

Dairy animal health and housing management practices followed by tribal dairy farmers of Ranchi, Jharkhand

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ABSTRACT

The present study was conducted on tribal dairy farmers in Ranchi district of Jharkhand. Total 180 farmers were selected randomly and information about the existing dairy animals' health management and housing practices was collected. The study revealed that only 2.78 per cent of the respondents used sterilized blade for naval cord separation of new born and applied antiseptic solution. Colostrum feeding was followed by most of the respondents. Use of bedding material to new born calf, vaccination and castration were followed by most, deworming was followed by only few and dehorning was followed by none of the respondents. About 50 per cent of the respondents provided special attention to the pregnant animals and about 90 per cent of the them buried the foetal membrane after its expulsion. Practices followed in housing management revealed that majority had sheds with Kuchha floor and thatched roof for their animals. Most of them had loose type of shelter, average sanitary conditions and poor drainage system and cleaned the animal shed daily. Majority did not use any disinfectant for the animal houses and follow recommended udder healthcare practices.

Keywords: Tribal dairy farmers; dairy animals; health management; housing management; healthcare

INTRODUCTION

Dairy farming is one of the most important means of providing livelihood and nutritional security to the vast majority of rural masses (Srivastava 2011). It can also play a major role in providing self-

employment to the tribal people who form the highest proportion of the poor in India (Anon 2011). To accrue profit from dairying efficient management is of utmost importance. Management is an art of judiciously using all the factors of production. Efficient management reduces

the cost of production thereby increasing the profitability. In dairying the milk production not only depends on the best breeds but also on animal health and housing management. Keeping this in view the study was carried out to know the existing practices of the animal health and housing management practices followed by tribal dairy farmers in Ranchi district of Jharkhand.

METHODOLOGY

The present study was purposively conducted in the Ranchi district of Jharkhand. Multistage random sampling technique was used for the study. Total of 180 tribal dairy farmers were selected, 30 respondents each from 6 villages and 2 villages each from 3 blocks were randomly selected for the study. The tribal respondents having at least one milch animal were selected for the study. The data were collected with the help of structured and pre-tested interview schedule. Data collected were analyzed statistically using frequency and percentage. The data included information about the existing animal health management practices, udder health care practices and housing pattern of animals followed by the tribal dairy farmers.

RESULTS and DISCUSSION

Animal health management practices:

Table 1 shows that separate shed for pregnant animals was provided by only

8.89 per cent farmers; 63.89 per cent farmers assisted their dairy animals if the expulsion of foetal membrane (placenta) had not occurred within the time period of calving to 6 h; 91.11 per cent farmers buried the placenta after expulsion. They were not aware of the reason behind the disposal of placenta but had been practicing it as it was followed from generations. 83.33 per cent of the respondents let their animals to dry naturally during advance pregnancy. Majority (85.00%) of them allowed the cow to dry the new born calf by licking it. Further results presented indicate that the 97.22 per cent respondents followed natural separation and only 02.78 per cent of the respondents used sterilized blade and antiseptic solution for naval cord separation of new born calf. Majority of the respondents provided colostrum to the newly born. 59.44 per cent of the respondents provided paddy straw as bedding material to the newly born calf. They provided bedding material only in winter season. Only 4.44 per cent of the respondents dewormed their calves whereas vaccination of calf was followed by 78.33 per cent of the respondents. None of the respondents followed dehorning of the young stock. This may be due to the lack of awareness about the management practices or they didn't feel the need of dehorning. Majority (92.78%) of the respondents castrated their animals; 52.78 per cent castrated their male animals by themselves or by an expert in village by the cross-wood method. Similar

observations were reported by Tiwari et al (2007) and Yadav et al (2009).

Udder healthcare practices: Results in Table 2 show that majority of the respondents washed/cleaned their animals once a week (53.33%) followed by alternate days (18.89%), daily (17.78%) and never (10.00%). Cleaning of udder before milking was done by 93.89 per cent of the respondents and that too only with water.

Majority of the respondents milking the animal (93.33%) never trimmed their nails before milking; 82.22 per cent washed their hands with water before milking; only 26.67 per cent were aware of not spitting near the milking place; 45.56 per cent sometimes avoided smoking or of tobacco chewing near milking place or while milking. The results showed that 94.44 per cent respondents kept the animal standing after milking for at least 15 minutes. Milking was

done in clean animal shed by 71.67 per cent respondents; 27.78 per cent used oil for softening of teats before milking; 01.11 per cent respondents dipped their fingers in milk for softening of teats and majority did not follow any of these practices for softening of teats before milking. Majority (72.78%) of the respondents followed stripping and only 27.22 per cent followed full hand milking method.

Housing management of animals: The results in Table 3 show that 75.56 per cent of the respondents had sheds with Kuchha floor and thatched roof and only 24.44 per cent with Pucca concrete floor, non slippery having slope with channels for proper drainage; 95.00 per cent had loose type of shelter whereas 5.00 per cent had closed type of shelter. Majority (72.78%) of the respondents had average sanitary conditions in the animal shed. Poor drainage in the animal shed was observed in most (59.45%) of the cases.

