



Calf management practices in dairy animals of rural and urban area under milk shed of South Gujarat

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ABSTRACT : A field study was conducted to collect the information on calf management practices followed by the dairy animal owners of Navsari district of South Gujarat. Two hundred respondents of 10 villages having elite dairy animals were included in the study. Majority of respondents (97.67%) of Navsari district attended calving and took care of the calves after parturition while only 2.33 per cent of the respondents didn't do so. Barring 3.5 per cent of the respondents of rural area all others in rural as well as in urban areas attended calving and took care of the calves after the parturition. It was found that majority of the (83%) respondents cleaned the calf soon after calving and remaining 17 per cent of the farmers didn't followed this practice. The practice of cleaning of the calves just after calving was practiced by 74.5 per cent of the rural and all respondents of the urban areas. Around 40.5 per cent of rural and 61 per cent of the urban respondents allowed the calves to suckle their dams before expulsion of placenta whereas 59.5 (rural) and 39 (urban) per cent of respondents allowed the calves to suckle their dams only after the expulsion of placenta.

KEY WORDS : Calf management practices, Rural, Urban area

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INTRODUCTION

Navsari district of South Gujarat region is one of the most growing milk shed areas for milk production and animal husbandry. Climate of this area is humid to sub humid. The temperature goes upto 40°C during summer and falls to 10°C during winter and humidity remains very high. This area comes under South Gujarat heavy rainfall area receives 2000 mm of rainfall and most of it is received

during the month of June to September. The present study was carried out regarding the heat detection, method of breeding, time taken for service after heat detection and calving interval in crossbred cows and buffaloes of milk shed area of Navsari district of South Gujarat.

MATERIAL AND METHODS

A field survey was conducted to collect information on array of existing breeding management practices followed by dairy animal owners of this region. The Navsari district is situated at 20°51'N (latitude) and 72°55'E (longitude) in the South Eastern part of Gujarat state. Navsari district is spread over five talukas, 366 Gram Panchayats and 374 villages. Majority of the population live in rural areas (72.6%), who are mostly engaged in agriculture, animal husbandry, floriculture and

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horticulture, small scale and cottage industry, sugar industry, agro and food processing. Out of the five talukas under Navsari district four of them namely Navsari, Jalalpure, Gandevi and Chikhli were selected for the purpose of this study. Ten rural villages were selected randomly from each taluka and from each selected village five respondents having more than two dairy animals (cattle/buffalo/both) were chosen with the help of Talati cum Mantri (Tehasildar)/members of village dairy cooperative, Hence, finally 200 selected respondents

were interviewed and the desired information was collected with the help of pre-designed and pre-tested questionnaire.

RESULTS AND DISCUSSION

The results of various calf rearing practices followed by dairy animal owners in the study area are presented in Table 1.

Majority of respondents (97.67%) of Navsari district attended calving and took care of the calves after

Table 1: Distribution of the dairy farmers according to the calf management practices followed

Calf management practices	Navsari Rural (200)	Navsari Urban (100)	Overall Navsari (300)
	Per cent	Per cent	Per cent
Attended calving and took care of the calves after parturition			
No	3.5	0	2.3
Yes	96.5	100	97.67
Cleaning of calf after calving			
No	25.5	0	17
Yes	74.5	100	83
Ligation/ cutting and disinfection of the navel cord			
No	61	54	58.67
Yes	39	46	41.33
Feeding of colostrums to the new born calf before expulsion of placenta			
Yes	40.5	61	47.33
No	59.5	39	52.67
Number of teats allowed for suckling			
One teat	93	77	87.67
Two teats	7	23	12.33
Weaning age of calves			
None	12	9	11
3 months	88	91	89
Provision of calf starter			
No	100	100	100
Age at which fodder was given to the calves			
2 month	88.5	93	90
3 month	11.5	7	10
Dehorning of calves			
Yes	50	38	46
No	50	62	54
Castration of male calves			
No	98.5	94	97
Yes	1.5	6	3
Provision of jacketing as well as bedding during winter season			
Yes	68.5	79	72
No	31.5	21	28

