

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

All this time, *Coleus scutellarioides (L) Benth* or better known as Miana has been known as an ornamental plant that is widely planted by local communities. According to Yanto, *et al.* (2020), Miana plant is native to South East Asia and its neighboring regions. This plant does not have flower and has more than 40 species. Miana grows primarily in wet tropical places at an altitude of 100-1,600 m above sea level (asl). Apart from being an ornamental plant, Miana is also used as medicine and the healthy content has been widely studied in many journals (Wakhidah and Silalahi. 2018).

Another thing about Miana is the fact that it also can be processed into food. Even if it sounds odd, some region in Indonesia are actually use Miana as a basic ingredient for cooking. One of regency in South Sulawesi, Tana Toraja, has a traditional food called Pa'piong, which uses the Miana plant as a component (visittoraja.com. 2018). As food, Miana have a great soft texture but taste-wise similar to cassava leaves that can be cooked according to creations. The type of Miana plant that is usually used in cooking is the full purple one or one with purple in the middle and green on the sides.

According to Dalimartha (2000), Miana leaves contain essential oils, phenols, tannins, fats, phytosterols, calcium oxalate, and peptic compounds. Miana leaves also contain saponins and alkaloids that have antibiotic properties such as antifungal and anti-microbial (Seigler DS, 1998). Tannins and saponins are especially substances that are good for human health, but the drawback is their bitter taste (Noer, *et al.*, 2018). Hence, if we want to process Miana into food, we have to do a soaking process with salt and boiling to reduce the bitter taste of these substances (Arnarson, 2017).

Lately, the vegetarian lifestyle is becoming more and more embraced by many people. Some individuals adopt a vegetarian diet due to several reasons. It could be spiritual or religious reasons, health, ethical/moral reasons and many more (Minari, *et al.*, 2021). Hence with the development of the lifestyle, innovation in the food sector is also growing to meet the needs. Processed foods to meet the nutritional needs and taste of meat without having to use actual meat are continuously being developed to get the perfect formula. There are several ingredients commonly used in the manufacture of analogue meat, the most widely used is soybean (Kumar *et al.*, 2017).

Processing of soybeans can be carried out again to produce analogue meat that is rich in protein. In food industry, there is a meat substitute product, namely Textured Vegetable Protein (TVP) which is fibrous, insoluble, porous and made from a variety of sources like legumes, nuts, and oilseeds. This substitute is used to increase the consumption of protein and essential amino acids, thereby reducing the consumption of saturated fat and cholesterol. Soy Textured Vegetable Protein (TVP) is produced from defatted soybean flour, then through a process of concentration, isolation, and extrusion of protein to give a chewier texture (Singh and Sit, 2022). Mushrooms are also often used as a substitute for meat with high protein content. Mushrooms are generally fibrous in nature, and their inclusion could give the fiber texture to the analog meat (Hong, 2020; Gourmetsleuth, n.d.).

Seeing the development of analogue meat products and the uniqueness of miana leaves led to the idea of combining the two and creating delicious food that can be enjoyed by all people. The use of analog meat in this product is very helpful in reducing calories and fat intake more than using real meat. In addition, the use of analog meat also makes this product a vegetarian-friendly. Pie has become a comfort food for many. Essential for any western home and a delightful snack at any occasion. Pie is never boring because it is flexible in taste and filling. Sweet or savory, one can combine any ingredients into a pie.

From the old to the young, the food can be an intermediary that connects each other.

### **1.2 The Objectives of the Study**

1. Introducing Miana leaves as food and how to process them.
2. Explain the process of making analogue meatballs from Soy TVP and shiitake mushroom stalks.
3. Explain the process of making vegetarian pie.