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## Adoption level of breeding, health care and marketing practices among goat farmers in Chhattisgarh

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### Abstract

The present study was conducted purposively in Chhattisgarh state, with a view to assess the existing adoption level of scientific goat Breeding, Health Care and Marketing practices. Chhattisgarh comprises of three agro-climatic zones, out of that one district were selected randomly from each agro-climatic zones. From each districts two blocks, from each block two villages randomly and 10 goat rearers were selected randomly having minimum 2 female goats and one male goat from each villages. Thus, a total of 120 goat rearers were selected for the present study. The results indicated that majority of goat farmers were partial adopter category of breeding practices (45.00%) and health care practices (40.83%). Major portion of the respondents also reported that there was no specific time for goats marketing and reason of marketing of goats was for festival and as ready cash in times of emergency. It might be due to poor knowledge about scientific goat management practices.

**Keywords:** Adoption, breeding, health care, marketing, goat farmers

### Introduction

Goat farming plays an important and vital role in providing nutritive food and in supplementing family incomes and generating gainful employment in the rural sector, particularly among the landless, small and marginal farmers. India with 135.2 million goat population stands second after China (GOI, 2017) [2]. Goat research needs progress rapidly to reach the level of knowledge of other species like cattle or sheep, especially in milk and meat production (Arguello 2011) [1]. Goat sector provides subsidiary source of livelihood to the people especially to small and marginal farmers and landless labourers. However, the productivity of goats under the traditional production system is very low owing to their maintenance under extensive system on natural vegetation and shrinking common grazing lands and tree lopping (Kumar *et al.*, 2010) [4]. Goat farming has tremendous potential for income and employment generation, especially in rural areas (Singh *et al.*, 2013) [5]. This sector is capable of changing the economy of rural areas if proper attention is paid. Moreover, adoption of scientific management practices in the farmers' flock is very low (Singh and Kumar, 2007) [6]. Adoption of improved scientific management practices increases income and economic status of goat farmers. A study was undertaken to assess the adoption rate of improved scientific practices of goat rearing practices in Chhattisgarh.

### Materials and Methods

The study was purposively conducted in the Chhattisgarh state, comprising of three agro-climatic zones (Chhattisgarh Plains, Bastar Plateau and Northern Hill Regions). In this context, multi-stage random sampling procedure was followed in randomly selected three districts from each agro-climatic zone (Durg, Bastar and Sarguja), from each districts two blocks, from each block two villages randomly and 10 goat rearers were selected randomly having minimum 2 female goats and one male goat from each villages. Thus, a total of 120 goat rearers were selected for the present study. For the study, ten important practices related to scientific breeding and health care practices were selected and their score were allotted 2 for regular adopter, 1 for partial adopter and 0 for non-adopter. The adoption index was calculated by following method:

Adoption Index = (Respondents' total score/ Total possible score) \* 100

Depending upon the extent of adoption of improved technologies, the respondents were categorized into Low adopters (0-33.3%), Partial adopters (33.3-66.6%) and High adopters

(66.6-100%). The Data were collected personally by semi structured interview schedule. Data were analyzed by appropriate statistical methods.

**Results and Discussion**

**Extent of adoption of farmers with respect to breeding management practices**

Package of practices under reproduction and breeding management were studied as timely heat detection, gap between 60-90 days between kidding and next breeding (PRL), selection of good buck for mating, mating of animals after 10-12 hrs after initiation into heat/oestrous, compatible buck for successful mating, maintaining reproductive record, first service based on age and body weight of animals, separation of advanced pregnant animals, provision of treatment to reproductive disorders, provision of care after kidding and proper feeding during pregnancy and lactation

The success of goat farm largely depends upon the good breeding management practices. The goat improvement over the generation has been badly affected by sale of good potential male kids for meat consumption before their reproduction, indiscriminate breeding and shrinkage of public grazing resources. The data in Table 1 shows that majority of respondents belonged to partial adopter category (45.00%) followed by low adopter (38.33%) and high adopter (16.67%). It might be due to poor knowledge about good breeding practices.

**Table 1:** Distribution of respondents according to extent of adoption in breeding and health care management practices (N=120)

Breeding Management		
Level of Adoption	Frequency	Percentage
Low Adopted (< 33.3)	46	38.33
Partial Adopted (33.4- 66.7)	54	45.00
High Adopted (>66.7)	20	16.67
Health Care Management		
Low Adopted (< 33.3)	36	30.00
Partial Adopted (33.4- 66.7)	49	40.83
High Adopted (>66.7)	35	29.17

**Extent of adoption of farmers with respect to health care management practices**

Package of practices under health care were studied as observation of health of animals regularly, isolation of sick animals from flock, vaccination of animal regularly to prevent diseases, contacting veterinarian for treating the sick animals, use of disinfectant and maintain hygiene in and around animal shelter, maintain quarantine before introducing new animals to herd, giving regular deworming to animals, prevention of animals from ectoparasite (dipping), information given to veterinary doctor in case of disease outbreak and follow proper methods to dispose dead animals.

