

UTILIZATION OF JACK SEED FOR PREPARATION OF FLOUR BASED PRODUCTS

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Jack fruit (*Artocarpus heterophyllus*) is one of the important, but underutilized fruit crops grown in many countries of the world including Sri Lanka. Industrial utilization of jack seeds is limited although large amount is available during the fruiting season. This study identified the possibility of developing jack-seed-flour based products namely; *aggala* and *pittu*. Four flour mixtures were prepared as; T₁ (60% rice flour, 30% soybean flour and 10% black gram flour), T₂ (10% jack seed flour, 50% rice flour, 30% soybean flour, 10% black gram flour), T₃ (20% jack seed flour, 40% rice flour, 30% soybean flour, 10% black gram flour) and T₄ (30% jack seed flour, 30% rice flour, 30% soy bean flour, 10% black gram flour) and these mixtures were stored at ambient condition (27°C and 70% RH) for further analysis. Proximate analysis was conducted to determine the nutrient composition *i.e.* protein, fiber, fat and ash contents of the flour mixtures. Moisture content and microbiological quality (total plate count, yeast and mould counts) of T₁-T₄ were determined at 0, 7 and 14 days of storage. Sensory properties of *aggala* and *pittu* prepared with T₁-T₄ were determined at 0, 7, and 14 day intervals. The results revealed that, nutrient composition was significantly different ($p < 0.05$) among the treatments and the highest percentage of protein was observed in T₄. Although moisture contents were significantly different ($p < 0.05$) among the treatments during the storage period, the values were within acceptable limits (Sri Lanka Standards). Throughout the storage, microbial counts were negative in all the treatments, while sensory attributes among T₁-T₄ were significant ($p < 0.05$). In conclusion, *aggala* and *pittu* made with T₄ exhibited the best sensory attributes.

Keywords: *Aggala*, Flour, Jack seed, *Pittu*