

A Study on the Present Situation of Dairy Farming Practices in Divisional Secretariat Division of Kamburupitiya, Matara District, Sri Lanka

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Abstract

A field survey was conducted in randomly selected fifty one dairy farmers (out of 284 farmers) in Kamburupitiya divisional secretary division (DSD) in Matara district to find out the present situation of dairy industry practices and to compare them among the farmers. Three systems of cattle production were identified; semi intensive (74%), extensive system (22%) and intensive system (4%) in the area. The main feeding system practiced in this area was natural grazing due to lack of improved grasses. Feeding of mixed concentrate was common, but the amounts fed were rather low. Feeding of concentrate ingredients such as rice polish bran, coconut poonac, minerals and vitamins also followed a similar pattern. There was room to improve feeding practices by introducing new techniques such as chopping and giving total mixed ration. It was evident that nearly 19% farmers do not give proper housing for cattle. The Most common diseases identified in this area were diarrhea (29%). However, due to improved veterinary services (63%) rather than using traditional methods (14%) and vaccination has improved dairying considerably. It was concluded that, the involvement in dairy farming as a part time occupation by a majority of households is a constraint for the development of the industry. Involvement of women should be increased at village level in order to improve the industry thereby increasing the household income. Appropriate technology for minimizing expenses, particularly on feeding and genetic upgrading, better marketing facilities and veterinary health care are crucial for the development of dairying in Kamburupitiya divisional secretary division.

Keywords: Dairy farmers, Management practices

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Introduction

Agriculture is an important sector of the economy of Sri Lanka. The Government's ambitious target for growth in dairy production is an increase towards 50 percent self-sufficiency in milk products by 2015. At the current growth rate of 1–2 percent to increase in total consumption. This is a challenging task, given the current state of the industry, which only supplies approximately 20 percent of the domestic requirements. (Ranaweera and Attapattu, 2006). Sri Lanka's dairy production systems and their market linkages have developed in response to domestic demand for milk and dairy products, particularly the demand from urban population.

The systems found in specific areas strongly reflect the variation in climate and agro-ecology and the resultant land-use patterns, with adaptations according to the level of participation in the dairy market, both local and distant. (Ibrahim et al., 1999). A high degree of subsistence farming mainly the dairy and poultry industries, recorded a mixed performance in 2015: it is estimated that total milk production has grown by 16 percent to

299.25 million liters and total milk collection increased by 28 percent (143.70 million litres in 2011 to 183.58 million litres in 2012) due to an improved collection network. (Department of Census and Statistic, Ministry of Livestock and Rural Community Development 2012). Domestic Dairy industry has capacity and capability of producing substantial amount of quality milk and milk products to the prevailing market at affordable prices while keeping reasonable profit margins to all stakeholders in the production marketing chain without damaging to the environment. Therefore, dairy industry is considered an emerging sector that leads to the food security as well as a source of nourishing the younger generations. As a result of that, most of the people tend to dairy industry.

Kamburupitiya Divisional Secretariat Division is the rural area where considerable amount of farmers engage in dairy industry in Matara Division. There are 284 Farmers involve in cattle management in Kamburupitiya division. Majority of them are small scale farmers who have less than 8 cattle in the herd. Also it was easy to access to the farmers and area. Therefore, through this study attempted to find

out the present dairy management practices, problems faced by the farmers in Kamburupitiya area.

Materials and Methods

The survey was conducted in Kamburupitiya DS Division. 51 farmers were selected randomly from the list of farmers obtained from the Veterinary Office in Kamburupitiya. Data were collected through observations during field visits, and interviews with farmers using a pre-structured questionnaire. Cattle population, feeds, supplements, housing, Grass, and milk production, byproducts, problems they faced like several data were collected throughout the process. The data were analyzed to generate descriptive statistics.

Results and Discussion

Present dairy management practices in Kamburupitiya area

Referring to the management systems, most of the farmers in Kamburupitiya area engage in semi-intensive management system. Majority of the farmers (74%) used semi-intensive management system while 22% used extensive management system and only 4% used intensive management system. Considering the types of housing, L-type (58%) is the most popular as low requirement of inputs, low cost, can be constructed with materials provided by the subsidies. At the same time, gabble type (21%), monitor type (2%) were also available in the Kamburupitiya area while 19% do not have any type of housing. Farmers do not use paid labour for cattle management as they do not own large herd to maintain with paid labour. The most common disease in the area is diarrhea (29%) due to weak management practices while the second common disease is mastitis (8%) due to the low usage of disinfectants for cleaning purposes. In order to treat the diseases, 63% farmers use veterinary treatments while 14% use traditional methods such as sesame oil and coconut oil mixture, salt and coconut oil mixture for tick attacks, Neem extraction for fly attacks, "Rath mal", king coconut flower, ginger mixture and lime, "Gatathumba cola", "Rathmal" mixture is used for diarrhea.

