



E-ISSN: 2278-4136
P-ISSN: 2349-8234
JPP 2018; 7(2): 1132-1135
Received: 24-01-2018
Accepted: 28-02-2018

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Constraints in goat and sheep husbandry practices in Allahabad district of Uttar Pradesh, India

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Abstract

A field survey was conducted to assess the constraints faced by the small ruminant farmers in Allahabad district of Uttar Pradesh, India. A well structured questionnaire was administered to 120 goat and sheep farmers randomly selected in 14 villages of Chaka block of Allahabad district. The present study showed that bloat is most common disease affecting goats and respiratory disease was common disease affecting sheep. The major constraints to small ruminants production was lack of grazing area. Majority 95.6% of the goat farmers and 92.6% of the sheep farmers reported that lack of grazing land followed by lack of awareness, high cost medicine, poor management system, inadequate capital, high cost of feed, disease problem and poor marketing.

Keywords: constraints, diseases, farmer, goat, sheep

Introduction

Small ruminant rearing significantly contributes to the livelihood security of the poor farmers, even under such challenging environmental conditions as inadequate rainfall, very high temperatures and poor soil fertility. Goat and sheep is widely distributed in all agro-ecological zones of India and plays a very vital role in the livelihood security of the small and marginal farmers and landless agricultural famers. In India goats are reared mainly by the small and marginal farmers, including landless agricultural labourers ^[1]. Raising of goats and sheep for backyard farming or for commercial scale is cheaper and easier to manage than other livestock animals. By habit, goats and sheep are browsers and like to eat many varieties of plants. Tethering system is very common in goat. Goat and sheep raising is good in the uplands where leguminous forage and fodder crops including grasses abound. They are also used as holistic tools for land vegetation management since they can trim grasses through browsing thus minimizing the work for clearing the field. With proper grazing management, small ruminants can eliminate noxious weeds and restore native grasses. Small ruminants keeping generates a continuous stream of income and employment, makes it an inevitable component of farmers development because goat and sheep are popular with small holders because of their efficient conversion of feed into edible and high-quality meat, milk and hide. They are not only a source of protein, but they also provide the much needed income.

A survey was conducted in Chaka Block of Allahabad district, Uttar Pradesh by stratified random sampling technique. Fourteen villages from Chaka block were selected for data collection which includes a total of 120 respondents. The researcher communicates with respondents and interviewed with the help of semi-structured questionnaire developed for the purpose and the reliability and validity of the questionnaire was ensured. Lack of grazing facility is one of the important problems faced by the farmer. Lack of knowledge and awareness about the rearing of goat and sheep managerial aspect and knowing about the diseases is one of the important problems for well rearing system uses. Other important problems like high cost of medication and also high cost of feed constraints in carrying out the animal husbandry activities by the tribal community. Hence, the present study was carried out to identify the constraints in small ruminants farming and to suggest suitable policy measures to overcome the hurdles faced by small ruminant farmers.

Materials and Methods

Description of study area

Allahabad district is situated in the alluvial plain of eastern part of Uttar Pradesh. The area of the district is 5482.10 sq km and bordered by Pratapgarh and Jaunpur in north, Varanasi in east and Mirzapur is on the south. Allahabad is located at 25.450N, 81.840E in the southern part of Uttar Pradesh at an elevation 98 meters (322 ft) and stands at the confluence of two, the Ganges and Yamuna.

The atmospheric temperature during the investigation ranged maximum in summer 43.20C and minimum temperature in winter 05.80C. The rainfall during the investigation period recorded 28mm. The population of the district is 49.36 lacks with population density 911 persons per sq km.

Sampling procedure and data collection

A total of 120 respondents were randomly selected through stratified sampling procedure in 14 villages of Chaka block of Allahabad district, Uttar Pradesh. Goat and sheep farmers were interviewed using well structure questionnaires. The question covered information on common diseases in the area and major constraints faced by the farmers in productivity and profitability of small ruminants farming.

Interviewing schedule refers to formal questions asked to the respondents by the interviewer. Interviewing schedule was designed to write questions according to the respondents and relevance of research being conducted. Simple questions were formed which could be easily understood by the farmers.

Data Analysis

The data collected were tabulated and analyzed in the form of frequency, mean and percentage as described by Snedecor and Cochran [2] to draw meaningful inferences.

Result and Discussion

Occurrence of Diseases

Pastoralists in the study areas reported that bloat is the most common disease affecting in goats while respiratory disease has high incidence in sheep. The result revealed that 42.8% of goat and 38.9% of sheep suffered from bloat, while 37.4% of goat and 68.5% of sheep suffered from respiratory problems, 16% of the goat and 48.1% of sheep suffered from diarrhoea, 15.4% of goat and 16.7% of sheep suffered from FMD and 13.2% goat and 11.1% sheep suffered from sudden death (Table 1). This finding is in consistent with observation of Kumar [3] who reported that major diseases that are affecting goat are PPR, anthrax, pox, FMD and pneumonia and Fikru and Omer [4] who reported that the most common disease that affects small ruminants are pneumonia, anthrax, FMD, sheep pox and diarrhoea.

