



E-ISSN: 2278-4136
P-ISSN: 2349-8234
JPP 2017; SPI: 536-539

Dr. T Vijaya Nirmala
Scientists, Krishi Vigyan Kendra,
Dr. YSR Horticulture University,
Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Dr. E Karunasree
Senior Scientist & Head, Krishi
Vigyan Kendra, Dr. YSR
Horticulture University,
Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Dr. A Devivaraprasad Reddy
Scientists, Krishi Vigyan Kendra,
Dr. YSR Horticulture University,
Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Dr. RVSK Reddy
Director of Extension, Krishi Vigyan
Kendra, Dr. YSR Horticulture
University, Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Dr. K Venkata Subbaiah
Scientists, Krishi Vigyan Kendra,
Dr. YSR Horticulture University,
Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Sri. G Shali Raju
Scientists, Krishi Vigyan Kendra,
Dr. YSR Horticulture University,
Venkataramannagudem,
West Godavari District, Andhra
Pradesh, India

Dr. V Deepthi
Scientists, Krishi Vigyan Kendra,
Dr. YSR Horticulture University,
Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Correspondence

Dr. T Vijaya Nirmala
Scientists, Krishi Vigyan Kendra,
Dr. YSR Horticulture University,
Venkataramannagudem,
West Godavari District,
Andhra Pradesh, India

Adoption of scientific management practices in goat farming by tribal goat farmers in west Godavari district of Andhra Pradesh

Dr. T Vijaya Nirmala, Dr. E Karunasree, Dr. A Devivaraprasad Reddy, Dr. RVSK Reddy, Dr. K Venkata Subbaiah, Sri. G Shali Raju and Dr. V Deepthi

Abstract

Goat rearing is a good source of capital storage, income, employment generation and house hold nutrition. Small ruminants are well integrated in the farming systems of the small and marginal farmers of India, who find in goats a vast potential for their socio-economic upliftment. Goats offer a strong opportunity to development agencies for suitable interventions including micro credit, extension, technical and marketing support especially to women, landless and small farmers. An attempt was made to document goat management practices followed by tribal communities in the West Godavari district of Andhra Pradesh. It was found that the majority of goat houses were located near or attached to the owners dwellings. The grazing of goats was looked mutually whereas some were hiring the labourers in the absence of regular grazier. Goats were maintained on grazing in harvested fields, along the roadside and on other uncultivated lands. They were not supplemented with concentrate mixture during critical stages of growth such as advance pregnancy and lactating period. Adoption of practices like timely vaccination, to control ecto-endo parasites, naval cord disinfection was poor and needs to improve a lot. To enhance the profitability and sustainability of this system in the long-run, the study has suggested that the flock-owners need to be educated about the scientific management practices like importance of timely vaccination and feeding of concentrate and feed supplements to the animals, control of ecto-endo parasites and naval cord disinfection.

Keywords: Feeding, deworming, housing, tribal farmers

Introduction

Livestock plays an important role in the economy of India in general and sustainable livelihood of poor people of rain fed agrosystem in particular, because of inherent risk involved in the crop farming due to uncertainty of rainfall and recurrent droughts (Mishra *et al.*, 2004) [4]. Goat husbandry is popular enterprise among the farming communities of Andhra Pradesh. Goat rearing plays an important role in the livelihood and economic sustenance of weaker sections of society. An attempt was made to study housing, feeding, breeding and health care practices adopted by tribal farmers to formulate an appropriate package of practices of goat rearing in this rain-fed area.

Methodology

A field study was conducted to document the information on the scientific management practices followed by goat keepers of Buttaigudem Mandal of West Godavari District. Buttaigudem Mandal comprises of about fifty-two villages out of which six villages were selected purposively for the study. 15 respondents from each village thus total of 90 respondents from six villages such as Pandugudem, Kamayyakunta, Bandarlagudem, Kurusakannappagudem, Yerraigudem, Lankapalli were selected for the study. Simple random sampling was used to select the respondents for the study. The information was received from respondents through interview schedule. The farmers were interviewed personally for collecting information on current status of housing, feeding, breeding and health care practices.

Results and discussion

Scientific management practices being followed by goat-owners in West District of Andhra Pradesh has been discussed in the following subheads.

