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NUTRITIONAL COMPOSITION AND ORGANOLEPTIC TEST OF BREADSTICK USING DIFFERENT LEVELS OF GINGER (*Zingiber officinale*) FORTIFICATION

INTRODUCTION

- Ginger is a popular spice used regularly to perk up viands or dishes at home.
- It is an important commercial crop grown for its aromatic rhizomes, which are used both as a spice and as a medicine (Muresan et al. 2014).
- Due to its rich phytochemistry, ginger is considered as a health promoting herb (as cited by Mashhadi et al., 2013).



Furthermore, ginger has an anti-oxidative component which scavenges free radicals produced in biological systems (Mashhadi et al., 2013 and Ahmed et al.2000).

- It is thus considered as a functional food because aside from giving nutritional benefits, it also provides health and wellness to our bodies.



INTRODUCTION

- Thus, the aim of the study is to fortify breadstick with ginger to innovate food products for the benefit of the children as well as adults and enhance ginger utilization.
- Moreover, determine the level of ginger fortification acceptable to consumers and know nutritional content of the acceptable fortified breadstick.



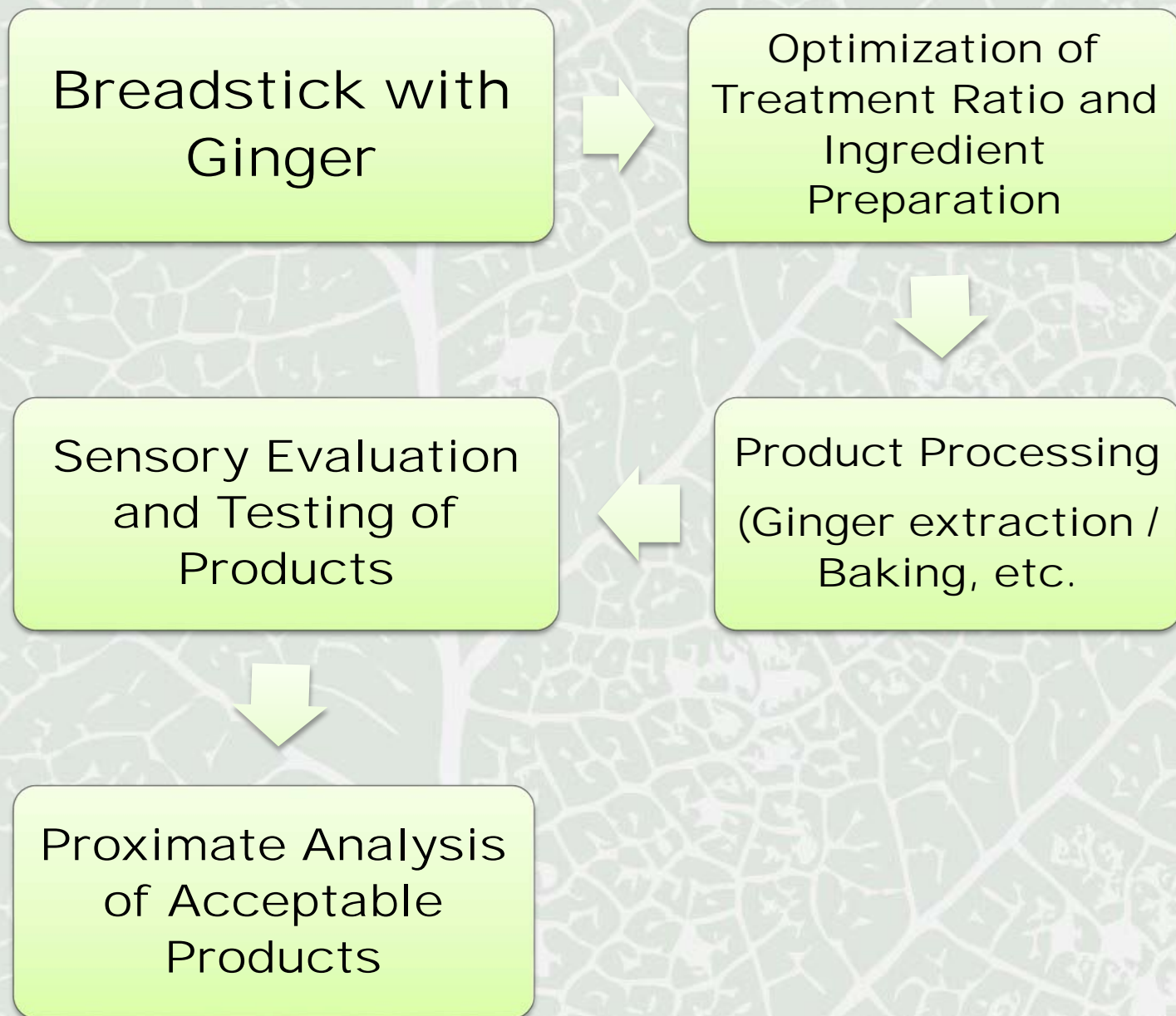


Figure 1. Process Flowchart for the Product Development of Breadstick with different levels of Ginger fortification

