

FEEDING AND MANAGEMENT PRACTICES ADOPTED BY MILCH BUFFALO OWNERS IN MUL TAHSIL OF CHANDRAPUR DISTRICT

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ABSTRACT

The present investigation was carried at Mul Tahsil of Chandrapur District during the year 2019-2020, to study the feeding and management practices adopted by milch buffalo owners in Mul Tahsil. Four villages viz., Agadi, Janala, Kantapeth and Somnath were randomly selected. The information on feeding management, health and sanitation and breeding aspects were collected by contacting with 200 buffalo owners. The results revealed that few scientific feeding practices like feeding of balanced ration at regular interval, enrichment of poor quality roughages by urea, ammoniation and molasses, feeding at least 3-5 kg green fodder, feeding concentrate @ 50% of milk production, use of 60 g common salt, mineral mixture and mineral bricks were not adopted by majority (more than 75%) of the buffalo owners. However, majority of the farmers belonging to the category 1-3 buffalo owners (62.38%) and 7-10 buffalo owners (41.66%) adopted feeding of dry, green and concentrate in required proportion. 65.50%, 83.50% and 75% buffalo owners adopted the feeding practices like processing of roughages and concentrates before feeding, chaffing / water soaking, feeding of dry matter @ 2-2.5 100⁻¹ kg body weight and inclusion of agro industrial byproducts like the, chunni, bran etc. Thus, the results revealed that there is wide scope of improvement in the adoption of scientific feeding practices by educating properly. Health and sanitation measures such as cleaning of utensils, cleaning of sheds, washing of udder before milking and wallowing of buffalo were adopted by 100% buffalo owners. Similarly, most of the buffalo owners (84.50%) adopted vaccination. Most of the buffalo owners (97.00%) adopted natural service method for breeding in study area. Only 3.00% buffalo owners adopted artificial insemination. It indicates that there is a wide scope for initiating artificial insemination techniques for obtaining high milching breeds.

(Key words: Scientific feeding practices, housing pattern, health and sanitation, breedingmethod)

INTRODUCTION

India ranks first in cattle and buffalo population with the total population of 192.49 million cattle, 142.11 million indigenous cattle, 50.42 million exotic cattle breeds, 145.12 million male cattle and 109.85 million total buffaloes (Anonymous,2019).

India is furnished with the largest livestock population in the world and has been blessed with 16 well established breeds with the buffalo population of 109.85 million which is approximately 56.6 per cent of world's total buffalo population. India ranks first in buffalo milk production, contributing approximately 65 per cent of world's total buffalo milk production. Buffaloes are valuable for triple purpose viz., milk meat and work (Rajkumar *et al.*,2018).

Higher feed efficiency and higher value of produce buffaloes are preferred by farmers in India (Balhara *et*

al.,2017). Buffaloes provide high quality milk and meat, also are the source of drought power for the small holders. They serve as an insurance against the risk of crop failure hence, are the assets (Dhanda *et al.*,2004). Farmers are incognizant about nutrition requirement of an animal and tend to overlook the quality and quantity of the feed. Also poor managerial practices in Dairy enterprises adds more in leading the dairy business uneconomical.

Keeping these in view, an attempt was made to study the feeding and management practices adopted by the milch buffalo owners in Multahsil of Chandrapur district.

MATERIALS AND METHODS

The study was carried out in Mul tahsil of Chandrapur district during the year 2019–2020. Four villages viz., Agadi, Janla, Kantapeth and Somnath were randomly

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selected. The information on feeding and management practices was obtained from the buffalo owners through personal interaction with the help of questionnaire from the villagers selected for the study. The list of buffalo owners was prepared for each villages with the help of Gramsevak and livestock development officer of Panchayat Samiti. These buffalo owners were contacted from each village and accordingly total farmers contacted were 200.

The data with regards to various aspects of studies such as recommended scientific feeding practices viz., feeding of balanced ration, feeding of roughage and concentrate in required quantity, processing of roughages, enrichment of poor quality roughages, rate of feeding of various feeding components (green, dry, concentrates and mineral mixture) and data on housing pattern, health and sanitation and breeding aspects were being also collected. These data were tabulated carefully while tabulating the information. To study the recommended scientific feeding practices aspect, the data were further categorized on the basis of size of herd of Buffalo owners in the following groups.

