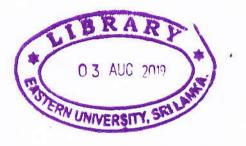
## STATUS OF DAIRY CATTLE UNDER DIFFERENT FEEDING

## SYSTEMS IN VANTHARUMOOLAI REGION



BY

### J.A.S. Sesath Kumara



\*

# DEPARTMENT OF ANIMAL SCIENCE FACULTY OF AGRICULTURE EASTERN UNIVERSITY, SRI LANKA

2019

#### ABSTRACT

This study was carried out to evaluate the performance of dairy cattle managed under different production systems of dairy cattle keepers in Vantharumoolai region. Also a survey was conducted on the production environments of herds of dairy cattle. Primary data were collected using a structured questionnaire in which a total of 150 farmers in Vantharumoolai region were interviewed. Statistical Package for Social Science (SPSS) was used to analyze the primary data.

In this context a study was undertaken to identify status of dairy cattle under different feeding regimes in Vantharumoolai area during the period from January 2019 to April 2019. Hundred and fifty farmers were randomly selected in Vantharumoolai area. Randomly selected farmers were interviewed in each area. Structured questionnaires were designed for above purpose. Before commencement of data collection, the questionnaire were pretested, to know the possibility of the prepared questionnaires and changes were made to enable easy recording of responses from farmers and to include all necessary information involved in cattle performance.

The primary data such as socio-economic condition of farmers such as educational level, family size, civil status, age of farmers, income level, likewise status of Cattle rearing information such as feed availability, type of feeds usage were collected through personal interviews using questionnaires. All most all farmers are belongs to Tamil community. Most of the dairy cattle farmers have family size between 4-5 members in cattle farmers of Vantharumoolai region. Most farmers are married and Age between 30-45 years with more than 6 years of cattle rearing experience. Main purpose of rearing cattle is milking. Average selling price for 1 liter of milk between 58-65 Rupees. Average cost for produce one liter of milk in three different feeding regimes were 47.58, 46.58 and 46.55 respectively. Most farmers selling their milk for

the regional milk collecting station. Most farmers under three different feeding regimes may used only family members for their livestock activities. External labors used only 10% to 16% under three different feeding systems. In three feeding systems most farmers have membership in farm organization. Almost all farmers received good veterinary service. Under three feeding systems farmers reared goat and poultry except cattle. Most cattle farmers used cattle manure as fertilizer in their homes. Diarrhea and foot and mouth diseases are most observed in the study area. Feed cost, lack of capital, diseases and lack of knowledge are the most observed constraints in the area.

The main constraints of dairy farming in the district were livestock feeding costs and poor management practices. Problems in material collection, lack of supporting services and lack of cultivation land space are some other reasons for poor production of dairy farmers. In the study area farmers gained the knowledge and support from the government and private sector.

### TABLE OF CONTENTS

Title Page No.
ABSTRACTi
ACKNOWLEDGMENT
TABLE OF CONTENTS iv
LIST OF TABLES
LIST OF FIGURES ix
ABBREVIATION ix
CHAPTER 01
1.0 INTRODUCTION
1.2 Objectives of the study
CHAPTER 2
2.0 LITERATURE REVIEW
2.1 Characteristics of Cattle Production Systems
2.2 Cattle breeds
2.3 Factors Affecting Dairy Cattle Production in Tropical Countries
2.4 Feeds
2.4.1 Characteristics of Tropical Forages Used by Dairy Cattle
2.5 Dairy cattle rearing systems
2.5.1 Intensive cattle rearing system
2.5.2 Semi Intensive cattle rearing system
2.5.4 Extensive cattle rearing systems

2.6 Reproductive Performance Traits in Dairy Cattle
2.7 Age at first calving 15
2.8 Calving interval
2.9 Lactation Performance Traits in Dairy Cattle
2.9.1 Total lactation yield
2.9.2 Lactation length
2.9.3 Dry period
2.10 Nutritional Components in Milk
2.10.1 Energy
2.10.2 Water
2.10.3 Carbohydrate
2.10.4 Fat
2.10.5 Protein
CHAPTER 03
METHADOLOGY
3.1 Description of study Area
3.2 Selection of Sample
3.3 Sampling Technique
3.4 Data analyze
CHAPTER 4
RESULTS AND DISCUSSION
4.1 Socio Economic Economic profile of Dairy farmers in Vantharumoolai vetirinery
range

4.2 Occupation of farmers under different feeding systems
4.3 Information of Cattle rearing system
4.4 Infrastructure facilities under different feeding systems
4.5 Feed resources.under different feeding systems
4.6 Milking Practices
4.7 Human resources involvement in cattle rearing in different feeding systems
4.8 Any other livestock
4.9 Cattle manure usage under different feeding regimes in Vantharumoolai Veterinary
range
4.10 Health status under different feeding regimes
4.11 Constraints under different feeding regimes in Vantharumoolai Veterinary range
CHAPTER 5
CONCLUSION
SEGGESTION
REFERENCES

n.

4