

CHAPTER 1

INTRODUCTION

Livestock plays an important role in the agricultural economy of Bangladesh. The Total Livestock population of Bangladesh is currently estimated to comprise 3749.90 lakh where the cattle population already occupied 25.7 million (DLS 2015). The contribution of the livestock sub-sector to the country's gross domestic product (GDP) is around 1.66 percent and to agricultural GDP is about 14.21 percent (BBS, 2015-2016). GDP volume (Current price) is 32,910 cores (Taka), 2015-2016. Employment contribution of Livestock in the National Economy of Bangladesh directly 20 percent and partly 50 percent. Cultivation of land by livestock is 50 percent (Salim, 2016).

The demand for milk Production 146.91 Lakh Metric Ton but the current production of milk 72.75 Lakh Metric Ton. The per head daily requirement of milk 250 ml but availability of milk 125.59 ml (BBS, 2015-2016p). So the statistics clearly indicate the highly requirement of milk production to meet up rapidly increasing population. In Bangladesh, 83.9 percent of total households own livestock. About 45.9 percent households possess bovine stack. On average, each household owns 1.52 bovine animals (Hafezur, 2015). People are raising dairy cows for milk production from the ancient time.

Dairy cow farming business is still a profitable business venture throughout the world. There are numerous new and established dairy cow farms available around the world. About 20% of the population of Bangladesh earns their livelihood through work associated with raising cattle mainly. Milk and milk products have a huge demand throughout the world. This is the main advantages of starting dairy cow farming business. Demands of milk will never reduce; it will increase gradually in accordance with current population growth. Even both vegetarians and non-vegetarians drink milk.

Bangladesh has a relative density of livestock population well above the averages for many other countries of the world. In spite of a high density of livestock population, the country suffers from an acute shortage of livestock products like milk. The annual growth rates of milk have

significantly increased in recent years. However, if we desire to meet up the increasing demand from milk production, we will require an increase in production at the rate of 6 to 9 percent (or more) per year up to 2021. For that reason, a higher investment in the livestock sub-sector will be required (Hafezur, 2015).

The responsibility for development of livestock resources in Bangladesh is vested in the government, non-government organizations (NGOs), and the private sector. The financial assistance of international agencies like the World Bank and the Asian Development Bank may contribute to livestock development programmers. (Hafezur, 2015). The Government of Bangladesh has given top priority to livestock development in recent years to meet the growing demand for milk production, and to create employment and generate income for the rural poor peoples.

In our country aspect, though proper money investment is needed in dairy sector to increase milk production, some environmental factors also responsible with higher milk production. Animals interact with the environment in a dynamic manner. Animal Environment is a broad term which includes both physical and biological components (Gates, 1968). An external factor having a positive or negative impact on growth, lactation, or reproduction is generally included in the term “environment” whereas the factors that make up the components of “animal environment” include photoperiod, sound, altitude, effective ambient temperature, contaminants, physiological restraint and management systems (Gwazdauskas, 1985).

In Bangladesh, most of the commercial dairy farms reared crossbreds cattle. To rear crossbred cattle environmental effects plays an important rule to increase efficiency of milk production. Common environmental effects for a dairy farms are use of net covering surrounding the farm, proper ventilation, lighting, use of fan, temperature, humidity, feed passage, water passage, water source, manger passage, flooring system, bedding materials, shed height and foot bath etc.

Among the environmental variables, increased temperature and humidity seems to be the most detrimental factor affecting livestock production (Rivington et al. 2009). It causes heat stress to animal. Heat stress can cause a significant financial burden to livestock producers by decreasing milk and meat production, decreasing reproductive efficiency, and adversely affecting livestock health.

To keep cows healthy, productive and diseases free, good housing is very important. The space inside the house depending on the breeds. Although it may vary depending on the size of the breed. Proper ventilation system and sufficient flow of fresh air and light inside the house also needed. Concrete house is very suitable for the cows. Nutritious feed and sufficient amount of clean and fresh water should be provided to animal. Vaccination of animal in due time also necessary so that animal keep free from all types of diseases or illness. Use of foot bath before entering the farm should be ensured to control contagious and infectious diseases.

In present situation the dairy farming system is lacking far behind in this regard. Farmers do not have adequate knowledge about proper management schedule for owing to improve milk production, particularly breeding and cross breeding, quality of milk, feed and financial services. The existing government support only cover 50-60% of the sector due to resource constraints. We do not have efficient service management system. Dairy farmers have very limited access to financial services. They hardly get loans from commercial banks.

Therefore, present study was undertaken to investigate environmental effect on milk production during the internship program at different dairy farms in Chittagong district. This study was designed with following objectives.

Objectives:

1. To access environmental effects on milk production in dairy farms.
2. To investigate the relationship between various environmental factors and milk production in dairy farms.