

**CHAPTER 1**  
**INTRODUCTION**

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### 1.1. Research Background

Milk consumption of Indonesian people were about 11,9 liters/capita/years. It has wide range difference with other Asian country like India, Malaysia, and Thailand. Even in Malaysia and Philippines milk consumption about 22,1 liter/capita /year, Thailand 31,7 liters/capita/years, while India about 42,8 liters/capita/year (Suswono, 2010). One way to increase milk consumption in Indonesia is to improve the quality and quantity of milk

Many factors that affect in milk quantity and quality, such as age of cow, stage of lactation, calving interval, seasonality, feeding, milking technique, health (Thomas, 1983), environmental, characteristics and breed (Sasimowski, 1987).

In order to push growth increases economy at Indonesia, one of effort is increase dairy cow productivity (Siregar, 1994). One of the most potential contributors to animal protein through its products is meat and dairy products. Ruminants, especially dairy cows play an important role in the production of milk. About 70% of the productivity of livestock, especially growth and reproduction ability is influenced by environmental factors. Among environmental factors, the largest influential ration is about 60% (Siregar, 1994).

Good feed application according to nutrient which needed by dairy cow, or usually called by complete feed, obviously will be followed by milk production rate. Complete feed application as forage, concentrates, probiotics, and molasses are expected to increasing milk production. According to American's regulation,

#### **1.4. Aim of Research**

Objectives that can be obtained is to know level of fat digestibility, bioconversions and efficient rate of complete feed on cow's milk fat products that consume the complete feed.

#### **1.5. Outcome of Research**

The results of this study is expected to provide information on the level of fat digestibility and bioconversion of complete feed on milk fat products that consume the complete feed, so the farmers can take advantage to increase the quality of milk fat products because milk fat is the most important material in food industry such as cheese, yoghurt, etc. Moreover, the price of milk will increase along with increasing of milk quality itself.

#### **1.6. Hypothesis of Research**

1. There is increasing level of fat digestibility of various complete feed which are consumed by dairy cow.
2. There is decreasing of milk fat bioconversion value produced by dairy cow which are fed complete feed.
3. There is increasing of the efficient rate of total milk fat produced by dairy cow which are fed complete feed.