

CHAPTER I

INTRODUCTION

1.1 Background of Study

Many parts of the fruit until now have not been properly utilized including processing of waste or skin from the fruit. Apple skins and banana skins are examples. These two fruit skins are often thrown as waste from the utilization of the fruit flesh. Even though apple skins and banana skins also contain nutrients that are beneficial to the body (Rahmat, 2021)

In general, apple skin contains vitamins A and C, various minerals, including calcium, potassium, and phosphorus. Apple skin also contains phytochemical compounds such as flavonoids and polyphenolic (Garcia, 2021; Baiti et al., 2021). Meanwhile, banana skins contain carbohydrates, protein, fat, vitamin C and banana skins also contain high antioxidant activity. The antioxidant compounds found in banana skins are catechins, galocatechins, and epicatechins which are a class of flavonoid compounds (Gurning et al, 2021).

Jam is a semi-solid food product, made by cooking sugar with fruit pulp, pectin, acids and other ingredients to obtain a reasonable consistency (Awulachew, 2021). In general, the process of making jam will go through several stages of peeling, washing, weighing, grinding, mixing, heating and thickening (Budi, 2020). Jam is usually used as a spread for bread and also as an additional ingredient in making cakes and other foods. The use of jam as a complement to bread is increasing, due to changes in people's habits, especially with the choice of food for breakfast. Therefore, the use of apple peels and banana peels as jam is considered to bring benefits, such as nutritional content, reducing waste from fruit skins and can be a substitute for fruit flesh in making jam.

1.2 The Objectives of the study

The objectives of this study are following below:

1. Utilizing waste apple peels and banana peels as jam products
2. Utilization of apple peels and banana peels which are rich in nutrition as jam.
3. The price of jam made from apple skins and banana skins is more affordable/cheaper than jam made from fruit flesh, thus enabling all types of people to enjoy nutritious jams.