

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

Yoghurt is the most well-known fermented product all over the world and has significant importance in the human diet due to its high nutritional value and superior sensory properties. It is defined as a fermented product that is produced from acidified milk including two symbiotic bacteria (Akdeniz et al., 2019). Yoghurt is offered in a variety of types concerning fat and total solids content, the form of the body (drinking, set-style, frozen, concentrated), with or without additives, probiotic microflora and in different flavors (Srivastava et al., 2015). Fermented milk products like yoghurt are correlated with their positive influence on human health due to their rich pool of bioactive proteins, hydrolyzed carbohydrates, vitamins and minerals with improved bioavailability (Deshwal et al., 2021).

Soybeans is a multipurpose most nutritionally rich crop as its dry seed contains the highest protein and oil content among grain legumes with a good balance of the essential amino acids and oil. Soybean is a multipurpose crop, which can be used for a variety of purposes including preparation of different kinds of soybean foods, animal feed, soy milk (Hailu et al., 2014). Soybeans (*Glycine max* L. Merr). are a source of protein and fat, as well as a source of vitamins A, E, K, and several types of B vitamins and minerals K, Fe, Zn, and P. The protein content of nuts ranges from 20-25%, while in soybeans it reaches 40% (Indrayati et al., 2021). contains essential and non-essential amino acids, carbohydrates, fats, vitamins and minerals. Soybeans are widely used as raw materials in making food (Suhartati., 2018). Soybeans are one of the plants that contain a lot of vitamins B1. Soybeans are commonly consumed in processed products such as tempeh, tofu, soy milk, soy sauce and others (Herlina et al., 2022). Soybeans are the best source of protein compared to other types of beans. In addition, soybeans can also be used as a source of fat, vitamins,

minerals and fiber that can increase the remains of metabolism in the digestive tract. The protein content of soybeans is quite high so that soybeans are included in the five foods that contain high protein (Gunawan et al., 2022).

Mung beans (*Phaseolus radiatus* L.) are one of the food ingredients that contain complete nutrients needed for the formation of red blood cells so that they can overcome the effects of lowering hemoglobin. Mung beans (*Phaseolus radiatus* L.) are considered a source of nutrient-dense foodstuffs. Not only iron but the amino acid content of mung bean seeds is quite complete which consists of essential amino acids and also nonessential amino acids as well as the content of protein, carbohydrates, and fats in mung beans supports the hemoglobin synthesis process (Mariyona., 2020). Mung beans are a local food source and have a high vegetable protein. The protein contained is 22%. The benefits of mung beans are to add nutritional value, because protein can be a source of backup energy, protein is also important for the body's metabolism and growth (August et al., 2022). The protein content of mung beans ranks third after soybeans and peanuts (Lestari et al., 2017)

Some Skimmed milk is a nonfat milk powder that is made by drying to remove of the water and fat contained in it but also does not remove lactose, protein, minerals, fat-soluble vitamins, and water-soluble vitamins (B12). In the manufacture of skim milk, it is necessary to add fillers that function to dissolve the material in water and can also facilitate the drying process (Irmayanti et al., 2022). Skim milk can increase the amount of protein that coagulated in the fermentation process so that the texture of the resulting yogurt is thicker. However, the fermentation of SKIM milk must be carried out with the right incubation time to produce yogurt that can be liked (pamela., 2022).

## **1.2 Objectives of the Study**

The objectives of this study are following below:

1. To make yoghurt that is more affordable for the public because the price is cheaper than yoghurt sold in supermarkets and is suitable for people who want to diet because it is low in calories.

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2. To analysis the nutritional value of yoghurt drink made with soy beans and mung beans.