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Housing and Feeding Practices of Dairy Animals in Eastern Uttar Pradesh

ORIGINAL ARTICLE



Authors

Shiv Bachan,

Assistant Professor, Department of Animal
Husbandry & Dairying, U.P. College,
Varanasi, Uttar Pradesh, INDIA

R.K. Pal,

Assistant Professor, Department of Animal
Husbandry & Dairying, T.D. College,
Jaunpur, Uttar Pradesh, INDIA

Ashutosh Singh Yadav,

Assistant Professor, Ma Sharda PG College,
Shambhupur Gahazi,
Azamgarh, Uttar Pradesh, INDIA

Abstract

Rendering protection, neat, clean and dry place for animal roping is an important aspect of animal care and management. According to table most urban dairy owners were having kaccha shed, however pucca was in rural. Particularly buffalo was loosely maintained by urban area dairy owners near to house. Animal was reared under natural conditions. Only some, well- managed farms covered by the tarpaulin. In rural area sheds were commonly made locally available materials, eg, sugar-cane leaf and bamboos. Some-trained dairy owners used bricks and corrugated asbestos sheets for their livestock sheds. Good quality of feeds and fodder are essential for production and productivity of dairy animals. Green fodder availability varied from owner to owner, area to area and animals to animals. Green fodder availability was maximum in rural area than urban area. Over 86% dairy owners were providing only dry fodder to their animals in urban area. However, in rural area it was 88.93%. There was minimal difference in the feeding of cow and buffalo.

Key Words

Housing, Feeding, Animals, Fodder, Kachha, Pucca.

Introduction

Mostly urban area dairy owners established their shed on public or private land due to do not have our own land. Hence, they could not made pucca sheds. Pucca shed required all types of facilities such fan, water cooler, water supply, electricity etc. all these facilities are not available at dairy shed, so maintained dairy animals are difficult in pucca shed, they are hot in summer season. Kaccha sheds or loose house are cheap and make easily. If needed they can be removed another place, dairy owners are recommended such type of sheds. Rural areas dairy owners had more pucca sheds compare to urban areas dairy producers. Fodder growing was not major activity in urban areas because owners had less agricultural land, dairy owners was interested growing cash crops is creating high cost of green fodder as well as big gap between demand and supply raised by less area under fodder crops. Small land holding is a major problem of space and loose housing system they do not store wheat straw for long time. That reason the urban dairy owners are dependent

on market for feeds and fodder. The green fodder availability varied from owner to owner, area to area and animals to animals. Green fodder availability was maximum in rural area than urban area. Over 86% dairy owners were providing only dry fodder to their animals in urban area. However, in rural area it was 88.93%. There was minimal difference in the feeding of cow and buffalo.

Materials and Methods

The information was collected from Eastern Uttar Pradesh which contribute for about 25% of dairy animal's population in the state. Eastern Uttar Pradesh has 24% of the total female bovine population which is highest than any other respective part of U.P. The Varanasi division of eastern Uttar Pradesh is large compare to other two divisions.

Two districts of Varanasi divisions were selected randomly. The districts were Varanasi and Ghazipur. Data on urban trust or developed colonies of the districts was founded. These colonies constitute to the urban area of the two districts. Accordingly, the selected districts were stratified into two strata viz. (i) urban area and (ii) rural area. From each area, two sampling units (first phase sampling units) were randomly selected.

A complete list of wards of selected colonies (urban strata) and villages (rural strata) was prepared, two wards from each colony and two villages from each community development block were randomly selected as phase-II sampling, units. A random sample of 10 milk producers was selected from each ward/village using proportional allocation method with respect to the total number of the milk producers in each category. In this way 40 milk producers were selected from 4 wards of urban strata and 40 milk producers from 4 villages of rural strata, making a total sample of 80 milk producers for study.

Results and Discussion

This is a basic chapter of study and contains the analytical results based on the face to face and door to door interaction and interview of 80 dairy owners of urban and rural areas. The investigation was carried out during 2020-2021 and 2021-2022.

Rural area dairy shed was more capacious compared to urban areas cattle shed, but they were muddy. Urban area small and medium dairy owners farm shed was comparatively minimal muddy than rural areas animal shed. All the sheds were near to houses. Only 5% dairy owners were following the face-to-face system of animals tying and remaining were the other system as tying animals in row. circle, here and there. About 90% and over dairy owners were not aware the advance technology.

