

CONSTRAINTS OF DAIRY FARMING IN COASTAL AREAS OF SOUTHERN GUJARAT

G. P. SABAPARA¹

*Polytechnic in Animal Husbandry,
Navsari Agricultural University, Navsari 396 450, Gujarat, India*

Received: 19 Aug., 2016; Accepted: 2 Nov., 2016

ABSTRACT

A field survey was conducted during the years 2010-2012 in Jalalpore taluka of Navsari district to identify various constraints perceived by dairy animal owners in dairy husbandry practices and data were collected from randomly selected 150 dairy animal owners through personal interview with the help of pre-tested structured schedule. The study revealed that constraints related to adoption of feeding practices ranked first (58.33%) followed by constraints in adoption of health care practices (52.45%), milking practices (50.99%), housing practices (49.6%) and breeding practices (43.05%). High construction cost (66%), lack of own capital (74.67%), high cost of feed (76%), non-availability of green fodder round the year (62%), lack of awareness about treatment of poor quality straw to improve its nutritive value (74.67%), lack of knowledge about silage preparation (76%), lack of knowledge of balanced ration (46.67%), repeat breeding problems in dairy animals (75.33%), low conception rate through A.I. (58.67%), non-remunerative price for milk (80%), high production cost of milk (68%), lack of knowledge in clean milk production (65.33%), high cost of veterinary medicine (70%), problem of mastitis in dairy animals (77.33%) and inadequate knowledge of diseases and their control (68.67%) were major constraints in adoption of improved dairy husbandry practices.

Key words: Coastal area, Constraints, Dairy, Farming, Practices.

Livestock rearing is the integral part of agriculture in India as well as many developing countries since centuries. Animal husbandry signifies as the second largest economical activity next to agriculture in rural India. Dairying plays a prominent role in upliftment of socio-economic status of dairy farmers. Majority of the dairy farmers are small holders and landless who are illiterate and unaware of economic aspect of milk production. Thus, dairying being an important means of income and employment for these farmers; it helps to alleviate poverty assuring a balanced development of the rural economy. India has emerged as leading milk producer country in the world, however productivity per milking animal is very low i.e. wet average kg/day in indigenous cows, crossbred cows and buffalo as 1.98, 6.75 and 4.50 respectively². This low production in India

is mainly due to lack/ low level of knowledge and adoption of improved dairy husbandry practices by dairy farmers. Various management practices are important for the health and production of dairy animals. There are some constraints in adoption varying from area to area and farmer to farmer as reported by^{1,3,4,5,6}. Therefore, study was taken with the objective to constraints faced by dairy animal owners regarding animal husbandry practices in coastal areas of Southern Gujarat.

MATERIALS AND METHODS

A field survey was conducted in Jalalpore taluka of Navsari district of Gujarat during the year 2010-2012. Navsari district is located in the south eastern part of Gujarat state in the coastal lowland along Purna river. Out of 72 villages in the taluka, 15 villages having functional primary milk producer's co-operative societies were selected randomly. Ten dairy animal owners from each village were randomly selected using a two stage random

¹ Corresponding author: Assistant Professor (LPM), Polytechnic in Animal Husbandry, Navsari Agricultural University, Navsari, Gujarat, India. E-mail: gpsabapara@gmail.com

sampling technique with the help of Talati cum Mantri/ village dairy cooperatives which constituted a total of 150 respondents. While selecting respondents due care was taken to ensure that they were evenly distributed in the village and truly represented dairy animal management practices prevailing in the area. The selected dairy farmers were interviewed and the desired information was collected regarding major constraints in housing, feeding, breeding, milking and health care management practices with the help of pre-designed and pre-tested schedule. Data were tabulated and analyzed as per standard statistical stools like frequency and percentage to draw meaningful interference.

