CHAPTER I
INTRODUCTION

1.1 Background of the Study

At present, in Indonesia, breadfruit consumption is predominantly limited to boiled or fried varieties and with breadfruit production in Indonesia reaching approximately 190,551.00 tons, food loss is bound to happen. Processing breadfruit into a variety of processed foods can contribute to the advancement of food diversification programs. Food diversification aims to expand the selection of available foods by utilizing local resources to create a diverse range of nutritionally balanced and safe options. This initiative also seeks to promote the growth of food businesses and enhance community welfare (Histifarina & Purnamasari , 2022).

This study looks at making tortillas with a unique alternative, which uses fermented breadfruit. Utilizing the fermented breadfruit flour as the main ingredient for a tortilla is a simple and appetizing solution, not only is tortilla a very versatile and filling source of carbohydrates in a meal, but it is also a healthier alternative to those with celiac disease or consumers who are vegan.

Breadfruit is a tropical fruit that is good for consumption, it was discovered that breadfruit protein is more easily digestible compared to wheat protein in enzyme digestion experiments (Liu, et al., 2020). Breadfruit is a complete protein that is high in valine, isoleucine, phenylalanine, and leucine (Jones, et al., 2011). It is a high-quality protein source which also has a low glycemic index (GI) and has been touted as a traditional, diabetic-friendly fruit

Like the fermentation of cassava, fermentation is an old method that adds flavor and health benefits to food. Through fermentation, both breadfruit and cassava undergo a transformation that not only enhances their flavor but also increases their nutritional value. The process breaks down complex carbohydrates, making them easier to digest and unlocking valuable nutrients. This can be particularly beneficial for individuals with sensitive stomachs or digestive issues (Sharma & Aristizabal, 2020).

Fermenting breadfruit for tortillas not only makes them last longer without artificial additives, which consumers prefer because it is less processed. By processing breadfruit into a flour form, it offers a gluten-free, low glycemic index, nutrient-rich, and complete protein alternative for contemporary diets. However, there was a lack of fundamental scientific understanding regarding the health effects of a breadfruit-based diet in both animals and humans.

It also helps the environment and local farmers by cutting down on food loss and supporting local economies. This shows how important it is to use fermented breadfruit for making tortillas in the recent food industry, as it combines new cooking methods, better nutrition, and taking care of the environment.

1.2 Objectives of the Study

The objectives of the study are:

1. To delve into the potential culinary applications of the fermented breadfruit flour.
2. To create a gluten-free and vegan alternative of a tortilla.
3. To advocate for maximizing the use of sustainable resources.