

ANALYSING THE SOCIO-PERSONAL, ECONOMIC PROFILE AND PREPAREDNESS OF SHEEP FARMERS

***Mastanbi, Shaik¹, Subrahmanyeswari, B.² and Sharma, G.R.K.³**

¹Ph.D Scholar, Department of Veterinary and Animal Husbandry Extension Education,
College of Veterinary Science, Tirupati. ²Professor & Head, Department of Veterinary and
Animal Husbandry Extension Education, NTR College of Veterinary Science, Gannavaram

³Professor & University Head, Department of Veterinary and Animal Husbandry Extension
Education, College of Veterinary Science, Tirupati

E-mail: drmastanbi@gmail.com (*Corresponding Author)

Abstract: Sheep husbandry is an important enterprise in the arid and semi-arid areas of India characterized by sparse vegetation, marginal land, and a high incidence of poverty. It is a low-investment sustainable enterprise yielding reasonably high rates of return. The present study was conducted in Prakasam and Nellore districts of Andhra Pradesh. 180 sheep farmers were selected to analyse their socio-personal, economic profile and their preparedness towards sheep health care with specific reference to vaccination. The study revealed that majority of sheep farmers were middle aged and illiterates and belong to backward caste. Sheep farming was the main occupation, while dairy farming was taken up as subsidiary occupation. Most of the respondents had medium experience in sheep farming with small flock size (66-231) having low annual income (Rs.50,000-1,66,670). Majority of the shepherds had less land with medium extension contact and medium affordability. It was interesting to note that majority of sheep farmers possessed medium level of preparedness towards sheep health care with specific reference to vaccination, which represents their plan of future farming activities.

Keywords: Socio-personal; economic profile; preparedness; sheep farmers.

INTRODUCTION

In India, livestock is the major source of income for most of the rural people after crop production and this sector has contributed one quarter of the total output in agriculture, fisheries and forestry (DAHDF & SAPPLPP, 2015). Sheep and goat contribute 40 per cent of the livestock population and form the backbone of rural livelihoods for resource poor families often providing them with much needed cash in arid and semi arid regions. India ranks 3rd in sheep population, next to China and Australia and is placed at the 7th position among the top 10 countries of the world in terms of mutton and wool production. The meat production of indigenous sheep in India is 237.6 MT and occupying first position among SAARC countries (FAO, 2013). In Andhra Pradesh total sheep population was 26.39 million, which constitute 40.57 per cent of Indian sheep population and ranks first in the country producing 198.82 MT

of meat, out of total meat production of 441.14 MT in India (Ministry of Agriculture, Govt. of India, 2012-2013). In this state, most of the sheep production is in the hands of traditional shepherd community or economically weaker sections of the society under traditional extensive system of rearing which is influenced by agro-climatic conditions and rigors of nature (Rajanna *et al.*, 2012). Whereas sheep farming has been identified as critical to the overall economic and social development. However shepherds were continuing unscientific sheep rearing practices there by incurring huge losses due to disease outbreaks and heavy mortality. Hence, a study has been conducted to assess the profile of farmers and their preparedness towards sheep health care with specific reference to vaccination.

METHODOLOGY

The present study was conducted in Prakasam and Nellore districts of Andhra Pradesh. A total of 180 shepherds who were having at least 50 sheep were selected from 18 villages of six mandals of two districts through multistage sampling and interviewed through direct interview method. The data were collected by using a pre-structured interview schedule developed for the purpose in consultation with other experts. Sheep farmers were categorised into three groups based on flock size viz., small (66-231), medium (232-397) and large (398-562). Following the tabulation and necessary sorting, statistical analysis viz., frequency and percentile were used to draw the inferences.

RESULTS AND DISCUSSION

Socio-personal profile characteristics of sheep farmers:

Personal characteristics of sheep farmers were studied in terms of age, gender, caste and education and the findings represented in Table 1.

1. Age: The results show that majority of respondents were under the age group of 35 to 50 years (60.56%) followed by 51 to 65 years (24.44%) and 19 to 34 years (15%). The average age of sheep farmers was 43.5 years. It can be inferred that most of the young people from the study area might be choosing new vocations rather than occupations like sheep farming. Similar results were reported by Rajanna *et al.*, (2012), Baluswamy (2004) and Mishra *et al.*, (2004). In contrary to these findings, Thilakar and Krishnaraj (2010) reported that nearly one-half (40.83%) were old age followed by young age group.

