

CHAPTER I

INTRODUCTION

1.1. Background of the Study

Dendeng is one of Indonesia's traditional processed products. Jerky is a semi-moist food made from dried and seasoned meat spices. Jerky has a dry taste, soft texture and has a sweet taste. Processing meat into jerky is not only increases the shelf life of meat, but also provides added value to the meat. Jerky can be made with a variety of meats, however generally jerky is made with beef.

Plant-based jerky made from dates and shitake mushrooms offers several significant advantages compared to traditional jerky made from meat. Dates are a dried fruit that is rich in natural sugars, fiber, and several important vitamins and minerals such as potassium, magnesium, and iron. Although the sugar content of dates is quite high, it imparts a strong natural sweetness to the plant-based jerky, thus reducing the need for additional sweeteners in the product formulation. When dried, dates have a similar texture to meat, especially in terms of hardness and thickness after the drying process. This makes it suitable as a base ingredient for meat analogues such as plant-based jerky.

One of the main advantages of plant-based jerky from dates and shitake mushrooms is that the product is free of cholesterol, which can help in maintaining heart health and reduce the risk of coronary heart disease associated with high-fat meat consumption. Although dates do not contain as much protein as meat, the addition of shitake mushrooms as a plant-based protein source can increase the protein content and other nutrients in this plant-based jerky. Shitake mushrooms are also rich in fiber, B complex vitamins, and minerals such as selenium, which support immune system health. The combination of the natural sweetness of dates and the savory flavor of shitake mushrooms provides a unique and satisfying complexity of flavors. This can increase the appeal of the product to consumers who are looking for flavor variations in plant-based food products.

Shitake mushroom (*Lentinula edodes*) is one of the types of mushrooms that is popular internationally, both as a food ingredient and traditional medicine in East Asia, especially in China, Japan, and Korea. Shitake mushrooms are rich in essential nutrients such as fiber, protein, B complex vitamins (especially riboflavin, niacin, and vitamin B6), as well as minerals such as selenium, iron, and copper. This nutritional content makes shitake mushrooms have high nutritional value and are beneficial for overall body health. Shitake mushrooms also contain bioactive compounds such as beta-glucans and lentils, which have been researched for their potential in boosting the immune system and having anti-cancer effects.

In general, shitake mushrooms have a stiffer and fattier texture compared to regular white mushrooms. The taste is richer and has a distinctive aroma. Compared to other mushrooms, shitake mushrooms tend to be higher in fiber, protein, and some specific vitamins and minerals such as selenium. The beta-glucans contained in shitake mushrooms can increase the activity of immune cells. The bioactive compounds in shitake mushrooms such as lentils have antioxidant and anti-inflammatory potential that are beneficial for heart health and prevent chronic diseases.

This vegan jerky is made with dates and mushrooms as the main ingredients. Dates are often used for their dry and naturally sweet consistency, while mushrooms like shitake mushrooms or other mushrooms provide a texture and flavor similar to meat once processed. The drying process using a dehydrator is essential to create vegan jerky that has similar texture and flavor characteristics to meat jerky. Dehydration helps to remove moisture content thereby extending the shelf life of the product. With a combination of dates and mushrooms treated with proper dehydration techniques, this vegan jerky can have the same characteristics as meat jerky in terms of taste, aroma, and texture. This makes it an attractive option for vegans who want to experience meat consumption without having to use animal products.

1.2. Objectives of the Study

The Objectives of this study are following below:

1. Developing attractive and nutritious plant-based food alternatives for the community, especially for vegans who are looking for meat substitutes with products that have similar tastes and textures, but still has sufficient nutritional values.
2. Improve understanding of processing techniques, including drying using dehydrators, to maintain the quality of the final product in terms of nutrition, taste, aroma, and food safety.