SOCIO- ECONOMIC CHARACTERISTICS AND MARKETING ATTRIBUTES OF MACHERLA BROWN SHEEP FARMERS*

P. VENUGOPAL CHOUDARY[1], B. EKAMBARAM[2], M. GNANA PRAKASH[3] AND N. RAJANNA[4]
Department of Animal Genetics and Breeding,
College of veterinary Science, Rajendra Nagar, Hyderabad-30, India

ABSTRACT

A survey on socio-economic characteristics and marketing attributes of Macherla Brown (local sheep) sheep farmers was conducted in Guntur, Nalgonda, Prakasam and Krishna districts of Andhra Pradesh with sample size of 104 farmers. The survey revealed the mean family size of the farmers was 4.34 with majority (80.77%) of famers belonged to medium size. About 57.7% of farmers had primary education. The overall mean land holding in the surveyed area was 1.94 ± 0.20 acres and 99.04% farmers chosen sheep husbandry as main occupation. Mean flock size was 120.64 ± 4.80 sheep and 41.34 % farmers had 50 to 100 sheep per flock. It was found that 60.58% sheep farmers realized their income from sale of meat. The sheep marketing pattern followed in the present study indicated that middlemen or butcher based (75.96%) market channel was very strong and followed by direct mode of marketing most of the farmers (64.42%) felt sheep rearing was remunerative enterprise.

Key words: Macherla Brown sheep farmers, Socio-economic and marketing attributes.

Andhra Pradesh is having the highest sheep population (25.53 millions) and ranks first in India and accounts for 34.18 percent of Indian sheep population[1].The most widely distributed native sheep breeds of Andhra Pradesh are Nellore, the tallest and famous mutton breed and Deccani, a dual purpose breed. In spite of these recognized breeds several local sheep are also existing in different agro climatic regions of Andhra Pradesh.

Macherla Brown are the local sheep distributed in the villages adjacent to Krishna river in Guntur, Nalgonda, Prakasam and Krishna districts of Andhra Pradesh with specific phenotypic characters and are well known for adaptability to hot and humid climatic conditions prevailing in this region.

No work on characterization of socioeconomic and marketing attributes of these local sheep farmers was attempted earlier and hence, the present investigation on socioeconomic and marketing attributes of Macherla Brown sheep farmers of Andhra Pradesh has been taken up.

*Part of M.V.Sc thesis submitted to SVVU Tirupati by first author
[1]Presently working as Veterinary Asst Surgeon, Macherla,Guntur,AP
[2]Principal Scientist & Head, LRS, Palamaner, SVVU, Chittoor, AP
[3]Professor, Dept.of AGB, CVSc, SVVU, Rajendra nagar, Hyderabad,AP
[4]Associate professor & Head, Dept.of LPM, CVSc, SVVU,Korutal, Karimnagar,AP

MATERIALS AND METHODS

The information on Macherla Brown sheep for the present study was collected from sheep farmers in the villages located on banks of Krishna river in Guntur, Nalgonda, Prakasam and Krishna districts and command area of multi utility Nagarjuna Sagar irrigation project from April to July, 2012 by using pre structured interview schedule. Three mandals each in Guntur and Nalgonda districts and two mandals each in Prakasam and Krishna districts were selected randomly for the present investigation. From each mandal, 3 to 4 villages were chosen randomly. 3 to 4 sheep farmers each having at least 10 sheep were selected randomly to record data. The information on socio-economic and marketing attributes and flock information were collected from 104 farmers maintaining Macherla Brown sheep spread over a total of 10 mandals and 32 villages. Statistical analysis was done as per the [10].

RESULTS AND DISCUSSION

Socio-economic attributes: The results pertaining to socio-economic attributes were presented in Table-1.

Family size and education: The present survey on farmers rearing Macherla Brown sheep revealed that average family size of the farmers was 4.34 members which concurs well with the findings of [12] and [11] in Tamilnadu, while it was lower than the observations of [4] who reported an average family size of 6.68 in Rajasthan and 5.69 [7] in Andhra Pradesh. Majority of the farmers are of medium sized family (80.77%) with 4 to 6 members in a family, higher than the values reported by [7], followed by small family size (18%) with up to 3 members. Among the farmers 57.7% had primary education and 42.3% had secondary education, while [11], (2010) reported that 64.17 % farmers had primary to secondary education

among the respondents of Kancheepuram district, Tamilnadu.

Land holding and type of farmers: The overall mean land holding in the surveyed area was 1.94±0.20 acres. Majority of sheep farmers (43.27%) were marginal farmers with no land to 2.5 acres of land and landless labourers comprising 28.85% were dependent on sheep rearing in villages as a main source of livelihood. Some of small and medium farmers were also keeping sheep flocks along with the agriculture as a secondary source of income.

The results of the present study were slightly lower than the values reported by [7] for small and marginal farmers. In contrary [11] reported higher values for landless farmers (75.83%) among the respondents in his study.

