

Constraints perceived by farmers in goat rearing in Mewar region of southern Rajasthan*

M L GUJAR¹ and O P PATHODIYA²

Rajasthan College of Agriculture, Udaipur, Rajasthan 313 001 India

Received: 10 October 2006; Accepted: 29 May 2007

Key words: Constraint, Goat rearers, Rank based quotient (RBQ), Grazing area

The demand for goat meat is progressively increasing as Indian consumers prefer goat meat among all other meats (Sen *et al.* 2004). India possesses 124.50 million (16.60%) of the world goat population and ranks first in world in goat population (Singh 2004). In Rajasthan there are 16.90 million goats, which is 13.59% of Indian goat population and 34.00% of the total livestock population. Udaipur, Rajasamand, Chittorgarh and Bhilwara districts of Mewar region of the Southern Rajasthan has 1.64, 0.499, 0.637 and 0.740 million goats, respectively (Livestock census 2003). The Southern part of Rajasthan state is mostly tribal dominated and is covered by series of the Arawali hills.

In recent years, it has been observed that the farmers are rearing the goats on traditional pattern and not adopting the improved goat husbandry practices because of many constraints and drawbacks in the state. Thus they are getting only the remunerative prices for their animals and products. The present study, based on field survey in goat rearing tract was undertaken to find out the constraints faced by the goat rearers in Mewar region of the Southern Rajasthan.

The study was undertaken in districts Udaipur, Rajasamand, Chittorgarh and Bhilwara of Mewar region of the Southern Rajasthan. In each district 2 tehsil and 3 villages from each tehsil were selected randomly. In each village, 15 goat rearers having adequate goat rearing experience were interviewed from September 2004 to August 2005. Goat rearers (5) from each village were asked collectively to identify the constraints in their villages in relation to goat rearing. Once the constraints were identified in the village, each respondent was asked separately and as informally as possible to rank the constraints without having interaction with the other respondents. Thus each respondent had his own independent opinion regarding the seriousness of the

problems perceived. On the basis of ranks provided by the respondents, a rank based quotient (RBQ) for each constraint was calculated on the basis of the formula (Sabarathnam and Vennila 1996).

$$RBQ = \sum_{i=1}^n \frac{f_i (n+1-i)}{Nn} \times 100$$

Where, f_i the frequency of respondents for the i th rank of the constraint; N the numbers of respondents; n the number of ranks.

Similarly, the RBQ values at district level and the pooled RBQ values of the 4 districts were calculated using weighted average of the district level values. The constraint having the highest RBQ value may be indicated as most serious constraint. The pooled RBQ values and ranks of different constraints along with their codes are presented in Table 1. District-wise RBQ values of different of codes of constraints are given in Table 2.

Lack of grazing area was one of the major constraints perceived by the goat rearers (Table 1). The severity of the constraint can be judged from the fact that most of the pastures and other barren land had been put under afforestation restricting the grazing of animals. Various developmental programmes in the villages have lead to ignore the importance of free grazing area which has further aggravated the seriousness of this constraint. Fixed grazing area and permanent grazing rights for goat owners are not in practice. It is clear that continuous reduction in grazing area has emerged as the most serious constraint and ranks first in Chittorgarh, Bhilwara and Rajasamand districts (Table 1). In Udaipur district the same constraint ranked second. Similar findings were reported by Roy (2001), Kulkarni and Jawahar (2000) and Kumar (2003).

Lack of improved breeding buck was the second most serious constraint. Similar observations were also reported by Rangnekar *et al.* (1992), Nitharwal (1999), Mohan and Singh (2004) and Kumar and Singh (2006). Study revealed that majority of goat owners do not possess their own breeding buck and goats in heat, get conceived by local non-

* Part of Ph.D thesis submitted by first author to MPUAT, Udaipur (Rajasthan).

Present address: ¹Senior Technical Assistant, Livestock Research Station, Vallabhagar, Udaipur, Rajasthan 313 601.

²Associate Professor, Department of Animal Production.

Table 1. Pooled rank based quotient (RBQ) values of different constraints

Constraint Code	Constraints	Values	Rank
1	Lack of credit facility	74.18	3
2	High cost of concentrate feeding	23.13	13
3	High cost of veterinary aid	19.97	14
4	Illiteracy	63.45	5
5	Inbreeding	57.51	7
6	Lack of improved breeding buck	81.66	2
7	Lack of grazing area	82.55	1
8	Non-availability of green fodder	30.92	12
9	Lack of knowledge about scientific goat rearing	67.20	4
10	Higher kid mortality	13.17	15
11	Lack of vaccination	59.93	6
12	Lack of proper housing facilities	48.42	9
13	Non-availability of veterinary services and medicines at village level	12.32	16
14	Non existence of organized meat market	48.85	8
15	Inadequate price for the animals	38.19	10
16	High incidence of diseases	31.75	11

descript bucks in villages. Availability of elite breeding bucks in the villages may help to genetically improve the local breeds and maximize the returns from goat husbandry. Based on district-wise RBQ values, this constraint ranked as first in Udaipur and second in Rajasamand, Chittorgarh and Bhilwara districts.

