



ISSN: 2456-2912  
VET 2016; 1(3): 08-11  
© 2016 VET  
www.veterinarypaper.com  
Received: 02-09-2016  
Accepted: 03-10-2016

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## Impact of dairy practices adopted by women dairy farmers on milk production at society level

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### Abstract

The study was conducted on 2850 women dairy farmers in the milk shed area of Mulukanoor Women Dairy Cooperative society from 40 villages. The data was collected randomly through pretested interview schedule developed for detailed study on the practices adopted by members and non-members in dairying. 90 percent of the women dairy farmers in member group and 70% in non-member group revealed that there was improvement in animal husbandry practices. 34.2% and 89.20% member women dairy farmers followed regular deworming and vaccination of animals and there was 20% improvement in milk production in 57.5% of the respondent, 50% improvement in quality of milk and 30% growth in returns from milk, whereas it was not exceeded maximum 30% in member and non-member group and they do not follow the ideal management practices for the calf management, feeding, breeding and housing of dairy animals which shows that there is a scope for improvement in milk production through proper trainings and education.

**Keywords:** Women dairy cooperative, management practices, milk production

### Introduction

In animal husbandry, women have multiple roles. Their activities vary widely ranging from care of animals, grass cutting, fodder collection, cleaning of animal sheds to processing of milk into products. Rural women were found to devote 90 percent of labour force in livestock farming. About 75 million women as against 15 million men are engaged in dairying in India (Govt. of India, 2001). Few success stories in women dairy cooperatives are Manyeso women dairy group, Malindi, Kenya had a positive impact on the households of the women, through improved nutrition (availability of milk) and income to the families, provision of input services to enhance confidence in dairying as a means of improving their livelihood (Muriuki, 2006) [7]. Similarly, Miguta women group, Nairobi achieved its success in fodder cultivation, capacity building within the farmer group, improved dairy cattle productivity, increased food security among the member households and increased rural household income. (Onyango *et al.*, 2006) [8]. The study on management practices adopted by women dairy farmers not carried out hitherto in the study area. Hence an attempt has been made to collect the information on improved management practices adopted by farm women which will be use full for the policy makers and implementing dairy husbandry practices.

### Methodology

A sample size of 2850 women farmers for the investigation (2000 from member group and 850 from non-member group for comparison) was selected from forty villages of milk shed area of Mulukanoor Women Cooperative Dairy (50 members from each village and all the farmers from non-member group of the same villages who supplies the milk to society). Multistage random sampling was applied for selection of fifty respondents from each village with the help of primary cooperative society secretaries. The basic tool used for the study was pre tested structured interview schedule. The data was collected during the year 2014 through personal interviews of the individuals, so as to get valid and complete responses. The data collected from interviewed respondents were coded, classified and analyzed in order to make the findings meaningful. The data is subjected to the standard statistical procedures [12].

**Table 1:** Management practices adopted by member and nonmember groups

Management practices	Perception	Number responded (n=2000)	Percentage	Number responded (n=850)	Percentage
Regular deworming	Practiced	684	34.20	255	30
	Not practiced	75	3.75	0	0
	Not know	1241	62.05	595	70.00
Feeding of colostrum	within time (within one hour after birth)	23	1.15	0	0
	3-4 hr. after birth	508	25.40	174	20.47
	After. 12hr. (after shedding of placenta)	1469	73.45	676	79.52
Feeding of calf starter / concentrate	Yes	48	2.40	0	0
	No	1901	95.05	850	100
	Not known	51	2.55	0	0
Vaccination	Yes	1784	89.20	182	21.41
	No	171	8.55	586	68.94
	Not know	45	2.25	82	9.64
Attending the calf birth	Yes	1158	57.90	482	56.70
	No	842	42.10	368	43.29
Veterinarian consultancy	Once in a week	0	0	0	0
	Once in fortnight	44	2.2	222	26.11
	Once in a month	1956	97.80	628	73.88
Death of calf	Due to infection	330	16.50	123	14.47
	Malnutrition	481	24.05	221	26.00
	Not known	1189	59.45	506	59.52
Housing Systems	Shelter beside the house	1147	57.35	748	88.00
	Semi shelter	734	36.70	76	8.94
	Pucca house	119	5.95	26	3.05

**Table 2:** Percent increase in milk production, quality of milk, returns from sales and improvement in animal husbandry practices as perceived by member and non – member groups

S. No	Perception	Member group (n=2000)		Non member group (n=850)	
		Numbers responded	Percentage (%)	Numbers responded	Percentage (%)
<b>Percent increase in milk production</b>					
1	10 percent	450	22.50	585	57.05
2	20 percent	1150	57.50	265	42.94
3	30 percent	245	12.25	0	0
4	50 percent	155	7.75	0	0
<b>Percent increase in quality of milk</b>					
1	10 percent	0	0	0	0
2	20 percent	0	0	180	21.17
3	30 percent	152	7.60	244	28.70
4	50 percent	1848	92.40	426	50.11
<b>Percent increase in returns</b>					
1	10 percent	336	16.80	335	39.41
2	20 percent	785	39.25	242	28.47
3	30 percent	996	49.80	165	8.25
4	50 percent	125	6.25	108	5.4
<b>Improvement in dairy husbandry practices</b>					
1	Yes	1810	90.5	496	58.35
2	No	190	9.5	354	41.64

## Results and Discussion

Results of study revealed that, 57 percent of women dairy farmers in member and non-member group were taking care of calf at birth and only 1.15 percent of member women farmers were in the habit of feeding colostrum to the calf within one hour after birth. 25.40 percent respondent feeding after 3-4 hours of birth and maximum number of respondents (73.45 percent) were in habit of feeding only after 12 hours of birth i.e. after shedding of placenta. Whereas, no farm women was feeding colostrum to their calf within one hour in non-member groups and the maximum number of (79.52 percent) respondents were feeding colostrum after shedding of placenta and only 20.47 percent were feeding after 3-4 hours of birth. These findings are in comparison with the results of Sanchita *et al.*, (2009) [10]. Feeding of calf starter or

concentrates, more than 95 percent of respondent in both the groups were not practicing and only 2.40 percent respondent were feeding calf starter or concentrates to the calf in member group. Similar results were reported by Sandha and Singh (1995) [11].

