

## Constraints Perceived by the Co-operative Dairy Farmers in Aizawl district of Mizoram

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### Abstract

*Dairy farming is not widely practiced in Mizoram. With the setting up of Co-operative society under MULCO Ltd., the demand for milk and milk products has been increasing with associated development constraints. The study was undertaken in Aizawl District of Mizoram in India with a sample size of 100 respondents. The study assessed the constraints faced by them and suitable measures to overcome these constraints. More trainings should be organised for the members of cooperative society regarding deworming, vaccination, bio security measures, record keeping of the farm, etc. The Co-operative Union should keep in touch with every farmers to keep them updated on various techniques and to influence their fellow farmers to join their co-operative society so that they keep on growing. 10 respondents were randomly selected from each of the 10 co-operative societies within Aizawl District. The co-operative societies were responsible for production, procurement, processing and milk marketing. The study was analysed by Garrett's ranking technique. The results revealed that the highest constraints perceived by the dairy farmers were high cost of feed (with mean score of 74.10), followed by lack of good quality breeds (with mean score of 73.80) in the study area.*

**Keywords:** Co-Operative Society, Constraints, Concentrate Feeds, Dairy Farming

## Introduction

Milk is produced and consumed throughout the world and, in almost all the countries. India has the largest cattle and buffalo population in the world. Cows and buffaloes are the main milch animals, contributing 96% of the total milk production of the country. The willful efforts of people and government, reflected through successful implementation of programmes like “Operation Flood”, transformed India from its deficit state in milk production to the world’s largest milk producing country (Kunte & Patankar., 2015).

This had not only placed India at the top in the world but also represented rapid rise in the availability of milk and milk products for the country’s burgeoning population. (Devi, 2013). Co-operative organizations were engaged in production, procurement, processing and milk marketing in rural areas. In order to assist dairy farmers in developing the dairy industry, primary milk co-operative societies are formed. The milk co-operative union are actively engaged in the provision of fair milk prices and prompt payments to milk producers, the organisation of training programmes for members on improved dairy farming practices, the strengthening of the milk processing, the provision of facilities for the treatment of diseases and the extension of milk and milk products to animal health care. In addition, the union provided balanced rationing for low cost and improved green fodder seeds. Co-operative societies emphasised better adoption as an industry of improved animal husbandry practices (Meena *et al.*, 2013).

The Mizoram Multi-Commodity Producers’ Co-operative Union Limited (MULCO Ltd.) was registered under the name of the Mizoram Milk Producers’ Co-operative Union Limited (MMU) and came into existence under Directorate of Animal Husbandry and Veterinary Department on 5th December 1983 with the objective of developing the town milk supply. MULCO Ltd. carries on its commercial activity of procurement, processing and distribution of fresh milk and its allied products to the people of Mizoram. By 2008, MULCO has thirty-eight (38) affiliated Milk Producers’ Cooperative Societies from which it collects fresh milk everyday and distributes the same to various places in Aizawl as well as peripheral areas in the district. In addition to this, the Union has also undertaken procurement and distribution works of cattle feeds like wheat bran, oil cake, artificial insemination, pregnancy diagnosis and medicines to its member societies at reasonable prices. Primary cooperative society in several location bought milk from its members at various collection centres (Lalrintluangi, 2016). There are different issues faced by dairy farmers, some are area specific while some are common. This study is needed to identify the grassroot problems of the farmers in carrying out their activities in the field of dairy farming and plan appropriate measures or alternatives to tackle the problems faced by them.

## Materials and Method

The sample survey for the research was carried out at Aizawl district. The district was purposively selected for the study due to the higher cattle population and higher number of primary dairy co-operative society and maximum milk production in reference with secondary data such as Integrated Sample Survey (2019) and 20<sup>th</sup> Livestock Census etc. Initially, pre testing of the Interview Schedule was done in non-sampled areas for its suitability and modification.

Exploratory study of the dairy farmers began with the collection of primary data from 10 randomly selected primary co-operative society of Aizawl amongst 34 functioning cooperative society. A total sample size of 100 dairy farmers were selected for the present study. Information relating to various problems faced by the dairy farmers in rearing crossbred cows were enlisted in a pretested interview schedule. The farmers were asked to rank the constraints in the order of importance. The details were collected during the period 2018-2020. The collected details were analysed by using Garrett’s Ranking Technique. By using this technique, the order of the merits given by the respondents was changed into ranks by using the following formula:

$$\text{Percent Position} = \frac{100 (R_{ij} - 0.50)}{N_j}$$

Where,

R= Rank given for i<sup>th</sup> item by j<sup>th</sup> individual

N = No. of items ranked by j<sup>th</sup> individual

The percent position of each rank was converted into scores (Garrett, 1981). For each factor, the scores of individual respondents were added together and divided by the total number of respondents. The mean scores for all the factors were ranked by arranging in descending order and the constraints were ranked.

## Result and Discussion

Constraints in dairy farming were collected from the sample dairy farmers in Aizawl district and were compared for their order of importance based on Garrett's mean score values obtained. Commonly occurring constraints were enlisted and the milk producers in the study area were asked to rank the constraints related to economic, health care, breeding and miscellaneous and the same has been analysed by using Garrett ranking technique the result of which are presented as below.

