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## Houseing and breeding practices followed by buffalo owners in Katol Tahsil of Nagpur District

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### Abstract

The present investigation was undertaken to know the various management practices adopted by buffalo owners. A sample of 200 farmers was classified into three categorized viz., small, medium and large based on the land holdings, in Katol Tahsil. About 40.00 per cent of farmers in the age group of 41-50 years were engaged in buffalo rearing while only 6.50 per cent of young farmers (21-30 year) had shown their interest in buffalo rearing. About 91.11 per cent farmers provided housing for buffaloes. Majority of farmers 69.44 per cent provided kaccha housing for buffaloes. Majority of farmers 91.67 percent farmers provided manger for buffaloes. Majority of the farmers 53.00 percentage observed heat by mucus discharge while 21.50 per cent farmers through slightly off feed. About 72.00 per cent farmers mated their animal within 12 hours and 27.50 per cent within 12-18 hours. About 83.00 per cent farmers adopt natural method of insemination and artificial insemination by 17.00 per cent farmers. Buffalo owners were well aware regarding health care practices viz., eradication of ectoparasites, regular vaccination and deworming.

**Keywords:** Scientific feeding practices, housing pattern, breeding methods

### Introduction

Buffalo is major integrale component of the Indian dairy farming. It is important source of milk, meat and draft power in India. In India buffalo is very popular and commonly reared in large dairy farms and also for domestic milk production.

The role of dairy farming in the Indian rural economy is very outstanding. The significance is heightened by its massive contribution of livelihood of India's rural population. Over 73 per cent of India's households have their own livestock. Grazing, feeding and milking of cows and buffaloes is one of the largest source of productive employment in rural India (Ahirwar *et al.* 2010) <sup>[1]</sup>.

Buffalo is the main dairy animal of India which provides economic stability to farmers through sale of milk and sale of animals due to uncertainties associated with crop farming in dry land /rainfed area, which constitutes 70 per cent of arable land of India. Buffalo population nearly 94 million contributes about 56 per cent of the total milk production as compared to that of nearly 218 million cattle population of the country (Sastry 2003) <sup>[13]</sup>.

Keeping these in view, an attempt was made to study on the management practices adopted by buffalo owners in Katol tehsil of Nagpur district (M.S.).

### Materials and Methods

The study was carried out around Katol city during the year 2014-15. Ten villages viz. Wandali, Dongargoan, Isapur, Sonoli, Dharti-Murti, Kacharisavanga, Ridhora, Kukadipanjara, Paradsinga, Mendaki were randomly selected. The information on dairy farming practices was obtained from the Buffalo owners through personal interaction with the help of questionnaire from selected villages for the study. The list of 200 Buffalo owners was prepared form village with help of gramsevak and livestock development officer of Panchayat Samiti.

The data with regards to various aspects of study such as land holding, cropping pattern, crossbred cattle owners, availability of feed and fodders, grazing facilities, milk yield, routine management practices, availability of shed, number of milch animals and availability of veterinary facility etc. were collected. The data were tabulated and analyzed by simple tabular techniques to ascertain the objectives under study.

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## Results and Discussion

### Housing management

Provision of proper housing to buffaloes is essential in order to provide the comfort and thereby exploring the genetic potential of buffaloes, with this view, the information obtained on the housing status of buffaloes is tabulated in Table.

#### Provision of housing to buffaloes

It was revealed from Table 6 that, 90.00 per cent of farmers provided housing for the 91.11 per cent buffaloes. Rest of the 10.00 per cent farmers had not provided separate housing for the 8.88 buffaloes. It indicated that, buffaloes were better housed.

#### Housing structure for buffaloes

It was observed that, 69.44 per cent farmers provided kaccha housing to 74.39 per cent buffaloes. Whereas, 30.55 per cent farmers made a provision of pucca housing to 25.69 per cent buffaloes. These figures are in line with Rode (2002) observed that 76.67 and 63.64 per cent farmers provided kaccha housing and 23.33 and 36.36 per cent farmers made provision of pucca housing to local and improved buffaloes by the farmers in Amravati district.

