

Existing breeding, feeding and management practices followed by the milk producers in East Godavari district of Andhra Pradesh

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ABSTRACT

A field study was done to know the existing breeding, feeding and management practices adopted by the milk producers in delta, upland and agency areas of East Godavari district of Andhra Pradesh. The practice of rearing of high milk yielding dairy animals was higher in Godavari delta (85%) followed by upland (63%) and agency area (13%). The practice of green fodder production was higher in Godavari delta (78%) and upland area (61%) than that in agency area (13%). Majority of milk producers in upland (95%), Godavari delta (87%) and agency area (77%) provided drinking water to milk animals from tube well. Thatched roofing was practiced by majority of milk producers in agency (98%) area. Majority of milk producers in Godavari delta (90%) and upland area (56%) marketed the milk to the cooperative and private dairies, whereas, agency milk producers (65%) marketed milk to milk vendors.

Key words: Buffalo breeding, Feeding, Housing, Management practices.

Water buffalo (*Bubalus bubalis*) can rightly be called as India's black gold because of its importance as the key dairy animal. It has made a major contribution to agrarian economy of India from livestock. Andhra Pradesh is one of the major milk producing states of the country with 12.175 lakh metric tonnes of annual milk production and with a bovine population of 20 million as per 19th quinquennial Livestock census. East Godavari district is one of the potential districts for agriculture and dairying in Andhra Pradesh. Agri-Dairy-Horticulture farming system is predominant in the district. The upgrading of local buffaloes with Murrah is being taken up for the last six decades in the Godavari delta area. East Godavari district is considered as one of the best areas for dairy development in Andhra Pradesh. However, majority

of dairy farmers in the district have not yet developed a commercial attitude towards dairying. Breeding, feeding and management practices of buffaloes play an important role in the improvement of productivity of dairy animals and economy of milk production in a particular area. The information on the management practices of dairy animals in the district is limited. Hence, the present study was taken to assess the breeding, feeding and management practices adopted by the buffalo milk producers in the district.

MATERIALS AND METHODS

East Godavari district has three natural divisions namely the Godavari delta, Upland and Agency (hilly) area. Five mandals each were selected randomly from each division and a total of 15 mandals were selected for the study. Five villages were randomly selected from each mandal. A total of 75 villages were selected. Four dairy farmers were selected from each village at random resulting in a total number of 100 milk producers from Godavari delta area, 100 from upland area and 100 from agency (hilly) area of the district. The farmers were interviewed by pretested schedule and required

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information was collected on the existing breeding, feeding and management practices. The data was subjected to Chi – square test for statistical analysis.

RESULTS AND DISCUSSION

Breeding management practices

The results in Table 1 revealed that rearing of high milk producing dairy animals like graded

Murrah and crossbred cows was found to be higher in Godavari delta area (85%) than upland (63%) and agency area (13%). It was revealed that overall 99.67 percent of the respondents practiced the heat detection only by observing the estrous signs like bellowing, frequent urination and mucus discharge in the study area. It was similar to previous findings¹.

Table 1. Breeding management practices adopted by respondents in dairy animals n=10

Breeding practices		Godavari delta Area (n=100) %	Upland area (n=100) %	Agency (hilly) area (n=100) %	Overall (n=300) %	X ²
Rearing of high milk yielding dairy animals	Graded Murrah/ CB cows	85	63	13	53.67	109.496**
	Local	15	37	87	46.33	
Method of breeding	Artificial insemination	95	84	54	77.67	51.925**
	Natural service	5	16	46	22.33	
	Early to mid heat	1	3	39	14.33	
	After 5 months	14	19	32	21.67	
Pregnancy diagnosis	Adopted	99	99	80	92.67	35.415**
	Not adopted	1	1	20	7.33	
	Winter	35	32	29	32.00	
	Summer	4	0	0	1.33	
	Not adopted	2	4	24	10.00	

**Significant at (p< .01)

Feeding management practices

It was observed that overall 50.67 percent of respondents practiced green fodder production for feeding of dairy animals in the study area (Table 2). It was nearer to previous findings⁸. Chaffing of green fodder was practiced by overall only 2.67 percent of respondents in the study area. It reported that majority of the farmers did not prefer chaffing of fodder in rural and urban areas^{2,6} It was observed that majority of upland milk producers (95%), Godavari delta area (87%) and agency farmers (77%) provided drinking water to milch animals

from tube well. It was also reported that majority of farmers provided drinking water from a tube well^{1,4}.