In concerned to the health care by dairy women farmers 34.20 percent in member and 30 percent in non-member groups were practicing regular deworming. Whereas 62.05 and 70 percent of member and non-member respondent are not aware of deworming and only 3.75 percent in member and none of the women dairy farmers in non-member groups were practicing deworming to the calf.

89.20 and 21.41 percent of respondents vaccinating to their animals regularly, whereas 8.55 and 68.94 percent were not practicing and 2.25 and 9.64 percent were not aware of these

practice in both the groups respectively. These findings are in agreement with the reports of Sanchita *et al.*, (2009) <sup>[10]</sup>. Further, on enquiry about reasons for death of calf, 16.50 and 14.47 percent revealed that the death of calf was due to infection, 24.05 and 26 percent member and non-member said that due to malnutrition respectively and about 59 percent in both the groups expressed lack of knowledge on the cause death. 97.80 And 73.88 percent of women dairy farmers of member and non-member groups were in the habit of consultancy once in a month, whereas 2.2 and 26.11 percent of respondents had the regular practice (once in fortnight) of consulting a veterinarian in both the group. No farmer in the study had the habit of meeting veterinarian once in a week. This study got support from Sanchita *et al.*, (2009) <sup>[10]</sup> similarly Mohi *et al.*, (2006) <sup>[6]</sup> reported that majority of the members of Punjab dairy farmers association who adopted ideal feeding, health and breeding management practices, had achieved the higher productivity and net returns.

With regards to the housing management only 5.95 and 3.05 percent members and non-members were providing pucca houses to their animals and 36.70 & 8.94 percent of member and non-members provided semi shelter, whereas maximum number of members (57.35%) and non-member (88%) women dairy farmers providing shelter beside their houses. The results were in agreement with Divekar *et al.*, (2010) <sup>[4]</sup> who reported majority of farmers are providing katcha sheds and flooring in Anand district and similar reports by Bainwad *et al.*, (2007) <sup>[2]</sup>.

This warrants us, the need for educating the women dairy farmers regarding the importance of ideal management practices in improvement of the productivity of animals by organizing campaigns and training programmes. Although the women dairy cooperative society is doing it well, it is insufficient from the farmer's perceptual point of view also.

### Growth in milk production

As per the results there was significant growth in milk production in member group. More than 50% of respondent revealed that, there was 20% increase in milk production and 30% in 12.25%, 10% in 22.5% and 50% in 7.25% respondents respectively. Whereas 10% and 20% increase in milk production was observed in 68.82 and 31.17 percent non-member respondent. These reports are in agreement with the results of Ashalatha *et al.*, (2003) <sup>[11]</sup> and Sangu (1995) <sup>[13]</sup>. This clearly indicate that there was increase in milk production due to adaptation of animal husbandry practice through the societies. With regards to the quality of milk production more than 90% of the respondents from member group revealed that there was 50% improvement in milk quality and 30% improvement in 7.6% members, whereas 50% improvement was expressed by 50% of non-members. Similarly 20% in 21.17% and 20% in 28.70% improvement was observed in non-member group. These findings are in comparable with reports of Reddy *et al.*, (2000) <sup>[9]</sup>.

The women dairy farmers from member group getting good returns from the sale of milk through adoption of improved management practices, less investment, taking care of animal and utilizing society services. About 50 and 40% of the women dairy farmers getting 30 and 20% returns and 16.8 and 6.25% were getting 10 and 50% increased returns from milk respectively. Whereas 8.25 & 5.4% non-members getting 50 & 30% of returns and about 30 & 40% are getting 20 & 10% returns from milk. The results are supported by findings of Jyoti nayak and Mallick (2010) <sup>[5]</sup> and Tanwar

*et al.*, (2012) <sup>[14]</sup>. The women dairy farmers revealed that there was 90.5% improvement in dairy husbandry practices in member group and 70.5 percent in nonmember group. This indicates that, the women dairy farmers from cooperative societies were utilising the service and technical inputs provided by the societies.

### Conclusion

90 percent of the women dairy farmers in member group and 70% in non-member group revealed that there was improvement in animal husbandry practices but after in depth analysis there was 20% improvement in milk production in 57.5% of the respondent, 50% improvement in quality of milk and 30% growth in returns from milk whereas it was not exceeded maximum 30% in both the group and they could not follow the ideal management practices for the calf management, feeding, breeding and housing of dairy animals which shows that that there is a scope for improvement in milk production through proper trainings and education. The study emphasizes need for educating the farmers regarding the importance of ideal management in improving the productivity of animals and quality production. This showed that farm women need to be educated on the adoption of ideal dairying practices which have a direct impact on the milk production, quality and returns.

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