



Constraints as Perceived by Vechur Cattle Farmers of Kerala

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ABSTRACT

A study was undertaken to analyse the constraints faced by the Vechur cattle farmers in Kerala. By employing chain referral sampling technique, a total of 60 cattle farmers from three districts of the state were selected as respondents for the study. Three districts namely Kottayam, Palakkad and Thrissur were selected. The data were collected through personal interview method using a structured pretested interview schedule and focus group discussion. Poor availability of green fodder round the year, non-availability of artificial insemination service in time, poor quality of available Vechur semen, lack of proper marketing channels for Vechur cattle milk and milk products, low availability of good quality pure Vechur animals and lack of government support to encourage Vechur cattle farming were identified as some important constraint faced by the farmers.

Key Words: Breeding, Constraints, Feeding, Indigenous breed, Management, Marketing, Vechur cattle.

INTRODUCTION

Animal husbandry is one of the important economic activities in rural areas of India next to agriculture imparting remarkably towards employment and income generation for rural families especially the landless, small and marginal farmers. As per the 20th livestock census, 2019 the cattle population in the country is 192.49 million, which comprises indigenous– identified/descript or non-identified/non-descript animals, and exotic cross breeds animals. Vechur cattle of Kerala, was once popular and known for its higher milk yield when compared to the other local varieties. In recent years its population has been decreased drastically due to the vigorous implementation of cross breeding programme in the state. Vechur cow rearing is ideal for a low-input, neco-friendly system as it requires only very low quantities of grass and other feed materials besides the fact that it can also be fed on by-products of agriculture.

Constraints imply the problems or difficulties faced by dairy farmers while adopting day-to-day animal husbandry practices in their dairy enterprise (Patil *et al*, 2009). If these constraints

are identified, they would be helpful to bridge the gap in the adoption of dairy technologies by dairy farmers (Rathod *et al*, 2014). Sharma (2015) reported that poor knowledge about the nutritive value of feed ingredients (86.5%), high cost of raw feed ingredients (28%), shortage of skilled and committed labour (32.5%) were found to be major bottlenecks regarding adoption of cattle feed formulation technology at the dairy farm. Sharma (2016) revealed that the farmers in the age group of 20-30 yr were found to be more interested in acquiring trainings, demonstrations and exposure visits and acquired high level of knowledge as compared to the elder group of more than 40 yr of age. On the other hand the adoption of various management practices was found to be higher in elder than the young group.

Hence, study was undertaken to identify various constraints as perceived by Vechur cattle farmers of Kerala.

MATERIALS AND METHODS

An *ex post facto* research was conducted among the Vechur cattle farmers in Kerala state. By

employing chain referral sampling technique, a total of 60 Vechur cattle farmers from three districts of the state were selected as respondents for the study. Three districts namely Kottayam, Palakkad and Thrissur were selected. Constraints were analysed as those factors which hindered the successful farming as perceived by the dairy farmers; for the purpose of the present study. The finalized interview schedule was administered to the respondents who were asked to mention the constraints. For qualitative analysis of the constraints in Vechur cattle farming system, Focus Group Discussions (FGD's) were used. The constraints of Vechur cattle farming were elicited from two different groups of farmers using Focus Group Discussions. The constraints experienced by them were noted and classified under nine major domains *viz.*, feeding, breeding, animal health, finance, marketing, management, social and education, policies and insurance. Based on this a structured interview schedule was prepared and which was then used for the final study.

The respondents were contacted in person at home and rapport was established to get unbiased information. Each was asked to rank the constraints in a four-point continuum of most severe, severe, least severe and not a constraint. The scores assigned were 3, 2, 1 and 0, respectively. For each constraint, the frequency of the response under each domain was multiplied with its respective weightage and added up to get the total score of that particular constraint. The obtained score was divided by the total number of respondents and the number of constraint in a particular domain to arrive at the mean score of the domain. The domains were then ranked based on the mean scores obtained. The mean score of each constraint under a domain was calculated by arriving at the total score for it and then dividing it by the number of respondents.

