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IASET

ASSESSMENT OF SOME CHEMICAL AND SENSORY PROPERTIES OF *DONKWA* PRODUCED FROM THE BLEND OF MAIZE AND BAMBARA GROUNDNUT

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ABSTRACT

This work investigated the compositional characteristics of donkwa produced from maize and bambara groundnut blends at 10%, 20%, 30%, and 50% of substitution levels of bambara groundnut. Samples were compared with donkwa prepared from60:40maize to peanut (control) as conventionally prepared and were analyzed for proximate composition, microbiology and sensory attributes. The results indicated the increasing trends with increased substitution levels with bambara groundnut for moisture (4.44-4.82%), protein (16.97-20.73%) and fibre (4.55-4.61%) contents while the decreasing trend was observed for ash (4.94-4.93%), fat (10.77-8.76%) and carbohydrate (58.32-56.13%) contents of the donkwa from maize and bambara flour mixes and the control sample. Microbial analysis indicated a decrease trend in the total viable count and an increase trend in yeast counts with increased substitution levels with bambara groundnut. No mould count was observed in the produced donkwa. Sensory attributes revealed that sample made from maize and peanut (60:40%) was most preferred, followed by sample prepared from 30% bambaragroundnut substitution, though there were no significant differences in all samples in term of other attributes except in taste. In conclusion, the produced donkwa showed increases in nutritional composition with increased in substitution levels of bambara groundnut. This suggests that bambara groundnut is a good alternative raw material for producing acceptable donkwa. Also, it is a way of improving utilization of bambara groundnut.

KEYWORDS: *Acceptability, Bambara Groundnut, donkwa, Maize, Peanut*