## **CHAPTER I**

## **INTRODUCTION**

## 1.1 Background of the Study

Cereals are ready-to-eat foods that can meet consumer demand for quick and convenient meals, provide the nutrients the body needs, and increase satiety (Menis-Henrique et al., 2020). For humans, cereals are a source of plant-based protein with added benefits such as fiber, complex carbohydrates, and antioxidants. In cereal production, cereals can be made into different shapes, such as squares, rounds, and flakes. In addition, cereals are made from various types of grains such as wheat, corn, millet, and fruits that can provide flavor, and cereals are also consumed almost all over the world as a source of human nutrition (Amagliani et al., 2017). As discussed in the preparation of cereal flakes, grains can be used, and the type of grain used in this cereal is foxtail millet.

Millet is a cereal crop that still belongs to the sorghum and corn groups. This plant is most commonly found in the tropics, especially in Asia (Saleh et al., 2013). This is the reason for using millet in this flake cereal to make this millet cereal, besides that millet also contains 18% fiber, protein, and vitamins thiamine (B1), niacin (B3), and folic acid (B9) in 100 grams of millet (Wei, C.H. et al., 2022). Despite its many good properties, millet is still rarely used as a food ingredient (Sharma and Niranjan, 2018). This is the main reason why I used millet as the main ingredient to make this flake cereal, to introduce millet and show the benefits of millet. By making millet as a cereal, millet can become a ready-to-eat cereal that is processed in a good way and is easily recognized and consumed by people of all ages, making this cereal known to all because of its good taste, good texture and flavor, long shelf life, and easy and practical presentation (Lemmens et al., 2021).

In the production process, millet flakes are combined with a mixture consisting of a mixture of nuts (almonds and cashews), seeds (sunflower seeds, pumpkin seeds), a mixture of dried fruits (cranberries, black currants, golden raisins), and dates. Then mashed using a blender. The blender functions as a mixing and crushing tool for the initial raw materials with a lower production capacity and a repetitive process (Pamasaria et al., 2020). Nuts, seeds, and dried fruits can help millet provide complete nutrition for the body, low in sugar, high in protein and rich in fiber so that it can help increase the nutrients of millet which are reduced during the millet cooking process, making this product a healthy cereal and has good nutritional content.

## 1.2 Objectives of the Study

The objectives of the study are:

- 1. To increase production and consumption of millet as a healthy and easy-to-eat cereal
- 2. To introduce that millet is a food ingredient that has a complex nutritional content