It is evident from the Table 1 that the major economic constraints expressed by the dairy farmers within the cooperatives were high cost of feed having a mean score of 74.10, followed by low price of milk with mean score of 73.55, scarcity of water with mean score of 55.80, insurance and loan with mean score of 54.80. Only with mean score of 50.60 of the respondents had expressed high cost of consultation charges as their constraint. High cost of feed is the main constraint in this present study due to unavailability of individual ingredients or raw materials for the feed and unavailability of land for fodder cultivation. These findings are in line with the findings of Buragohain, R. (2020) who opined that feeding of balanced rations to the dairy animals was the main constraints for unavailability of the concentrate feed ingredients and higher cost involved for purchasing them from outside the state in Aizawl District of Mizoram. Similarly, Sujatha *et al.* (2015) also reported that majority of the farmers (81.67%) opined that, high-cost feed is the major constraint in milk production and marketing followed by low productivity of milch animals (60.00%) in some districts of Andhra Pradesh. The farmers could be encouraged to practice more of fodder cultivation in their own land in order to reduce the cost of feed.

**Table 1:** Economic constraints using Garrett's ranking technique

S. No.	Economic Constraints	Mean score	Rank
1	High cost of feed	74.1	I
2	Low price of milk	73.55	II
3	Scarcity of water.	55.8	III
4	Insurance and loan	54.8	IV
5	High cost of consultation charges	50.6	V

The major health care constraints expressed by the the dairy farmers in the cooperative society were: Non availability of medicine in nearby market having a mean score of 60.70, this might be due to the fact that medicinal supplies are limited in the study area, followed by poor knowledge about improved dairy farming practices with a mean score of 53.30, lack of emergency health services with a mean score of 52.80 due to the fact that veterinary college or state veterinary hospitals are not operating 24/7 and there is a fixed timing for any kind of consultations, disease outbreak with a mean score of 52.30, and non-availability of veterinary doctor when needed with a mean score of 36.65. This finding is in contrast with Gupta *et al.* (2019) that the major constraints faced by dairy farmers were non-availability of adequate veterinary staff and services (68.33%) and non-remunerative price for milk and milk products (68.83%) in Rajouri District of Jammu and Kashmir.

**Table 2:** Health care constraints using Garrett's ranking technique

S. No.	Health Care Constraints	Mean score	Rank
1	Non availability of medicine in nearby market	60.7	I
2	Poor knowledge about feeding and health care	53.3	II
3	Lack of emergency health services	52.8	III
4	Diseases outbreak	52.3	IV
5	Non-availability of Vety. Doctor when needed	36.65	V

The major breeding constraints expressed by the respondents were: lack of good quality breeds with a mean score of 73.80 due to the fact that majority of the respondents practised A.I where they have no chance of selecting the kind of breed they want since Jersey cross and Holstein Friesian cross are the main breeds promoted by A.I. Some farmers are demanding other good breeds of cattle which is not available, followed by repeat breeding with a mean score of 52.25, unavailability of A.I facility for timely insemination with a mean score of 51.15, problems of heat detection with a mean score of 42.15 and low conception rate through A.I with a mean score of 25.00. Similar findings were also observed by Kumar (2009) that majority of the farmers particularly the large commercial dairy farmers complained about the non-availability or quality semen of proven bulls for breeding the crossbred animals.

**Table 3:** Breeding constraints using Garrett's ranking technique

S. No.	Breeding Constraints	Mean Score	Rank
1	Lack of good quality breeds	73.8	I
2	Repeat breeding	52.25	II
3	Unavailability of A.I facility for timely insemination	51.15	III
4	Problems of heat detection	42.15	IV
5	Low conception rate through A.I	25	V

The major miscellaneous constraints expressed by the dairy farmers in the cooperative were: lack of training conducted by KVK and other NGO's in dairy farming having a mean score of 61.25 due to the reason that dairy farming is a labour intensive job and they find it difficult to spare time for training, followed by low average milk yield with a mean score of 58.15, transportation problem with a mean score of 53.40, irregular and inadequate system of incentives in the form of money/feeds/farm infrastructure or instruments from the Government with a mean score of 30.05 and lack of organised milk marketing facilities with a mean score of 25.00. These findings were also in line with Singodia *et al.* (2019) that more distance of VH/ care-center (43.33%), inaccessibility of veterinarians or para-veterinary staff (37.50%), inadequate training and extension services (35.00%) and lack of proper advisory services on scientific management (33.33%) were perceived as 'serious constraints' by livestock farmers.

**Table 4:** Miscellaneous constraints using Garrett's ranking technique

S. No.	Miscellaneous Constraints	Mean Score	Rank
1	Lack of training in Dairy farming	61.25	I
5	Low average milk yield of the milch animals	58.15	II
3	Transportation problem	53.4	III
2	Irregular and inadequate system of incentives from the Govt.	30.05	IV
4	Lack of organized milk marketing facilities	25	V

## Conclusion

Thus, it can be concluded from the result of study that the major constraints faced by co-operative milk producers in economic, health care, breeding and miscellaneous were high cost of feed (with mean score of 74.10), lack of good quality breeds (with mean score of 73.80), low sale price of milk to the co-operative union (with score of 73.55), lack of training in dairy farming (with mean score of 61.25), non-availability of medicines in nearby market (with mean score of 60.70) respectively in study area. The study observed that although the cooperative dairy farmers play an important and significant role in providing raw milk to the cooperative union, they don't get much profit because of the low sale price of milk. Measures have to be taken to reduce the price of concentrate feed and increase the price for the sale of milk to the cooperative union. More trainings should be organised for the members of cooperative society regarding deworming, vaccination, bio security measures, record keeping of the farm, etc. The Co-operative Union should keep in touch with every farmer to keep them updated on various techniques and to influence their fellow farmers to join their co-operative society so that they keep on growing.

## Conflict of Interests

There is no conflict of interest.

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