RESULTS AND DISCUSSION

Various types of constraints reported by the farmers have been given in Table 1. The main constraint reported by the respondents was poor availability of green fodder throughout the year,

similar results were reported by Patil *et al* (2009). High price of concentrate feed was ranked last in case of feeding constraints. This was in contrary with the findings of Singh *et al* (2015) in their study high price of concentrate ranked as the first constraint in feeding domain.

Non availability of artificial insemination service in time was the major constraint. This was in consonance with the findings of Singh *et al* (2015) they reported that inadequate facilities for artificial insemination centre was the major constraint. Lack knowledge about disease control cited as the major constraints in animal health care domain. Patil *et al* (2009) reported that inadequate knowledge on diseases, their prevention and control as the major constraint. Similarly, Dhaka *et al* (2017) observed that lack of knowledge about animal health care is one of the constraint adoption of new technology.

In the financial domain, constraints raised by the farmers include high price of Vechur animal and non-availability of Vechur calf for rearing. Lack of proper marketing channel for Vechur milk and value added products was ranked first in the category of marketing constraints. Similarly, Kumar *et al* (2017) reported that non-availability of facilities for selling exclusively milk and milk products of indigenous cows was the important constraint reported by the farmers. Low availability of good quality pure Vechurbreed ranked first. Bhattu *et al* (2013) in their study revealed that poor quality animals available with majority of small dairy farmers was also a cause of concern. Vicious nature of Vechur animal make it difficult to hold ranked second constraints.

In social and education related constraints by the farmers, other farmers lack of awareness about the importance of Vechur cattle farming ranked first and lack of availability of training on Vechur cattle farming ranked second. Sharma *et al* (2013) suggested that it is necessary to develop trained farmers for improving the status of dairy farming and also to make dairy as a commercial venture. Waste created in Vechur cattle farm causes difficulty

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Table 1. Constraints perceived by Vechur cattle farmers.

Sr. No.	Constraint	Mean score	Rank
1. Constraints related to feeding			
1	Poor availability of green fodder round the year	1.8	I
2	Non availability of grazing land	1.75	II
3	Non availability of land for fodder cultivation	1.7	III
4	Non availability of dry fodder	1.25	IV
5	High price for paddy straw	1.2	V
6	Lack of knowledge of balancing ration	0.6	VI
7	Low quality of branded compounded feed	0.55	VII
8	High price of concentrate feed	0	VIII
2. Constraints related to breeding			
1	Non availability of AI service in time	1.45	I
2	Poor Vechur semen quality	1.45	I
3	Non availability of Vechur semen in all veterinary dispensaries	1.35	II
4	Lack of availability of credible information on breeding	0.95	III
5	Distant location of AI centre and vet hospital	0.8	IV
6	Non availability of Vechur breeding bulls	0.75	V
7	Problems of Repeat breeding	0.4	VI
8	Problems of animal not coming to heat	0.1	VII
9	Cost of Vechur semen is high	0.1	VII
10	Problems in calving	0.05	VIII
3. Animal health related constraints			
1	Lack knowledge about diseases control	1.7	I
2	Lack of veterinary services at the night time	1.65	II
3	High charge by veterinary personnel	1.65	II
4	Non availability of services of vet doctor in time	1.6	III
5	Inadequate knowledge on animal disease symptoms	1.5	IV
6	High cost of veterinary medicine	1.5	IV
7	Veterinary service providers far away	1.4	V
8	Non availability of vaccine in time	0.95	VI