2. Gender: It was found that majority of the sheep farmers (94%) were males followed by 6 per cent of female farmers. Sheep farming depends upon mostly extensive system of rearing like taking the flock to the open grazing areas far from the domestic human dwellings and seasonal migration in search of pastures etc. Hence, the trend of most of the sheep farming by

male might be observed in this study. Similar results were reported by Adams and ohene-Yankyera (2015) and Rajanna *et al.*, (2011).

3. Caste: The findings indicated that majority (71.11%) of the sheep farmers belonged to Backward Caste (BC) followed by Scheduled Caste (SC) (11.67%) and Open Category (OC) (10.55%) and only 6.67 per cent of farmers represented Schedule Tribe (ST) category. In the study area, sheep farming is being carried out as a traditional caste occupation i.e. by backward community like *Golla* (Yadavas). Similar results were observed by Rajanna *et al.*, (2012) and Kandasamy *et al.*, (2006).

4. Education: Majority (74.44%) of the sheep farmers were illiterates followed those who had education up to high school (8.89%). Whereas, only 1.67 per cent respondents had education up to intermediate level. These findings are in accordance with Adams and ohene-Yankyera (2015), Rajanna *et al.*, (2012) and Suresh *et al.*, (2008).

Socio-economic profile characteristics of sheep farmers:

Socio-economic profile of sheep farmers were studied in terms of occupation, land holding, experience in sheep farming, income level and affordability and the findings represented in Table 2.

1. Occupation: All the respondents were sheep farmers and hence their main occupation was sheep farming. These findings are in consonance with the findings of Thilakar and Krishnaraj (2010), Kuldeeporwal *et al.*, (2006) and Thiruvankadan *et al.*, (2004). Among these sheep farmers, half of the respondents (55%) depended on sheep farming only without any other subsidiary occupations. About 27.78 per cent and 11.67 per cent had dairy farming and agriculture as subsidiary occupations, respectively. Very few (05.55%) sheep farmers working as agriculture labours.

2. Land holding: Though nearly one fourth of the sheep farmers (22.78%) were holding agricultural land, half of the sheep farmers with land holding considered dairy farming as subsidiary occupation, because dairy farming might be contributing more income than agricultural farming. In rural India, sheep farming is mostly dominated by landless, marginal and small farmers. These findings are in line with the findings of Thilakar and Krishnaraj (2010), Kandasamy *et al.*, (2006) and Rajapandi *et al.*, (2005) that majority of the sheep farmers were landless and among those with land holding belong to marginal farmers.

3. Experience in sheep farming: The study indicated that 62.22 per cent of the sheep farmers possessed medium experience in sheep farming, followed by (25.56%) and (12.22%) sheep farmers with low and high farming experience, respectively. The average experience of

the sheep farmers was found to be 20.7 years. The sheep farmers might be continuing sheep farming as they have experienced it as a remunerative livelihood, and hence medium level of experience in sheep farming is observed. These findings are in accordance with Rajanna *et al.*, (2012) and Anandarao (2010).

4. Income: The outcome of the study was that majority (81.11%) of sheep farmers had less annual income, whereas, 13.89 per cent and 5 per cent of sheep farmers belonged to medium and high annual income groups, respectively. The annual income of the sheep farmers in the study area ranged between Rs 50,000 to Rs 4,00,000 and the average annual income was Rs 1,25,425. Rathod *et al.*, (2014) also found in his study that the average annual income was Rs 1,00,063. The low income level might be due to holding of small flock size, and might be for continuing the farming as a traditional occupation without following improved management practices. The lower literacy levels might also be contributing towards less income levels.

5. Affordability: It was observed that majority sheep farmers expressed medium affordability of vaccines and veterinary services followed by low and high affordability. The reason might be that though majority of the respondents belong to low income group, they were willing to afford to vaccines and veterinary services which are worthy to pay.