Table 1. Animal health management practices followed by respondents (n= 180)

Variable	Frequency	Percentage
Cleaning of new born calf		
Using old rags	27	15.00
Allowing the cow to lick the calf	153	85.00
Method of naval cord separation		
Use of sterilized blade and antiseptic solution	5	02.78
Naturally allowed to dry and fall off	175	97.22
Colostrum feeding		
Immediately after birth	4	02.22
Within 1 hour of birth	47	26.11
After the new born was able to stand	129	71.67

Bedding for young stock		
Paddy straw	107	59.44
No bedding material	73	40.56
Deworming of calves		
Followed	8	04.44
Not followed	172	95.56
Vaccination of calves		
Followed	141	78.33
Not followed	39	21.67
Dehorning of calves		
Followed	0	0
Not followed	180	100.00
Castration of male calves		
Followed	167	92.78
Not followed	13	07.22
Age at castration (years)		
1.5 to 2	54	30.00
2 to 3	65	36.11
3 to 4	48	26.67
Castration done by		
Veterinary Doctor	46	25.56
Stockman/Quack	26	14.44
Self	95	52.78
Drying of advanced pregnant animals		
60 days prior to calving	27	15.00
30 days prior to calving	3	01.67
Naturally	150	83.33
Special care for advanced pregnant animals		
Providing separate shed	16	08.89
Providing bedding material	95	52.78
No care taken	69	38.33
Foetal membrane expulsion		
Immediately after calving	6	03.33
Calving to 6 h	115	63.89
6 to 12 h of calving	40	22.22
12 to 24 h of calving	19	10.56
Disposal of foetal membrane		
Burying	164	91.11
Throwing away	16	08.89

Animal health, housing practices of dairy farmers

Table 2. Udder healthcare practices followed by respondents (n= 180)

Variable	Frequency	Percentage
Washing/cleaning of dairy animals		
Daily	32	17.78
Alternate day	34	18.89
Once a week	96	53.33
Never	18	10.00
Cleaning of udder before milking		
With water	169	93.89
Never	11	06.11
Trimming of nails		
Followed	12	06.67
Not followed	168	93.33
No spitting around milking place		
Followed	48	26.67
Not followed	132	73.33
No smoking or eating tobacco		
Sometimes followed	82	45.56
Never followed	98	54.44
Washing of hands before milking		
Always followed	148	82.22
Never followed	32	17.78
Method of milking		
Full hand milking method	49	27.22
Stripping method	131	72.78
Keeping the animal standing after milking for at least 15 min		
Followed	170	94.44
Not followed	10	05.56
Milking done in clean animal shed		
Followed	129	71.67
Not followed	51	28.33
Softening of teats before milking		
Use of oil	50	27.78
Dipping fingers in milk	2	01.11
Not practiced	128	71.11

Table 3. Housing management of animals followed by respondents

Variable	Frequency	Percentage
Type of housing		
Shed with Pucca concrete floor, non- slippery and sloppy with channels for proper drainage	44	24.44
Shed with Kuchha floor and thatched roof	136	75.56
Type of shelter		
Loose	171	95.00
Close	9	05.00
Sanitary conditions		
Good	14	07.78
Average	131	72.78
Poor	35	19.44
Drainage		
Good	8	04.44
Average	65	36.11
Poor	107	59.45
Protect animals against extreme weather		
Using straw + gunny bags in winter	180	100.00
Using gunny bags on the windows of animal shed + provide bone fire in winter	37	20.56
Tieing the animal under tree shed in summer	180	100.00
Providing additional water to the animal	50	27.78
Keeping animals under shed in rainy season	180	100.00
Keeping proper distance between cow shed and manure pit		
Followed	175	97.22
Not followed	5	02.78
Cleaning of animal shed		
Everyday	154	85.56
Alternative day	26	14.44
Whitewashing of animal shed		
Twice in a year	8	04.44
Once in a year	35	19.44
Once in two years	1	00.56
Never	136	75.56
Disinfecting the animal shed		
With phenyl	38	21.11
With lime	1	00.56
With ash	13	07.22
No disinfectant used	128	71.11

All the respondents in the study area protected their animals using straw and gunny bags in winter season; 37.00 per cent provided bone fire to the animals in extreme winter. In summer season all the respondents tied the animals under tree shed and only 27.78 per cent provided additional water to drink. All the respondents kept their dairy animals under shed in rainy season.

The results indicated that 85.56 per cent of the respondents cleaned the animal shed every day. Only 19.44 per cent of respondents whitewashed the animal shed once and 04.44 per cent twice in a year. Recommended distance to be kept between animal shed and manure pit was followed by 97.22 per cent of the respondents. Majority (71.11%) of the respondents used no disinfectant in the animal shed. This could be on account of their lack of awareness about importance of cleanliness of the shed. The results are in line with the findings of Meena et al (2007) and Singh et al (2007).

CONCLUSION

It was found that most of the tribal dairy farmers were not practicing recommended dairy animal health management practices like naval cord separation by sterilized blade and application of antiseptic solution, deworming, providing separate shed to advance pregnant animals, drying of

pregnant animals and were also not aware of the right age of castration. The majority did not followed the recommended udder healthcare practices like washing of hands with detergent before milking; washing of udder was done only with water. The housing management of the animals was also not satisfactory as they were not using disinfectant and drainage was also poor. Most of the respondents had shed with Kuchha floor and thatched roof and white washing of the animal shed was rarely done. These findings suggest that there was need to organize awareness camps and training programmes regarding scientific animal health management and housing management practices.

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