

International Journal of Veterinary Sciences and Animal Husbandry



ISSN: 2456-2912 VET 2023; SP-8(5): 20-23 © 2023 VET www.veterinarypaper.com Received: 27-04-2023 Accepted: 06-06-2023

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# **Production practices of sheep farmers**

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#### Abstract

The present investigation was conducted to study the production practices followed by the sheep farmers in Andhra Pradesh. Three districts i.e., Prakasam, Srikakulam and Anantapur representing three regions of Andhra Pradesh i.e., Coastal, North Coastal and Rayalaseema were selected for the study. From each district twenty respondents who possessed a minimum flock size of 50 were selected through simple random sampling technique. Results on production practices of sheep farmers revealed that cent percent of the farmers were following extensive system of rearing, the average grazing time calculated was 8.7 hrs /day and distance covered for grazing is 7.4 km/day. The feeding practices in the study area indicated that 36.67 per cent of the farmers practiced dry fodder feeding while only 13.33 percent provided concentrate feed and the type of feeding followed is group feeding. Majority (91.67%) of the respondents preferred to replace ewes and breeding rams (66.67%) from their own flock while 28.33 percent purchased breeding rams. It was observed that average feed cost per animal was Rs.82/-, health/treatment cost was Rs.100/-, labour cost was Rs. 1192/-, cost related to sheds, equipment, land lease was Rs.74/and miscellaneous items was Rs.9/-. The average cost of production / animal is ₹ 14.57 /- calculated in terms of feed, labour and miscellaneous costs. The involvement of males and females in farm activities is upto 61.67 percent. The study indicated that the production practices followed by the sheep farmers ensured reasonable profits with low cost of production but exploited reasonable time and labour of the sheep farmers.

Keywords: Extensive system, production practices, feeding practices, simple random sampling

# Introduction

Sheep and goats are important species of livestock in India. They contribute greatly to the agrarian economy, especially in rain fed areas where crop and dairy farming are not economical. Sheep with its multi-facet utility for wool, meat, milk, skin and manure, form an important component of rural economy. They provide a dependable source of income to the shepherds through sale of wool and animals. Despite of their contribution to income and livelihood of the farmers still they are neglected and under invested. The major reasons for low productivity are inadequate grazing resources, diseases causing high mortality, morbidity, consequent reduced production and serious lack of organized effort for bringing genetic improvement. In this context, the present study was undertaken to ascertain the production practices followed by sheep farmers in Andhra Pradesh and to suggest suitable measures for improving the productivity of sheep.

# Methodology

Exploratory research design was selected as an appropriate design in the present investigation. The State, Andhra Pradesh was purposively selected and was divided into three regions - North coastal, Coastal and Rayalaseema. One district from each region was selected purposively based on the highest sheep population. The selected districts from the three regions were Srikakulam, Prakasam and Anantapur respectively. From each district two villages and from each village, 10 sheep farmers were selected resulting in a total of 60 sheep farmers for the study. Care was taken to ensure that the respondents selected for the study should hold a sheep flock of 50 and above.

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# **Results** Type of farming

 Table 1: Distribution of shepherds according to their type of farming

S.	S. Cotogony		kasam	Srika	akulam	Ana	ntapur	Total (N)		
No	Category	f	%	f	%	F	%	f	%	
1	Extensive	20	100	20	100	20	100	60	100	
2	Semi intensive	0	0	0	0	0	0	0	0	
3	Intensive	0	0	0	0	0	0	0	0	
	Total (n)	20	100	20	100	20	100	60	100	

It was found from the above table that cent per cent of farmers were following extensive system of rearing in the study area of Prakasam, Srikakulam and Anantapur districts.

# Grazing hours and distance

 Table 2: Grazing hours and distance followed by shepherds in the study area

S. No	Category	Prakasam	Srikakulam	Anantapur	Total
1	Grazing time (hours per day)	9.25	8.3	8.55	8.7
2	Grazing distance (km per day)	6.8	7.1	8.3	7.4

The average grazing time and distance observed in the overall study was 8.7 hours and 7.4 km per day, respectively.

