

CHAPTER 1

INTRODUCTION

1.1 Background of The Study

The kluwih plant (*Artocarpus cammansii*) is one of the plants that can live in tropical countries like Indonesia. Also called seeded breadfruit in English, so far it is only been processed in a simple way by local residents such as vegetable dish or just boiled the seeds. Therefore, it is necessary to introduce a processing technique, such as modify the kluwih fruit into other products and get advantages of this plant. Seeded breadfruit can be used as an example of food diversification by utilizing kluwih fruit whose fiber characteristic resembles meat. Meanwhile, kluwih seeds are processed into kluwih seed flour.

First of all, to make the kluwih seed flour, prepare the kluwih fruit that is quite old, then peel the skin and separate the seeds from the flesh of the fruit, save the flesh of the fruit to substitute meat in lasagna. Boil the kluwih seeds for about 5 minutes, then lift and drain. Put it in a food dehydrator at a temperature of 50°C to dry for approximately 24 hours. Then clean the excess cord skin for a better flour result, grind the seeds with a food processor, then strain to separate the part that has not been crushed.

The Indonesian Ministry of Health (2009) stated that in kluwih fruit has a chemical composition which contains carbohydrates (27.2 g), protein (1.5 g), fat (0.3 g), ash (1 g), energy (118 kcal), calcium (28 mg), phosphorus (32 mg), iron (0.9 mg), total carotene (20 g), thiamin (0.1 mg), and (19 mg) of vitamin C, while the nutritional content of the kluwih fruit used flour contains protein (8.8%), total fat (5.6%), total carbohydrates (64.9%), fiber (8.2%), ash (1.5%), phenol (0.06%), and water (10.8%) (per 100 g of material). It can be concluded that the kluwih fruit can be used to meet the daily nutritional needs of the community.

The nutritional content of kluwih fruit which is quite high is carbohydrates, fiber, potassium, vitamin C. Based on the nutritional content, briefly the benefits and properties include the circulatory system which can reduce bad cholesterol (LDL), and increase good cholesterol (HDL) in the blood, maintain blood sugar stability, minimize hypertension, and fight congestive heart failure. On the nervous system and brain can provide neurological benefits. On the bones (skeletal system) is useful for healthy bones. On the excretory and urinary system can reduce the risk of kidney stone formation. On the muscular system can prevent muscle cramps. On the digestive system is useful for minimizing the risk of cancer especially colon cancer, maintaining digestive health. For the body in general can minimize the occurrence of dehydration, good for diabetics, help lose weight (diet). And other benefits are as a source of energy (Andra, 2017).

The reason for using the basic ingredients of kluwih and its seeds is to introduce local fruit which is usually only processed simply as a lodeh menu. Kluwih is a non-seasonal fruit, so the supply of raw materials is maintained. And also the character of the kluwih fruit if cooked for a long time the texture of the fiber resembles meat. For this time it is increased as a substitute for meat in lasagna dishes and also uses the seeds as a flour mixture to make lasagna sheets.

1.2 The Objectives of The Study

- a. Requirement to continue internship program
- b. Innovate food waste in to profitable product
- c. Alternative ingredients to replace meat by utilizing local ingredients