Lack of credit facility was the third serious constraint in

the study area. This constraint ranks third in Udaipur and Bhilwara while fourth and fifth in Rajasamand and Chittorgarh districts, respectively. These observations are in agreement with that of Kumar (2003) and Mohan and Singh (2004). The Goat is called as poor men's cow and most of the goat rearers live below poverty line. Long term credit facility on minimum interest rates may help the goat rearers to adopt this occupation on scientific lines.

Lack of knowledge about scientific goat rearing ranked as fourth constraint with pooled RBQ value, 67.20. This constraint ranked third in Chittorgarh, fifth in Bhilwara and sixth in Udaipur and Rajasamand districts of Southern Rajasthan. For non-existence of organized meat market, pooled RBQ value was 48.85 and ranked at eighth. On the basis of district-wise RBQ values, it ranked eighth in Rajasamand and Bhilwara and ninth in Udaipur and Chittorgarh districts. It indicated that respondents were not aware about potential benefits of organized meat market. Efforts should be made to organize the goat rearers and establish goat breeders societies to enable the goat rearers to sale the animals and their products without involvement of middleman. All these constraints were also reported by Kumar (2003), Kumar *et al.* (2003) and Mohan and Singh (2004).

SUMMARY

Constraints perceived by goat rearers were recorded by a random sample survey of 360 goat rearers in districts Udaipur, Rajasamand, Chittorgarh and Bhilwara of Mewar region of Southern Rajasthan in India. Rank based quotient (RBQ) value for each constraint was calculated at district

Table 2. District-wise RBQ values of different constraints

Districts							
Udaipur		Rajasamand		Chittorgarh		Bhilwara	
Constraint	RBQ	Constraint	RBQ	Constraint	RBQ	Constraint	RBQ
6	81.53	7	81.81	7	84.72	7	82.22
7	81.46	6	81.74	6	81.39	6	81.94
1	78.33	11	78.40	9	80.28	1	78.40
11	74.24	1	73.61	11	72.99	11	74.03
4	64.79	4	64.31	1	66.39	9	66.60
9	59.24	9	62.71	4	59.72	4	65.00
5	58.96	5	56.94	5	58.82	5	56.11
12	48.40	14	51.53	12	48.68	14	51.25
14	45.97	12	48.26	14	46.67	12	48.33
15	38.19	15	38.13	15	38.47	15	37.99
16	32.01	16	31.25	16	31.88	16	31.88
8	30.76	8	31.04	8	30.49	8	31.39
2	23.96	2	23.68	3	24.31	2	23.75
3	20.97	3	17.50	2	21.11	3	17.08
10	15.83	10	16.04	10	17.50	10	16.46
13	15.49	13	14.24	13	16.88	13	15.00

levels. Simultaneously, pooled RBQ values of different constraints were also estimated. The gravity of the constraints was judged through the magnitude of its RBQ value. The lack of grazing area was found to be the most serious constraint faced by goat rearers followed by lack of improve breeding buck, lack of credit facility, lack of knowledge about scientific goat rearing practices and illiteracy.

REFERENCES

- Kulkarni V V and Jawahar Tilak Pon. 2000. Performance of Tellicherry goats under intensive system. *International Conference on Small Holder Livestock Production Systems in Developing Countries*. 24–27 Nov. 2000 at Thrissur, Karala, India 12.
- Kumar Dinesh. 2003. A study on problems encountered in sheep rearing in Rajasthan. *Indian Journal of Small Ruminants* 9 (1): 43–46.
- Kumar S, Vihan V S and Deoghare P R. 2003. Economic implication of diseases in goats in India with reference to implementation of a health plan calendar. *Small Ruminant Research* 47 :159–64.
- Kumar S and Singh N P. 2006. Status and prospects of commercial goat farming in India. *Proceedings of National Workshop-Cum-Seminar on Commercial Goat and Sheep farming and marketing*. Farmer-Industry-Researcher Interface held on March 4–5, 2006 at CIRG, Makhdoom, Farah, Mathura (UP). 35–45.
- Livestock census. 2003. Board of Revenue for Rajasthan. Ajmer.
- Mohan Brij and Singh Khushyal. 2004. General constraints and suggestions in relation to goat rearing. *2nd National Extension Education Congress*. May 22–24, MPUAT, Udaipur (Raj.).
- Nitharwal Umesh Kumar. 1999. 'Current status and problems of goat management in tribal and non-tribal area of Jaipur district.' M.Sc. thesis submitted to RAU, Bikaner, 54.
- Rangnekar D V, Jain S K, Gahlot O P and Sharma M S. 1992. Goat production systems in some rural areas of Rajasthan and Gujarat. *Advances in goat production*, 413–419. *International Conference on Goat*. 2–8 March, New Delhi.
- Roy R. 2001. Annual Report (1999–2001) of all India Co-ordinated Research Project on Goat Improvement (Jamunapari). CIRG, Makhdoom, Farah, Mathura (UP). 2.
- Sabarathnam V E and Vennila S. 1996. Estimation of technological needs and identification of problems of farmers for formulation of research and extension programmes in Agricultural Entomology. *Experimental Agriculture* 32: 87–90.
- Sen A R, Santra A and Karim S A. 2004. Carcass yield, composition and meat quality attributes of sheep and goat under semi arid conditions. *Meat Science* 66:757–63.
- Singh S K. 2004. Security system for goat germ plasm in India. *Proceeding of Seminar on Goat Genome*. CIRG, Makhdoom, Farah, Mathura (UP). 87.