Source of Income: The landless labourers (28.85%) and marginal farmers recognized sheep rearing as main source of income generation, apart from some of medium type of farmers, 53.85 % of shepherds depended solely on sheep rearing as a main source of income. In the study area almost all the farmers chosen sheep husbandry as main occupation (99.04%) and others (0.06%) practicing as subsidiary occupation. While [4] reported that 84.7% of farmers had sheep farming as main occupation in Rajasthan.

Land holding and type of land: In the present study majority of farmers were (43.27%) marginal farmers having each 0 to 2.5 acres followed by small farmers (25%) with 2.5 to 5 acres and medium farmers (2.88%) with 5 to 10 acres of land. Among the land holding majority farmers have wet land (94.6%) and 17.57% of farmers cultivated fodder crops for feeding their sheep, which is higher than the report of [12].

Annual Income: The present study revealed that Rs 72,000 was the average income and 41.35

% farmers generated annual income ranging from Rs 51,000 to 75,000 which was in close to the reports of [7] in Telangana region of Andhra Pradesh. In contrary [12, 8 and 11] reported lower annual income.

Flock information: Majority of the sheep farmers (99.04%) were maintaining their flocks with their own family members as a source of livelihood. Similar results were reported by [4] and[7].

In the present study, the mean flock size was 120.64±4.80 sheep (Table 2). It was found that 41.34 % farmers were maintained small size flocks consists of 50 to 100 sheep, 31.73% shepherds kept medium size flocks with 101 to 150 animals and 26.92% of the farmers maintained large flocks with 150 animals and above . The small size of sheep flock (50-100) in the present study area can be regarded as optimum and easy to be maintained by a pair of family members. The results of the present study are within the range of reports of [5, 6], while slightly lower than the reports of [2] who reported the mean flock size of 125 in a survey on Pugal sheep and[9] who reported an average sheep flock size of 131, and higher than the values reported by[4].

Source of animals: The results obtained in the study revealed that 26.92 per cent of sheep farmers used breeding rams exclusively from their own flock, whereas 30.77 per cent of respondents purchased breeding rams from different sources as a replacement stock in the study area. Purchasing the good breeding rams from outside the farm may help maintain the genetic variation and prevent the inbreeding. Majority (53.85) of the farmers in the study area replaced ewes from their own flock. These results were in contrary with findings of [7] who reported that 85.58% of sheep farmers used breeding rams from their own flock in Deccani breed of Telangana region of Andhra Pradesh.

Marketing attributes

The sheep farmers realized their income mainly through the sale of meat (60.58%) 39.42% were earning from both meat and manure (Table 3). Most of the farmers (58.65%) sold off their animals based on size and few (28.85%) sold on butcher discretion. The sheep marketing pattern followed in the present study indicated that middlemen or butcher based (75.96%) market channel was very strong and followed by direct mode of marketing. The animals are disposed mostly (64.42%) in the villages to save the transport cost and avoid the problem of middle men in disposal of their animals.

The study revealed that majority (69.23%) of shepherds sold their lamb at age between 3 and 6 months followed by 30.77 per cent farmers sold at 6-8 months of age. Majority of the farmers sold their lambs (ram lambs) at the age of 3-6 months to get remunerative price. These results were in agreement with [12, 4] and [3].

Nearly, 43 per cent respondents expressed difficulty in marketing of their animals because of lack of transparency in butcher and his discretion on size and shape of animals, lack of transportation facilities to shandies. There is a need to reduce the role of butchers in marketing of the sheep by formation of cooperative societies and selling the animals by the farmers themselves.

In the present study most of the farmers (64.42%) felt sheep rearing was remunerative enterprise. It could be due to high demand for meat. Sheep owners around 73% did not insure their animals. Hence they may be educated about the advantages of insuring their animals against the theft, diseases and other natural calamities.

Socio-economic characteristics of sheep farmers

Table 1. Socio-economic attributes of Macherla Brown sheep farmers

S.No	Socio-economic attribute	Category	n	%
1	Family size (n=104)	Small (up to 3 members)	18	17.31
		Medium (4 to 6)	84	80.77
		Large (above 6)	02	01.92
		Overall	4.34	
2	Education (n=104)	Primary school	60	57.70
		Secondary school	44	42.30
		Degree	Nil	
3	Adoption of Sheep husbandry as (n=104)	Main occupation	103	99.04
		Subsidiary occupation	1	0.96
4	Land holding (acres) (n=104)	Landless Labourer	30	28.85
		Marginal Farmers (0-2.5)	45	43.27
		Small Farmers (2.5-5)	26	25.00
		Medium Farmers (5-10)	03	2.88
		Large Farmers (above 10)	Nil	
		Mean	1.94	
		S.E	0.20	
5	Type of land (n=74)	Dry	4	5.4
		Wet	70	94.6
6	No. of farmers cultivated fodder (n= 74)	Cultivated	13	17.57
		Not cultivated	61	82.43
7	Source of income	Agriculture	Nil	
		Sheep Rearing	56	53.85
		Sheep rearing & Agriculture	48	46.15
8	Annual Income (Rs)	Less than 50,000	25	24.04
		51,000 to 75,000	43	41.35
		76,000 – 1,00,000	33	31.73
		More than 1,00,000	3	2.88
		Mean	72,000	-
9	Management of Animals by	Own family Members	103	99.04
		Labourers	1	0.96

