



SMALL RUMINANT REARING PRACTICES FOLLOWED IN WESTERN MAHARASHTRA

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ABSTRACT

Present study was conducted in 4 districts of western Maharashtra viz. Sangli, Satara, Solapur and Kolhapur. A data were collected from individual farmer on sheep and goat rearing practices. A total of 108 small ruminants owners having at least one animal per farmer were selected randomly. Farmers were interviewed by a presented structured interview schedule from each district two tehsils were selected and from each tehsil three villages were selected, from each village 25 respondents were selected randomly. Result revealed that majority of farmers practices a Semi-nomadic type of pastoral system (61.00%), always on pasture types of land feeding system (79.77%), own type of livestock ownership pattern (74.59%), Availability of male animal for breeding through home bred (61.87%), breeding season practices in autumn (58.38%), mode of breeding Service after kidding/ lambing by natural service with any male (50.87%), Place of treatment of sick animal first time itself at home (67.32%), vaccination (67.78%) and deworming (65.22%). This conducted for the first time in the study area gives an idea of the status of goat & sheep rearing production which would help the policy makers and researchers to plan future goat and sheep improvement programmes in western Maharashtra

KEY WORDS: Sheep & Goat rearing, Status, Feeding, Breeding, Vaccination, Management.

INTRODUCTION

Landless and poor farmers are mainly depends upon sheep (Deccani, Madgyal) and goat (Osmanabadi and Sangamneri) rearing business and the rearing is mainly done in dry climatic districts such as Satara, Solapur, Sangli and Kolhapur area of Maharashtra. Goat and sheep constitute a very important species of livestock in India, mainly on account of their short generation intervals, higher rates of prolificacy, and the ease with which the goats as also their products can be marketed. As per statistical report of dept. of animal husbandry, Maharashtra State for the year 2008 –2009, sheep and goat meat production is about 34.52% of total meat production in the state of which 11.34 % is from sheep and 23.18 % is from goats. Estimated average meat production per sheep and goat is 11 kg. The wool is short staple & rough. Wool is generally used locally for production of Ghongadies (Kamblies) & Jen (Namdass), Barrack Blankets, which are required for military- paramilitary forces. The present study was under taken to understand various aspects of managerial tool for determining the sheep and goat existing rearing status and will provide the important guidelines to improve the managerial practices.

MATERIAL AND METHODS

The present study was conducted on 4 districts of western Maharashtra viz. Sangli, Satara, Solapur and Kolhapur. From each district two tehsils were selected and from each tehsils three villages were selected. From each village 25 respondents were selected randomly. A total 108 small ruminants owners having at least one livestock were selected randomly to study the Sheep and goat rearing

practices followed by them were collected. The parameters considered for the study are Pastoral system, Feeding system, type of livestock ownership pattern, availability of male animal for breeding, breeding season, mode of breeding Service after Kidding/ lambing, place of treatment of sick animal, vaccination and deworming *etc.* The information collected was pooled and analyzed using standard statistical procedure (Snedecor and Cochran 1994). Based on the nature of research problem, Ex-post facto research design was followed in the present study (Kerlinger 1983).

RESULTS AND DISCUSSION

Pastoral system

The majority of respondents of Sangli (57.58%), Satara (64.52%), Solapur (64.00%) and Kolhapur (57.89%) followed semi nomadic pastoral system while the remaining ones in Sangli (42.42%), Satara (35.48%), Solapur (32.00%) and Kolhapur (42.11%) followed settled pastoral system. At the time of data collection it was found that the respondents who had small sized flock avoid to go on migration and instead stayed at home only in own village. None of the respondent followed the nomadic type of pastoral system. According to Reddy *et al.* (2001) and Patil (2012), Dhangars of Maharashtra are traditionally semi-nomadic pastorals (maintaining a variety of livestock), distributed throughout heterogeneous environments of Maharashtra. In Goat rearing semi stall fed system mainly used in Kolhapur district were reported by Sasane *et al.* (2012).