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9	Outbreak of FMD	0.95	VI
10	Reduction in milk production due to vaccination	0.7	VII
4. Financial constraints			
1	High price of Vechur animal	2.1	I
2	Non availability of Vechur calf for rearing	2.05	II
3	Requirement of high capital investment	0.95	III
4	High labour cost	0.8	IV
5	Lack of Mechanization	0.6	V
6	High interest rate for credit	0.6	V
5. Marketing constraints			
1	Lack of proper marketing channel for Vechur milk and value added product	2.5	I
2	Inadequate price for Vechur milk	2.15	II
3	People are unaware of qualities of Vechur milk	2.1	III
4	Low milk yield per animal	1.8	IV
6. Management constraints			
1	Low availability of good quality pure Vechur breed	2.45	I
2	Vicious nature make it difficult to hold	2.45	I
3	Difficulty in milking Vechur cattle	1.15	II
4	Non availability of hired labourers	0.9	III
5	Casting of sick animal is difficult	0.7	IV
6	Not suitable for machine milking	0.5	V
7	Allow only one or a few persons to milk	0.5	V
8	Caring of animal consumes much time	0.05	VI
9	Younger generation in our family not interest to rear Vechur cattle	0.05	VI
10	Non-availability of family labour	0.05	VI
11	Family members discourages Vechur cattle farming	0	VII
12	Climatic condition prevailing in this area affect	0	VII
7. Social and education related constraints			
1	Other farmers lack of awareness about importance of Vechur cattle farming	2	I
2	Lack of availability of training on Vechur cattle farming	1.85	II

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3	Lack of scientific knowledge in Vechur cattle farming	1.3	III
4	Difficulty in transition from crossbred cattle to Vechur cattle farming	0.9	IV
5	Vechur cattle farming causes low social participation	0.3	V
6	Waste created in Vechur cattle farm causes difficulty to neighbours	0	VI
8. Policy related constraints			
1	Lack of government support to encourage Vechurcattle farming	3	I
2	Lack of government agencies to provide guidance to farmers	2.85	II
3	Non availability of credit to indigenious animal farming	2.25	III
4	Lack of timely supply of inputs	2.15	IV
5	Credit agencies focus only on profit	1.45	V
9. Insurance related constraints			
1	Lack of knowledge about animal insurance	1.45	I
2	Procedures in getting insurance amount is very	1.3	II
3	High premium amount	1.25	III

to neighbours was not a constraint for any of the farmers.

Policy related constraints raised by the farmers include, lack of government support to encourage Vechur cattle farming and lack of government agencies to provide guidance to farmers were the major constraint. This was in consonance with the findings of Poonia *et al* (2014) that inadequate government policies and social awareness were the major constraints emerged in the study. Lack of knowledge about animal insurance ranked first, procedures in getting insurance amount ranked second and high premium amount ranked third as the major constraint in insurance related constraints.

Constraint analysis using Focus Group Discussion

In case of constraints regarding feeding, the respondents opined that the non-availability of green fodder in summer season and non-availability of grazing area as major constraints except some of the respondents they had large farm land area. All the

participants reported the high price of concentrate feed as a minor problem in case of Vechur farming but in case of rearing other crossbred dairy it was a major constraint. Regarding the breeding constraint, participants opined that the non-availability of AI service in time as a major constraint. Problems of repeat breeding, problems in calving and problems of coming to heat nevertheless were reported as not a constraint by all the respondents. All the respondents reported that disease incidence was less in Vechur cattle compared to other crossbred dairy. The more serious constraint reported by all participants alike were those regarding marketing. Lack of proper marketing channel for Vechur milk and value added products, low milk yield per animal and inadequate price for Vechur milk were serious issues reported by the respondents. In case of social and education related constraints the respondents opined that lack of availability of training in Vechur cattle farming as a constraint. Regarding management constraint, it was reported that non availability of hired labour as a serious issue. Regarding policy related constraint

lack of government support to encourage Vechur cattle farming and non-availability of credit to indigenous animal farming were major constraint reported by all the farmers.

CONCLUSION

The result of the present study indicated that the existing condition of Vechur cattle farming in the study area was not satisfactory as farmers face many problems with respect to breeding, feeding, health care, finance, management, marketing, social and education, policy and insurance. In both the methods it was found that poor availability of green fodder round the year, non-availability of green fodder in summer season and non-availability of grazing area were the major constraint faced by the farmers.

There was a synchrony in the result that lack of proper marketing channel for Vechur cattle milk and value added products as a major constraint. The most important suggestions received from the respondents to overcome this constraint was organising awareness campaign about the importance of the indigenous breeds through various media. Hence efforts must have made to arrange training programmes to the indigenous dairy farmers about various aspect of farming.

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