parturition while only 2.33 per cent of the respondents didn't do so. Barring 3.5 per cent of the respondents of rural area all others in rural as well as in urban areas attended calving and took care of the calves after the parturition. Findings of the present study were in agreement with the findings of Malik and Nagpaul (1999); Meena *et al.* (2008); Rathore *et al.* (2010) and Sinha *et al.* (2010). It was found that majority of the (83%) respondents cleaned the calf soon after calving and remaining 17 per cent of the farmers didn't followed this practice. The practice of cleaning of the calves just after calving was practiced by 74.5 per cent of the rural and all respondents of the urban areas. However, about 25.5 per cent of farmers in the rural areas not followed this practice. Similar findings were reported by Malik and Nagpaul (1999) and Bainwad *et al.* (2007).

About 61 per cent of respondents in the rural and 54 per cent in the urban areas did not practice ligation, cutting and disinfection of the naval cord while 39 and 46 per cent of the respondents followed these practices in the rural and urban areas, respectively. Similar findings were reported by Gill and Saini (2008) and Sabapara *et al.* (2010). This low percentage of dairy farmers following these practices was probably due to lack of awareness about above mentioned practices. Hence, more efforts are required to motivate farmers to follow this practice. Around 40.5 per cent of rural and 61 per cent of the urban respondents allowed the calves to suckle their dams before expulsion of placenta whereas 59.5 (rural) and 39 (urban) per cent of respondents allowed the calves to suckle their dams only after the expulsion of placenta. Hence, more efforts are required to educate the farmers in this aspect. Similar findings were reported by Divekar and Saiyed (2009); Malik *et al.* (2005) and Sinha *et al.* (2010).

In the rural areas 50 per cent and in the urban areas 62 per cent of the respondents did not follow dehorning while 50 and 38 per cent of respondents followed dehorning practice in the rural and the urban areas, respectively. Similar findings were reported by Gupta *et al.* (2008); Swaroop and Prasad (2009) and Deoras *et al.* (2004). Both in the rural (88%) and urban (91%) areas majority of respondents weaned their calves at the age of three months. It might be due to the fact that farmers were acquainted with the advantages of weaning. Similar findings were reported by Malik and Nagpaul (1999). None of the respondents of Navsari district provided calf

starter to their young animals. It might be due to the low level of awareness of farmers regarding the nutrient requirements of growing calves which cannot be met by feeding milk alone. Around 68.5 per cent of respondents in the rural areas and 79 per cent in the urban areas provided jacketing as well as bedding during winter and remaining 31.5 and 21 per cent not followed these practices in the rural and the urban areas, respectively. The result observed was in consonance with the findings of Yadav *et al.* (2009); Malik and Nagpaul (1999) and Sinha *et al.* (2010).

It was found that 3 per cent of respondents practiced castration of male calves while 97 per cent of respondents didn't followed this practice. In the rural areas (1.5%) and the urban areas (6%) per cent of respondents practiced castration of male calves whereas 98.5 and 94 per cent of respondents not followed these practices in the rural and the urban areas, respectively. It might be due to the fact that only those farmers who kept the animals for work purpose followed this practice otherwise they disposed them as early as possible. Similar findings were reported by Roy (2009).

Conclusion :

A field study was conducted to collect the first hand information on breeding management practices followed by the dairy animal owners. Majority of respondents (97.67%) of Navsari district attended calving and took care of the calves after parturition. Ligation, cutting and disinfection of the navel cord were followed by 41.33 per cent of respondents. Out of the total respondents around 52.67 per cent allowed the calves to suckle their dams only after the expulsion of placenta. None of the respondents of Navsari district provided calf starter to their young animals. In general, existing management practices were better in urban areas than in rural areas.

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