Table 1: Occurrence of diseases

S. No.	Diseases	In Goat	Percentages (%)	In Sheep	Percentages (%)
1.	Diarrhoea	15	16.5	26	48.1
2.	Respiratory disease	34	37.4	37	68.5
3.	FMD	14	15.4	9	16.7
4.	Bloat	39	42.8	21	38.9
5.	Sudden Death	12	13.2	6	11.1

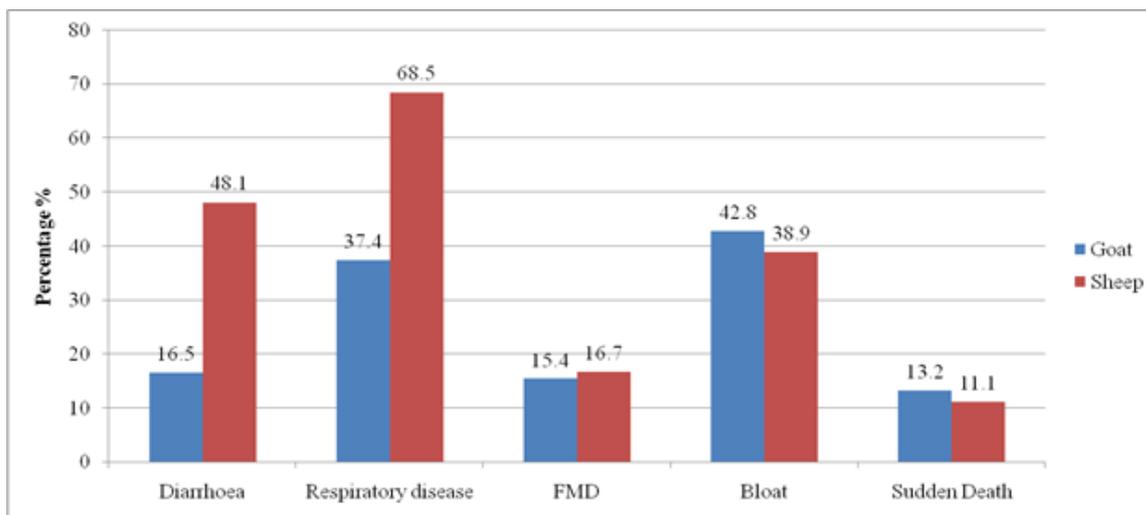


Fig 1: Occurrence of disease

Major constraints in goat and sheep husbandry practices

The major constraints to small ruminants production was lack of grazing area. Majority 95.6% of the goat farmers and 92.6% of the sheep farmers reported that lack of grazing dry season (Table 2). This is in consistent with the observation of Ranganekar *et al.*, [5] who reported lack of grazing facility as major constraint. Similar finding was reported by Landge *et al.*, [6] who stated that 95% of the respondents faced the problem of fodder during summer season. Gujar and Pathodiya [7] stated that lack of grazing land was one of the serious problem faced by goat farmers. Likewise Gopala *et al.*, [8] reported that majority 90% of the respondents reported the constraint of insufficient fodder. Similar findings were reported earlier by Mohan *et al.*, [9] and Sabapara *et al.*, [10] who found 60.3% and of 84.80% of the respondent had lack of grazing land, respectively.

Lack of awareness is an important constraint reported by 93.4% of the goat farmer and 85.2% of the sheep farmer. Similar finding was observed by Debele *et al.*, [11], Sabapara *et al.*, [10] and Deshpande *et al.*, [12] who reported lack of awareness among the farmers as a major constraint to small ruminant production. This finding concurs with the result of Jana *et al.*, [13] who reported lack of knowledge about scientific goat rearing as one of the constraints faced by the farmers.

High cost medicine is one of the causes for high mortality rate among the goat and sheep. Majority of 91.2% of goat owner and 87% of sheep owner faced the problem of high cost of medicine. This finding was in agreement with the observation of Aphunu *et al.*, [14], Sabapara *et al.*, [10] and Deshpande *et al.*, [12] who reported that high cost of

drugs/vaccines were the major constraint faced by the small ruminants farmers.

Poor management system was reported by 83.5% of the goat farmers and 72.2% in sheep farmer. Similar study was conducted by Fakoya and Oloruntoba [15] who reported that 57.5% of the respondents have constraint of poor management system.

