

CHAPTER I

INTRODUCTION

1.1 Background of Study

As research advances, vegetarian food options like Sate Padang are being developed, by replacing animal protein with plant-based protein and making it a more accessible option for vegetarians. Sate Padang is a classic West Sumatran dish made of beef or offal and seasoned with a variety of herbs and spices, including lemongrass, ginger, galangal, shallots, garlic, red chilies, and others. It is prepared by first cooking the beef in a mixture of spices, including galangal, ginger, shallots, turmeric, and garlic. The rich, easily recognizable yellow sauce and the roasted beef in the fireplace give sate padang its distinctive aroma. Rice flour is used to thicken the mashed, boiling, and spice mixture. As a result of the use of these spices, sate padang has an enticing appearance with vivid colors and a distinctive perfume that appeals to both the senses of sight and smell and helps Indonesians accept the flavor easily (Kanaya & M, 2021).

On the other hand, the overconsumption of meat has been charged with contributing to poor health and environmental degradation. Replacing meat with non-meat protein sources is one strategy advocated to reduce meat intake. Red and processed meat in particular have been proven to be related with an increased risk of cardiovascular disease, stroke, cancer, and total mortality, despite being a valuable source of minerals such protein, vitamin B-12, iron, and zinc. Type II diabetes mellitus and cardiovascular disease are two conditions that are decreased by plant-based diets. Further, the production of meat has been accused of causing environmental deterioration, including an increase in greenhouse gas emissions, a decline in biodiversity, and problems with the nitrogen-phosphorus balance of soil. Overall, there is a range of methods for reducing meat intake, from reduction to elimination. Reduced meat consumption is one reduction strategy, as is frequently increased

consumption of other plant-based foods at meals (such as vegetables and mushrooms). A partial substitution of meat with a plant-based protein source in a traditional meat-based recipe (such as replacing some of the beef in hamburgers with mushrooms) or a complete substitution of meat with a non-meat protein source (such as replacing the pork in tacos with black beans) are examples of replacement strategies. In contrast, substituting meat with a non-meat protein source may be more or less feasible depending upon the degree of substitution, type of non-meat protein source, and necessary cooking skills involved to implement the recipe (Eckl, *et al.*, 2021). It takes skill and a high level of creativity to process non-meat protein as a substitute for meat.

Commonly, mushrooms are a suitable ingredient as a substitute for beef in Sate Padang. Although it is known that mushrooms contain a small amount of protein, this amount is still sufficient for human protein needs. Because oyster mushrooms have excellent nutritional content, physical characteristics that are chewy like meat, and a delightful flavor, they were chosen as a meat alternative for the major ingredient in sate padang, which is meat. In addition, the replacement of the raw material for sate padang which comes from animal ingredients is replaced by using plant-based ingredients because it is low in fat and high in fiber. Due to its soft, chewy texture and high fiber content, oyster mushrooms have the potential to replace meat as a source of both dietary fiber and protein. The protein content of oyster mushrooms ranges from 3.5 to 4% of their wet weight. Comparable to cabbage and asparagus, protein is two times higher (Pranita & Eliska, 2023). Another mushroom that is used as a substitute for meat is shitake mushrooms, especially the stalk. According to Fajri (2009), The stalk part of the shitake mushroom is a fiber-rich food which is very useful for preventing colon cancer.

The process of making sate padang mushroom meat uses tapioca flour and egg white. Tapioca has a high amylopectin content, so products made with tapioca flour tend to have a crunchy texture, are soluble in water, usually used as fillers and binders that produce a plastic, compact texture in the food industry (Pranita & Eliska, 2023). Eggs act as emulsifiers in the process of making

mushroom meat. The addition of eggs functions to make the dough compact and dense, gives a delicious taste, adds nutritional value and gives the dough a chewy texture (Nugraha, 2019).

1.2 The Objectives of the Study

The objectives of this study are following below:

1. The aim of this innovation is to create an alternative sate padang from oyster mushrooms and dry mushroom stalk that can be enjoyed by people who follow a vegetarian diet. which can reduces the risk of disease that comes from eating meat.
2. preserving Indonesian food so that it can be enjoyed and accepted by domestic and foreign tourists. Foods that are originally meat, then replaced with mushrooms will make people interested in trying them because they are healthier and lower in fat.