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UTILIZATION OF JACKFRUIT SEED FLOUR
IN MAKING MUFFIN

RESEARCH STUDY

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IN MAKING MUFFIN**

**A Research Study
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of the requirements
for Graduation**

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ABSTRACT

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Adviser: Prof. Daisy M. Marca;

This study "Utilization of Jackfruit Seed Flour in Making Muffin" was conducted in Banaba Cerca, Indang, Cavite and at the Foods Laboratory of the Home Economics, Vocational and Technical Education Department of the Cavite State University Indang, Cavite. Generally, this study aimed to utilize jackfruit seed flour in making muffin. Specifically, it aimed to determine the sensory properties of muffin made from jackfruit seed flour; determine the consumers' acceptability of muffin made from jackfruit seed flour; and analyze the cost of producing muffins from jackfruit seed flour.

Different treatments used were; Treatment 0 (T₀) 100 % rice flour; Treatment 1 (T₁) 75 % rice flour- 25 jackfruit seed flour; Treatment 2 (T₂) 50 % rice flour-50 % jackfruit seed flour; Treatment 3 (T₃) 25 % rice flour-75 % jackfruit seed flour and Treatment 4 (T₄) 100 % jackfruit seed flour.

The samples of muffin were presented to one hundred judges, who compose the consumers' panel; seventy-nine of whom are female and twenty-one are male with ages ranging from thirteen to sixteen years old.

Results revealed that Treatment 0 (T₀) is the most acceptable with respect in consumers acceptability with a mean score of 3.6.

Another set of muffin samples were presented to fifteen trained panelists for laboratory taste test.

Results showed that the color of muffin were significantly different with each other. Treatment 0 (T0) obtained the highest mean score of 4.4. This can be attributed to the length of sun drying of the seeds that made the jackfruit seed flour brownish.

There were also significant differences seen among the mean scores for mouthfeel. Treatment 0 (T0) has a mean score of 3.0. The increasing proportion of rice flour and jackfruit seed flour significantly affected these attributes. It can be accounted to the study of Lascano (1998) that the flour from jackfruit seeds had a coarse texture which affects the mouthfeel of the product.

While, with regards to taste, results revealed that Treatment 1 (T1) is the most acceptable with a mean score of 4.0. The increasing proportion of rice flour and jackfruit seed flour significantly affected these attributes. As stated by Lascano (1998), the sap of the jackfruit seeds made the sponge cake bitter and less acceptable.

In terms of aroma, the result shows significant differences among the mean scores of each treatment. Treatment 0 (T0) has a highest mean score, which is 2.8.

Likewise, with regards to general acceptability of muffin, there were also significant differences seen among the mean scores for general acceptability. Treatment 1 (T1) has a highest mean score, which is 4.0. As stated by del Rosario (2001), the higher percentage of flour from jackfruit seeds decreases the acceptability of bread.

Results of the study revealed that the general acceptability of muffin from jackfruit seed flour is still inferior to that of muffin made from rice flour. It was further strengthened by the proof that Treatment 1 (75% rice flour-25% jackfruit seed flour) has a mean score of 4.0 which means that flour from jackfruit seeds is more acceptable as an additive or filler rather than as a substitute for rice flour in making muffin.

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By

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A Research Study presented to the faculty of the Science High School College of Education Cavite State University Indang, Cavite, in partial fulfillment of the requirement for graduation. Prepared under the advisorship of Professor Daisy Marca and Professor Dulce Ramos.

INTRODUCTION

Jackfruit (*Artocarpus heterophyllus*) is a popular fruit that is widely grown in Thailand and other tropical areas. It is commonly known as langka, and it has many uses. Its branches can be used as dye, its leaves can treat wounds, and young leaves, shoots and flowers are used in soup courses and curries. Jackfruit is also valued for its immense fruit and timber. The ripe fruit contains well-flavored yellow sweet bulbs and seeds. The edible bulbs of ripe jackfruit are consumed fresh or processed into products. The fruit contains large starchy seed that can be eaten boiled or roasted. However utilization of jackfruit seed is still limited despite its potential as good source of flour.

Rice muffin is a native delicacy, which is served in all occasions. Since the price of rice is continuously rising, this study attempts to utilize jackfruit seed flour as an alternative for rice flour in the production of muffins.

Statement of the Problem

Rice flour is commonly used in making food products, which are seen as partners