Housing

The majority of respondents (85.30%) were having housing facilities to keep the goats mostly during night which is in agreement with Mohan *et al.* (2012). The housing practices followed by tribal community for goat rearing showed that 92.22% of houses were located near or attached to their dwellings. They were using either roofed semi-open goat shed with or without separate enclosure. The majority of respondents used kacha floors (95.56%) and thatched floors (97.78%). Sireesha *et al.* (2014) reported that 52.9% of goat keepers used thatched roof in Andhra Pradesh. Majority (87.78%) of tribal farmers not practiced the partitioning of goat shed into different pens to house different categories of goats.

Table 1: Housing practices followed by tribal goat farmers of West Godavari district, (n=90)

S. No.	Particulars	Frequency	Percentage
1.	Location of goat house		
	Attached to dwelling	38	42.22
	Near dwelling	45	50.00
	Special chosen area	07	07.78
2.	Housing facility		
	Shed+Enclosure	21	23.33
	Only shed	69	76.67
3.	Floor		
	Slatted	04	04.44
	Kachcha	86	95.56
4.	Roof		
	Thatched	88	97.78
	Others	02	02.22
5.	Partition of shed into pen		
	Yes	11	12.22
	No	79	87.78

Feeding management

The goats of this tribal community mostly thrived on grazing only. Table 2 shows that 86.66% goat keepers adopted the extensive grazing system and allowed their goats to graze on community land. These findings were in agreement with report of Pankaj *et al.* 2014 [5]. The availability of fodder trees were enough to 87.78% respondents which is in line with the findings of Sorathiya *et al.* (2016). Cut and carry of tree branches were regular practices in this district. They harvest the trees in public land or from farmers field. Table revealed that majority of them (83.33%) were herding the goats mutually especially the person from their combined flocks was employed for the herding. Only 12.22% were arranging the other family members to graze the goats. A few goat keepers (4.45%) were hiring labours to herd the goat flocks. Similar findings were reported by Sorathiya *et al.* (2016). It was found that majority of goat rearers not provided concentrate mixture to kids (90.00%), pregnant does (93.34%) and lactating does (87.78%). These results were in contrary to studies reported by Rai and Singh (2004) [6]. Mineral mixture was not provided to goats by 92.22% goat keepers. Singh *et al.* (2002) observed that very few respondents were feeding mineral mixture to their animals. The reason for low adoption of mineral mixture feeding was lack of knowledge about its use.

Table 2: Feeding management practices adopted by tribal goat farmers of West Godavari district, (n=90)

S. No.	Particulars	Frequency	Percentage
1.	Grazing system		
	Extensive	78	86.66
	Semi intensive	12	13.34
2.	Main grazing area		
	Harvested fields	34	37.78
	Roadside	22	24.44
	Uncultivated lands	34	37.78
3.	Quantity of fodder tress available		
	More	02	02.22
	Enough	79	87.78
	Less	09	10.00
4.	Herding arrangement in absent of herder		
	Mutually	75	83.33
	Family members	11	12.22
	Hire of labours	04	04.45
5.	Concentrate feeding		
	A. For Kid		
	Yes	09	10.00
	No	81	90.00
	B. Special feeding for lactating does		
	Yes	11	12.22
	No	79	87.78
	C. Special feeding during pregnancy		
	Yes	6	6.66
	No	84	93.34
6.	Feeding of mineral mixture		
	Yes	7	07.78
	No	83	92.22

Health care Practices

Regular vaccination was not practiced by 87.78% respondents for their animals against diseases, while only 12.22 % of respondents follow vaccination practices (Table-3). It is observed that very few respondents (06.67%) practiced deworming to their animals at regular intervals. This finding is comparable with finding of Pankaj *et al.* (2014) [5]. All the goat farmer did not practice navel cutting and it was left to fall off itself naturally. The similar findings were reported by Sangameswaran R and Sunitha Prasad (2016) [7] and Pankaj *et al.* (2014) [5]. More and more concentrate efforts are required to motivate farmers to follow this practice. Majority of goat farmers (92.22%) did not follow any practice to control ecto parasites such as ticks, mites, lice, mosquitoes and flies however, some farmers adopted traditional practices- like smoke of neem leaves to prevent mosquitoes. Only 15.55% of the respondents acquired the services of a qualified veterinarian for treatment. Similar findings were also reported by Malik *et al.* (2005) [3]. This may be due to the non-availability of a qualified veterinarian.

