

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Food processing is getting evolve with development times and technological developments. Various innovations were carried out by several deep food processing industry creating new food products acceptable to society. Jam is types of preserved food made from fruit that has been crushed with add sugar and cook until thicken. Fruit raw materials used the ingredients for making jam are fruit that it is ripe and has a little taste sour. Conditions for making good jam among others, contain various acids for the process of thickening jam and lower the pH of the jam. The usual jam only made from various fruits, when This can be made from a variety of organic waste like a banana peel that is usually thrown away and not used. Banana peel known to be high in pectin. This compound is the main compound which can function as a thickener in raw material for making jam (Sari, 2015).

Colored banana skin yellow, rich in flavonoid compounds as well as phenolic. Banana peel too contains carbohydrates, minerals (potassium and sodium) as well as cellulose. Flavonoid and phenolic compounds are useful as antioxidant, anticancer and antiviral (Munadjim, 1988). People in general use bananas to be processed into boiled bananas, fried bananas, banana molen, banana compote, banana cake, and so on. The use of large enough bananas produces banana peel waste that has not been used productively (Sutriono & Pato, 2016). Banana peel waste is known to it still have nutrition. The carbohydrate content of the banana peel is 10.80%, the protein content of the banana peel is 1.205%, the fat content of the banana

peel is 3.187%, and the vitamin content of the banana peel has 0.15% vitamin C (Laily and Diana, 2018).

Banana peel contains high antioxidant activity compared to the banana flesh. The antioxidant activity in banana peels reached 94.25% at a concentration of 125 mg/ml while in the fruit it was only about 70% at a concentration of 50 mg/ml. The antioxidant compounds found in banana peels are catechins, gallic catechins, and epicatechins which are a group of flavonoid compounds. Therefore, banana peels have good potential to be used as a source of antioxidants in food (Ermawati, et al., 2016). Banana peel waste which is usually disposed of by banana processing traders can be used as a product that has a high selling value and can be accepted by the community. Banana peels jam is one form of innovation that can be utilized from banana waste as an effort to increase the use value of bananas. Jam is a processed food in the form of a paste obtained from cooking fruit pulp, sugar and other supporting materials. Jam is a preserved product made by cooking crushed fruit mixed with sugar, either added with water or without the addition of water and other additives (Munasari et al., 2018).

The reason for taking and researching the banana fruit is to use banana peel waste so as not to pollute the environment, and to change people mindsets that banana peel waste is not useful in making products that can be reused.

1.2 OBJECTIVES OF STUDY

1. To introduce banana peel jam as an innovation for filling cookies
2. Development and making waste fruits part to be food innovation
3. Prepare cost and a definite price range for these products
4. Plan a market strategy for the final product