

Production and Characteristics of Banga Sauce, A Concentrated Oil Palm Fruit Mesocarp Juice

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ABSTRACT

Concentrated oil palm fruit mesocarp juice (Banga sauce) is consumed by Africans especially those from Nigeria, Ghana, Ivory Coast and Sierra Leone. Oil Palm mesocarp juice was extracted from oil palm fruit by sterilization of the fruit, digestion, pressing and evaporation. About 6.6% w/w fresh fruit bunch was recovered as palm oil while 20.4% w/w fresh fruit bunch was packaged as banga sauce. Analysis of the banga sauce showed that it contains carbohydrates, carotenes, fats and oils in 35%, 210ppm/100g sauce, and 30% proportions respectively. Storage studies for seven months showed that the oil, moisture, protein and ash contents were $30 \pm 0.75\%$, $20 \pm 0.15\%$, $8 \pm 0.05\%$ and $4.12 \pm 0.31\%$ respectively and were fairly constant throughout the period of study. There were also no significant ($p < 0.05$) increases in free fatty acid content ($2.87 \pm 0.03\%$) and peroxide value ($2.32 \pm 0.04\text{meq/kg}$). The average plate count of isolated bacteria and fungi indicated the following sequence in the bacteria genera: *Streptococcus*, *Lactobacillus* and *Bacillus* while the isolated fungi were *Penicillium pinophilum*, *Penicillium italicum* and *Aspergillus tamarii*. These microorganisms were absent in the first seven months but rose up to 7×10^4 APC/mL for the bacteria population and the fungi population was 12×10^4 APC/mL in the twelfth month. Banga sauce production is economical and will add value to fresh fruit bunch milling and provide a food resource rich in energy and vitamins.

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