

CHAPTER 1

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Fruit leathers, sometimes referred to as fruit rolls or Fruit Roll-ups, are popular dried food snacks. They are formed when fruit is pureed (generally from a concentrate when mass-produced) cooked, dried, and rolled or cut out. The sticky solution is then spread on a nonstick surface on which it is dried. When dried, the fruit leather is firm to the touch (hence the name fruit leather) but malleable enough so that it can be rolled. The fruit leather can be easily cut in strips and shapes. Fruit leather generally lasts quite a long time in this state and does not require refrigeration. The popularity of the fruit leather has increased significantly in the last 10 years because many view these snacks are more healthful than other confections because it is produced from fruit to which vitamins (particularly vitamin C) has been added.

Fruit leather is mass-manufactured by a number of different companies but can also be made rather easily at home. Recipes abound in cookbooks, including directions for making fruit leathers with grapes, raspberries, apples, and strawberries on the kitchen stove and using the oven or a food dehydrator to assist in the drying process.

Matoa in class as a typical Papuan plant that is used as Papuan identity. Matoa has also spread in several Indonesian islands such as Java, Sumatra, Sulawesi (Lely, 2016). The matoa plant (*Pometia pinnata*) is known to contain alkaloids, saponins, tannins, flavonoids, terpenoids as well as vitamins A, C, E which can boost the immune system (Leiwakabessy and Bertha, 2018). Matoa (*Pometia pinnata*) belongs to the Sapindaceae family. Matoa plant use the trunk in the wood industry and consumed as food and

traditional medicine on the leaves, fruit, and seeds. Even though matoa is known widely, but information regarding its efficacy is not widely known.

Jam generally has a mushy texture and is usually consumed with bread by spreading it. In order to make the use of jam easier and more practical, the jam is made in sheet. The addition of Honey and lemon juice will strengthen the texture of the sheet jam so that it has good characteristics such as being in the form of a sheet according to the surface of the bread, not liquid or too soft, but also not too stiff. Cooking is an important step and requires good control of jam products to obtain a firm gel structure.

Matoa fruit is a very perishable fruit, so have to find a way to make matoa fruit last longer. One way to make matoa last longer is to make fruit leather or fruit roll. Matoa fruit is unique, it smells like durian, the shape and color of the flesh is similar to longan, and the taste is sweet like rambutan. Without realizing it, matoa fruit also has many nutrients contained in it.

Based on research from the journal here are the Nutrition and Health Benefit of Matoa:

1. Vitamins C which is antioxidants so it can reduce the risk of chronic diseases such as stroke and heart disease (2013 Siswanto, B., & Ernawati, F.).
2. The antioxidant content in it is believed to be able to increase the number of good bacteria or probiotics, and prevent the growth of bad bacteria in the intestines.
3. Phenolic in matoa fruit extract are believed to be able to reduce the absorption of blood sugar in the intestines, so it is good for diabetics. (Sudarmonowati, E., Bachtiar, A. S., & Yunita, E.).
4. Matoa has an average nutrient content that is higher than lime, spirulina, and carrots. Matoa is very good if it is used as a food to increase the body's immune system.

1.2 THE OBJECTIVE OF THE STUDY

1. Identify other ways to consume Matoa fruit.
2. Identifying how to pack fruit snack to make them last longer.
3. Examine the nutritional values of the fruit leather.
4. Determine the product concept that is suitable for development.
5. Creating a business plan for product development.