ABSTRACT

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THE EFFECT OF DIFFERENT FORMULATIONS OF JACKFRUIT SEED (*Artocarpus heterophyllus* Lam.) MILK AGAINST PREBIOTIC INDEX

(xiii + 39 pages: 18 figures, 9 tables, 11 appendices)

Jackfruit (*Artocarpus heterophyllus* Lam.) is one of the local fruit that widely consumed as a fresh fruit. The seed that commonly regarded as a waste in this study will be utilized as milk substitute. Another protein source is used to increase the protein content in jackfruit seed milk up to minimum 3%. There are 5 formulations of jackfruit seed milk regarding the addition of soy protein and skim milk to it. Formulation 1 contains 100% addition of soy protein, formulation 2 contains 75% addition of soy protein and 25% skim milk, formulation 3 contains 50% addition of soy protein and 50% skim milk, formulation 4 contains 25% addition of soy protein and 75% soy protein, and formulation 5 contains 100% addition of skim milk. The highest prebiotic activity score of L. acidophilus can be found on formulation 4 (0.48), while the lowest activity can be found on formulation 1 (0.076). The fifth formulations also undergo sensory test. Based on aroma, flavor, color and mouthfeel, jackfruit seed milk with formulation 5 is acceptable and considered better compared to another formulation, however formulation 4 is also acceptable by panelists in some aspects such as flavor and color.

Keywords: Jackfruit seed, prebiotic activity, soy protein, skim milk, jackfruit seed milk

References: 44 (1990-2015)