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Original Research Paper

Microbiology

DEVELOPMENT OF GLUTEN FREE JACKFRUIT COOKIES FOR DIABETIC PATIENTS

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KEYWORDS :

INTRODUCTION

Jackfruit seeds are rich in carbohydrates, proteins and have good amount of fibre and B-complex vitamins. Carbohydrates provide energy, store energy, build macromolecules, and spare protein and fat for other uses. Protein is one of the building blocks that gives tissues and organs their shape and also helps them work. Fiber aids in digestion, helps to feel full, and keeps blood cholesterol levels in check. B-complex vitamins help prevent infections and help support or promote- cell health, growth of red blood cells, energy levels, good eyesight, healthy brain function, good digestion, healthy appetite and proper nerve function.

Objectives

1. To collect jackfruit seeds
2. To prepare jackfruit seed flour
3. Preparation of cookies by using yeast and nutrient
4. Determining the efficiency of the food product in diabetics patients

MATERIALS AND METHODS

1. Sample Collection

It is a exotic fruit grown in tropical regions and is native to South India. The jackfruit seeds can be separated for the production process.

2. Basic Studies

Refined flour or maida is bad for you as it releases sugar into the bloodstream quickly and leads to an insulin spike; in the long-term it can even lead to insulin resistance and diabetes. Jackfruit seeds, was the main focus due to its health benefits. The compounds in jackfruit seeds are used as candidates in lowering blood glucose levels or in the treatment of diabetes

3. Determination of and its Efficiency

The product can prove to be beneficial for diabetes patients and can aid in improving gut health.

4. Preparation of Jackfruit Seed Cookies

- To collect jackfruit seeds
- To obtain dried powder using solar drying
- To prepare jackfruit dough by mixing seed powder yeast and nutrient

Brewer's yeast may have beneficial effects on insulin receptors because of itsglucose tolerance factor in diabetic patients.

Yeast has two primary functions in fermentation: To convert sugar into carbon dioxide gas, which lifts and aerates the dough. To mellow and condition the gluten of the dough so that it will absorb the increasing gases evenly and hold them at the same time. Zinc is required for insulin synthesis and storage and insulin is secreted as zinc crystals. It maintains the structural integrity of insulin

- Preparation of dough and preparation of cookies by using

5. Testing of Jackfruit Seed Cookies

Millet is lower on the glycemic index (GI) than many other grains. That means it raises your blood sugar slowly and gradually instead of in quick spikes. High-fiber, low-GI foods keep blood sugar steady, lower cholesterol, and help you lose weight. All of these things are helpful for people with diabetes

RESULTS

Gluten Free Jackfruit Cookies For Diabetic Patients that there were variations in all the processing methods used showed differences in compositional, functional and pasting characteristics of jackfruit seed flour. Roasting prior to flour production gave the best results based on the following reasons. The available proteins increased the water absorption capacity with reduced oil absorption. In agreement with this finding Gossan et al (2010) reported an improvement in protein content from the raw (6.73%) to the roasted (7.32%) and fibre of raw seed (1.6%) and (3.38%) in the roasted jackfruit seed flour in the present study. The process of Roasting also positively affected amylose content which is an important factor with regard to the end use properties of the product. It also had high peak viscosity, trough, break down, final viscosity and short pasting time. The higher water absorption capacity of the roasted sample indicated an important processing parameter in Viscosity. In addition to water absorption in relation to its protein content and good viscosity properties are all important in bulking and consistency of the product and will find application in baking and confectionaries.

T was observed from this study, that there were variations in all the processing methods used and this shows that processing methods affected the compositional, functional and pasting characteristics of jackfruit seed flour. Roasting prior to flour production gave the best results based on the following reasons. It made protein more available, increased the water absorption capacity with reduced oil absorption. In agreement with this finding Goswani et al (2010) reported an improvement in protein content from the raw (6.73%) to the roasted (7.32%) and fiber of raw seed (1.6%) and (3.38%) in the roasted jackfruit seed flour in the present study. Roasting also positively affected amylose content which is an important factor with regard to the end use properties of the product. It also had high peak viscosity, trough, break down, final viscosity and short pasting time. The higher water absorption capacity of the roasted sample indicated an important processing parameter that has implications for viscosity. In addition to water absorption in relation to its protein content and good viscosity properties are all important in bulking and consistency of the product and will find application in baking and confectionarie

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