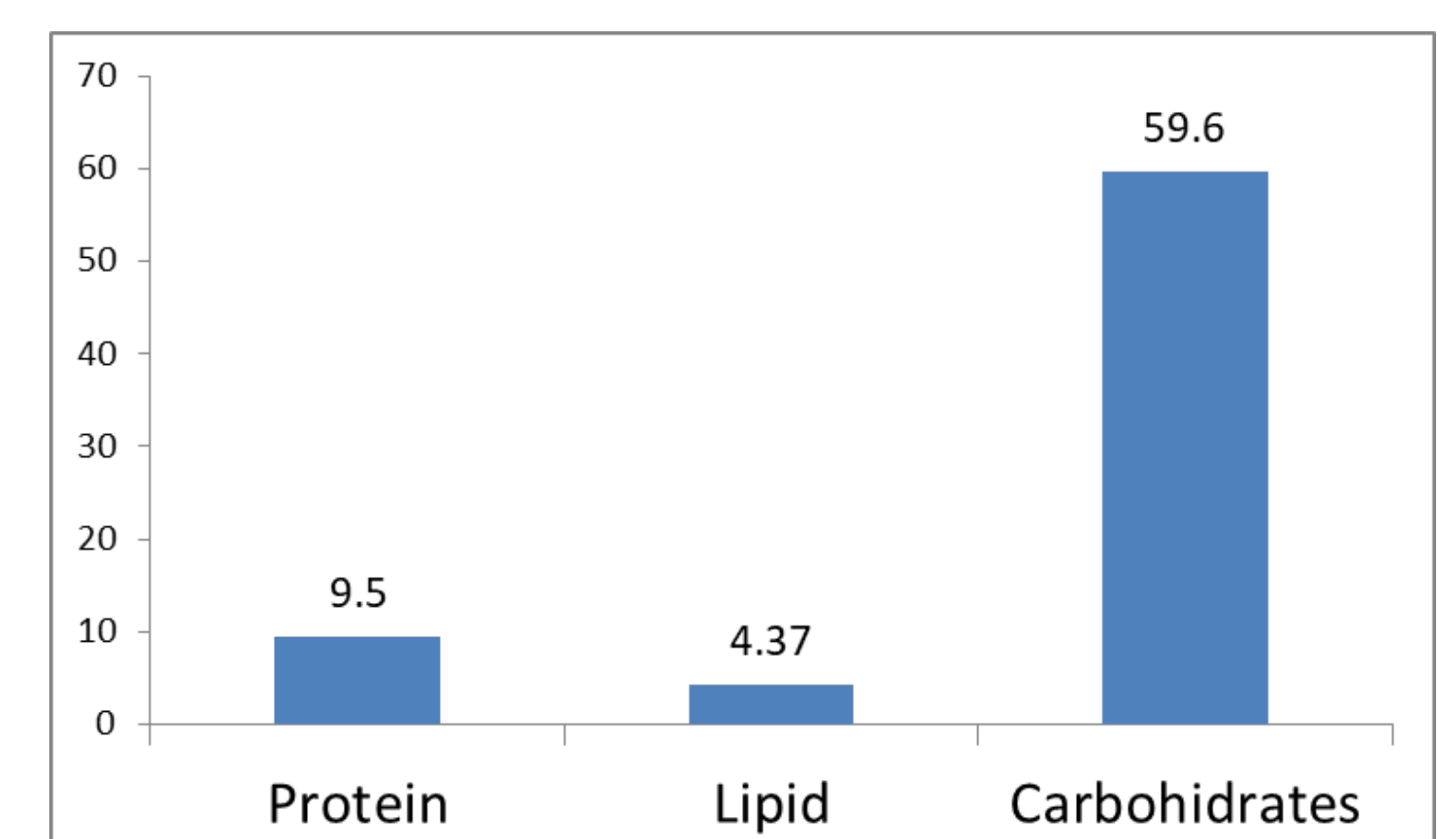
TECHNOLOGICAL SCHEME FOR OBTAINING COOKIES