RESULTS AND DISCUSSION

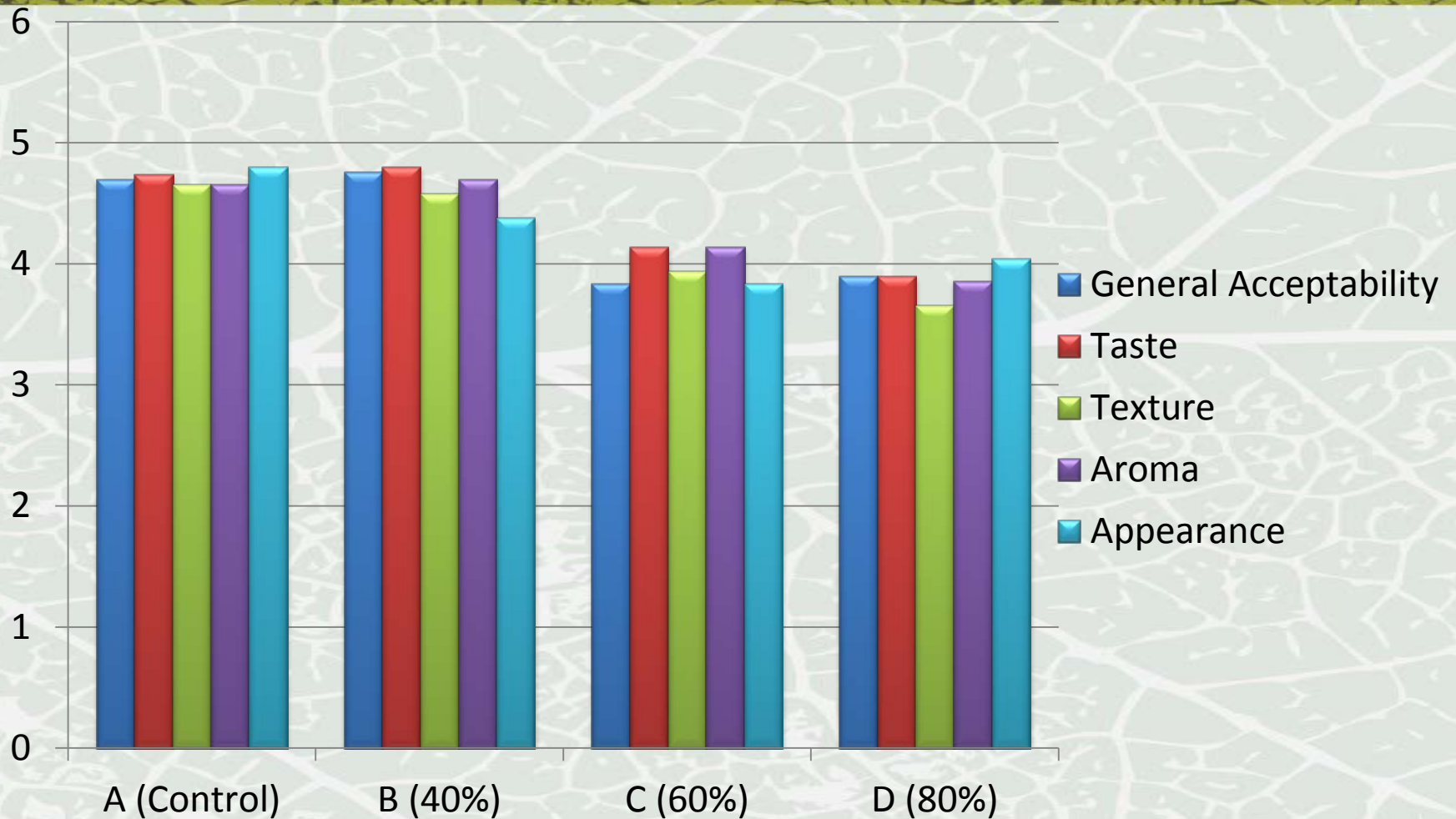


Figure 2. Mean sensory scores of breadstick fortified with different levels of ginger

RESULTS AND DISCUSSION

Proximate Composition of Breadstick fortified with 40% ginger fortification



Figure 3. Proximate analysis of Breadstick fortified with ginger.

RESULTS AND DISCUSSION

According to Wagesho and Chandravanshi 2015, ginger rhizomes contains 40-60% starch on the dry weight basis and also contains resin, proteins, cellulose pentosans and mineral elements.

CONCLUSION

- Forty percent ginger fortification showed a promising result and is nutritious based on the proximate analysis of the product.
- The product is rich in carbohydrates, protein and slight fat which can be an ideal snack for children as well as adults.

- REFERENCES:

- Muresan C., Pop Anamaria, Muste, S. Scrob, S. and Rat Andreea 2014. Study concerning the quality of jam products based on banana and ginger. Journal of Agroalimentary Processes and Technologies 2014, 20(4), 408-411.
- Mashhadi, N.S., Ghiasvand R., Askari G. Hariri M., Darvishi L. and Mofid, M.R. 2013. Anti-oxidative and Anti-Inflammatory Effects of Ginger in Health and Physical Activity: Review of Current Evidence. International Journal of Preventive Medicine 2013 April, 4 (Suppl 1): S36-S42.
- Ahmed RS, Seth V, Banerjee BD. 2000. Influence of dietary ginger (*Zingiber officinale* Rosc) on antioxidant defense system in rat: Comparison with ascorbic acid. Indian J Exp Biol. 2000; 38: 604-6 [PubMed: 19371770]
- Wagesho and Chandravanshi 2015. Levels of essential and non-essential metals in ginger (*Zingiber officinale*) cultivated in Ethiopia. Springer Publication.
<https://doi.org/10.1007/springer> cross mark policy



Thank you!

