CHAPTER I

INTRODUCTION

1.1 Background of the Study

Breakfast is an important activity to fulfill energy in the morning. Consumption of breakfast with 270-570 calories can improve concentration to improve student achievement. However, breakfast activities are still not a culture in Indonesia. Based on data on food consumption in 35,000 elementary school-aged children, 26.1% of children only eat beverages (water, tea, and milk) for breakfast and 44.6% of children who eat breakfast only get energy intake less than 15% of the Nutrition Adequacy Rate (AKG). There are various reasons why children do not have breakfast, such as time constraints due to the long distance to school, waking up late, or no appetite for breakfast (Riskesdas data (2010) in Asih et al. (2017)). Therefore, there is a need for foods that can be processed and served practically and can be eaten immediately. Extrusion-based breakfast cereal from local resources is one of the interesting breakfast products to be developed. The development of cereals using mung bean flour and keto flour is expected to make breakfast cereals that are liked and have good nutritional value. Cereal itself is a food ingredient derived from plant grains of members of the grains tribe (Poaceae) which are processed into various kinds of food products. therefore this test raises mung beans and almonds as the basic ingredients for making cereal flour in fulfilling the nutrients needed by the body. As we know, mung beans (Vigna radiata) are known to be rich in fiber and protein, and are often used as a breakfast menu because they are cheap and easy to find. In Indonesia, mung beans are the third most important legume crop after soybeans and peanuts, although yields are still low (Soeprapto, 2000).

Mung bean flour is also gluten-free, making it a good alternative for those with gluten intolerance or disease. Mung beans are one of the seeds that are often processed into breakfast menus that are high in fiber and high in protein and are easy to find and relatively cheap. Mung bean flour is rich in protein, fiber, and essential amino acids, making it a nutritious alternative that supports muscle growth and digestive health. It is also gluten-free, making it suitable for people with gluten intolerance or celiac disease. In addition, I also highlight almonds as a flour ingredient that is low in fat and tastes great.

Keto/almond flour were chosen as a flour ingredient because they are low in fat and rich in nutrients. Keto flour, also known as almond flour, is used to enhance the flavor and texture of food and improve its nutritional composition (Astawan, 2009). Almond flour is low in carbohydrates, rich in vitamins, minerals, healthy fats, and protein, and gluten-free, making it suitable for those with special dietary needs. keto/almond flour itself contains healthy fats and fiber, promoting satiety and overall metabolic health. Therefore, using mung bean flour and keto flour in cereals provides a healthier and more inclusive option that supports a variety of dietary needs and health goals.

1.2 Objectives of the Study

The objectives of the study are:

1. The aim is to utilize mung bean as a cereal constituent, which is expected to increase the content of bioactive components in breakfast cereals, by minimizing the decrease in nutrients and sensory quality. It is expected to bring benefits to the development of mung bean cereal and the use of local ingredients that are easily found in Indonesia.
2. Develop mung bean as another protein source in various snack products.