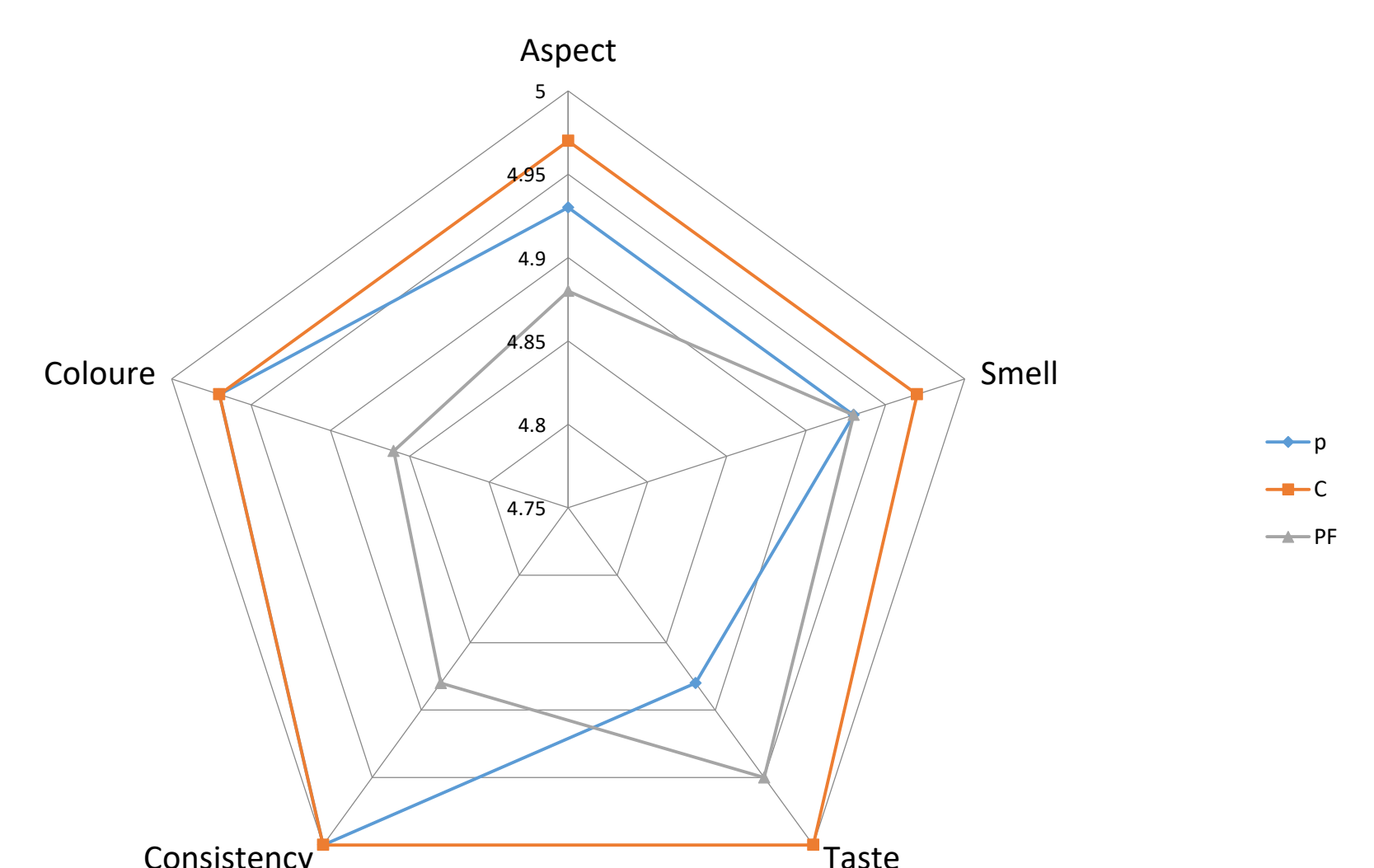
TECHNOLOGICAL SCHEME FOR OBTAINING OF CREAM WITH INFUSION OF SAMBUCUS NIGRAFLOWER



ORGANOLEPTIC CHARACTERISTICS OF THE PRODUCT (CAKE – TIRAMISU)



ORGANOLEPTIC CHARACTERISTICS OF THE PRODUCT (CAKE – TIRAMISU)



P = cookies, C = Cream with infusion of sambucus nigraflower, PF = Cakes Tiramisu

Conclusions

These sweet product were in line with the rules previously established. This work demonstrate that this prototype can be considered a food variant due to its high nutritious properties and to its distinguished taste too.