Feeding system

Small ruminant rearing practices in Western Maharashtra

Majority of livestock owners in Sangli (78.79%), Satara (83.87%), Solapur (88.00%) and Kolhapur (68.42%), used to feed their sheep mainly on pasture land while the rest of them fed their animals at home only. Similar trends were observed by Gokhale et al. (2002), 69.27% of goat farmers gives tree leaves while grazing. Similar type findings

about perennial tree were a source of fodder for Konkan Kanyal reported by (Verma et al., 2011). None of farmers were feeding concentrates or any other special feeds in the daily ration but all of them were feeding a local mixture of rice gruel and vegetable washing generated as kitchen waste.

TABLE 1: Small ruminants rearing management practices followed by dairy farmers in four districts of Western Maharashtra

| Variables | Category | Sangli n=33 | Satara n=31 | Solapur n=25 | Kolhapur n=19 | Avg. |
|------------------------------------------|------------------------------------------|----------------|----------------|-----------------|------------------|-------|
| Pastoral system | Semi-nomadic | 57.58 | 64.52 | 64.00 | 57.89 | 61.00 |
| | Settled | 42.42 | 35.48 | 32.00 | 42.11 | 38.00 |
| | Always at home | 21.21 | 16.13 | 12.00 | 31.58 | 20.23 |
| Feeding system | Always on pasture land | 78.79 | 83.87 | 88.00 | 68.42 | 79.77 |
| | Own | 69.70 | 70.97 | 84.00 | 73.68 | 74.59 |
| Type of livestock ownership pattern | Contract | 3.03 | 3.23 | 4.00 | 5.26 | 3.88 |
| | shared with other pastoralists | 27.27 | 25.81 | 12.00 | 21.05 | 21.53 |
| | Home bred | 51.52 | 58.06 | 80.00 | 57.89 | 61.87 |
| Availability of male animal for breeding | Hired from other | 39.39 | 32.26 | 16.00 | 36.84 | 31.12 |
| | Purchased from market | 9.09 | 9.68 | 4.00 | 10.53 | 8.32 |
| | Summer | 15.15 | 16.13 | 16.00 | 15.79 | 15.77 |
| Breeding season | Autumn | 57.58 | 58.06 | 60.00 | 57.89 | 58.38 |
| | Post Monsoon | 27.27 | 25.81 | 24.00 | 26.32 | 25.85 |
| | Natural service with known pedigree male | 51.52 | 48.39 | 44.00 | 52.63 | 49.13 |
| Mode of breeding | Natural service with any male | 48.48 | 51.61 | 56.00 | 47.37 | 50.87 |
| Service after Kidding/ Lambing | Two months | 48.48 | 41.94 | 40.00 | 42.11 | 43.13 |
| | After two months | 51.52 | 58.06 | 60.00 | 57.89 | 56.87 |
| | Throw away | 57.58 | 61.29 | 72.00 | 57.89 | 62.19 |
| | Bury | 30.30 | 28.81 | 18.00 | 311.05 | 27.29 |
| | Used animal morbid for meat purpose | 12.12 | 9.90 | 10.00 | 11.05 | 10.52 |
| Disposal of dead animal | By self at home | 63.64 | 67.74 | 80.00 | 57.89 | 67.32 |
| | At veterinary hospital | 15.15 | 12.90 | 8.00 | 21.05 | 14.28 |
| | Take help from veterinary pharmacist | 21.21 | 19.35 | 12.00 | 21.05 | 18.40 |
| Place of treatment of sick animal | ET | 69.70 | 67.74 | 60.00 | 73.68 | 67.78 |
| | No | 30.30 | 32.26 | 40.00 | 26.32 | 32.22 |
| | PPR | 69.70 | 67.74 | 60.00 | 73.68 | 67.78 |
| | No | 30.30 | 32.26 | 40.00 | 26.32 | 32.22 |
| Vaccination | Yes | 66.67 | 64.52 | 56.00 | 73.68 | 65.22 |
| | No | 33.33 | 35.48 | 44.00 | 26.32 | 34.78 |



FIGURE 1 –Traditional pasture grazing method



FIGURE 2 – Traditional housing system



FIGURE 3 –proper Roof housing system

Type of livestock ownership pattern

The majority in Sangli (69.70%), Satara (70.97%), Solapur (84.00%) and Kolhapur (73.68%) of Dhangars had their own ownership of animals. Because of farmers have emotional attachment with their animals and mainly rear sheep as an ancient tradition from their parents. While the respondents in Sangli (27.27%), Satara 25.81%), Solapur (12.00%) and Kolhapur 21.05 %) shared their animals with other pastoralists; a few of them Sangli (3.03%), Satara (3.23%), Solapur (4.00%) and Kolhapur (5.26%) respondents had others animals on contract basis for few years.

