

CHAPTER I

INTRODUCTION

1.1 Background

Yogurt is a food produced by bacterial fermentation of milk. The bacteria used to make yogurt are known as "yogurt cultures". Fermentation of lactose by these bacteria produces lactic acid, which acts on milk protein to give yogurt its texture and characteristic tart flavor. Cow's milk is commonly available worldwide, and, as such, is the milk most commonly used to make yogurt. Milk from water buffalo, goats, ewes, mares, camels, and yaks is also used to produce yogurt where available locally. Milk used may be homogenized or not (milk distributed in many parts of the world is homogenized); both types may be used, with substantially different results (Anonymous, 2017).

However, yogurt can't only be made by cow's milk. Yogurt can also be made by any kind of milk, include soymilk (Anonymous, 2017). Therefore, we innovate to make yogurt using jack bean. Type of jack bean to be used is *Canavalia gladiata*, is called kacang koro pedang in Indonesia.

The nutritional characteristics and food potentials of jack bean (*Canavalia ensiformis*) have been reviewed. The bean is a good source of protein, 23% to 34%, and carbohydrate 55%. It is also a good source of Ca, Zn, P, Mg, Cu and Ni. Jack bean protein is adequate in most essential amino acids with the exception of methionine and cystine which may be nutritionally limiting. Antinutritional and toxic factors including trypsin inhibitors, hemagglutinins, cyanogen glucosides, oligosaccharides and others are present in jack bean (Sefa, Dedeh S., 1997). Jack bean can be used as substitute of soybean. *Canavalia gladiata* has great potential as substitute of soybean, because has high protein content than other nuts. Jack bean can made to be milk, tempe, cowpea, peanut, isolates, starch, flakes, grits, tofu, and flour. Jack bean flour can be processed to be other food as brownies and cookies. Jack bean has health benefit as lowered

diabetes, snack for diet, avoid the risk of heart disease, smooth the flow of blood, reduce the risk of hypertension, and anti-cancer.

However, we innovate to make yogurt using *canavalia gladiata* (jack bean). Which jack bean and yogurt have many health benefits, good nutrition value, and create new food/beverage innovation made from jack bean which still rare.

1.2 Objective

1. Presenting new product innovations made from jack beans are processed into yogurt.
2. Jack bean yogurt is a yogurt product that is different from other yogurt products because its basic ingredients are different. Jack bean yogurt is a yogurt product that is processed in such a way and is a unique yogurt product so it can compete in the food industry.