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Analysis of Deoni cattle housing and health care management practices in Telangana

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Abstract

An investigation was carried out to study the Deoni cattle housing and health care management practices in Telangana state. The data was collected from 150 farmers, selected by stratified random sampling technique. The information on housing and health care management practices were collected by using a pretested interview schedule through personal contact. Analysis of the data revealed that majority of Deoni cattle owners were keeping their animals in loose housing system in kutch type of houses. Kutch type of floor was more prevalent in the animal sheds and flooring material also varied in the study area. Roofing material used were thatched material followed by GI and asbestos sheets. Vaccination schedule, incidence of diseases and reproductive disorders were significant ($P < 0.01$) among the two districts.

Keywords: Deoni cattle, housing, health care management practices, Telangana

Introduction

Livestock plays an important role in Indian economy in terms of contribution through production of milk, meat, manure, draught and employment to rural people. There are about 190.9 million cattle in India, out of which 151.17 million are indigenous and 39.73 million are crossbred/exotic cattle. Among the indigenous cattle, only 22.21 million heads have been described and categorized into 42 recognized breeds by NBAGR. One among them is the Deoni cattle breed (Gandhi, 2018) [3]. Deoni cattle are known for draught capacity, heat tolerance, disease resistance and adaptability to harsh climatic conditions. The lactation milk yield of cows was 868 litres with 4.3 percent of fat and bullocks are suitable for heavy cultivation and carting works (Suryavamshi *et al.* 2000) [16]. The population of Deoni cattle in Telangana is about 76,436. Traditionally, Deoni cattle are maintained under a semi-intensive system of management. They are usually reared by grazing in fallow lands, dry lands or bunds of the farms. Deoni cattle have been the source of livelihood for marginal, small, landless and resource deficit farmers, majority of them having 1-2 cattle in Telangana. No information is available on management practices of Deoni cattle in Telangana. Hence, the present investigation was carried out to analyse the Deoni cattle housing and health care management practices in Telangana.

Materials and Methods

The study was conducted in Kamareddy and Sangareddy districts purposively as these districts are having highest Deoni cattle population in Telangana state. Stratified random sampling technique was used to select the districts, mandals, villages and farmers. In the first stage two districts were selected out of 31 districts based on the availability of larger Deoni cattle population. In the second stage of selection, from each selected district, three mandals were selected to make a total number of 6 mandals. In third stage, from each selected mandal, five villages were selected so as to form a total of 30 villages. In the fourth stage of selection, five Deoni cattle farmers were selected randomly from each village for the present study thus giving a total sample size of 150.

The information on housing and health care management practices were collected by using a pre-tested interview schedule from the Deoni cattle farmers through personal contact. While collecting the data sufficient time was given to the farmers to arrive at values by memory recall method. The data collected during the period of study were scrutinized and tabulated into frequency, percentages, while the significant differences between parameters and frequencies were analysed by Chi-square test using SPSS, version 22.0.1 (Statistical package for social sciences).

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Results and Discussion

Housing management practices

Analysis of Deoni cattle housing management practices is presented in Table 1. majority (93.33%) of Deoni cattle owners were kept their animals in loose houses followed by conventional houses (6.67%) in the study area. It is similar to the findings of Patel *et al.* (2013) [10] and Singh *et al.* (2015) [11] who reported that majority of farmers kept their animals in loose house followed by conventional system of housing. In contrast to this Raquib *et al.* (2009) [13] observed that 98.0 percent farmers kept their animals under conventional type of housing. This clearly indicated that the type of housing system depends upon the agro-climatic condition of the locality and economic condition of farmers.

Majority (89.33%) of Deoni cattle rearing farmers have provided kutcha type of houses followed by pucca (10.67%) type to their animals. Similarly, majority (90%) of farmers provided kutcha type of floor followed by pucca floor (10%) in the sheds. These findings are in agreement with Kuralkar *et al.* (2015) [6] who reported that majority (91.54%) of Deoni

cattle were kept in kutcha type of houses.

According to roofing materials used, majority (69.33%) of the Deoni cattle farmers used thatched material followed by GI (22.00%) and asbestos sheets (8.67%) for covering the sheds. These results are corroborated with Singh *et al.* (2015) [11] and Jatolia *et al.* (2017) [4].

Majority (82.67%) of farmers used mud for flooring followed by stone (5.33%), brick (6.67%) and cement concrete (5.33%) in the study area. These findings were similar to Patel *et al.* (2013) [10] and Mahadev (2014) [7].

About 90.67 percent of farmers closed the sides of sheds with wooden logs and remaining 9.33 percent used bricks to construct the side walls. These findings are similar to the findings of Malsawmdawgliana and Rahman (2016) [9] who reported that majority of farmers (97.0%) used bamboo for the construction of side walls in Mizoram. Mahadev (2014) [7] reported that stone walls and unplastered wall surfaces were most common in the pucca houses of Deoni cattle in Bidar district.

