

A STUDY ON THE NUTRITIONAL VALUE
AND SENSORY EVALUATION ON
“GOOD SOURCE-FIBER” MUFFIN WITH
JACKFRUIT SEED FLOUR

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ABSTRACT

Following an increasing percentage of coronary heart disease worldwide, consumers now demand for fiber-fortified food products. The aim of this study was to develop increased fiber muffins by substituting wheat flour with jackfruit seed flour (JSF) at the levels of 40%, 60% and 80%, and compared with a control muffin (100% wheat flour) in order to examine the effect of JSF incorporation on the quality of muffins. The four formulations of muffins were subjected to sensory evaluation for assessing their attributes and acceptability and determine the proximate analysis in their nutritional values. It was observed that an increasing in JSF was associated a decrease in height, volume and percentage moisture loss in muffins, except that water activity was not significantly affected ($p>0.05$). In term of sensory profile, significant differences ($p<0.05$) were found in QDA between control muffin and JSF muffins in the all attributes (adhesiveness, crumbliness, buttery and crust colour lightness) excluding crumb moistness. Apart from appearance, all acceptance levels (aroma, texture, flavour and overall acceptability) of JSF muffins were also found to be significantly differed ($p<0.05$) from the commercial muffin. Muffin with 40% JSF was concluded to be the most preferred among JSF muffins and subjected to chemical analysis. Incorporation of JSF had lowered the ash, protein, fat carbohydrate and calcium contents as well as energy value, yet increasing the moisture and fiber contents of muffins. Muffin with 40% substitution of JSF was shown to have fiber content of 25% higher than the control muffin thus it can be claimed as "good source" fiber muffin.

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