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GRAZING AND HOUSING PRACTICES OF SHEEP IN WESTERN RAJASTHAN

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ABSTRACT

A study on grazing and housing management practices of sheep in Jodhpur district of Rajasthan was carried out on 180 sheep farmers. The study revealed that 82.78% of farmers grazed their flocks on the community land resources. Majority of farmers adopted mixed type of grazing practices. Sheep and goats were taken for grazing in mixed flocks. The total time spent for grazing and average distance covered was highest in summer. Majority of farmers adopted open type of housing for their animals. Major watering sources were village ponds, bore wells, hand pumps and house-holds tanks.

Keywords: *Sheep, Community Land Resources, Grazing, Housing and Rajasthan*

INTRODUCTION

The desertic western part of Rajasthan covers an area of approximately 2,13,000 sq. km in north- west India, lying between latitudes of 24°30' N and 30° N, Longitudes of 69°30' E and 76°E. It is the most densely populated desert of the world. The human population density is 84 per sq. km, compared to 3–9 per sq. km in other deserts (Baqri and Kankane, 2001). The livestock population is also very high and is still increasing, *i.e.*, 46-226 per sq km in different districts. Due to the hostile environment, the Thar Desert is considered a fragile ecosystem in which the minor factors may create imbalance in the ecosystem. Despite all these factors, the Thar exhibits a wide variety of habitats and biodiversity (Sharma, 2013).

The area is characterized by high temperature, low rain fall and frequent droughts. In these climatic conditions majority of the farmers engaged in animal husbandry because crop production is not economical. Sheep farming is one of the major sources of economic sustenance for marginal farmers and landless labourers due to low initial investment and easy rearing. Sheep are well adapted to harsh climatic conditions even in scarce water and fodder availability conditions. They act as a means of asset retention with high liquidity and help in absorbing unemployed family labour (Suresh *et al.*, 2007). Small ruminants are widely distributed and are of great importance as major source of livelihood for small holder farmers and the landless in rural communities in developing countries (Tembley, 1998). The aim of the present study was to investigate the feeding and housing practices in sheep of western Rajasthan.

MATERIALS AND METHODS

The study was conducted in Jodhpur district of Rajasthan by covering a total of 180 farmers from 15 villages spread over 3 tehsils. Information on grazing, watering and housing practices was collected through formal interviews using a structured questionnaire personally. On grazing practices information was collected on grazing land resources, type of grazing, age of lamb at grazing, grazing hours and grazing distance. Data regarding type of boundary wall and location of house was also collected. The data were tabulated and percentage was calculated.

RESULTS AND DISCUSSION

Grazing

Sheep are mainly grazers, they prefer 50% grasses, 30% forbes and 20% shrubs. They never eat grown up trees. During rainy season different types of grasses are available for the grazing. In winters flocks are grazed on stubbles of post harvested feeds and from March to June they are fed on different types of shrubs. Fodder trees are also important source during summer season when the crop lands or the common

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pastures are devoid of vegetation (Jat *et al.*, 2006). Supplementary feeding was not a general practice, only pregnant females and male lambs were fed with some dry fodder. In the study area, sheep are reared on zero input system. Mostly community land resources were used for grazing (82.78%). 15% used their own lands and only 2.22% sheep breeders used hired lands (Table 1). Similar finding were also observed by Tailor *et al.*, (2006). Generally farmers rear small numbers of goats with sheep flock. Majority of farmers adopted mix grazing. Sheep and goat were taken for grazing in mixed flock. In our study mix grazing was observed in majority (85.56%). Similar results were also reported by Swarnkar and Singh, (2010). In the present finding 45.56% and 54.44% lambs started grazing up to 2 months and after 2 months respectively.

Table 1: Grazing practices followed by the sheep farmers

Particulars	Category	Percentage (%)
Grazing lands	Own lands	15
	Community lands	82.78
	Hired lands	2.22
Type of grazing	Single species	14.44
	Mixed	85.56
Age of lamb at grazing	Up to 2 months	45.56
	>2 months	54.44

Table 2: Duration of grazing and distance covered by the sheep during different seasons

Seasons	Grazing hours (hrs.)	Maximum distance covered (km.)
Rainy	8.23	7.41
Winter	7.41	7.24
Summer	9.45	8.44

The sheep were sent for grazing early in the morning in summer and late in winters. In rainy season grazing out time was depended on weather conditions. The total time spent for grazing was highest (9.45 hrs) in summer and lowest in winters (Table 2). These findings were in accordance with earlier reports (Yadav and Tailor, 2010; Rao *et al.*, 2013). In general grazing hours in winters was less than in summer probably due to the availability of good pasture in the nearby area after harvesting of crops as well as shorter day length (Behura *et al.*, 2009). The average grazing distance was maximum in summer (8.44 km), which is comparable with that of the Behura *et al.*, (2009), who also reported maximum distance in summer. Suresh *et al.*, (2008) reported 5-10 km distance covered by the animals for grazing.

Major watering sources for small ruminants in Jodhpur district was village ponds, bore wells, govt. tanks, others house hold water tanks.

Access to drinking water for animals is however one of the major problem shepherds face during summer months (Misra *et al.*, 2007). According to Suresh *et al.*, (2008) hygienic drinking water sources were limited and the farmers depended on open sources or traveled long distance in search of water.

Housing

Housing for sheep is required only in night. In our study, majority of the breeders preferred to have a kaccha housing (Bada). Diseased animals and lambs were kept in badas. The boundary of bada was covered by cut branches of thorny bushes and the floor was kaccha. This type of flooring lead to unhygienic conditions during the rainy season that makes the animals susceptible to various diseases (Suresh *et al.*, 2008; Rajanna *et al.*, 2013).

Generally night penning was used for accumulating sheep manure, which is a significant part of income. In this area majority of sheep farmers lived at their field outside the village (Dhanis), so breeders had attached animal shed to their house. It was also observed that the young lambs below 2 months of age

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were kept in their separate house (small types of dams) during night. Similar observations were also reported by Dass *et al.*, (2012).

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