Availability of male animal for breeding

Majority in Sangli (51.52%), Satara (58.06%), Solapur (80.00%) and Kolhapur (57.89%) of the Dhangars raised their own breeding male animal at home while Sangli (39.39%), Satara (32.26%), Solapur (16.00%) and Kolhapur (36.84%) of the respondents hired male animals from other Dhangars during breeding season for few days and overall 8.00 of the respondents purchased male animals from the market during breeding season. Geerling (2001) also reported that most Raika households (65%) raise their own breeding ram but sometimes other rams e.g. from the village, from within the family or from the neighbor are used, this depends mostly on the quality of the ram. Sasane *et al.* (2012) reported that the 53.33% of

farmers keeping one buck for herd of 25 goats and 71.11% of farmers keeping for breeding of buck age 2-7 years in Kolhapur district.

Breeding season

Majority of respondents in Sangli (57.58%), Satara (58.06%), Solapur (60.00%) and Kolhapur (57.89%) were bred their animals during autumn because sheep are the seasonal breeder in fact during these season, good availability of feed and fodder is important factor for good reproductive performance. At the same time Sangli (27.27%), Satara (25.81%), Solapur (24.00%) and Kolhapur (26.32%) of the respondents bred their animals during post monsoon period while 15.77 per cent in summer.

Mode of breeding

it was found that in which majority in Sangli (51.52%), Satara (48.39%), Solapur (44.00%), and Kolhapur (52.63%) of the respondents bred their animals by natural service with known pedigree male while in Sangli (48.48%), Satara (51.61%), Solapur (56.00%) and Kolhapur (47.37%) respondents bred their animals by natural service with any male. Respondents who bred their male animal for breeding purpose at own flock, knew the pedigree of that male animals. Present findings are similar to Das (2003) who reported that majority of the tribal farmers followed natural breeding of their animals.

Service after Kidding/ Lambing

it was found that majority of respondents in Sangli (51.52%), Satara (58.06%), Solapur (60.00%) and Kolhapur (57.89%) served their animals after two months of kidding or lambing while Sangli (48.48%), Satara (41.94%), Solapur (40.00%) and Kolhapur (42.11%) served their animals two months of kidding or lambing.

Place of treatment of sick animal

The majority of the respondents in Sangli (63.64%), Satara (67.74%), Solapur (80.00%) and Kolhapur (57.89%) were treating their animals by self at home irrespective of infectious and non-infectious diseases. About in Sangli (21.21%), Satara (19.35%), Solapur (12.00%) and Kolhapur (21.05%) respondents also take help of veterinary pharmacist and overall only (14.28%) visited the veterinary hospital to treat their animals against infectious diseases.

Vaccination

Result on vaccination revealed that the overall (67.78%) sheep and goat farmers aware of vaccinating their animals and (65.22%) had knowledge of deworming, farmers were depending on government veterinary dispensaries for the deworming and routine vaccination and for treatment of any type. Present results are similar observation of Jayashree *et al.* (2014). Sasane *et al.* (2012) reported similar finding as 79.78% of sheep and goat farmer's vaccination to be done in early morning after age of 3 month through local veterinary doctor in Kolhapur district. Overall respondent of in Sangli (69.70%), Satara (67.74%), Solapur (60.00%) and Kolhapur (73.68%) goat rears vaccinate their goat for various diseases like PPR and ETV.

CONCLUSION

In conclusion that the poor and illiterate farmers looking to goat and sheep as business for their livelihood. There is more scope in exists for improvement of goat and sheep business through a proper selection and awareness with respect to feeding, breeding, housing, health aspect in western Maharashtra.

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