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#### Sandeep Gill

Department of Animal  
Production, Rajasthan College of  
Agriculture, Maharana Pratap  
University of Agriculture and  
Technology, Udaipur,  
Rajasthan, India

#### Nitesh Sharma

Department of Animal  
Husbandry & Dairy Science,  
Mahatma Phule Krishi  
Vidyapeeth, Rahuri,  
Ahmednagar, Maharashtra,  
India

#### Dheeraj Kumar

Ph.D. Research Scholar,  
Department of Animal  
Production, Rajasthan College of  
Agriculture, MPUAT, Udaipur,  
Rajasthan, India

#### Deepak Kumar

Ph.D. Research Scholar,  
Department of Animal  
Husbandry, Sardar Vallabhbhai  
University of Agriculture and  
technology, Meerut,  
Uttar Pradesh, India

#### Corresponding Author

Sandeep Gill  
Department of Animal  
Production, Rajasthan College of  
Agriculture, Maharana Pratap  
University of Agriculture and  
Technology, Udaipur,  
Rajasthan, India

## Identify the constraints faced by goat keepers in the Pratapgarh district of Rajasthan

Sandeep Gill, Nitesh Sharma, Dheeraj Kumar and Deepak Kumar

#### Abstract

The purpose of this study is to learn more about goat farmers' breeding techniques and practices in Rajasthan's Pratapgarh area. Pratapgarh, Pipalkhunt, Dhariyawad, and Chhoti Sadri tehsils were chosen for this investigation. Three villages were chosen at random from each tehsil based on the greatest covering goat population. As a result, a total of twelve communities were chosen for the survey. With the cooperation of the village sarpanch and Patwari, a list of goat keepers from the twelve villages was compiled. The chi-square approach was used to evaluate the data acquired during the survey. The purpose of this study was to look at the challenges that goat farmers in Rajasthan's semi-arid region confront. According to data collected from 120 households, the main constraint faced by 71.39 per cent of goat farmers was high cost of concentrate feeding, followed by lack of credit facility 69.44 per cent, lack of grazing area 67.44 per cent, illiteracy 66.94 per cent, breeding 65.28 per cent, lack of veterinary aid at village level 53.89 per cent, high cost of veterinary aid 51.39, lack of improved breeding buck 50.56 per cent, lack of green fodder 49.44 per cent. The primary feeding management constraints were a lack of information about balanced feeding, high feed and fodder costs, a lack of irrigation facilities, a lack of green fodder availability, a lack of understanding about the usefulness of mineral mixtures, and diminishing grazing space. The primary constraints in breeding were a shortage of breeding buck availability, a lack of understanding about breeding procedures, and indiscriminate breeding. The lack of veterinary services in villages, the high cost of treatment, misunderstanding about the need of deworming, lack of awareness about common illnesses, and the lack of a vaccination programme carried out by any agency were the key health care restraints. The key marketing obstacles were a lack of marketing infrastructure, a middleman who did not get a fair price for male babies, disorganized goat owners, and the lack of even a single marketing agency. Given the foregoing information, it is advised that a suitable plan for the growth of goat farming and goat farmers be developed.

**Keywords:** goat farming, constraint, feeding strategies, chi- square

#### Introduction

Goat farming is an excellent way to save money, provide income and employment, and provide food for your family. Smallholders and landless rural poor rely on goats for milk, meat, fibre, skins, and dung to survive. Furthermore, goats are revered in many cultures for their religious and ritual significance. The initial cost in purchasing a goat is relatively little, and it is something that landless and economically destitute people can provide. There is less of a need for housing and fewer management issues. They are frequently cared after by women, the elderly, and even children. In India, goats are known as the "Poor Man's Cow" because of their low maintenance costs, short-term returns on money, and low risk capital investment. They are an integral part of the dry land agricultural system (Thaware, 2010) [1]. In semi arid Rajasthan, livestock husbandry is an important aspect of agriculture. Goats are one of the most important livestock animals, producing milk and meat for human use as well as manure for agriculture. Goat rearing is an essential business that not only provides a source of income for the poor, but also enables farm families in Rajasthan's dry and semi-arid areas to satisfy their nutritional needs. Grazing/browsing and additional feeding of locally available agricultural leftovers and agroindustrial byproducts are used to keep goats healthy. Goats can eat a wide range of plants that aren't suitable for other livestock animals. Goat farming is particularly suited to the rural poor with little land or community-based free grazing resources (Rohilla and Chand, 2004) [2].