Intensification of goat industry is likely to result in an increase in the number of high producing animals. There are many types of diseases affecting the goats in different age and stage of production. Diseases in goats result in mortality which ranges from 5 to 25 percent in adults and 10 to 40 percent in kids and morbidity losses result in low productivity of the animals (Vihan, 2009) [7]. Data in table 1 shows that majority of respondents belonged to partial adopter category (40.83%) followed by low adopter (30.00%) and high adopter (29.17%). Similar findings were reported by Kumar (2012) [3].

**Marketing practices and marketing channel**

Table 2 reveals that majority of the respondents (42.50%)

procure goats/kids from own or nearby villages selling, followed by 28.33, 19.17 and 10.00 percent respondents procure from government schemes, Govt/ Pvt Farms and *Feriwala*, respectively. Majority of the respondents (65.00%) reported to sell their goats at an average body weight of 20-25 kg, while 25.83 per cent sold their goats at body weight between 25.1-30 kg. Rest of the respondents (9.17%) was selling their goat at body weight between 30.1- 35 kg. Majority of the respondents (45.00%) reported to sell their goats at an age of 1.51-2 year. While 39.17 per cent reported that they sell their goats at an age of 1- 1.5 year, during festivals, on demand and monthly basis for ready to cash money. Majority of the respondents (47.50%) reported that price of kids was Rs.2001-2500. Around 30.83 per cent of reported that price of kid was Rs.1500-2000 and remaining 21.67 percent respondents at Rs.2501-3000. Around 58.33 per cent of the respondents reported price of marketable doe was Rs.4001-5,000

Table 2 also shows that 49.17 percent of the respondents reported the place of selling of goats from was own village or nearby village area followed by 40.00 and 10.83 percent respondents in livestock market and *Kisan mela/ farmers fair*. Major portion of the respondents also reported that there was no specific time for goats marketing and reason of marketing of goats was for festival and as ready cash in times of emergency.

**Table 2:** Marketing practices adopted by goat farmers (N=120)

Marketing Practices	Frequency	Percentage
Place of procurement of goats/kids		
Own or nearby villages	51	42.50
Government/ Private farms	23	19.17
Government Schemes	34	28.33
Feriwala	12	10.00
Price of kids (Rs)		
Low (1500- 2000)	37	30.83
Medium (2001-2500)	57	47.50
High (2501-3000)	26	21.67
Marketable age of goats (years)		
Low (< 1.5)	47	39.17
Medium (1.51- 2.0)	54	45.00
High (> 2.1)	19	15.83
Marketable weight of goats (Kgs)		
Low (20-25)	78	65.00
Medium (25.1-30)	31	25.83
High (30.1-35)	11	9.17
Time of marketing the goat		
On Demand basis	33	27.50
Festivals	64	53.33
Monthly sale	23	19.17
Price of marketable bucks (Rs)		
Low (4500- 6000)	45	37.50
Medium (6001- 7500)	64	53.33
High (7501- 9000)	11	9.17
Price of marketable doe (Rs)		
Low (3000- 4000)	36	30.00
Medium (4001- 5000)	70	58.33
High (5001- 6000)	14	11.67
Mode of selling		
Live goats	106	88.33
Sale after slaughter	14	11.67
Marketing of goats		
Own village	59	49.17
Kisan mela/ Farmers fair	13	10.83
Livestock market	48	40.00
Sold to whom		
Middleman	114	95.00
Consumer	6	5.00
Reason of selling		
For festival	64	53.33
Ready to cash money	56	46.67

## Conclusion

Majority of respondents belonged to partial adopter category followed by low and high adopter categories for breeding and health care management practices, respectively. Major portion of the respondents also reported that there was no specific time for goats marketing and reason of marketing of goats was for festival and as ready cash in times of emergency. Poor adoption of breeding and health care practices leads to lower milk production, lactation length and high mortality of goats. Hence, the study recommends that awareness among the farmers, shall be supported with vocational training, demonstration of efficient technologies and motivating the goat farmers to optimize the flock size with extension support and services might help them to adopt recommended improved scientific management practice.

## References

1. Arguello A. Trends in goat research: a review. *Journal of Applied Animal Research*. 2011; 39(4):429-34.
2. GOI. Basic Animal Husbandry & Fisheries Statistics, Animal Husbandry Statistics Division, DADF, MoA, New Delhi, 2017.
3. Kumar R. Adoption and sustainability of goat health technologies among farmers in different agro-climatic zones of Bihar. PhD Thesis, ICAR- IVRI, Izatnagar, Bareilly, Uttar Pradesh, India, 2012.
4. Kumar S, Rao CAR, Kareemulla K, Venkateswarlu B. Role of goats in livelihood security of rural poor in the less favored environments. *Indian Journal of Agricultural Economics*. 2010; 65(4):760-780.
5. Singh MK, Dixit AK, Roy AK, Singh SK. Goat rearing: A pathway for sustainable livelihood security in Bundelkhand region. *Agricultural Economics Research Review*. 2013; 26:79-88.
6. Singh NP, Kumar S. An alternative approach to research for harnessing production potential of goats. *Proceedings of 4th National Extension Congress, Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur, 2007*.
7. Vihan VS. Important viral diseases of goats and their prevention, *Goat Enterprise, CIRG, Makhdoom, 2009, 167-75*.