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Vandana Bhagat
PhD. Scholar,
Department of Livestock
Production Management, Durg,
Chhattisgarh, India

K Mukherjee
Professor and Head,
Department of Animal Genetics
and Breeding, Durg,
Chhattisgarh, India

Asit Jain
Assistant Professor,
Department of Animal Genetics
and Breeding, Durg,
Chhattisgarh, India

SS Sahu
Subject Matter Specialist (LPM)
KVK, Korea

Upasana Verma
PG Student (LPM), College of
Veterinary Science and Animal
Husbandry Anjora, Durg,
DSVCKV, Durg, Chhattisgarh,
India

Sandhya Kashyap
PG Student (LPM), College of
Veterinary Science and Animal
Husbandry Anjora, Durg,
DSVCKV, Durg, Chhattisgarh,
India

Corresponding Author:
Vandana Bhagat
PhD. Scholar,
Department of Livestock
Production Management, Durg,
Chhattisgarh, India

Housing management practices of dairy animals in Surajpur District of Chhattisgarh

Vandana Bhagat, K Mukherjee, Asit Jain, SS Sahu, Upasana Verma and Sandhya Kashyap

Abstract

A field survey on status of existing housing practice followed by the cattle owners was conducted in Surajpur district of Chhattisgarh state. Existing housing management practices were studied through personal interview using predesigned questionnaire from randomly selected 200 cattle owners. The survey revealed that 66% animal sheds were nearby their dwellings and most of the respondents 72% and 58% and had kuccha type (mud wall) of animal housing and kuccha floor (mud). It was observed that (62.00%) of the respondents used thatch type roof, while 38.00 percent of respondents used asbestos sheet. The data regarding the features of roof shows that 66 percent of the farmers possessed single slope type of roof. About 65.00 percent and 70 % cattle owner had good ventilation and sufficient light arrangements in their animal shed. In present investigation reported that only 42.00 percent of animal sheds had provision of pucca drainage facility of urine and the majority of the farmers, 85.00 % had provision of shade from trees for their animals.

Keywords: Housing practice, cattle owner, survey, respondents, Chhattisgarh

Introduction

Livestock especially cattle are major contributors in refining the rural economy. With 199 million cattle population India ranks first in the respect of cattle population (20th livestock censuses). Proper housing leads to good health, comfort and protection from inclement weather and which would enable the animals to utilize their genetic ability and feed for optimum production. Sabapara *et al.* (2010) [14] reported that suitable housing lowers the wastage of energy in maintaining thermo-neutral zone as well as lessens the incidence of diseases. The livestock in Chhattisgarh is an integral part of the mixed crop livestock system where crop production meets most of the feed, and fodder requirements of livestock, and they provide draught power and dung manure for crop residue. Cattle population of Chhattisgarh is 99,839,54. Therefore, present investigation was undertaken to study dairy animal housing practice in Surajpur district of Chhattisgarh state.

Material and Methods

To fulfill the objective of this study a field survey work was conducted in 10 villages namely Jagatpur, Gjadharpur, Dwarikanagar, Kasalgiri, Maheshpur, Gangapur, Judwan i, kashkela, Shyamnagar, and Veerapur of a block and district-Surajpur of Chhattisgarh state during January 2020 to mid-march 2020. The Surajpur district situated at 22° 9' N latitude and 83° 01' longitude in the northern part of cg state and having 6 blocks namely Prattappur, Surajpur, Odagi, Bhaiyathan, Ramanujnagar and Premnagar covering 2,787 km² area. Total population of Surajpur district is 789,047 with 547 numbers of villages. 20 cattle owners from each village were selected which results a total 200 respondents. Selected farmers were interviewed through predesigned questionnaire and information were collected regarding existing housing system in the survey area. Data were tabulated and analyzed according standard statistical tools to draw meaningful invention.

Results and Discussion

Existent housing management practice followed by farmer is presented in table 1. It revealed that majority 66% of cattle sheds were attached to human dwelling, and only 34% of farmer constructed separate shed for their animals. Similar findings were reported by Bainwad *et al.* (2007) [2] ; Kushwaha *et al.* (2007) [7] ; Sabapara *et al.* (2010) [15] and Sabapara *et al.* (2015) [16] they observed that nearly 59.5, 57.4, 51% and 56% of the farmer had animal shed as a part of

their residence, respectively. Purpose of keeping animals within dwelling would be to save cost of construction of a shed and close vicinity to their animals. Whereas Sabapara *et al.* (2010) [15] and Pilaniya *et al.* (2018) [13] reported that 49%

and 24% farmer had separate housing facilities for their cattle. Most of the respondents 72% had kuccha type (mud wall) of animal housing while, remaining 28% animal owner provided pucca type (brick wall) of houses for their animal.