Table 1: Status of Dairy Shed on Sampled Dairy Farms

Particulars	No. of Sampled Dairy Owners	Type of Infrastructure			Space		Drainage		Awareness about Improved Systems	
		Kachcha	Pucca	Others	Congested	Spacious	Well drained	Muddy	Yes	No
Urban Small	16.00	40.00 (6.40)	25.00 (4.00)	35.00 (5.60)	18.00 (2.88)	82.00 (13.60)	20.00 (3.20)	80.00 (12.80)	0.00 (0.00)	100.00 (16.00)
Medium	12.00	50.00 (6.00)	35.00 (4.20)	15.00 (1.80)	14.00 (1.68)	86.00 (10.32)	50.00 (6.00)	50.00 (6.00)	20.00 (2.40)	80.00 (9.60)
Large	12.00	60.00 (7.20)	25.00 (3.00)	15.00 (1.80)	35.00 (4.20)	65.00 (7.80)	25.00 (3.00)	75.00 (9.00)	20.00 (2.40)	80.00 (9.60)
Mean	13.33	50.00 (5.87)	28.33 (3.73)	21.67 (3.06)	22.33 (2.92)	77.52 (1.57)	31.67 (3.33)	68.33 (9.27)	13.33 (1.60)	86.67 (11.73)
Rural Small	16.00	60.00 (9.60)	25.00 (4.00)	15.00 (2.40)	15.00 (2.40)	85.00 (13.60)	40.00 (6.40)	60.00 (9.60)	10.00 (1.60)	90.00 (14.40)
Medium	12.00	70.00 (8.40)	15.00 (1.80)	15.00 (1.80)	0.00 (0.00)	100.00 (12.00)	35.00 (4.20)	65.00 (7.80)	12.00 (1.44)	88.00 (10.66)
Large	12.00	35.00 (4.20)	65.00 (7.80)	0.00 (0.00)	25.00 (3.00)	75.00 (9.00)	35.00 (4.20)	65.00 (7.80)	33.00 (3.96)	67.00 (8.04)
Mean	13.33	55.00 (7.67)	35.00 (4.33)	10.00 (1.33)	13.33 (1.67)	86.67 (11.67)	36.67 (6.33)	63.33 (7.00)	18.33 (2.00)	81.67 (11.33)
Overall Mean	13.33	53.79 (7.17)	28.73 (3.83)	17.48 (2.33)	17.48 (2.33)	82.52 (11.00)	36.23 (4.83)	63.77 (8.50)	8.78 (1.17)	91.22 (12.15)

(Source: Primary Data)

According to table-1. most urban dairy owners were having kaccha shed, however pucca was in rural. Particularly buffalo was loosely maintained by urban area dairy owners near to house. Animal was reared under natural conditions. That house was having not roof on the pens and they were open in all time to rain and sun, around the year. Some-trained dairy owners used bricks and corrugated asbestos sheets for their livestock sheds. Some of the livestock owners having other type of tin and asbestoses. Shelter irrespective of rural and urban were more specious in 83.52% cases. Urban area shed was comparatively congested to rural area (22.51%).

Table 2: Place of Animal Tethering on Sampled Dairy Farms

Particulars	No. of Dairy Owners	Type		Drainage		Shed	
		Pucca	Kaccha	Drained	Muddy	Covered	Un-Covered
Urban Small	100.00 (16.00)	35.00 (5.60)	65.00 (10.40)	54.00 (13.00)	46.00 (8.64)	80.00 (12.80)	20.00 (3.20)
Medium	100.00 (12.00)	16.00 (1.92)	84.00 (10.08)	40.00 (4.80)	60.00 (7.20)	100.00 (12.00)	0.00 (0.00)
Large	100.00 (12.00)	20.00 (2.40)	80.00 (9.60)	30.00 (3.60)	70.00 (4.80)	75.00 (9.00)	25.00 (3.00)
Mean	100.00 (13.33)	23.67 (3.31)	76.33 (10.02)	41.33 (7.13)	58.67 (6.28)	85.00 (11.27)	15.00 (2.07)
Rural Small	100.00 (16.00)	45.00 (7.20)	55.00 (8.80)	80.00 (12.80)	20.00 (3.20)	90.00 (14.40)	10.00 (1.60)
Medium	100.00 (12.00)	25.00 (3.00)	75.00 (9.00)	75.00 (9.00)	25.00 (3.00)	100.00 (12.00)	0.00 (0.00)
Large	100.00 (12.00)	16.00 (1.92)	84.00 (10.08)	34.00 (4.08)	66.00 (7.92)	84.00 (10.08)	16.00 (1.92)
Mean	100.00 (13.33)	23.48 (3.00)	67.00 (10.33)	63.00 (9.33)	37.00 (4.00)	91.33 (12.33)	9.50 (1.00)
Overall Mean	100.00 (13.33)	19.99 (2.26)	80.01 (10.67)	54.99 (7.33)	45.00 (6.00)	86.27 (11.50)	13.73 (1.83)

