A STUDY ON THE SUITABILITY OF JACK FRUIT VARIETIES FOR CHIPS MAKING

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ABSTRACT

Dried deep fat frying chips is a useful preservation technique for the production of safe, stable, nutritious, tasty and concentrated food. The present study was conducted to develop a suitable preparation technique for jack fruit chips with a suitable jack fruit variety and to select the best packaging material for storage. The fruit slices (4cm x1.5cm x4mm) were obtained from fully matured jack fruit (var.Waraka and var.Vela). Fruit slices were treated with 0.1% potassium metabisulphite preservatives and 0.4% citric acid firming agents, pricked, blanched and then processed. The developed chips were subjected for sensory evaluation using nine-point hedonic test. Based on the organoleptic qualities, var.Waraka was selected as the best variety to produce dried deep fat fried chips.

Packaging and storage studies of jack fruit chips were conducted by using three types of packaging materials namely plastic bottle, high density polyethylene pouch and metalex foil pouch at room temperature. Nutritional, microbial and organoleptic evaluations were conducted at 2 weeks interval to evaluate the quality of the product during storage. Significant changes were observed in nutritional qualities include moisture content, fat, protein, fiber and organoleptic characters such as colour, flavour, taste, crispiness and overall acceptability and weight gain. Among the three packaging materials metalex foil pouch showed better retention in protein, fat, fiber, ash and moisture content of 1.46, 1.76, 0.90, 0.77 and 4.40%, respectively at the end of storage period. The highest weight gain of 53.1 % was observed in chips packed in the Metalex foil pouch. In the sensory evaluation highest overall acceptability was obtained for the chips packed in metalex foil pouch. Based on nutritional and organoleptic point of view metalex foil pouch was selected as the suitable packaging material for the dried deep fat fried jackfruit chips which can be stored for minimum of two months period with minimal losses in quality at 5% significant level.

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