

## Development of ash-plantain based sauce with incorporation of functional ingredients

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Ash plantain (*Musa paradisiacea*) is the fourth most important food crop in the world after rice, wheat and maize and a major source of energy. As an enrich with nutraceutical value based supplementary food for everyone, the sauce medium was selected. Also, when the plantains cooked with spices (onion, garlic and ginger), it is a very successful treatment for erectile dysfunction, low sperm count, kidney failure, diabetes and high blood pressure. Therefore, this study was focused to introduce the Ash-plantain based sauce as a supplementary food being ash plantain puree with functional ingredients. The best formula was selected by sensory analysis with a help of thirty (30) semi trained panelists (both male and female) using three different formula that prepared to conventional recipe of sauce only changing amount of ingredients. Proximate properties (moisture%, protein%, fat%, and ash%) and pH, brix values were analyzed. Microbiological properties of the final product were determined within one week interval for 30 days of storage period in refrigerated condition (5 °C-10 °C). The results of analysis revealed that, higher sum ranks, scored for all the sensory attributes and overall acceptability in Formula 3, which contained 30.3% ash-plantain, 37% boiled water, 8.4% of tamarind puree, 3.8% of dried mushroom powder, 3.4% of chili powder, 16% of other condiments, 0.3% of vinegar, 0.8% of salt and 0.2% of stevia powder. pH and Brix values of the final product were recorded as 4.35 and 31° respectively. The percentage of moisture, protein, ash, and fat were recorded as 27.5, 1.95, 1.8, and 1.44 respectively. For the selected sample within one month, the total coliform test was negative, Yeast and Mold recorded with a range of 25-50 CFU/g, total colony counts were shown between 25-250 CFU/g. Thus, this product development would be an excellent source of supplementary diet for fighting non-communicable diseases while maintain the good quality and nutritional value.

**Keywords:** ash-plantain, ash-plantain based sauce, mushroom powder, supplementary food