In feeding cattle, most of the farmers follow a combination of feed types other than using only grass. 45% of the farmers fed animals without chopping the grasses as they do not have knowledge about impotence of feeding chopped grasses as well as neglects the feed wastage due to availability of more than enough grasses. Farmers provide concentrates (eg: Rice bran)

and supplements (eg: Vitamin, Mineral, Urea) for the cattle.

Referring to the common practices of cattle management, 57% of farmers engaged in cattle farming as the practice continued as a family tradition. Other reasons for involving are the promotion of the industry by other entities (such as by politicians, AI officers, government projects such as "Cattle Housing Development Project" etc.) and due to self interest. Farmers 41% engage in cattle management as full time farmers. The cattle population in Kamburupitiya area consists of dairy cows (38%), heifers (13%), pregnant animals (14%), male adults (4%), male calves (16%) and female calves (15%). The identified reasons for rearing less number of heifers are farmers lack awareness about herd composition, high preference by farmers to rare only milking animals, the requirement of tenant farmers to return female calves to animal owners. 92% farmers use artificial insemination in breeding animals, as this method is easier and more cost-effective than managing a bull. Among the farmers who practice artificial insemination, 7% dislike it due to the incidence of receiving female calves. 40% of dairy cattle provide milk yield in the range of 4-6 liters per day by a cow that is considerably high in local conditions. Cattles management under intensive system provides more than 7 liters per day. Majority of farmers (94%) practice milking only once per day. 77% farmers consume milk at home level without selling. Farmers produce value added products such as yoghurt, Ghee, curd and bottled milk. Very few produce yoghurt due to the complex process to be followed at the home level.

Table 1. Value added products produced by the farmers in the area

Value added products	No and (%) of farmers
Yoghurt producing farmers	01 (2%)
Processed milk producing farmers	04 (8%)
Bottled milk producing farmers	10 (20%)

Considering the marketing methods of milk, 70 %farmers sell at farm-gate or home and 30% sell at collecting centers. Uncertainty of collecting agents and low price offered by them motivated the farmers for home sale.

Referring to the removal of uneconomical animals, farmers in this area follow rearing and

selling for removal of female animals while slaughtering, rearing, selling is adopted for removal of male animals. In evaluating the profitability of cattle management, 57% farmers accepts that it is profitable, 22% accepts that it is not profitable while 22% accepts that they have no idea.

Problems faced by farmers in Kamburupitiya area

Referring to the problems regarding feeding, low feed availability due to flooding, difficulties in supplying feed during paddy cultivation seasons, less availability of grass lands, difficulties in collecting the grass and fodder, supply of supplements, especially mineral due to high cost, less animal palatability to urea, cannot sufficiently supply water when planting grass, less farmer preference for planting the grass. Considering problems regarding milk, no proper utensils to transport milk, farmers use only plastic buckets, wasting the milk during weekends when supply milk to the nurseries, low milk yield, transportation cost of milk. According to the problems regarding government services, difficulties of borrowing loans from banks, no government subsidy programs for grass establishment, insufficient support of government veterinarian service, no government support for buy new good quality animals, little bit higher payments for veterinarian officers and medicines. Also farmers personally faced several problems, time management problems when not involved in full time cattle management, not easy to manage large herds, so go for tenancy practices, limited land availability, poor opinion of farmers regarding European breeds, animals are stolen by thieves, disturbances of neighbours.

Considering the breeding problems Detecting the heat signs of cattle, difficult of finding the

good quality bulls for natural mating, some farmers believe AI causes to having more male calves than female calves, no timely service of the AI technician. There are marketing problems also, such as difficulties in selling male cattle, price fluctuation of milk, no competitive collecting agents, less demand for curd made by cattle milk, higher purchasing prices of new female cattle.

Conclusions

It is concluded that, the involvement in dairy farming as a part time occupation by a majority of households is a constraint for the development of the industry. There are several socio-economic problems identified in the dairy industry at rural level. Appropriate technology for minimizing expenses, particularly on feeding and genetic upgrading, better marketing facilities and veterinary health care are crucial for the development of dairying in Kamburupitiya divisional secretary division.

References

- Department of Census and Statistics of Sri Lanka 2015.
- Department of Census and Statistic, Ministry of Livestock and Rural Community Development 2012.
- Ibrahim MNM, Stael SJ, Danniell SLA and Thorpe W 1999. Appraisal of the Sri Lanka Dairy Sector. Faculty of Agriculture, University of Peradeniya, Sri Lanka.
- Ranaweera NFC and Attapattu 2006. Sri Lanka: opportunities for dairy sector growth, smallholder dairy development-Lessons learned in Asia (Online) <http://www.fao.org/docrep/011/i0588e/i0588e08.htm>.