Table 1: Deoni cattle housing practices in the study area

S. No	Housing practices	Kamareddy (N=75)	Sangareddy (N=75)	Total (N=150)	Chi square Value	
1	Housing system	Conventional	3 (4.00%)	7 (9.33%)	10 (6.67%)	1.71 ^{NS}
		Loose	72 (96.00%)	68 (90.67%)	140 (93.33%)	
2	Type of house	Kutcha	65 (86.67%)	69 (92.00%)	134 (89.33%)	1.12 ^{NS}
		Pucca	10 (13.33%)	6 (8.00%)	16 (10.67%)	
3	Roof	Thatch	54 (72%)	50 (66.67%)	104 (69.33%)	2.33 ^{NS}
		Stone	0	0	0	
		GI sheet	13 (17.33%)	20 (26.66%)	33 (22.00%)	
		Asbestos sheet	08 (10.67%)	05 (6.67%)	13 (8.67%)	
4	Floor	Kutcha	69 (92.00%)	66 (88.00%)	135 (90.00%)	0.66 ^{NS}
		Pucca	06 (8%)	9 (12.00%)	15 (10.00%)	
5	Material used	Mud	61 (81.33%)	63 (89.33%)	136 (90.67%)	1.43 ^{NS}
		Stone	03 (4.00%)	05 (6.67%)	05 (3.33%)	
		Brick	06 (8.00%)	4 (5.33%)	10 (6.61%)	
		Cement	05 (6.67%)	03 (4%)	08 (5.33%)	
6	Walls	Stone	0	0	0	2.84 ^{NS}
		Brick	04 (5.33%)	10 (13.33%)	14 (9.33%)	
		Wood	71 (94.65%)	65 (86.67%)	136 (90.67%)	
7	Feed manger	None	30 (40.00%)	18 (24.00%)	48 (32.00%)	5.57 ^{NS}
		Wooden log	33 (44%)	46 (61.33%)	79 (52.67%)	
		Stone	06 (8.00%)	5 (6.67%)	11 (7.33%)	
		Cement pipe	2 (2.67%)	3 (4.00%)	5 (3.33%)	
		Constructed	04 (5.33%)	03 (4%)	07 (4.67%)	
8	Interval of cleaning sheds	Occasionally	02	5	7	

		(2.67%)	(6.67%)	(4.67%)	1.35 ^{NS}
	Monthly	0	0	0	
	Daily	73 (97.33%)	70 (93.33%)	143 (95.33%)	
	Once in a year	0	0	0	

Parenthesis in the table indicates percentages NS- Non- significant

Majority (68.0%) of Deoni cattle farmers provided mangers for feeding while 32.0 percent didn't provide feed manger in the sheds. Among those provided mangers in the sheds, majority (52.67%) of them constructed the feed manger with wooden logs followed by stone (7.33%), cement (4.67%) and cement pipes (3.33%). These results are similar to the findings of Patel *et al.* (2013) [10] and Sabapara *et al.* (2015) [14] who have reported that majority of farmers provided mangers to their animals. Dhaliwal and Dhillon (2017) [2] observed that pucca and wooden assisted type of mangers were provided by 83.0 and 17.0 percent of farmers, respectively in Bathinda district of Punjab.

It was noticed from the Table 1 that majority (95.33%) of farmers cleaned their animal sheds daily followed by occasionally (4.67%). This finding was in agreement with the finding of Singh *et al.* (2015) [11] who reported that 85.56 percent of the respondents cleaned the animal sheds every day in Ranchi.

Health care management practices

Perusal of the data in the Table 2 revealed that, majority (90.0%) of the farmers followed the practice of vaccination of animals while 10.0 percent of farmers didn't follow the same and 28.67 percent of farmers followed the regular vaccination schedule in the study area. There was a significant difference ($P \leq 0.01$) between the two districts. This might be due to regular and free immunization programmes being taken up by the state Animal Husbandry department in Telangana. The rate of adoption of vaccination was similar to the findings of Akila and Chander (2010) [1], Prajapati *et al.* (2015) [11] and Sabapara *et al.* (2015) [9].

Majority (78.66%) of Deoni cattle rearing farmers reported that their animals were suffered with non-infectious diseases like pyrexia, anorexia etc., followed by infectious diseases like HS (10.00%), BQ (6.67%) and FMD (4.67%). There was a significant difference ($P \leq 0.01$) between the incidence of diseases and study area. This might be due to that the Deoni cattle are hardy in nature and have more innate immunity against infectious diseases. These results are in agreement with Akila and Chander (2010) [1] who observed that majority (63.0%) of draught animals suffered with pyrexia followed by yoke gall (28.0%), lameness (23.0%), injuries (13.0%) and only 5.0 percent were suffered with FMD.