RESULTS AND DISCUSSION

The present study revealed that domain wise constraints related to adoption of feeding practices ranked first (58.33%) followed by constraints in adoption of health care practices (52.45%), milking practices (50.99%), housing practices (49.6%) and breeding practices (43.05%) (Table 1). Similarly domain wise constraints were reported in Punjab by ⁷.

Data shown in Table 2 indicated that item wise major constraints related to adoption of improved housing were lack of own capital (74.67%) and high construction cost (66%), lack of adequate space (49.33%) while, high interest rate (29.33%) and lack of credit facility (28.67%) were least concerned. As the majority of the respondents in the survey area are poor, belong to tribal and other backward category and they are unable to provide adequate housing facilities to their dairy animals. The results were in agreement with ^{1,5&7} also reported lack of own capital and high construction cost as major constraints. The major constraints related to adoption of improved feeding management of dairy animals were high cost of feed (76%), lack of knowledge about silage preparation (76%), lack of awareness about treatment of poor quality straw to improve its nutritive value (74.67%), non-availability of green fodder round the year (62%), lack of knowledge of balanced ration (46.67%). While, lack of availability of fodder crop seeds (14.67%) was least constraints. There is a need to aware the

dairy farmers about enrichment of fodder as well as balanced and economic feed preparation. The present results are in accordance with the results reported by ^{1,3,5,6}.

Breeding is one of the important pillars of livestock production. Regular calving results in economical maintenance of dairy animals. However, in the survey area major constraints observed were repeat breeding problems in dairy animals (75.33%) and low conception rate through A.I. (58.67%), lack of availability of insemination in time (40%). While, preference of natural service in buffalo (36.67%), lack of improved bulls for breeding in villages (36%), lack of knowledge of heat detection (34.67%) and belief that pregnancy diagnosis through rectal palpation is harmful for pregnant animals (20%) were least constraints. These results are in agreement with the results of ⁴ reported repeat breeding problems in dairy cattle in Madhuni district of Bihar, ⁶ reported that lack of timely A.I. facility and low conception rate through A.I. in Bagalkot district of Karnataka and ⁵ highlighted low conception rate through A.I. and repeat breeding in cow as major constraints in Narmada valley of Gujarat.

The study revealed that the respondents faced major constraints related to the health care were problem of mastitis in dairy animals (77.33%), high cost of veterinary medicine (70%) and inadequate knowledge of diseases and their control (68.67%). While, non availability of vaccine in time (38.67%), distant location of veterinary hospital (37.33%) and veterinary doctor do not visit villages frequently (22.67%) were least constraints. These results are in agreement with the results of ^{5,6}.

The present study indicated that constraints faced by respondents for adoption of improved milking practices were non-remunerative price for milk (80%), high production cost of milk (68%), lack of knowledge in clean milk production (65.33%) and lack of preservation facilities for milk (50%) as major constraints. While, lack of knowledge in making value added dairy products (37.33%) and high cost of utensils (5.33%) were least constraints. It is therefore, necessary that dairy development department must conduct skilled oriented long term

training for production of value added milk products and about better management of milch animals coupled with importance and techniques of clean milk production, so that they get more prices from their milk. Similarly, ^{3,5,6} also reported low price of

milk as major constraint. High production cost of milk, lack of knowledge in making value added dairy product and poor knowledge about clean milk production as major constraints reported by ⁴.

Table 1. Domain wise distribution of constraints faced by dairy animal owners (n=150)

Domain	Percentage	Rank
Constraints in adoption of housing practices	49.60	IV
Constraints in adoption of feeding practices	58.33	I
Constraints in adoption of breeding practices	43.05	V
Constraints in adoption of health care practices	52.45	II
Constraints in adoption of milking practices	50.99	III

Table 2. Constraints faced by respondents in adoption of improved dairy husbandry practices (n=150)

