

UTILIZATION OF BANANA (*Musa* SPP.) AS A SUBSTITUTE FOR SUGAR AND RICE FLOUR IN DEVELOPING *DODOL* CONFECTIONERY

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This study aims to develop a *dodol* confectionery, incorporating bananas as a substitute for sugar and rice flour. Three *dodol* formulations were prepared with varying rice flour: *seeni* banana ratios (7.5:2.5, 5:5, 4:6) together with equal amounts of other food additives (potassium sorbate and alfa tocopherol). Initially, the ingredients were mixed and cooked at 80-90°C for 1hr. The best formulation (rice flour: banana: coconut milk: sugar: potassium sorbate - 5: 5: 66: 24: 0.1) was selected from a sensory evaluation with 30 untrained panelists. Proximate composition and fatty acid profile, were analyzed in the final product. The keeping quality of the product was also assessed based on free fatty acid value and microbial stability by total plate count (TPC), Coliforms and yeast and mold count (YMC), over a 14-day storage period. The developed banana incorporated *dodol* contained 22.55% moisture, 2.30% protein, 8.10% fat, 58.20% carbohydrate, 0.50% ash and 0.20% crude fiber. As per the fatty acid profile, the product has 7.71% saturated fatty acid and not detected any trans fatty acid. The water activity and energy were determined as 0.76 at 25°C, 315 kcal g⁻¹ respectively. The pH (5.46±0.02), TSS (8.40±0.20) and color L* (30.63±0.15), a* (9.47±0.11), b* (11.67±0.21) were recorded initially and no significant changes were observed during storage. Consequently, with a free fatty acid value below 2% and standard enumeration of TPC, YMC and coliforms were also found at a safe level (<10⁵ CFU g⁻¹, <10³ CFU g⁻¹ and <3 MPN mL⁻¹, respectively) on the 14th day. In conclusion, there is a potential of utilizing banana as a substitute for sugar and rice flour in developing *dodol*.

Keywords: Fatty acid profile, Formulation, Free fatty acid value, Sensory evaluation