Similar trend was also observed in case of flooring i.e 28.33 per cent farmers had made a provision of pucca flooring in shed for 20.73 per cent buffaloes. Kaccha flooring in the shed was observed by 71.66 per cent farmers covering 79.26 buffaloes, resulting in sanitary condition in the shed. Jagtap (1997) noticed that 62 per cent farmers were having the cattle shed with kaccha floors. The present trend of results were in agreement with the results reported by Ahirwar *et al.* (2010) [1].

The various roofing material such as galvanized iron sheets, kawelu and grass thatching were used while constructing buffalo sheds by the farmers. It was revealed that, the majority of the farmers (39.45 per cent) used kawelu, followed by galvanized iron sheet (37.22 per cent) and grass thatching (23.33 per cent) as a roofing material in the buffaloes shed to the 39.51, 37.80 and 22.69 per cent buffaloes respectively. None of the dairy farmers had used asbestos sheet as a roofing materials in the buffalo sheds. The majority of the farmers (91.67 per cent) used mangers (90.25 per cent) for buffalo. Majority of the farmers (63.89 per cent) used wooden plank mangers followed by cement concrete mangers (36.11 per cent) for 68.29 and 31.70 per cent buffaloes, respectively. Rathore and Kanchwaha (2009) [11] observed that, manger feeding was a common practice, but only 34.25 per cent of the respondents had pucca and optimally sized mangers. however these figure in line with Bidwe (2004) [2] prepared used wooden partition mangers in Buldana district. Majority of the farmers (81.50 per cent) provided adequate space to the (86.82 per cent) buffalos and (18.50 per cent) farmers inadequate space to the (13.17 per cent) buffalos, respectively. Kishore *et al.* (2013) [8] observed that (98.22 per cent) farmers provided adequate space to the buffalos and (01.76 per cent) provided inadequate space to the animals similar result obtained Ahirwar (2010) [1] and Patel (2013)

It was observed from Table 6 that (91.66 per cent) farmers clean the house of the buffalos and (08.33 per cent) farmers not clean the house of the buffalos. These result inline with the figure of Bainwad *et al.* (2007) observed that the similar result (93.00 per cent) farmers clean the house of the animals

and (07.00 per cent) farmers not clean the house of the animals

Further it was observed that more no. of farmers provided proper ventilation to the animals (87.88 per cent) of farmers provide ventilation to the (90.48 per cent) buffalos and (12.19 per cent) farmers not provided proper ventilation to the (09.51 per cent) animals.

K. Kishore *et al.* (2013) [8] observed that (94.00 per cent) farmers provided proper ventilation to the animals and (06.00 per cent) farmers not provided proper ventilation to the animals.

Majority of the farmer (88.88 per cent) collected dung in the manure pits (11.11per cent) of farmers sold to the farmer for application to the field (12.19 per cent) of buffalo, Similar trend observed in the study of Kishore *et al.* (2013) [8] Thus, the results on the infrastructural facilities of housing indicated that, majority of farmers provided better housing conditions to the buffaloes.

#### Breeding management

Breeding management included detection of heat, time and method of mating and choice of breeding buffaloes bull. It was observed from that, majority of the farmers (53.50 per cent) observed mucus discharge through vulva followed by slightly off-feed (21.50 per cent), swelling of vulva (14.50 per cent) and raised tail (07.50 per cent) and bellowing (3.50 per cent) while detecting the signs of heat in buffaloes. It indicated that, cent per cent buffalo farmers observed the signs of heat. None of the buffalo owners observed mounting on other animal as sigh during heat period in buffaloes. Bidwe *et al.* (2009) [2] Observed that 90 to 99 per cent farmers had knowledge of detection of heat in buffaloes on the basis of discharge of mucous. Chinchwade *et al.* (2008) also observed that bellowing and discharge of mucous from vulva were important signs of heat. Same trend was also observed by Rathore and Kanchwaha (2009) [11]. It was further observed that, majority of farmers (72.50 per cent) mated their buffaloes (78.67per cent) within 12 hours while, rest of the farmers (27.50 per cent) served (21.33 per cent) buffaloes after 12 hours from the induction of heat. It is further observed that, majority of farmers (83.00 per cent) adopted natural services mating to (85.33 per cent) in buffalo. Rest of farmers (17.00 per cent) adopted artificial insemination in (14.67 per cent) buffaloes. Majority of the farmers (57.50) used non-descript buffaloes bull to bred (58.67 per cent) of buffaloes, while few (42.50 per cent) farmers used descript buffalo bull to bred buffaloes (41.33 per cent). Balusani (2004) reported that, breeding bull or scrub bulls were accessible to all farmers in their village for natural service. Ahirwar *et al.* (2010) [1] observed that only 9.66 per cent of the farmers bred their animals with artificial insemination and 90.33 per cent preferred natural service. Same trend was also observed by Kishore *et al.* (2013) [8].