Practices	Constraints	Frequency	Per cent
Housing	Lack of own capital	112	74.67
	Lack of credit facility	43	28.67
	High interest rate	44	29.33
	Lack of adequate space	74	49.33
	High construction cost	99	66.00
Feeding	High cost of feed	114	76.00
	Lack of knowledge of balancing ration	70	46.67
	Lack of availability of fodder crop seeds	22	14.67
	Non availability of green fodder round the year	93	62.00
	Lack of awareness about treatment poor quality straw to improve its nutritive value	112	74.67
	Lack of knowledge about silage preparation	114	76.00
Breeding	Lack of knowledge of heat detection	52	34.67
	Low conception rate through A.I.	88	58.67
	Repeat breeding in dairy animals	113	75.33
	Lack of availability of insemination in time	60	40.00
	Belief that PD through rectal palpation is harmful for pregnant animals	30	20.00
	Lack of improved bulls for breeding in villages	54	36.00
	Preference of natural service in buffalo	55	36.67
Health care	Problem of mastitis in dairy animals	116	77.33
	High cost of veterinary medicine	105	70.00
	Non availability of vaccine in time	58	38.67
	Inadequate knowledge of diseases and their control	103	68.67
	Distant location of veterinary hospital	56	37.33
	Veterinary doctor do not visit villages frequently	34	22.67

Milking	Non remunerative price for milk	120	80.00
	High cost of utensils	08	05.33
	Lack of preservation facilities for milk	75	50.00
	Lack of knowledge in clean milk production	98	65.33
	High production cost of milk	102	68.00
	Lack of knowledge in making value added dairy products	56	37.33

CONCLUSION

It can be concluded that majority of dairy farmers had high construction cost, lack of own capital, high cost of feed, non-availability of green fodder round the year, lack of awareness about treatment of poor quality straw to improve its nutritive value, lack of knowledge about silage preparation, lack of knowledge of balanced ration, repeat breeding problems in dairy animals, low conception rate through A.I., non-remunerative price for milk, high lack of knowledge in clean milk production, high cost of veterinary medicine, problem of mastitis in dairy animals and inadequate knowledge of diseases and their control as major constraints in adoption of improved dairy husbandry practices. Therefore, line department and NGOs working on dairy development should organize training programmes and demonstrations in terms of feeding, breeding, general management, health care and clean milk production to increase knowledge level of latest dairy technologies thereby reduces the constraints in study areas.

REFERENCES

- Gami, B. I., Prajapati, K. B. and Ankuya, K. J. (2012). Managerial constraints faced by buffalo owners in Banaskantha district of Gujarat state of India. *Wayamba J. Anim. Sci.*, **4**: 446-450.
- Hegde, N. G. (2006). Livestock development for sustainable livelihood of small farmers. 48th National symposium on Energising rural India-A challenge to livestock industry held 26, August, 2006 at Manesar, Haryana. Pp: 50-63.
- Kaur, I., Dhinsa, S. S., Harpreet, K. and Prabhjot, S. (2011). Various constraints of dairy farming in central zone of Punjab. *J. Dairying, Foods & Home Sci.*, **30**(4): 242-245.
- Kumar, J., Kumar, B. and Kumar, S. (2011). Constraints perceived by farmers in adopting scientific dairy farming practices in Madhuni district of Bihar. *Research J. Agri. Sci.*, **2**(1): 142-145.
- Patel, N. B., Saiyed, L. H., Rao, T. K. S., Singh, R. R., Modi, R. J. and Sabapara, G. P. (2013). Status and constraints of dairying in the tribal households of Narmada valley of Gujarat-India. *Animal Science Reporter*, **7**(3): 83-89.
- Rathod, P. K., Landge, S., Nikam, T. R. and Vajreshwari. (2011). Socio-personal profile and constraints of dairy farmers. *Karnataka J. Agri. Sci.*, **24**(4): 619-621.
- Singh, P., Bhatti, J. S., Hundal, J. S. and Kansal, S. K. (2015). Constraints faced by farmers in adoption of dairy as entrepreneurship. *Haryana Vet.*, **54**(1): 67-69.