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The Influence of Palm Oil and Chemical Modification on the Pasting and Sensory Properties of *Fufu* Flour

Abstract

The effect of the addition of palm oil (0.1–2.5 m^3/100 kg *fufu*) and chemicals [citric acid/sodium hydroxide (NaOH, food grade)] on the pasting and sensory properties of dried f*ufu* flour were investigated. There was significant effect of addition of palm oil, citric acid, or NaOH to wet *fufu* on the pasting characteristic of dried *fufu* flour. The pasting characteristics of the samples only show a significant difference at the cooling stage where the viscosity after 20 min holding at 50°C are 480 BU for *fufu* sample with 0.1 M citric acid, *fufu* sample with distilled water. *Fufu* sample with 0.06 M NaOH and *fufu* sample with 0.1 M citric acid is more stable followed by *fufu* sample with 0.05 M citric acid. There were significant differences ($P < 0.05$) in the sensory qualities for taste, color, odor, texture, and overall acceptability of *fufu* with and without addition of palm oil. Sensory evaluation shows that *fufu* sample containing 0.1 and 0.5% palm oil to be the most acceptable in the overall general acceptability ($P < 0.05$). The sensory qualities of *fufu* samples modified with acid also vary with the panelists preferring both samples made from wet slurry and *fufu* samples with 0.05 M citric acid. There exist a negative correlation between sensory texture and peak viscosity or starch stability, while a positive correlation exists between sensory texture and setback value for the *fufu* samples $P = 0.05$ or 0.1.