EVALUATION OF DEFATTED COCONUT TESTA FLOUR FORMULATION FOR SELECTED SRI LANKAN TRADITIONAL FOODS

A dissertation submitted to the
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
In partial fulfillment of the requirements for the award of
Bachelor of Science in Palm & Latex Technology and Value Addition

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Palm & Latex Technology and Value Addition Degree Programme

Faculty of Animal Science and Export Agriculture

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2019

ABSTRACT

Coconut testa is the major by-product of virgin coconut oil processing. The dried brown testa was gone through cold press extraction process to collect the defatted residue and it ground into fine flour. The aim of this research was to evaluate the best Tasta Flour (TF) formulation for two Sri Lankan traditional food items, *roti* and *pittu*, and determine their nutritional properties. Food items, were made incorporating 10%, 20% and 30% of TF and their sensory properties were evaluated using 25 untrained panelists through five-point hedonic scale. Proximate qualities of selected *roti* samples were compared with control treatment (100% wheat flour *roti*). All sensory attributes (taste, texture, appearance, smell, overall acceptance) were affected significantly ($P<0.05$) for TF incorporation into the Wheat Flour (WF) based *roti*. There was no significant difference ($P>0.05$) between 10% and 20% TF incorporation for all sensory attributes in *roti*. TF incorporation was affected significantly ($P<0.05$) for the sensory attributes of taste and texture of WF based *pittu*. TF can be successfully incorporated in refined WF *roti* and *pittu* up to level of 20% to enhance nutritional qualities with acceptable sensory attributes. Proximate composition; Moisture (oven dry method), Fat (Sohlet), Protein (kjeldhl), Fiber (Weende) and Carbohydrate content between selected (20%) TF incorporated *roti* and control *roti* (WF 100%) not showed significant difference ($P>0.05$) in moisture, fat, carbohydrate and ash. Incorporation of 20% of TF affected significantly ($P<0.05$) for the fiber and protein content of two treatments. The 20% TF incorporation has increased the fiber level of *roti* 1.81±% to 7.04±% with the quality of proteins from 12.43±% to 16.06±%, compared to the control (100% WF *roti*).

Keywords: Testa flour, Wheat flour, Sri Lankan traditional food, dietary fiber, gluten