Inadequate capital is an important drawback for the growth of the small ruminant farmers. The result revealed that 89% of the goat owners and 75.9% of the sheep owners reported the constraint of lack of capital and absence of financial resources. This is in consistent with the observation of Fikru and Omer [4] who reported that lack of adequate financial resources and absence of credit service were obtained for important the livestock production. Similar finding was obtained by Megnathan *et al.*, [16] who stated lack of capital with a mean score of 53.65% as a major constraint for sheep and goat rearing.

High cost of feed is another constraint faced by 73.6% of the goat farmers and 44.4% of the sheep owner. This finding is consistent with the observation of Harilala *et al.*, [17] who reported that 90.83% of the respondent perceived the problem of high cost of concentrate feed.

Disease problem is one the important problem faced by the 68.1% of goat and 61.5% of sheep farmers. Similar finding

was observed by Jana *et al.*, [13] who reported one the important problem perceived by the respondent was high incidence of diseases. Similar finding was earlier reported by Debele *et al.*, [11] who found that disease is major health problem of small ruminant production and Gopala *et al.*, [8] who stated that perceived by 88.57% of respondents has disease problem as a major constraint.

Poor marketing as constraint was perceived by 60.4% of good farmer and 57.4% of sheep farmer. This finding is supported by earlier reported to Sabapara *et al.*, [10] who stated that marketing infrastructure as a 89.69% reported observed serious problem faced by goat keepers. Similar finding was observed by Wani *et al.*, [18] who reported 52.64% of respondents observed lack of marketing infrastructure as a major constraint. This finding was in consonance with the report of Fikru and Omer [4] who stated constraint of small ruminant production is the lack of consistent marketing of the animals.

Problem of harsh weather was reported by 41.8% of goat farmer and 66.6% of sheep farmers. This finding was in consistent with the observation of Fikru and Gebeyew [19] was reported 46.6% of respondent face the problem of protecting their animals from bad weather.

Table 2: Major constraints in goat and sheep husbandry practices

S. No.	Constraints	In Goat	Percentage (%)	In Sheep	Percentage (%)
1.	High cost of feed	67	73.6	24	44.4
2.	Inadequate capital	81	89	41	75.9
3.	Disease problems	62	68.1	33	61.1
4.	Poor management system	76	83.5	39	72.2
5.	Lack of awareness	85	93.4	46	85.2
6.	Poor marketing	55	60.4	31	57.4
7.	Facility of grazing	87	95.6	50	92.6
8.	High cost of medicine	83	91.2	47	87
9.	Problem of harsh weather	38	41.8	36	66.6

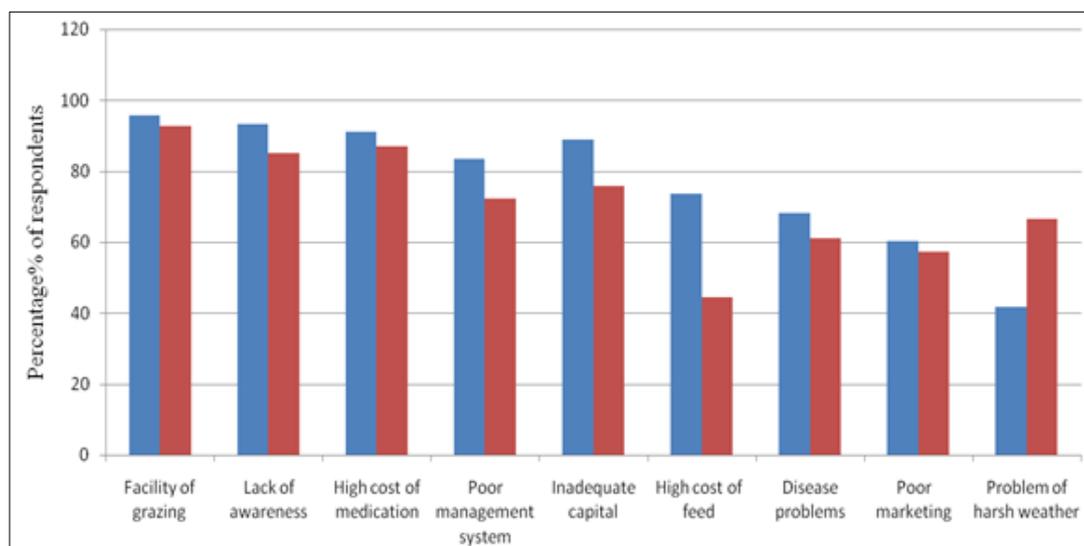


Fig 2: Major constraints in goat & sheep husbandry practice

Conclusion

To create awareness among the goat and sheep farmers to adopt improved scientific goat and sheep rearing practices and to provide regular vaccination for the control of diseases in small ruminant and maximize the profit level and decrease the mortality rate in goat and sheep.

Conflict of interest: None declared

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