# Feed and fodder fed to animals by shepherds

Table 3: Feed and fodder fed to animals by shepherds

C No	Cotogowy	Prakasam		Srikakulam		Anantapur		Total (N)		
5. INU	Category	f	%	f	%	f	%	f	%	
1	Concentrate feeding									
	Provided	4	20	1	5	3	15	8	13.33	
	Not provided	16	80	19	95	17	85	52	86.67	
	Total (n)	20	100	20	100	20	100	60	100	
2	Dry fodder feeding									
	Provided	4	20	11	55	7	35	22	36.67	
	Not provided	16	80	9	45	13	65	38	63.33	
	Total (n)	20	100	20	100	20	100	60	100	
3			Ту	pe of	feeding	5				
	Group	4	100	11	100	7	100	22	100	
	Individual	0	0	0	0	0	0	0	0	
	Total (n)	4	100	11	100	7	100	22	100	

In all the districts, cent per cent of the farmers followed the practice of feeding in groups. Majority of the sheep farmers were not providing concentrates (86.67%) and dry fodder (63.33%) while only 13.33 per cent provided concentrate feeding and 36.67 per cent followed dry fodder feeding.

#### Source of replacement of ewes

 
 Table 4: Distribution of shepherds according to source of replacement of ewes

S. No	Catagoria	Prakasam		Srika	akulam	Ana	ntapur	Total (N)		
	Category	f	%	f	%	f	%	f	%	
1	Own Flock	18	90	20	100	17	85	55	91.67	
2	Purchased	2	10	0	0	3	15	5	8.33	
3	Exchanged	0	0	0	0	0	0	0	0	
	Total (n)	20	100	20	100	20	100	60	100	

It is observed from the Table-4 that 91.67 percent of the respondents preferred to replace the ewes from their own flock while a few (8.33%) preferred to purchase ewes from outside in the study area.

#### Source of breeding rams

 
 Table 5: Distribution of shepherds according to source of replacement of breeding rams

S. No	Catagory	Prakasam		Srika	akulam	Ana	ntapur	Total (N)	
	Category	f	%	f	%	f	%	f	%
1	Own Flock	13	65	13	65	14	70	40	66.67
2	Purchased	6	30	6	30	5	25	17	28.33
3	Exchanged	1	5	1	5	1	5	3	5
	Total (n)	20	100	20	100	20	100	60	100

Majority (66.67%) of the sheep farmers replaced breeding rams from their own flock followed by 28.33 per cent of the sheep farmers who purchased the breeding rams and only 5 per cent of the sheep farmers replaced the rams by exchanging from others.

Cost of production in rearing of sheep in the study area per year.

It was observed from Table-6 that the average feed cost per animal was Rs.82, health/treatment cost was Rs.100, labour cost was Rs.1192, cost related to sheds, equipment, land lease was Rs. 74 and cost related to miscellaneous items was Rs.9.

	Prak	asam	Srika	kulam	Anantapur		Total cost	
Category	Total cost	Avg cost per animal	Total cost	Avg cost per animal	Total cost	Avg cost per animal	Total cost           447500           551500           6534800           403000           49000	Avg cost per animal
Feed	190000	100	85500	51	172000	90	447500	82
Health/Treatment	260000	137	120500	72	171000	89	551500	100
Labour	1792650	950	2353400	1400	2388750	1250	6534800	1192
Costs related to sheds equipment and land lease	80000	43	197000	117	126000	67	403000	74
Miscellaneous	15000	8	19000	11	15000	8	49000	9

Table 6: cost of production of rearing of sheep

Total number of animals surveyed in Prakasam district=1887

Total number of animals surveyed in Srikakulam district=1681

Total number of animals surveyed in Anantapur district=1911

Total number of animals surveyed in Andhra Pradesh state= 5479

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#### **Gender involvement**

From the table it was observed that majority (60%, 65% and 60%) were having involvement of both male and female in farm activities in Prakasam, Srikakulam and Anantapur districts respectively, while remaining (40%, 30% and 40%) were having involvement of only male in farm activities in Prakasam, Srikakulam and Anantapur districts respectively.