(Source: Primary Data)

Figures in Percentage are the number of dairy owners. Place of tethering have direct relation to physical and veterinary problems for dairy animals. Data has been presented in Table-2. All dairy owners had the kaccha floor for animal shed. Among these, Medium dairy owners were having maximum 84% kaccha floor followed by large 80.00% and small 65% in urban area. The urban dairy owners floor shed was well -drained but muddy. The situation was better in rural area than urban area concerned to drainage. 80.01% dairy owners were having kaccha floor in rural areas. Covered shed (86.27%) was higher in rural area than urban area (85%).

Table 3: Status of feed and Fodder Availability on Sampled Dairy Farms

Percent

Particulars	No of Dairy Owners	Feed Availability		Dairy Owners View	
		Owned	Purchased	Sufficient	Deficient
Urban Small	100.00 (16.00)	13.00 (2.08)	87.00 (13.92)	45.00 (7.20)	55.00 (8.80)
Medium	100.00 (12.00)	14.00 (1.68)	86.00 (10.32)	25.00 (3.00)	75.00 (9.00)
Large	100.00 (12.00)	14.00 (1.68)	86.00 (10.32)	38.00 (4.56)	62.00 (7.44)
Mean	100.00 (13.33)	13.67 (1.67)	86.33 (11.67)	36.00 (4.92)	64.00 (8.41)
Rural Small	100.00 (16.00)	90.00 (14.40)	10.00 (1.60)	100.00 (16.00)	0.00 (0.00)
Medium	100.00 (12.00)	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	0.00 (0.00)
Large	100.00 (12.00)	90.00 (10.80)	10.00 (1.20)	85.00 (10.20)	15.00 (1.80)
Mean	100.00 (13.33)	93.33 (12.44)	6.67 (0.89)	95.00 (12.66)	5.00 (0.67)
Overall Mean	100.00 (13.33)	52.51 (7.00)	47.51 (6.33)	68.77 (9.17)	31.26 (4.17)

(Source: Primary Data)

Animal health and productivity are direct related to availability of feed and fodder. Percent values for availability of feeds and fodder regarding to it sufficiency has been presented according to dairy view in table-3. A perusal of information let out that more than 86.00% of urban dairy owners were not having their own feeds, deficiency of feeds and fodder are also found in urban area. All the dairy owners purchased of feeds and dependent on markets. Deficiency of feeds and fodder of medium dairy owner was (75%) and small (55.00%) in urban area. Own feed and fodder were conserving by dairy owners in rural area and dairy producers had enough feed and fodder compare than urban areas. Rural area dairy farmers have agricultural land and many livestock keepers grown some fodder crops for their animals. The wheat and paddy straw produced in their fields and stored first for their animals in sufficient quantity. Rural area dairy owners have more feeds and fodder for animals than urban aera.

Table 4: Green Fodder Feeding Practices on Sampled Dairy Farms

Percent

Particulars	No of Sampled Dairy Owner	Buffalo				Cow			
		Frequency		Chaffing and Mixing With Straw		Frequency		Chaffing and Mixing with Straw	
		Daily	As per Availability	Yes	No	Daily	As per Availability	Yes	No
Urban Small	100.00 (16.00)	24.00 (3.84)	76.00 (12.16)	15.00 (2.40)	85.00 (13.60)	0.00 (0.00)	100.00 (16.00)	15.00 (2.40)	85.00 (13.60)
Medium	100.00 (12.00)	25.00 (3.00)	75.00 (9.00)	28.00 (3.36)	72.00 (8.64)	0.00 (0.00)	100.00 (12.00)	25.00 (3.00)	75.00 (9.00)
Large	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	14.00 (1.68)	86.00 (10.32)	14.00 (1.68)	86.00 (10.32)	50.00 (6.00)	50.00 (6.00)
Mean	100.00 (13.33)	16.33 (2.28)	83.67 (11.04)	19.00 (2.48)	81.00 (10.85)	24.67 (0.56)	95.33 (12.94)	30.00 (3.80)	70.00 (9.33)
Rural Small	100.00 (16.00)	100.00 (16.00)	0.00 (0.00)	100.00 (16.00)	0.00 (0.00)	100.00 (16.00)	0.00 (0.00)	100.00 (16.00)	0.00 (0.00)
Medium	100.00 (12.00)	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	0.00 (0.00)
Large	100.00 (12.00)	75.00 (9.00)	25.00 (3.00)	100.00 (12.00)	0.00 (0.00)	75.00 (9.00)	25.00 (9.00)	100.00 (8.00)	0.00 (0.00)
Mean	100.00 (13.33)	91.67 (12.22)	8.33 (1.11)	100.00 (13.33)	0.00 (0.00)	91.67 (12.22)	8.33 (1.11)	100.00 (13.33)	0.00 (0.00)
Overall Mean	100.00 (13.33)	56.51 (7.67)	43.51 (5.57)	57.76 (7.83)	42.24 (5.50)	48.26 (6.50)	51.26 (6.83)	62.52 (8.33)	37.50 (5.00)

