



Sensory Evaluation and Acceptability of Fufu Made from Two Banana Flour Varieties and One Plantain Flour.

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Introduction

Banana flour is typically produced from green bananas, which are peeled, sliced, dried, and ground into a fine powder. It has gained attention as a gluten-free and grain-free alternative to traditional flours. Some studies have explored the nutritional and functional properties of banana flour, including those derived from *Musa Acuminata*. Studies evaluated the chemical composition, dietary fiber, and starch characteristics of green banana flour. Researchers found that banana flour contained high levels of resistant starch and dietary fibers, which are known to have positive effects on digestive health and glycemic control. Fufu swallow which forms most of the daily meals of Nigerians, especially the South Eastern part such as cassava and wheat-based products are low in nutrient, and deficit in some nutrients, most containing high amount of carbohydrates. People are beginning to avoid it for the quest of living healthy as there is an increasing rate of diabetes, obesity and other weight related diseases. Thus, this study aims to assess the sensory attributes and acceptability of fufu swallow made from (Manzano banana and *Musa balbisiana*) and plantain flour.

Materials and Methods

A total of 50 panelists were used in this study, and the data for the primary source was collected using a sensory assessment sheet with a nine-point hedonic scale. Analysis of variance (ANOVA) was then used to determine statistically significant ($P < 0.05$) difference between the samples.

The samples were subjected to the same method of processing and preparation.

MA: *Mansanoacuminata* MB: *Musa balbisiana*, PF: Plantain flour(control)

Results and Discussion

A sample of fufu made from plantain flour (PF) consistently scored the highest in overall acceptability (8.44 ± 0.86) showing that it was enjoyed by the panellists following the favourable sensory qualities it possesses.

Furthermore, MA(*Manzanoacuminata*) recorded the second highest value of showing high value in colour(8.48 ± 0.61^a), aroma(8.06 ± 1.03^a), texture(8.22 ± 1.00^a), fluffiness(8.34 ± 0.94^a), taste(8.26 ± 0.96^a), appearance(8.34 ± 0.94^a).

Lastly, the result from the sensory properties of the fufu samples shows that MB which depicts *Musa balbisiana*) recorded low values in overall acceptability(8.36 ± 0.96^a), taste(8.08 ± 1.01^a), fluffiness(8.26 ± 1.06^a), texture(8.08 ± 1.01^a), and colour (8.14 ± 0.88^b).

Conclusion

These findings offer valuable insights into the nutritional and sensory attributes of swallows made from two different banana species and one plantain flour, enhancing our understanding of potential variations and consumer preferences. Plantain flour possesses more of nutritional attributes which is more beneficial to human health, it is therefore recommended that food industries should focus on the use of plantain flour in making fufu swallow for the consumption of the consumers and creating awareness about it to general public informing them about its nutritional and health benefits which are more than over the counter flours. Incorporating healthy refining production processes and as well as exploring additives should be considered, thereby improving the sensory qualities without compromising their nutritional quality.

Keywords: Acceptability, banana, flour, fufu, sensory attributes