 Table 7: Distribution of shepherds based on gender involvement in activities

S. No	Catagon	Prakasam		Srika	akulam	Ana	ntapur	Total (N)		
	Category	f	%	f	%	f	%	F	%	
1	Male	8	40	6	30	8	40	22	36.67	
2	Female	0	0	1	5	0	0	1	1.66	
3	Both	12	60	13	65	12	60	37	61.67	
	Total (n)	20	100	20	100	20	100	60	100	

#### Discussion

# Type of farming

From Table-1it was evident that all farmers in the study area were rearing the sheep in extensive system. None of the farmers followed semi-intensive or intensive type of farming in all three regions. Therefore, efforts must be made to extend knowledge and raise awareness among the shepherds of the perceived benefits of the semi-intensive system of rearing. These results were in accordance with the findings of Sireesha *et al.*, (2014)<sup>[7]</sup>.

# Grazing hours and distance

It may be perceived that, as sheep flocks are stripped of vegetation from grazing opportunities, they prefer to travel longer distances in search of vegetation. The distance to which the grazing was confined may suggest the practice of returning during the night to their places and remaining with their families. The results were in accordance with Devendran *et al.*,  $(2010)^{[1]}$  and Rajapandi  $(2005)^{[2]}$ .

# Feed and fodder fed to animals by shepherds

It could be observed from the Table 3 that only 13.33 per cent of sheep farmers were providing concentrate feeding while majority (86.67%) of respondents didn't follow concentrate feeding. Sheep were allowed to graze on harvested fields, barren and uncultivated lands, roadsides and forest areas. The main sources of grazing are stubbles, weeds, herbs and grasses. No concentrate supplementation is given to the lambs or adults. In case of forage scarcity supplementary feeding with concentrates and dry fodder in required quantities might be practiced to obtain better growth and production performance. The results of the present study were in agreement with the findings of Devendran *et al.*,  $(2010)^{[1]}$  and Rajapandi  $(2005)^{[2]}$ .

# Source of replacement of ewes

Home grown ewes were the source of ewes for the majority (91.67%) of the farmers selected in the study area. Farmers reported that replacement of ewes from outside will lead to the spread of diseases in their flock. Similar observations were also made by Virojirao *et al.*, (2008)<sup>[3]</sup> and Sireesha *et al.*, (2014)<sup>[7]</sup>.

## Source of breeding rams

All the shepherds in the study area were maintaining rams in their flocks. Homegrown rams were found to be the major source of rams for the farmers (66.67%). It clearly showed that selection of rams is done within the flock, since this is an

unscientific practice, it may eventually reduce the flock performance due to inbreeding. It was felt that imparting knowledge to the farmers regarding the importance of selection and exchange of the rams will help in obtaining better breeding efficiency and genetic improvement in the flock. However, the farmers were generally reluctant to share their breeding ram due to some socio-economic reasons and beliefs. A similar type of findings was observed by Rajanna *et al.*,  $(2012)^{[4]}$  in their studies.

# Cost of production in rearing of sheep in the study area per year

From Table 6 it was observed that average feed cost per animal was Rs.82, health/treatment cost was Rs.100, labour was Rs.1192, cost related to sheds, equipment, land lease was Rs. 74 and cost related to miscellaneous items was Rs.9.

During scarcity of fodders shepherds feed the animals by purchasing the fodder. This is due to lack of proper grazing lands. These are in accordance with Shah *et al.*, (2017) <sup>[6]</sup>. Most of the sheep farmers irrespective of size group were cautious in protecting the sheep from possible diseases. Normal practices they followed regularly were deworming, deticking and vaccination against diseases like ET, PPR and Sheep pox. One of the very interesting observation that was recorded is that, no farmer in the study area showed interest to insure the flock and majority of the farmers felt that the returns from slaughtering the sick and sale of distress animals was almost equal to the compensation received for the insured animals.

# **Gender involvement**

From Table 7 it was observed that, both male and female invovement in farm activities was 61.67 percent followed by male only (36.67%) and female only (1.66%). A higher gender involvement is found in small ruminant farming. In terms of management, a higher involvement of women is reported at household and farm level feeding practices. There is no involvement of women in grazing and marketing activities. The findings were in accordance with Shah *et al.*, (2015)<sup>[5]</sup>.

#### Conclusion

The share that the farmer receives of the final value lies between 76 per cent to 81 per cent or about 78.5 per cent on an average. Collectivization of shepherds, adoption of improved production practices would allow farmers to learn and benefit from further opportunities within the sector. The emphasis on productivity and overall sheep management would help farmers to expand and maintain their flock size more effectively. This opens up the opportunity to expand the sheep sector and allows it to greatly add to household income.

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