- | | |
|------------------|-----------------------|
| 1. 1-3 Buffaloes | 3. 7-10 Buffaloes |
| 2. 4-6 Buffaloes | 4. Above 10 Buffaloes |

The data collected in in respect of above parameters were tabulated and subjected to statistical evaluation by adopting the standard technique described by Snedecor and Cochran (1967).

RESULTS AND DISCUSSION

Adoption of scientific feeding practices

Data on adoptions of recommendations regarding scientific feeding practices by various categories of buffalo owners are presented numerically in Table 1.

It is revealed from the Table 1 that among the scientific feeding practices, majority of the buffalo owners from all categories did not adopt many feeding practices such as feeding of balance ration at regular interval, enrichment of poor quality roughages by urea, ammoniation and molasses, feeding at least 3-5 kg green fodder, feeding of concentrated @ 50% of milk production, use of mineral mixture and use of mineral bricks and feeding concentrate mixture @ 1 to 1.5 kg to pregnant buffaloes.

Adoption feeding of dry and green fodder and concentrate in required proportion was done by the buffalo owners of 1-3 buffalo category (62.38%) followed by the category of 7-10 buffalo owners (41.66%). 4-6 buffalo owners (28.30%) and above 10 buffalo owners (21.42%) had low adoption on these feeding practices. Processing of roughages and concentrate before feeding, chaffing / water soaking was adopted by the 1-3 buffalo owner's category (96.33%), followed by 7-10 buffalo owners (50.00%) and above 10 buffalo owners (35.71%). However, only 16.98 buffalo owners having 4-6 buffaloes adopted these practices. Inclusion of agro-industrial byproducts like tur, chunni, bran etc. In the feeding of buffaloes was adopted

by 93.57% buffalo owners belonging to 1-3 buffalo's category, followed by 62.26 % by 4-6 buffalo owners and 42.85% by buffalo owners having more than 10 buffaloes. However, category of 7-10 buffalo owners showed very poor adoption for these practices.

Thus, as long as adoption of recommended scientific feeding practices was concerned, majority of the practices were not adopted even up to 30.00 % and only few practices like feeding of dry and green fodder and concentrate in the required proportion, feeding of dry matter @ 2-2.5 kg 100⁻¹ kg body weight., Inclusion of agro-industrial by products have been adopted by majority of the farmers belonging to the category 1-3 buffalo owners followed by 7-10 buffalo owners and 4-6 buffalo owners but the buffalo owners having above 10 buffaloes showed very poor adoption of these practices.

This stipulated that there is broad scope to educate buffalo owners to adopt advanced scientific reading practices in order to produce quality and quantity milk. Aulakhet *et al.* (2011), Kishore *et al.* (2013), Patil *et al.* (2014) and Jatolia *et al.* (2017) noticed that adoption of scientific recommendations i.e. feeding of dairy animals were attenuated.

Housing management

Data regarding housing pattern adopted by buffalo owners are presented in Table 2.

It is revealed from the data that 90.50% buffalo has adopted open shed for housing the buffaloes and only 9.50 % had closed shed. It was further observed that 95.00%, 97.50%, 93.00% and 96.00% buffalo owners adopted kachha shed, separate shed, kachha flooring and no drain for urine respectively for housing the buffaloes 100% buffalo owners had fully ventilated housing shed for their buffaloes. On other hand 5.00 % 7.00% and 4.00 % buffalo owners adopted pucca shed, kachha flooring and pucca drain for urine to drain out respectively.

Thus, ideal housing pattern was not followed by any of the buffalo owners and follow the traditional way of housing their buffaloes. The findings of the present study were in line with the housing pattern reported by Patil *et al.* (2014).

Health and sanitation management and breeding method management

The data regarding health and sanitation adopted by the respondent buffalo owners are given in Table 3. It is seen from the data that all the buffalo owners were careful in maintaining the highest standard of sanitation (100%) pertaining to cleaning of milk utensils, cleaning of shed and washing of udder before milking.