Table 3: Health care management practices adopted by tribal goat farmers of West Godavari district, (n=90)

S. No.	Particulars	Frequency	Percentage
1.	Vaccination of animals		
	Yes	11	12.22
	No	79	87.78
2.	Deworming of animals		
	Regular	6	06.67
	Occasional	80	88.89
	Not practiced	4	04.44
3.	Navel disinfection of kid after birth followed		
	Yes	02	02.22
	No	88	97.78
4.	Practice to control ecto parasites		
	Followed	07	07.78
	Not followed	83	92.22
5.	Treatment of sick animals		
	Use of local empirical knowledge	76	84.45
	Veterinary doctor	14	15.55

Breeding practices

Breeding practices adopted by tribal goat keepers showed that the majority of respondents (95.56%) were following uncontrolled mating in their goat flocks (Table 4). The natural flock method in goat production systems was generally characterized by use of more numbers of bucks. All bucks of almost every flock of villages can mate to any goats in grazing area or may be at home also. The majority of respondent (87.78%) did not supplement concentrate to bucks

during breeding season. Similar results reported by Sorathiya *et al.* (2016). Source of bucks into flock majorly (72.22%) from outside, some (27.78%) were developed bucks from their own flock. Results are in line with the findings of Deshpande *et al.* (2009)^[1] and Tanwar *et al.* (2007)^[10]. Most (86.67%) of them were not castrating their unselected bucks. Similar findings were reported by Sharma *et al.* (2007)^[8] and Ekambaram *et al.* (2011)^[2].

Table 4: Breeding practices adopted by tribal goat farmers of West Godavari district, (N=90)

S. No.	Particulars	Frequency	Percentage
1.	Breeding method employed		
	Uncontrolled	86	95.56
	Controlled	04	04.44
2.	Feeding of concentrate to bucks during breeding season		
	Yes	11	12.22
	No	79	87.78
3.	Source of bucks		
	Own	25	27.78
	Others	65	72.22
4.	Castration of unselected bucks		
	Yes	12	13.33
	No	78	86.67

Conclusion

The analysis of survey report concluded that the tribal community in West Godavari district is following their traditional practices in goat rearing. Adoption of overall scientific practices like concentrate feeding, mineral mixture feeding, measures to control ecto-endo parasites, vaccination, castration was poor. Hence, these practices need to be improved to a greater extent in this tribal area. Extension services may be strengthened in the region to motivate them for adopting scientific management practices for increasing overall productivity of goats.

References

- Deshpande SB, Sabapara GP, Kharadi VB. A study on breeding and healthcare management practices followed by goat keepers in south Gujarat region. *Indian J. Anim. Res.* 2009; 43(4):259-262.
- Ekambaram B, Gupta BR, Gnana Prakash M, Sudhaker K, Reddy VR. Housing, breeding and management practices of Mahabubnagar goats. *Indian Journal of Animal Sciences.* 2011; 81(8):875-879.
- Malik BS, Meena BS, Rao SVN. Study of existing dairy farming practices in uttarPradesh. *J. Dairying, Food and Home Sci.* 2005; 24(2):91-95.
- Mishra AK, Sharma BK, Singh JB, Singh PN. Performance of Barbari goats in Vindhyaal region of Madhya Pradesh. *Indian journal of small ruminants.* 2004; 10(2):134-136.
- Pankaj Lavania, Jingar SC, Dileep Kumar, Ajesh Kumar, Kantwa SC. Feeding and Health care management practices adopted by tribal goat farmers in Sirohi district of Southern Rajasthan. *Journal of Biological Innovations.* 2014; 3(3):170-175.
- Rai B, Singh MK. Rearing practices of Jakharana goat in farmers flock. *Indian J. small rumi.* 2004; 10:33-35.
- Sangameswaran R, Sunitha Prasad. Managerial practices followed by goat keepers of Attur block, Salem district. *International Journal of Science, Environment and Technology.* 2016; 5(5):3369-3375.
- Sharma MC, Pathodiya OP, Jingar SC, Gaur M. A study on socio economic status of goat rearers and adoption of management practices, *The Indian Journal of Small Ruminants.* 2007; 13(1):75-83.
- Singh M, Chouhan A, Chand S, Garg MK. Studies on

housing and health care management practices followed by the dairy owners. *Indian J. Anim. Res.* 2007; 41(2):79-86.

10. Tanwar PS, Vaishanava CS, Jain LS. Studies on housing and breeding management Practices adopted by goat owners in Tribal area of udaipur district. *Indian J. Anim. Res.* 2007; 41(1):59-61.