Housing management practices

On persual of Table 3, it was observed that majority of respondents in agency area (94%) and upland area (77%) located the animal shed separately nearer to the dwelling. It is in agreement with the observations^{9,10} reported that 89 percent of farmers kept dairy animals separately from their own dwelling. That ched roofing was practiced by majority of agency milk producers (98%) followed by upland (94%) and Godavari delta area (72%), whereas,

only 28 percent of milk producers in Godavari delta area provided asbestos roofing to the animal sheds.

It was also reported that that ched roof (55%) was more prevalent in their study area ⁵.

Table 2. Feeding management practices adopted by respondents in dairy animals n=100

S.No.	Feeding practices		Godavari delta area (N=100) %	Upland area (N=100) %	Agency (hilly area) (N=100) %	Overall (N=300) %	X ²
1	Green fodder production	practiced	78	61	13	50.67	90.923**
		Not practiced	22	39	87	49.33	
2	Supplemen tation of mineral mixture	Practiced	54	26	7	29.00	54.298**
		Not practiced	46	74	93	71.00	
3	Supplemen tation of common salt in the feed	practiced	12	2	1	5.00	15.579**
		Not practiced	88	98	99	95.00	
4	Extra concentrate during early lactation	Practiced	51	32	17	33.33	11.133**
		Not practiced	49	68	83	66.67	
5	Source of drinking water	Tube well	87	95	77	86.33	30.816**
		Tank/rivelets	13	5	23	13.67	

**significant at (p<.01) **significant at (p<.05)

Milking management practices

All of the milk producers in the district adopted hand method of milking. These findings were in agreement with previous results^{6,3} and reported that no one practiced machine milking. It was observed that majority of milk producers in Godavari delta (90%) and upland area (56%) marketed the milk to the cooperative/private dairies. It was reported that 56.33 percent of farmers sold milk to the milk dairy cooperative ⁷.

CONCLUSION

The study revealed that the adoption of breeding management practices was higher in Godavari delta area followed by upland and agency areas. The practice of green fodder production was higher in Godavari delta where as the practice of feeding of dairy animals with concentrate mixture during milking was higher in upland area. Adoption of milking management practices were higher in Godavari delta area followed by upland and agency areas.

REFERENCES

- Ahirwar R.R., Ashok Singh and Qureshi M. I. 2010. A study on managerial practices in

Water Buffalo (*Bubalus bubalus*) in India. *Buffalo Bulletin* **29**: 43-51.

- Deoras R., Nema R.K., Tiwari S.P and Singh M. 2004b. Feeding and Housing management practices of dairy animals in Rajnandgaon of Chhatisgarh plain. *Indian Journal of Animal Science* **74**: 303 - 306.
- Kumar M., and Mehla R.K. 2011. Milking management practices of buffaloes in the rural areas of Punjab. *Indian Journal of Animal Production and Management* **27**: .
- Malik B.S., Meena B.S., and Rao S.V.N. 2005. Study of existing dairy farming practices in Utter Pradesh. *Journal of Dairying, Food and Home Science* **24** : 91 - 95.
- Manohar D.S., Basant Bais, Goswami S.C., and Deka R.S. 2014. Study on housing management practices of buffaloes in relationship with selected traits of respondents in Jaipur district of Rajasthan. *Indian Journal of Dairy Science* **67**:65-68.
- Meena H.R., Hira Ram, Sahoo A., and Rasool T.J. 2008. Livestock husbandry scenario at high altitude Kumaon Himalaya. *Indian Journal of Animal Science* **78**: 882 - 886

7. Michael Khoveio L.L., Jain D.K., and Gouram Das. 2016. A study on marketed surplus and disposal pattern of milk in the North-Easatern state of Nagaland. *Indian Journal of Dairy Science* **69**:94-97.
8. Munishkumar, Mehla R.K., and Chandra R. 2005. Feeding and Housing Managemental practices of Nili - Ravi Buffaloes under Field conditions. *Indian Journal of Animal Science* **58**: 376 - 378.
9. Modi R.J., and Patel N.B. 2010. Breeding practices in dairy animals of rural area under milk shed of North Gujarat. *Indian Journal of Field Veterinarians* **5**: 5 - 6.
10. Modi R.J., Prajapati K.B., Patel N.B., and Chauhan H.D. 2010. Dairy Animal housing pattern in rural areas of milk shed of Gujarat. *Indian Journal of Dairy Science* **63**: 46 - 48.