Majority (80.67%) of farmers got treated their sick animals by para veterinarians followed by veterinarian (19.33%). This might be due to that para veterinarian were more

approachable than the veterinarian for treatment of sick animals in the study area. These results are similar to the findings of Prajapati *et al.* (2015) [11], Sabapara *et al.* (2015) [9] who had reported in their studies that majority of sick animals were got treated either by farmers themselves, quacks or para veterinarians.

None of the farmers followed the practice of isolation of sick animals from the healthy animals. Similar findings were reported by Mahila (2013) [8]. It was also observed from the table 2 that 97.33% percent of the farmers threw their dead animal in open fields whereas only 2.67 percent of the farmers buried the carcasses. The rate of adoption of this practice was in contrary to the finding of Rajasekhar (2017) [12] who observed that 96.0 percent of peri urban dairy farmers disposed of the carcass by burying in Telangana.

Majority (90.0%) of the farmers practiced the deworming of calves while 10.0 percent of the farmers didn't practice the deworming of their calves. The rate of adoption of this practice was in agreement with the findings of Parajapati *et al.* (2015) [11] who reported that 61.6, 21.3 and 17.0 percent of the respondents dewormed their calves at regular interval, occasionally and not practiced at all, respectively in south Gujarat. In contrast to this Malsawmdawngliana and Rahman (2016) [9] reported that 76.00 percent of dairy farmers didn't practice deworming of calves in Mizoram.

Regarding, deworming of adult animals only 14.67 percent of the farmers practiced and 85.33 percent of the farmers were didn't practice the same in the study area. It indicated that the adult dairy animals were dewormed as and when required but not as a preventive measure in the study area. These findings are corroborated with the observations of Yadav *et al.* (2009) [17], Kumar *et al.* (2014) [5] and Malsawmdawngliana and Rahman (2016) [9].

Majority (68.67%) of farmers reported that anoestrus was a major reproductive disorder followed by repeat breeding (14.67%), abortions (13.33%) and retained placenta (3.33%) in Deoni cattle. There was a significant difference ($P \leq 0.01$) between the reproductive disorders and study area. This could be due to either continuous suckling of calves or poor nutritional condition of animals in the study area. These results are in contrary to the findings of Rajasekhar (2017a) [12] who reported that repeat breeding (50.0%) was major reproductive disorder followed by anoestrus (40.0%), retention of placenta (8.0%) and abortions (2.0%) in urban and peri urban areas of Telangana.

Table 2: Deoni cattle health care management practices of Deoni cattle in Telangana

S. No	Health care practices	Kamareddy (N=75)	Sangareddy (N=75)	Total (N=150)	Chi square value	
1	Vaccination of animals	Followed	70 (93.33%)	65 (86.67%)	135 (90%)	1.85 ^{NS}
		Not followed	05 (6.67%)	10 (13.33%)	15 (10%)	
2	Vaccination schedule	Followed	07 (9.33%)	36 (48.0%)	43 (28.67%)	27.42**
		Not followed	68 (90.67%)	39 (52.0%)	107 (71.33%)	

3	Incidence of diseases	HS	12 (16.0%)	03 (4.0%)	15 (10%)	12.58**
		BQ	08 (10.67%)	02 (2.67%)	10 (6.67%)	
		F& MD	06 (8.0%)	01 (1.33%)	07 (4.67%)	
		Others	49 (65.33%)	69 (92.0%)	118 (78.66%)	
4	Isolation of sick animals	Followed	0	0	0	0.00 ^{NS}
		Not followed	75 (100%)	75 (100%)	150 (100%)	
5	Treatment of sick animals	By Vets	17 (22.67%)	12 (16.0%)	29 (19.33%)	1.07 ^{NS}
		By Para vets	58 (77.33%)	63 (84%)	121 (80.67%)	
		Self	0	0	0	
6	Disposal of carcass	Thrown in open fields	71 (94.67%)	75 (100%)	146 (97.33%)	4.11 ^{NS}
		Buried	04 (5.33%)	0	04 (2.67%)	
		Burnt	0	0	0	
7	Deworming of calves	Practiced	65 (86.67%)	70 (93.33%)	135 (90%)	1.85 ^{NS}
		Not practiced	10 (13.33%)	05 (6.67%)	15 (10%)	
8	Deworming of adults animals	Practiced	14 (18.67%)	08 (10.67%)	22 (14.67%)	1.92 ^{NS}
		Not practiced	61 (81.33%)	67 (89.33%)	128 (85.33%)	
9	Reproductive disorders	Still births	0	0	0	25.99**
		Abortions	03 (4.0%)	17 (22.67%)	20 (13.33%)	
		Retained Placenta	3 (4.0%)	2 (2.67%)	5 (3.33%)	
		Repeat breeder	04 (5.33%)	18 (24.0%)	22 (14.67%)	
		Anestrus	65 (86.67%)	38 (50.67%)	103 (68.67%)	