Goats give nourishment and revenue to farmers, particularly those who are landless, marginal, or tiny. Goats are often fed locally accessible agricultural waste and agro-industrial byproducts as well as extra grazing or browsing. Goat farming is a low-cost operation due to the goat's unique characteristics, such as its tiny size, clean habits, and ability to subsist on tree leaves,

grasses, and other plants.

The goat population in the country was predicted to be 148.88 million in 2019, up 10.1 per cent from the previous census. The state of Rajasthan has a goat population of 20.84 million, but the study region (Pratapgarh District) only has 2.59 lakh goats (Livestock census, 2019). Due to a variety of obstacles, farmers have been seen maintaining goats in a conventional manner rather than adopting improved goat husbandry approaches in recent years. As a result, they only receive remunerative rates for their animals and goods. The majority of goat owners in the Pratapgarh districts are members of the scheduled tribes and other backward classes. As a result, the current study was done with the express goal of examining the challenges that goat owners encounter when it comes to goat raising.

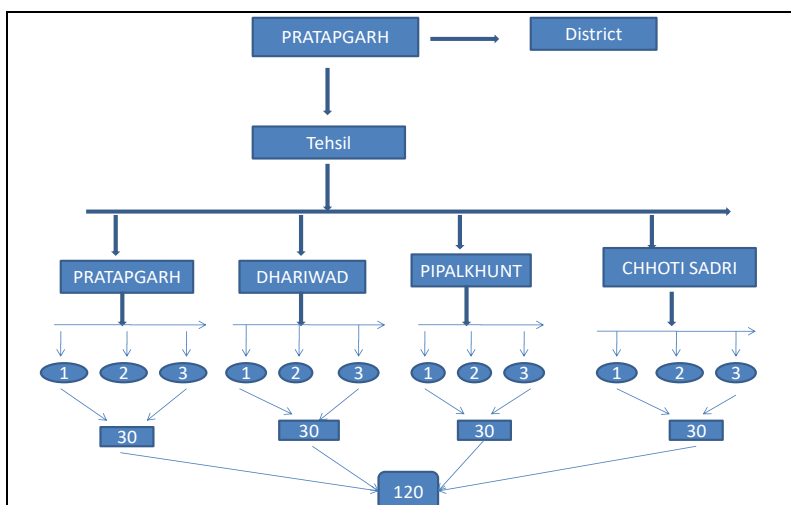
In the realm of goat husbandry, scientific research is progressing at a breakneck pace. There is no shortage of

advanced technology technical "know how" nowadays. However, the adoption of new technologies by farmers is a concern. There is a huge gap between the technology created and its use, just as there is in goat herding. As a result, an attempt was undertaken to identify the barriers preventing farmers from adopting suggested scientific goat management practices. With this in mind, the current study was conducted among goat readers in Rajasthan's pratapgarh area, with the goal of identifying barriers to goat farmers adoption of scientific goat management methods.

**Material & Methods**

**A. Selection of respondents**

A list of goat keepers of the twelve villages was prepared with the help of village sarpanch and Patwari. Total 120 goat rearers were selected from twelve villages of four tehsils in Pratapgarh district of Rajasthan (fig. 1).



**Fig 1:** List of selection of Tehsils, village & respondents

**B. Constraints faced by goat keepers:-**

- 1) Lack of credit facility
- 2) Illiteracy
- 3) Inbreeding
- 4) Lack of knowledge about scientific goat rearing
- 5) Lack of grazing area
- 6) Lack of improved breeding buck
- 7) Lack of vaccination
- 8) High cost of concentrate
- 9) High cost veterinary aid
- 10) Non availability of green fodder
- 11) Non availability of veterinary services and medicines at village level

**C. Statistical analysis**

The obtained data on diverse elements of goat farmers' economic profiles, feeding, breeding, and restraints were assembled and evaluated Tehsil-by-Tehsil, category-by-category, and overall, using basic tabular analysis, averages, percentages, chi-square, and ratios as needed.