Distribution of respondents based on various information access sources:

Respondents were distributed in accordance to possibility of providing access to various sheep farming related information sources like social participation, training received, extension contact and the findings represented in Table 3.

1. Social participation: More than three fourth (83.89%) of the sheep farmers did not had social participation and only 16.11 per cent of the sheep farmers had social participation. Those farmers with social participation were the members of Primary Sheep Breeders Cooperative Society. These observations are in line with findings of Thilakar and Krishnaraj (2010). Sheep farmers were not aware of the benefits of being a member of cooperative society and also due to their migratory nature of sheep farming, they could not devote time to form society. The sheep rearers should be motivated to form a society in order to be aware and avail the government schemes and financial facilities.

2. Training received: Only 11.11 per cent of the sheep farmers had received training and majority (88.89%) of sheep farmers did not participate in any training related to sheep farming. Among the sheep farmers those received training, an equal per cent of respondents had received training from both the State Animal Husbandry Department (SDAH) and Integrated Watershed Management programme (IWMP).

3. Extension contact: Three fourth (75%) of the sheep farmers possessed medium level of extension contact followed by high (17.22%) and low (07.78%) low level of extension contact. These observations are in concurrence with findings of Thilakar and Krishnaraj (2010). However, more attempts should be made to increase the level of extension contact, so as to improve and update their skill and knowledge for profitable production.

Preparedness of sheep farmers towards sheep health care with specific reference to vaccination:

It was noticed from the Table 4 that majority (77.71%) of small category sheep farmers followed by 73.33 percent and 50.00 percent of medium and large category of sheep farmers had medium level of preparedness towards sheep health care practices. This trend represent their plan of future farming activities.

The study also gets support from the findings of Karimuribo *et al.*, (2011) that preparedness from both farmers and veterinarian side is having its importance in dealing with disease outbreaks.

Conclusion

The study conducted in Prakasam and Nellore districts of Andhra Pradesh revealed that majority of sheep farmers belonged to middle age group. Hence, this group of shepherds should be imparted training so that they can act as catalysts in motivating other shepherds through interpersonal networks. As the educational level was low among most of the shepherds, governmental and non governmental agencies should try to educate them through adult education programmes during non grazing hours in order to make them aware of different Animal Husbandry developmental programmes and get their involvement. Traditional sheep rearers can be targeted towards adoption of recommended scientific health care practices through intensive extension education efforts.

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Table 1: Personal profile characteristics of sheep farmers

S.No	Parameter	Small farmers (n=157)	Medium farmers (n=15)	Large farmers (n=08)	Total farmers (n=180)
1.	Age				
	Young (19-34 years)	26 (16.56)	01 (06.67)	00 (00.00)	27 (15.00)
	Middle (35-50 years)	95 (60.51)	08 (53.33)	06 (75.00)	109 (60.56)
	Old (51-65 years)	36 (22.93)	06 (40.00)	02 (25.00)	44 (24.44)
2.	Gender				
	Male	146 (93.00)	15 (100.00)	08 (100.00)	169 (94.00)
	Female	11 (07.00)	00 (00.00)	00 (00.00)	11 (06.00)
3.	Caste				
	Open category (OC)	17 (10.83)	01 (06.67)	01 (12.50)	19 (10.55)
	Backward Caste (BC)	108 (68.79)	13 (86.66)	07 (87.50)	128 (71.11)
	Scheduled Caste (SC)	20 (12.74)	01 (06.67)	00 (00.00)	21 (11.67)
	Scheduled Tribe (ST)	12 (07.64)	00 (00.00)	00 (00.00)	12 (06.67)
4.	Education				
	Illiterates	117 (74.52)	13 (86.66)	04 (50.00)	134 (74.44)
	Can read only	00 (00.00)	00 (00.00)	01 (12.50)	01 (00.56)
	Can read & write	04 (02.55)	01 (06.67)	01 (12.50)	06 (03.33)
	Primary School	07 (04.46)	00 (00.00)	01 (12.50)	08 (04.44)
	Middle School	10 (06.37)	01 (06.67)	01 (12.50)	12 (06.67)
	High School	16 (10.19)	00 (00.00)	00 (00.00)	16 (08.89)
	Intermediate	03 (01.91)	00 (00.00)	00 (00.00)	03 (01.67)