(Source: Primary Data)

Feeding practices of green fodder adopted at sampled dairy farms are presented in Table-4. Fodders are not available for feeding of milch animals in urban areas. Only 24.00% of livestock owners were provided green fodder to animals, the chaffing of fodder and mixing with straw was followed by 15% of owners. Remain of dairy owners were provided un-chaffed fodder to the animals. The chaffing practices and mixing in wheat straw was highest in medium dairy owners. The availability of was quite differ in rural areas where 100% of owners were giving daily green fodder daily. All the dairy farmer were providing green fodder just after chaffing and mixing with straw.

Table 5: Practices of Dry Fodder and Concentrate Feeding on Sampled Dairy Farms

Percent

Particulars	No. of Sampled Dairy Owners	Feeding of Straw		Feeding Concentrate		Frequency of Feeding Concentrate	
		Dry	Wet	Properly	Sprinkle	During	Only
		Urban Small	100.00 (16.00)	85.00 (13.60)	15.00 (2.40)	15.00 (2.40)	85.00 (13.60)
Medium	100.00 (12.00)	86.00 (10.32)	14.00 (1.68)	0.00 (0.00)	100.00 (12.00)	12.00 (1.44)	88.00 (10.56)
Large	100.00 (12.00)	100.00 (12.00)	0.00 (0.00)	25.00 (3.00)	75.00 (9.00)	25.00 (3.00)	75.00 (9.00)
Mean	100.00 (13.33)	90.33 (12.04)	9.67 (0.75)	13.33 (1.78)	86.67 (11.58)	17.33 (2.31)	82.67 (11.01)
Rural Small	100.00 (16.00)	0.00 (0.00)	100.00 (16.00)	100.00 (16.00)	0.00 (0.00)	100.00 (16.00)	0.00 (0.00)
Medium	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	0.00 (0.00)
Large	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	100.00 (12.00)	0.00 (0.00)	100.00 (12.00)	0.00 (0.00)
Mean	100.00 (13.33)	0.00 (0.00)	100.00 (13.33)	100.00 (13.33)	100.00 (13.33)	100.00 ()	0.00 (0.00)

(Source: Primary Data)

Method of concentrate feeding plays an important role in proper feed utilization and increasing production and productivity of dairy animals. The discussion regarding dry fodder and concentrate feeding have been summarized in Table-5. It indicates that 86% medium dairy owners of urban area were given feed to animals as dry or mixing with little quantity of water and large urban livestock owners do not soak or even wet the straw with water to fed animals. There were only 15% and 14% small and medium dairy owners who provide straw after mixing with water. Dairy owners of rural areas were providing straw only after proper mixing with water.

The concentrate feeding after proper mixing was used by 13.33% of urban dairy owners. Table indicates that 86.67% owners provided the concentrate by sprinkling over the feed. It is notable that such practices of concentrate feeding were regularly followed during milking. Feeding practices of concentrates in rural areas was quite before milking after soaked and mixed with straw.

Conclusion

Animal husbandry is closely related with agriculture and play an important role in urban as well as rural economy and inculcating living standard of dairy producers. The feeding practices followed during different seasons also have significant effect on health and lactation yield of animals.

Most of the dairy owners belongs to urban areas do not have or have very less own land so they establish shed on public land, parks, etc. They maintain animals in open or loose system with no or partial arrangements of protection from solar radiation and rains. Animal sheds are specious but muddy. Despite unhygienic conditions owners follow weekly cleaning practices. All the owners follow fumigation to keep insects away.

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