**Formula of Chi square test**

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

O<sub>i</sub> = Observed frequency

E<sub>i</sub> = Expected frequency

**Results and Discussion**

**Housing system**

Table 1 indicated that maximum goat keepers (63.33%) in the study area practiced to house their pregnant does with their other goats i.e. group housing and 36.66 per cent goat keepers were aware to house pregnant does in a separate house. Findings are in agreement with Warale *et al.* (2017) [4] who concluded that a large number of respondents (61.67%) were taking care during kidding by providing separate space for kidding.

These findings are supported by those reported earlier by Gujar and Pathodiya (2008) [6], who stated lack of credit facility as a major constraint in their study areas.

**Table 1:** Housing of pregnant does

S. No	Tehsils	Separate	Group
1	Pratapgarh	10 (33.33%)	20 (66.67%)
2	Pipalkhunt	12 (40.00%)	18 (60.00%)
3	Dhariawad	9 (30%)	21 (70.00%)
4	Chotisadri	13 (43.33%)	17 (56.67%)
	Total	44	76
	Av. of tehsil	11	19
	Per cent of farmer	36.66	63.33

### Constraints faced by goat keepers in Pratapgarh district of Rajasthan

The table 2 indicated that the high cost of concentrate was ranked first with 71.39 MPS. Besides, lack of credit facility was the second most serious constraint, with 69.44 MPS. The next most important constraint 'Lack of grazing area' with 67.44 MPS was ranked third. Illiteracy was the fourth rank constraint in the study area with the 66.94 MPS. The MPS value 65.28 for the constraint in breeding was ranked at fifth. Non availability of veterinary services and medicines at village level is the next most important constraint with 53.89 MPS ranked at six. The high cost of veterinary aid is the next serious constraint with seventh rank and 51.39 MPS. Lack of improved breeding buck was ranked as eighth most serious constraint, with MPS 50.56. The most important constraint is 'non availability of green fodder' with 49.44 MPS ranked at ninth.

Lack of knowledge about scientific goat rearing and lack of vaccination both are the most important constraint with 48.89% and it ranks tenth. Findings are in agreement with Koli and Koli (2016) [5] who revealed that lack of knowledge regarding improved breeds, non-availability of improved bucks, lack of training centers, lack of grazing land, high mortality in kids, lack of markets and seasonal variation in goat prices, non-availability of credit facilities, high cost and non-availability of concentrate mixtures, non-availability of veterinary hospitals and doctors near to villages were the major problems faced by goat keepers.

The findings are more similar with Tanwar (2011) [7], Mohan *et al.* (2009) [8] and Thorat *et al.* (2012) [9], who reported lack of fodder is the major constraint faced by goat keepers in India. The study also revealed that the majority of the respondent goat keepers had medium level of adoption on selected goat farming practices.

**Table 2:** Constraints faced by goat farmers in Pratapgarh district of Rajasthan

S. No	Constraint	MPS	Rank
1	Lack of credit facility	69.44	II
2.	Illiteracy	66.94	IV
3	In Breeding	65.28	V
4	Lack of knowledge about scientific goat rearing	48.89	X
5	Lack of grazing area	67.44	III
6	Lack of improved breeding bucks	50.56	VIII
7	Lack of vaccination	48.89	X
8	High cost of concentrate feed	71.39	I
9	High cost of veterinary aid	51.39	VII
10	Non availability of green fodder	49.44	IX
11	Non availability of veterinary services and medicines at village level	53.89	VI

MPS = Mean per cent score

### Conclusion

Lack of knowledge about balanced feeding, lack of veterinary services in the village, high cost of feeds and fodder, lack of marketing infrastructure, middle man not providing remunerative price to male kids, lack of irrigation facilities, unorganized goat owners, high cost of treatment, non availability of green fodder, and ignorance about the importance of deworming were the main constraints identified by goat keepers in adopting improved goat husks. As a result, goat keepers should be educated through a variety of training programmes offered by agricultural institutions and other organizations in order to address the challenges of feeding, health care, and breeding. To address the marketing limits, a marketing facility for the sale of male and female goats/kids should be established.

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