Table 2: Socio-economic profile characteristics of sheep farmers

S.No	Parameter	Small farmers (n=157)	Medium farmers (n=15)	Large farmers (n=08)	Total farmers (n=180)	Mean	Standard deviation
1.	Occupation						
	Main (Sheep farming)	157 (87.22)	15 (08.33)	08 (04.45)	100 (100.00)		
2.	Subsidiary						
	Dairy farming	47 (29.94)	02 (13.33)	01 (12.50)	50 (27.78)		
3.	Agriculture	18 (11.46)	02 (13.33)	01 (12.50)	21 (11.67)		
	Agriculture labour	10 (06.37)	00 (00.00)	00 (00.00)	10 (05.55)		
4.	Only sheep farming	82 (52.23)	11 (73.34)	06 (75.00)	99 (55.00)		
	Land holding						
5.	Land less (0 acres)	121 (77.07)	12 (80.00)	06 (75.00)	139 (77.22)		
	Marginal farmers (0-2.5 acres)	32 (20.38)	02 (13.33)	02 (25.00)	36 (20.00)		
6.	Small farmers (2.5-5 acres)	04 (02.55)	01 (06.67)	00 (00.00)	05 (02.78)		
	Large farmers (> 5 acres)	00 (00.00)	00 (00.00)	00 (00.00)	00 (00.00)		
7.	Experience in sheep farming						
	Low (< 11years)	41 (26.11)	02 (13.33)	03 (37.50)	46 (25.56)	20.7	10.1
8.	Medium (bet 11-31years)	99 (63.06)	08 (53.33)	05 (62.50)	112 (62.22)		
	High (> 31years)	17 (10.83)	05 (33.33)	00 (00.00)	22 (12.22)		
9.	Income						
	Low (50000-166670)	145 (92.36)	01 (06.67)	00 (00.00)	146 (81.11)		
10.	Medium (166671-283340)	12 (07.64)	13 (86.67)	00 (00.00)	25 (13.89)		
	High (283341-400000)	00 (00.00)	01 (06.67)	08 (100.00)	09 (05.00)		
11.	Affordability						
	Low (< 10)	15 (09.55)	00 (00.00)	00 (00.00)	15 (08.33)	11.08	1.408
12.	Medium (bet 10-12)	132 (84.07)	13 (86.67)	06 (75.00)	151 (83.89)		
	High (> 12)	10 (06.36)	02 (13.33)	02 (25.00)	14 (07.78)		

Table 3: Distribution of respondents based on various information sources

S.No	Parameter	Small farmers (n=157)	Medium farmers (n=15)	Large farmers (n=08)	Total farmers (n=180)	Mean	Standard deviation
1.	Social participation						
	Yes	21 (13.38)	06 (40.00)	02 (25.00)	29 (16.11)		
	No	136 (86.62)	09 (60.00)	06 (75.00)	151 (83.39)		
2.	Training received						
	Yes	16 (10.19)	02 (13.33)	02 (25.00)	20 (25.00)		
	No	141 (89.81)	13 (86.67)	06 (75.00)	160 (75.00)		
3.	Extension contact						
	Low (< 06)	12 (07.65)	01 (06.67)	01 (12.50)	14 (07.78)	8.617	2.559
	Medium (bet 6-11)	123 (78.34)	08 (53.33)	04 (50.00)	135 (75.00)		
	High (> 11)	22 (14.01)	06 (40.00)	03 (37.50)	31 (17.22)		

Table 4: Distribution of respondents according to their Preparedness towards sheep health care with specific reference to vaccination

S.No	Parameter	Small farmers (n=157)	Medium farmers (n=15)	Large farmers (n=08)	Total farmers (n=180)	Mean	Standard deviation
1.	Farmers preparedness						
	Low (< 184)	19 (12.10)	01 (06.67)	02 (25.00)	22 (12.22)	196.367	12.402
	Medium (bet 184-208)	122 (77.71)	11 (73.33)	04 (50.00)	137 (76.11)		
High (> 208)	16 (10.19)	03 (20.00)	02 (25.00)	21 (11.67)			

(Figures in parenthesis indicate percentage)