

CHAPTER I

INTRODUCTION

1.1 Background of study

Sorghum is a widespread grain crop that thrives in the tropics, particularly in Africa and Asia, as well as in marginal areas that can typically withstand dry climate conditions. Sorghum is the fifth-largest cereal in the world by productivity. Sorghum bicolor (L.) is one of the most commonly grown kinds in the ASEAN region. It is one of five sorghum types that are known to exist in the globe, the others being guinea, caudatum, kaffir, and durra. Sorghum has a high nutritional content. Sorghum not only has nutrients but also anti-nutrients like tannins.

Tannins are secondary metabolites found in plants that are naturally active anti-nutrients and are classified as polyphenols. Tannins interact with proteins (both enzymatic and non-enzymatic). To form tannin-protein complexes so it can inhibit the action of digestive enzymes (Kurniadi et al., 2013).

Sorghum is a grain that can be used to make a variety of processed foods, such as rice, bread, noodles, pastries, cakes, and snacks (Andriani & Isnaini, 2013). In this case I used sorghum flour to replace wheat flour while also using an adhesive, namely gluten flour, to make the gyoza skin.

In Japan, a particular kind of dumpling called gyoza is highly well-liked. Gyoza is typically offered in restaurants as a side dish rather than the main course. As in Japan, many Indonesians enjoy gyoza because of its unique shape, numerous tastes, and great taste. Even though gyoza is highly well-liked in Japan, its original home is in China, where it is known by the name Jiaozi. Gyoza and jiaozi are different from one another in that the jiaozi has a thicker skin than the gyoza, while gyoza has a thinner skin because it's machine rolled, while jiaozi is usually handrolled, also gyoza tends to have a stronger garlic flavor. Gyoza is a Japanese food in which the skin is made

from flour dough and filled with pork and cabbage only then when it's served in other countries that it has more variety such as using shrimp, chicken, vegetables, and various other ingredients, according to individual tastes, with pan fried cooking techniques and then steamed (Zahra & Elida, 2023). Gyoza is one of the unique foods starting from its shape, taste, and also the cooking technique.

In this study, sorghum flour was utilized as a substance alternative when making gyoza (Zahra & Elida, 2023)

Sorghum gyoza is one of the new innovations from gyoza with healthier benefits compared to gyoza whose skin is made from wheat flour because sorghum flour has a high dietary fiber content. From the results we have made, there is no significant difference between the gyoza using sorghum flour and wheat flour.

1.2 The Objectives of the study

The objectives of this study are following below:

1. Introducing sorghum as a local food substitute for wheat flour so that imports of wheat flour can be reduced.
2. It has high dietary fiber so it can be an alternative for those who is on diet.
3. Creating a healthier gyoza innovation.