#### Housing pattern adopted by selected buffalo owners

Sr. No.	Items	Number of farmers	Number of buffaloes
1	Housing structure	180 (90.00)	410 (91.11)
2	Without housing structure	20 (10.00)	40 (8.88)
	Total	200 (100.00)	450 (100.00)

**Housing structure for buffaloes**

Particulars	Number of farmers	Number of buffaloes
<b>I</b>	<b>Type of housing</b>	
a.	Kaccha	125 (69.44)
b.	Pucca	55 (30.55)
	Total	180 (100.00)
<b>II</b>	<b>Type of flooring</b>	
a.	Kaccha	129 (71.66)
b.	Pucca	51 (28.33)
	Total	180 (100.00)
<b>III</b>	<b>Type of roofing materials</b>	
a.	Galvanized iron sheet	67 (37.22)
B	Kawelu	71 (39.45)
c.	Grass thatching	42 (23.33)
d.	Asbestos	00 (00.00)
	Total	180 (100.00)
<b>IV</b>	<b>Provision of manger</b>	
a.	Yes	165 (91.67)
b.	No	15 (8.33)
	Total	180 (100.00)
<b>V</b>	<b>Type of manger</b>	
a.	Cement concrete	65 (36.11)
b.	Wooden plank	115 (63.89)
	Total	180 (100.00)
<b>VI</b>	<b>Space available</b>	
a.	Adequate	146 (81.11)
b.	Inadequate	34 (18.88)
	Total	180 (100.00)
<b>VII</b>	<b>Sanitation</b>	
a.	Clean	165 (91.66)
b.	Not clean	15 (8.33)
	Total	180 (100.00)
<b>VIII</b>	<b>ventilation to the animal</b>	
a.	Available	158 (87.88)
b.	Inadequate	22 (12.22)
	Total	180 (100.00)
<b>IX</b>	<b>Dung disposal</b>	
a.	Manure pit	160 (88.88)
b.	Sold to the farmer	20 (11.11)
	Total	180 (100.00)

**Distribution of dairy farmers according to attitude towards breeding practices**

Sr. No.	Items	Number of farmers	Number of buffaloes
<b>I</b>	<b>Signs of heat</b>		
a.	Mucus discharge	106 (53.00)	284 (63.11)
b.	Swelling of vulva	29 (14.50)	68 (15.11)
c.	Slightly off feed	43 (21.50)	52 (11.55)
d.	Raised tail	15 (7.50)	31 (15.50)
e.	Bellowing	07 (3.50)	15 (3.33)
f.	Mount on other animals	00 (00.00)	00 (00.00)
	Total	200 (100.00)	450 (100.00)
<b>II</b>	<b>Mating time in heat</b>		
a.	Within 12 hours	145 (72.50)	354 (78.67)
b.	During 12 to 18 hrs	55 (27.50)	96 (21.33)
	Total	200 (100.00)	450 (100.00)
<b>III</b>	<b>Method of mating</b>		
a.	Natural	166 (83.00)	384 (85.33)
b.	Artificial insemination	34 (17.00)	66 (14.67)
	Total	200 (100.00)	450 (100.00)
<b>IV</b>	<b>Type of hebull</b>		
a.	Descript	85 (42.50)	186 (41.33)
b.	Non descript	115 (57.50)	264 (58.67)
	Total	200 (100.00)	450 (100.00)

**Conclusions**

The majority of the buffalo owners were well aware about housing, breeding management practices. There was a worth notable gap in feeding of green fodder and concentrates in buffaloes.

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