n = number of farmers

Table 2. Flock information of Macherla Brown sheep

S. No	Flock information	Category	n	%
1	Flock size	Small flock (50-100)	43	41.34
		Medium flock (101-150)	33	31.73
		Large flock (above 150)	28	26.92
		Mean	120.64	
		S.E	4.80	
2	Source of animals	Rams :		
		Home grown	28	26.92
		Purchased	32	30.77
		Both	44	42.31
		Ewes :		
		Home grown	56	53.85
		Purchased	1	0.96
		Both	47	45.19

Table 3. Marketing practices of Macherla Brown sheep

S.No	Marketing	Category	n	%
1	Income generation through sale of	Meat	63	60.58
		Both meat and manure	41	39.42
2	Selling off animals based on	Live weight	13	12.5
		Body size	61	58.65
		Butcher discretion	30	28.85
3	Mode of marketing	Direct	25	24.04
		Middle men/Butcher	79	75.96
4	Place of disposal	Village	67	64.42
		Shandy	37	35.58
5	Difficulty in disposal	Yes	45	43.27
		No	59	56.73
6	Age of marketing	3 – 6 months	72	69.23
		6 – 8 months	32	30.77
7	Sheep rearing is remunerative	Yes	67	64.42
		No	37	35.58
8	Animals are insured	Yes	28	26.92
		No	76	73.08
9	Maintenance of Records	Yes	8	7.69
		No	96	92.31

CONCLUSION

The study on the cataloguing of socio-economic characteristics and market attributes of macherla brown sheep rearers had revealed that the mean family size of the farmers was 4.34 with majority (80.77%) of famers belonged to medium size and mean land holding was 1.94 ± 0.20 acres. Majority of (99.04%) farmers chosen sheep husbandry as main occupation. Mean flock size was 120.64 ± 4.80 sheep and 41.34 % farmers had maintained small size sheep flocks with 50 to 100 animals. 60.58% sheep farmers realized their income from sale of meat only. The sheep marketing pattern indicated that middlemen or butcher based (75.96%) market channel was very strong and followed by direct mode of marketing.

REFERENCES

1. FAO 2010 Bulletin of statistics. FAO, Rome, Italy. www.faostat.org

2. Gopaldass, 2007. Production performance and management practices of Pugal sheep in the home tract. Indian J. Anim. Sciences. 77(8): 763-66.

3. Gurmej Singh and Anand Jain 2009. Characterization and Evaluation of Vembur sheep in its native tract, Final project report.

4. Kuldeep Porwal, Karim, S. A., Sisodia, S.L. and Singh, V. K. 2006. Socio-economic survey of sheep farmers in western Rajasthan. Indian J. Small Rumin. 12(1): 74-81.

5. Kumaravelu, N. 2007. Analysis of sheep production system in Southern and Northern Zones of Tamilnadu. Ph.D Thesis submitted to Tamil Nadu Veterinary and Animal Sciences University, Chennai.

6. Pattanayak, G. R., Patro, B. N., Das, S. K. and Nayak, S. 2003. Survey and performance evaluation of Ganjam Sheep. Indian J. Small Rumin. 9(1): 47-49.

7. Rajanna, N.,Mahendar,M.,Thammi Raju,D., Raghunandan, T., Nagalakshmi,D. and Sreenivasa Rao,D. 2012. Socio economic status and flock management practices of sheep farmers in Telangana region of Andhra Pradesh. Vet.Res. 5(2):37-40.

8. Rajapandi, S. 2005. Distribution and management practices of Coimbatore sheep. M.V.Sc. Thesis Veterinary College and Research Institute, Namakkal, Tamil Nadu.

9. Riyazuddin, Kumar, A., Jaishanker, J., Rawat, P. S. 2001. Development of small ruminant sector in India. Final Report of ad hoc project, CSWRI, Avikanagar, Rajasthan.

10. Snedecor, G. W. and Cochran, W. G. 1994. Statistical methods. 8th Edn.Iowa, State University Press, Ames, Iowa.

11. Thilakar, P. and Krishnaraj, R. 2010. Profile characteristics of sheep farmers- A survey in Kanchepuram district of Tamil Nadu. The Indian J.Field Vets. 5 (3): 35-36.

12. Thiruvenkadan, A. K., Karunanithi, K. and Purushothaman, M. R., 2004. Socio-economic Status of the Mecheri sheep farmers and economics of rearing under farmer's management. Indian J. Small Rumin. 10(2): 117-122.

★ ★ ★