Parenthesis in the table indicates percentages NS- Non- significant, **Significant ($P < 0.01$)

Conclusion

The overall housing management practices of Deoni cattle adopted by farmers in the study area were traditional and largely depended upon the local agro- climatic conditions and floor, roof and manger were built based on the locally available materials. Deoni cattle were regularly immunised but schedule of immunization was varied. Deoni cattle was hardy in nature and the incidence of infectious diseases was very low and anoestrus was a major reproductive disorder.

References

- Akila N, Chander M. Management practices followed for draught cattle in the southern part of India. *Tropical Animal Health and Production*. 2010; 42(2):239-245.
- Dhaliwal APS, Dhillion GS. Management Practices Followed by Dairy Farmers in Rural and Urban Areas of Bathinda District in Punjab. *Journal of Krishivigyan*. 2017; 6(1):124-127.
- Gandhi RS. Breeding strategies for enhancing productivity of indigenous cattle. Smallholders livestock producers' in India. Invited paper presented during national conference -ISAPM held at SDAU, SK Nagar. 2018; 1:2-8
- Jatolia P, Jingar SC, Meena SM, Lawania P, Bugaliya HL, Kumar D. Existing Management Practices of Buffaloes Owners in Udaipur District of Rajasthan, India. *International Journal of Current Microbiology and Applied Sciences*. 2017; 6(8):2103-2108.
- Kumar S, Jain A, Gupta AK. Studies on Breeding, Health Care and Milking Management Practices Adopted by the Dairy Owners in Shardlow District of MP, India. *International Research Journal of Biological Sciences*. 2014; 3:32-36.
- Kuralkar SV, Kuralkar P, Dhaware SA, Bankar PS, Chopade MM. Status, management practices and performance in three strains of Deoni breed of cattle. *Indian Journal of Animal Research*. 2015; 49(6):752-756
- Mahadev PV. Critical Appraisal of the management practices of Deoni cattle in Bidar District. Doctoral dissertation, Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar, 2014.
- Mahila V. Study on management practices of Kankrej cattle in Western Rajasthan. Doctoral dissertation, Rajasthan University of Veterinary and Animal Sciences Bikaner-334001, 2013.
- Malsa Malsawmdawngliana R, Rahman S. Management practices followed by the dairy farmers of Mizoram, India. *Journal of Livestock Science*. 2016; 7:220-225.
- Patel NB, Saiyed LH, Rao TKS, Ranjeetsingh R, Modi RJ, Sabapara GP. Status and constraints of Dairying in the tribal households of Narmada Valley of Gujarat-India. *Animal Science*. 2013; 7(3):31-37
- Prajapati VS, Singh RR, Kharadi VB, Chaudhary SS. Status of breeding and health care management practices

- of dairy bovines in the rural and urban areas of South Gujarat of India. *Journal of Animal Science Advances*. 2015; 5(11):1514-1521
12. Rajasekhar M, Rajanna N, Mahender M, Satyanarayana CH. Comparative study of feeding and breeding management practices of dairy farmers in two different production systems. *Asian Journal of Dairy and Food Research*. 2017; 36(4):269-272
 13. Raquib M, Bhat GA, Sahnaz S, Khan AA, Banday MT, Bhakat M. Dairy management of bovines in Gandherbal District. *Indian Dairyman*. 2009; 61(6):42-45.
 14. Sabapara GP, Fulsoundar AB, Kharadi VB. Milking and health care management practices followed by dairy animal owners in rural areas of Surat District. *Scholars Journal of Agriculture and Veterinary Sciences*. 2015; 2(2A):112-117.
 15. Singh M, Chakravarty R, Bhanotra A, Kumar M. Dairy animal health and housing management practices followed by tribal dairy farmers of Ranchi, Jharkhand. *International Journal of Farm Sciences*. 2015; 5(3):199-206.
 16. Suryavamshi SM, Siddique MF, Dhumal MV, Arudhakar SK, Borasaika A. A comparative review on Deoni cattle breed of Maharashtra. *International conference on small holder livestock production system in developing country*. 2000, 24-27
 17. Yadav CM, Bhimawat BS, Khan PM. Existing breeding and healthcare practices of cattle in tribals of Dungarpur district of Rajasthan. *Indian Research Journal of Extension Education*. 2009; 9(1):36-38.