

## **Consumer Acceptability of Crackers Produced from Blend of Sprouted Pigeon Pea, Unripe Plantain and Brewers' Spent Grain and Its Hypoglycemic Effect in Diabetic Rats**

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**Abstract :** Physical, sensory properties and hypoglycemic effect of crackers produced from sprouted pigeon pea, unripe plantain and brewers' spent grain fed to diabetic rats were investigated. Different composite flours were used to produce crackers. Physical and sensory properties of the crackers, the blood serum of the rats and changes in the rat body weight were measured. Spread ratio and break strength of the crackers from different flour blends ranges from 7.01 g to 8.51 g and 1.87 g to 3.01 g respectively. The acceptability of the crackers revealed that Sample A (100% wheat crackers) was not significantly ( $p > 0.05$ ) different from Samples C and D. Feeding the rats with formulated crackers caused an increase in the body weight of the rats but a reduced body weight was observed in diabetic rats fed with normal rat feed. The result indicated that cracker produced from the formulated flour blends caused a significant hypoglycemic effect in diabetic rats and led to a reduction of measured biochemical indices. Therefore, this work showed that consumption of crackers from the above formulated flour blend was able to decrease hyperglycemia in diabetic rats.

**Keywords :** hypoglycemia, hyperlipidemia, total lipid, triglyceride, total cholesterol

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