Table 1: Existent housing management practice followed by cattle owner of Surajpur District

Parameters	No of farmers	Percent	
Location of shed	Attached to human dwelling	132	66%
	Separate shed	78	34%
Type of housing	Kuccha (mud wall)	144	72%
	Pucca (brick wall)	56	28%
Floor type	Kuccha (mud)	116	58%
	Pucca (cement, brick, concrete)	84	42%
Cleaning of floor	Three times in a day	36	18%
	One and two times in a day	164	82%
Roof type	Asbestos sheet	76	38%
	Thatch roof	124	62%
Features of roof of shed	Single slop	132	66%
	Double slop	68	34%
Drainage facility	Kuccha	116	58%
	Pucca	84	42%
Housing system	Random	156	78%
	Single row	28	14%
	Double row (Tail to tail)	36	18%
Light	Adequate	140	70%
	Inadequate	60	30%
Ventilation	Good	130	65%
	Poor	70	35%
Separate shed for sick and pregnant animal	Available	10	5%
	Not available	190	95%
Facility of fan/cooler	Available	24	12%
	Not available	176	88%
Provision of shade from trees	Yes	170	85%
	No	30	15%

The findings of present study were in agreement with findings of Kalyankar *et al.* (2008) [6]; Sabapara *et al.* (2010) [14] and Sabapara *et al.* (2015) [16]. Present investigation reveals that 58 percent farmers had kuccha flooring (mud) and 42 percent respondents had pucca (brick, cement and concrete) floor in their dairy animal shed. The results were in agreement with the findings of Patel *et al.* (2018) [11], Chowdhary *et al.* (2006) [4] in North Gujarat, Singh *et al.* (2007) [18] in Rajasthan and Sabapara *et al.* (2010) [14] in south Gujrat in their survey observed that most of the animal houses had kuccha floor.

It was observed that (62.00%) of the respondents used thatch type roof, while 38.00 percent of respondents used asbestos sheet, respectively in the survey area. The maximum animal houses had thatch roof, which might be due to its easy availability and cheap cost. The present study is in contradiction to the findings of Singh *et al.*, (2007) [18]; Varaprasad *et al.*, (2013) [20]; Singh *et al.*, 2015 [19] and Sabapara *et al.* (2015) [16] who reported maximum shed made up of asbestos sheet in their respective survey regions. The data regarding the features of roof shows that 66 percent of the farmers possessed single slope type of roof in the study area. These findings are in agreement with that of Garg *et al.* (2005) [5] Kumar *et al.* (2006) [9] and sabapara *et al.* (2010) [14]. Their results were very identical to everyone in which 58.50 percent and 79 % of the respondents had single slope roof of shed.

About 65.00 percent and 70 % cattle owner had good ventilation and sufficient light arrangements in their animal shed. Similar finding expressed by Sharma and Singh, (2003) [17]; Pawar *et al.*, (2006) [12]; Kumar, (2011) [8] and Sabapara *et al.*, (2015) [16]. On the contrary Ahiwar *et al.* (2009) [1] reported

that 70.33 percent of respondents provided inadequate ventilation in animal houses of rural areas of Indore district of Madhya Pradesh which, might be due to the lack of awareness of dairy farmers. In present investigation reported that only 42.00 percent of animal sheds had provision of pucca drainage facility of urine while, remaining (58.00%) had no drainage facility in the study area. The present findings were in agreement with the findings of Sabapara *et al.*, (2015) [16] who reported that 36.33 percent of animal sheds had provision of pucca drainage facility of urine while remaining 63.67 percent had no drainage facility in the survey area, and Singh *et al.*, (2015) [19] proclaimed that 59.45 percent of animal shed had poor drainage system. However, the results are different from the findings reported by modi (2003) [10] stated that 82.0 percent of respondents provided pucca drains.

About 48.00 percent farmers followed the practice of cleaning an animal shed twice a day followed by 34.00 percent of farmers who followed cleaning of sheds once a day or cleaning of sheds when required and remaining farmers, 18.00 percent followed cleaning of shed thrice a day. Only 36% of farmer had row system of housing remaining 64% respondents reared their animal in random way. Out of 36%, 18 % and 14% of the owner had tail to tail and single row housing system. Only 5% cattle owner provided separate housing facilities for sick and pregnant animals. It was observed that 12 % of the cattle owner used fan/cooler in cattle shed during summer season. Majority of the farmers, 85.00 % had provision of shade from trees for their animals, while the rest, 15.00 percent did not provide their animals a provision of shade from trees. This shows that the farmers are aware of protecting their animals from heat stress. Similar

results were reported by Bhardwaj *et al.* (2003) ^[3] and Sabapara *et al.*, (2010) ^[14].

Conclusion

It can be concluded that the adoption of overall existing housing and breeding practices was good except for kuccha floor, poor drainage facility in the animal sheds and availability of veterinary services of a qualified veterinarian was poor and needs to be improved. Awareness camps and training programmes regarding scientific animal housing, and breeding management practices will help in improving the husbandry practices in the future.

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