Thus, as long as the health of the buffaloes is concerned, wallowing of buffaloes was adopted by 100% buffalo owners followed by removal of hairs regularly by 94.00% buffalo owners and vaccination by 84.50%. Regarding breeding methods, majority (97.00%) buffalo opted for natural service whereas, only 3.00 % buffalo owners adopted artificial insemination method. This implies

Table 1. Adoption of scientific recommendation in feeding of milch buffaloes according to size of herd in MulTahsil

Sr. No	Recommendation feeding practices	1 to 3 buffalo owners (109)		4 to 6 buffalo owners (53)		7 to 10 buffalo owners (24)		Above 10 buffalo owners (14)		Mul Tahsil (200)	Per cent
		Per Cent	Per Cent	Per cent	Per cent	Per cent	Per Cent				
1	Feeding of balanced ration at regular interval	26	23.85	12	22.64	4	15.66	2	14.28	44	22.00
2	Feeding of dry, green and conc. In required proportion	68	62.38	15	28.30	10	41.66	3	21.42	96	48.00
3	Processing of roughages and conc. Before feeding, chaffing/water soaking	105	96.33	9	16.98	12	50.00	5	35.71	131	65.50
4	Enrichment of poor quality roughages by urea, ammoniation and molasses	4	3.66	2	1.78	7	4.16	-	-	7	3.50
5	Feeding 3-5 kg green fodder	14	12.84	15	28.30	5	20.83	4	28.57	38	19.00
6	Feeding of dry matter 2.5 to 3 kg 100 ¹ kg body weight	108	99.08	39	73.58	11	75.83	9	64.28	167	83.50
7	Inclusion of agro-industrial by product like turchunni, bran etc	102	93.57	33	62.26	9	37.50	6	42.85	150	75.00
8	Feeding of conc. @ 50 per cent of milk production	52	47.7	7	13.20	3	12.50	2	14.28	64	32.00
9 (a)	Use of 60 g common salt	38	34.86	7	13.20	3	12.50	-	-	48	24.00
(b)	Use of mineral mixture	2	1.83	2	3.77	2	8.33	-	-	6	3.00
(c)	Use of mineral bricks	-	-	-	-	-	-	-	-	-	-
10	Feeding of conc. Mixture @ 1 to 1.5 kg to pregnant animal	36	33.20	10	18.86	3	12.50	2	14.28	51	25.50

Table 2. Housing pattern adopted by selected buffalo owners (N=200)

Sr. No.	Component	Name of selected villages				Overall Total	Per cent
		Agadi	Janala	Kantapeth	Somnath		
1	Open Shed	48	47	42	44	181	90.50
2	Closed Shed	2	3	8	6	19	9.50
3	Kachha Shed	46	49	48	47	190	95.00
	Pucca Shed	4	1	2	3	10	5.00
	Separate Shed	45	46	48	47	186	93.00
4	Kachha Flooring (Without Cement concrete)	5	4	2	3	14	7.00
	Pucca Flooring (Cement concrete)	48	47	50	50	195	97.50
5	Ventilated	2					
	Non ventilated	50	50	50	50	200	100
6	Pucca drain for urine to drain out is available	2	2	-	4	8	4.00
	Drain for urine not available	48	48	50	46	192	96.00

Table 3. Health and sanitations adopted by buffalo owners (N=200)

Sr. No.	Component	Name of selected villages				Overall Total	Per Cent
		Agadi	Janala	Kantapeth	Somnath		
A							
Cleaning							
1.	Cleaning of milking utensils	50	50	50	50	200	100
2.	Cleaning of sheds	50	50	50	50	200	100
	Cleaning of sheds not practiced	-	-	-	-	-	-
3.	Washing of udder before milking	50	50	50	50	200	100
B							
Health							
1.	Removals of hairs regularly	46	45	47	50	188	94.00
	Not regularly	4	5	3	-	12	6.00
2.	Wallowing of buffalo	50	50	50	50	200	100
3.	Vaccination	41	45	43	40	169	84.50
C							
Breeding methods							
1.	Natural service	48	47	49	50	194	97.00
2.	Artificial Insemination	2	3	1	0	6	3.00

that there is need of awareness regarding artificial insemination method to embrace improved breeds with increased milk production. The results of present investigation are in accordance with findings of Patil *et al.* (2014). They also noticed that washing of buffalo was adopted by cent per cent (100%) buffalo owners. Bainwad *et al.* (2007) stated that due to availability of buffalo breeding bull all buffalo owners practiced natural service as a method of breeding.

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