

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Egg roll is one type of snack characterized by its sweet and savory taste and brittle texture, made by baking and then rolling it using a tool. The distinctive aroma of egg roll is obtained from the combination of ingredients such as eggs, margarine, milk, and vanilla (Pradewi, 2013). Typically, egg rolls in the market consist of main ingredients like flour, eggs, and margarine, all of which also serve to enhance the nutritional value of the egg roll. Egg rolls are commonly served as treats for guests, daily snacks, and souvenirs (Purwanita, 2013).

The ganyong plant (*Canna edulis Kerr.*) grows abundantly in tropical regions and can be found wild in yards and forests. This herbaceous plant, native to South America, was introduced by the Portuguese to several regions and has now spread to Asia, Australia, and Africa. It can be utilized for both food and non-food purposes (Ningsih, H et al., 2015). This plant is regularly cultivated in Central Java and East Java. Irregular cultivation occurs in the regions of D.I. Yogyakarta, Jambi, Lampung, and West Java. In West Sumatra, Riau, South Kalimantan, Southeast Sulawesi, South Sulawesi, Central Sulawesi, and Maluku, it has not yet been cultivated and still grows wild in yards and along the edges of forests (Koswara, 2013).

Ganyong is also one of the tuber plants prioritized for development and continuous production enhancement to support food security (Ministry of Agriculture, 2017). To enhance the potential of ganyong tubers, various efforts have been made to increase their utility. Based on their functional properties,

ganyong flour and starch have the potential to be used as raw materials in industries such as prebiotic drinks, vermicelli, glass noodles, biscuits, baby food, thickeners, jelly, and traditional snacks (Hasrini and Hasanah, 2013). The chemical and nutritional characteristics of ganyong flour make it easily digestible, which is why it is often used for baby food and for people who are ill (Widowati, 2001).

Mung beans are a nutritious food ingredient. Based on research conducted by Koes (2009), every 100 grams mung beans contain 25% protein, 58% carbohydrates, and fats. On average, 100 grams of mung beans contain 150-440 IU (International Units) of vitamin B. Mung beans also contain 9 IU of vitamin A and adequate amino acids. Mung beans are commonly used as a substitute ingredient in the form of flour. Mung bean flour is a semi-finished product that can be used to create various processed foods. In 100 grams of mung bean flour, there are 286 Kcal of carbohydrates, 31.5 grams of protein, 14.3 grams of fat, 35.1 grams of fiber, and 175 mg of water content (Nurcahyani, 2016). The use of mung bean flour in food processing can produce a variety of processed foods and reduce the use of wheat flour.

1.2 Objective of the Study

1. To determine whether wheat flour can be substituted with Canna Tuber Flour and mung bean flour.
2. To make the egg rolls gluten-free and consumable by everyone.
3. To maximize the utilization of canna tubers that are abundant in Indonesia.