



Adoption of goat husbandry practices by goat keepers in Amravati district

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ABSTRACT : The present study was conducted in Amravati district of Maharashtra state. The sample was drawn from the three taluka viz., Chandur bazaar, Morshi, Chandur Railway where functional goat keepers in larger numbers were in existence. Thus, 80 goat keepers were selected which constituted the sample respondents for the present study. Data were collected by personally interviewing the respondents with the help of pre-tested structured interview schedule in face to face situation. Collected data were tabulated. Correlation and regression analysis for interpretation of the findings were calculated. Two hypotheses were set for the study and were tested for acceptance or rejection. Results obtained after analysis were summaries as below. In case of personal profile of the goat keepers revealed that majority (58.75%) of the goat keepers were middle in age, over (11.25%) were illiterate. Majority (66.25%) of goat keepers belonged to medium family size (4 to 6 member) with majority of (56.25%) nuclear family type. Majority (70.00%) of the goat keepers had medium herd size (between 16 to 27 goats) having goat keeping + landless labour occupation (56.25%) with annual income upto Rs. 50,000. Nearly half of the (42.05%) of goat keepers had low social participation, moderate (72.05%) access to the infrastructural facilities. The goat keepers in majority were found to be aware and adopting the practices of buck for natural service, Kachha or Packka type of housing, extensive method of rearing, feeding of leaves, colostrum feeding, goat insurance, but majority of them frequently adopt the practices of selection of descript breeds of goat, feeding of concentrates of milking goat and breeding buck. Results of the relational analysis revealed that age, education, family type, herd size, occupation, annual income, social participation and infrastructural facilities were significantly associated with adoption of goat keepers. However, except family size.

KEY WORDS : Adoption, Goat keeper, Technical knowledge, Goat rearing, Herd size, Recommended practices, Goat rearing

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INTRODUCTION

Livestock agriculture plays an important role in the

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agro-based economy in India. Amongst livestock, goats have been treated as neglected species. Goat is one of the most neglected domestic animal species in terms of technical knowhow. The goat was the earliest ruminant domesticated around 9000 to 7000 B. C. (Banerjee, 1998). The contribution of goats is especially important in rural areas where goats are closely associated with the poorest of the poor and hence termed as 'poor man's cow' and are popularly known as a 'readymade milk bank'. In short, goat keeping is a good enterprise for the following reasons:

– Initial investment is relatively low as compared to

cattle and buffalo.

- Their hardiness and wider adaptability under extreme climatic conditions.

- Goat can thrive well on wide range of feeds and fodder (tree leaves, bushes, weeds) which are not commonly consumed by other farm animals.

- Being a smallruminant animal, it can be easily managed by family member (women and children).

- Feeding, milking and caring, it requires less equipment's and material.

- High incidence of multiple births, short gestation period (150 days).

- Space requirement for housing as compared to other animals is very less.

Thus, economically, goat is a cheap animal for rearing and suited to landless labour, marginal farmers, village artisans and also to people who are living below poverty line, as a regular source of additional income, as well as, nutritious and easily digestible milk for their babies. Thus in rural area, goat rearing provides employment and a regular flow of income to the families of marginal farmers and landless labour. Goat milk which is known for its therapeutic value and recommended for patients suffering from peptic ulcers, infantile diarrhoea, liver disfunction, jaundice, acidosis and insomnia (Sanyal, 1993). The urine and manure from goat is several times rich in nitrogen and phosphorus than the manures from buffaloes and cows. Goat meat chevon is preferred by non-vegetarian Indians. Demand is always higher than availability. The mean rate of slaughter of goat is now around 41 per cent and the mean rate of mortality around 15.5 per cent. Indian goat skin is used for in India and exportation to western countries. Indian goat hair in the form of 'Pashmina and Mohair' is amongst the best in the world.

Specific objectives of the study:

- To study the adoption of goat husbandry practices by goat keepers.

- To study the relationship between profile and situational attributes of goat keepers with their adoption of goat husbandry practices by them.

- To study the constraints faced by goat keepers in adoption of goat husbandry practice.

MATERIAL AND METHODS

Amravati district was purposively selected for the

study. The study was conducted in Amravati district. The goat keepers were interviewed with the help of structured interview schedule personally. Total 80 respondents were selected for the research purpose. The interview schedule was constructed by formulating relevant questions in accordance with objectives of the study. The schedule included questions pertaining to age, education, family type, family size, herd size, occupation, annual income, social participation, Infrastructure facilities and adoption. The information from the respondent was collected by personal interview methods and their responses were considered for the purpose of present study. Data was collected. Mean, S.D. and co-efficient of correlation methods were used for analysis of the data.

RESULTS AND DISCUSSION

The data with regards to the practice wise adoption of goat husbandry practices have been furnished in Table 1. It is observed that 5 per cent and 3.75 per cent of goat keepers adopt the practice of selection of descript breeds of goat and breeds for meat production. Whereas, puberty age of goat *i.e.* 9 to 12 months, 73.75 per cent of goat keepers adopted completely.

Similarly majority of goat keepers had not adopted the practice of symptoms of heat such as shaking of tail, becoming restless, swelling and slight redening of the genital opening (58.75%). 37.5 per cent of the goat keepers had adopted buck for natural service followed by the goat keepers (60%) who completely adopted proper gestation period of goat. In housing requirement of goat, cent per cent goat keepers had adopted completely the practice of Kachha or Packka housing of goat.

In the rearing practices, over half of goat keepers had not adopted the practice of maintaining one breeding buck for 20 to 25 does (58.75%).

In feeding management, goat keepers adopted completely (33.75%) the practice of first feeding of colostrum to newly born kids immediately after birth. Majority 67.5 per cent of the goat keepers adopted completely the practice of 3 to 5 day's duration of colostrum feeding to newly born kids. It was also noticed that 31.75 per cent of goat keepers had adopted the practice of vaccination of goats against goat pox, Rinderpest, Enterotoxaemia, Haemorrhagic septicaemia diseases.

It is evident Table 2 that majority of the goat keepers

(63.75%) had adoption of recommended practices of goat husbandry to a medium level, whereas the goat keepers (13.75%) had high level of adoption of goat husbandry practices. The percentage of goat keepers adopting goat husbandry practices in low category was meager (21.25%). The observation of Dudhe (2012) lend support to the findings of the study who reported that majority of the goat keepers had adoption of recommended practices of goat husbandry to a medium extent.

It was evident from Table 3 that, Among the characteristics *viz.*, age, education, type of family, herd size, occupation, annual income, social participation of goat keepers had positive and significant relationship with adoption of recommended package of practices of goat

Table 1 : Distribution of goat keepers according to their adoption about goat husbandry practices (n=80)

Sr. No.	Name of practice	Respondents					
		Complete adoption		Partial adoption		No adoption	
		Frequency	Per cent	Frequency	Per cent	Frequency	Per cent
Use of goat breeds							
1.	Descript goat breeds for goat keeping-Omanabadi, BarberiSangamneri ,Jamunapari.	4	5%	17	21.25%	59	73.75%
2.	Descript goat breed for meat production - Osmanabadi, Sangamneri , Jamunapari, Barberi	3	3.75%	5	6.25%	72	90%
3.	Descript goat breed for milk production – Osmanabadi , Sangamneri, Jamunapari , Barberi	1	1.25%	0	0%	79	98.75%
Breeding management							
4.	Puberty age of goat – 9 to 12 months	59	73.75%	11	13.75%	10	12.5%
5.	Age at first conception - 12 to 18 months	35	43.75%	35	43.75%	10	12.5%
6.	Symptoms of heat - shakes tail, becomes restless, swelling and slight redening of the genital opening	47	58.75%	12	15%	21	26.25%
7.	Interval in heat and conception - 18 to 24 hours	41	51.25%	22	27.5%	17	21.25%
8.	Gestation period of goat - 150 days	48	60%	22	27.5%	10	12.5%
9.	Breeding buck for natural service	30	37.5%	27	33.75%	23	28.75%
Housing management							
10.	Type of housing – Kachha, Packka	42	52.5%	20	25%	18	22.5%
11.	Method of rearing - extensive method	26	32.5%	42	52.5%	12	15%
12.	Number of goats in flock - 60 to 80 goats	41	51.25%	20	25%	19	23.75%
13.	Maintaining one breeding buck for 20 to 25 does	47	58.75%	18	22.5%	15	18.75%
Feeding management							
14.	Duration of colostrum feeding - 3 to 5 days	54	67.5%	17	21.25%	9	11.25%
15.	First feeding of colostrum immediately after birth	27	33.75%	38	47.5%	15	18.75%
16.	Feeding of concentrates to milking goat - 250 g concentrates	25	31.25%	26	32.5%	29	36.25%
17.	Feeding of concentrates to breeding buck – 400 g concentrates	23	28.75%	35	43.75%	23	28.75%
Health management							
18.	Disease of goat like, mastitis, foot rot, bloat, Brucellosis	51	63.75%	23	28.75%	6	7.5%
19.	Vaccination of goat against - Goat pox, Rinderpest, Enterotoxaemia, Hoemorrhagicsepticaemia diseases	19	23.75%	41	51.25%	20	25%
20.	Goat insurance	25	31.25%	29	36.25%	26	32.5%

Source: Field survey, 2017

Table 2 : Distribution of goat keepers according to their adoption level

Sr. No.	Adoption level	Frequency (80)	Percentage (100)
1.	Low	17	21.25
2.	Medium	51	63.75
3.	High	11	13.75

Table 3: Co-efficient of correlation of characteristics of the respondents with their Adoption of goat husbandry practices

Sr. No.	Variables	Co-efficient of correlation (r)
1.	Age	0.2206*
2.	Education	0.2347*
3.	Family size	0.0445 ^{NS}
4.	Type of family	0.2506*
5.	Herd size	0.2495*
6.	Occupation	0.2248*
7.	Annual income	0.2240*
8.	Social participation	0.2249*
9.	Infrastructure facilities	-0.2266*

Source: Field survey, 2017

NS= Non-significant,

* indicate significance of value at P=0.05

rearing. Whereas, infrastructure facilities had negative and significant relationship with adoption at 0.05 per cent probability. However, family size did not show significant relationship with adoption of recommended practices of goat husbandry 0.05 per cent probability. The present findings go to corroborate with the findings of observation of Kadam (2004); Nrwade (2014) Punde (2008) lend support to the findings of the study.

Conclusion:

In this study high category of adoption, the percentage of goat keepers was comparatively less because while adopting the goat husbandry practices they did face many problems and there problems critical obstacles in the process of adoption of goat husbandry practices by the respondents.

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