

RESEARCH ARTICLE :

Knowledge of goat husbandry practices by goat keepers in Amravati district

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SUMMARY : The present study was conducted in Amravati district of Maharashtra state. The sample was drawn from the three takula 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. Majority of the goat keepers had knowledge about extensive method of rearing, housing management, goat insurance, duration of feeding of colostrum. However, majority of goat keepers lacked knowledge about selection of descript breeds of goat, heat symptoms, diseases of goats, feeding of concentrates to milking goat and breeding buck. Results of the relational analysis revealed that age, education, family type, family size, herd size, occupation, annual income, social participation and infrastructural facilities were significantly associated with knowledge of goat keepers.

KEY WORDS :

Knowledge, Goat keeper, Goat, Goat milk, Meat goat

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BACKGROUND AND OBJECTIVES

Livestock agriculture plays an important role in the 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 profile of goat keepers in Amravati district.
- To study the knowledge of goat husbandry practices by goat keepers.
- To study the relationship between profile and situational attributes of goat keepers with their knowledge

of goat husbandry practices by them.

RESOURCES 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 knowledge. 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.

OBSERVATIONS AND ANALYSIS

Table 1 shows that majority of the goat keepers (58.75 %) were middle, followed by young aged of goat keeper (17.5%). The percentage of old age goat keepers found to be meager (23.75%). The findings of the present study are contrary to the findings of Nrwade (2014) who reported that majority of goat keepers were form middle age. That was noticed that the proportion of goat keepers having education upto primary and high school level was almost equal (27.05 % and 27.05 %), respectively. followed by (09%) goat keepers were illiterate, followed by 05.00 per cent of them having education upto middle school level. Further, it however, the percentage of higher secondary and college level goat keepers was meager (20.00 % and 8.75 %), respectively. The present findings are similar to the findings of Punde (2008) who reported that majority of the goat keepers were illiterate. It observed that that majority of goat keepers (66.25%) had medium family size consisting 4 to 6 members in it. The proportion of goat keepers having big size family consisting above 6 members and small size family consisting upto 3 members were relatively low (25.00% and 8.75%), respectively. The findings of present study are in line with the findings of Rahul Dhude (2012) who reported that majority of goat keepers had medium family size.

It is evident from Table 1 that majority of the goat

keepers (56.25%) belonged to nuclear type of family. The percentage of goat keepers in joint type of family was relatively low (43.75%). From the distribution of the respondents according to Herd size in Table 1, it was revealed that majority of the goat keepers (64.17%) possessed medium herd size of goats *i.e.* between 16 to

37 in numbers. The percentage of goat keepers having small herd size of goat *i.e.* upto 15 goats and large herd size of goat having goats above 37 were 12.05 per cent and 17.5 per cent, respectively. It is evident from the Table 1 that majority of goat keepers (56.25%) had Goat keeping + Landless labour occupation whereas (43.75%)

Table 1: Socio personal characteristics of Goat keeper, 2017			(n = 80)
Sr. No.	Variables	Frequency	Percentage
1.	Age		
	Young (Below 35)	14	17.05%
	Middle (36-50)	47	58.75%
	Old (Above 50)	19	23.75%
2.	Education		
	Illiterate	09	11.25%
	Primary School	22	27.05%
	Middle School	04	05.00%
	High School	22	27.05%
	Higher secondary school	16	20.00%
	College	07	08.75%
3.	Family size		
	Low (Upto 3)	07	08.75%
	Medium (4-6)	53	66.25%
	High (above 6)	20	25.00%
4.	Type of family		
	Nuclear type	45	56.25%
	Joint type	35	43.75%
5.	Herd size		
	Low (Upto 15)	10	12.05%
	Medium (16-37)	56	70.00%
	High (Above 37)	14	17.05%
6.	Occupation		
	Goat keeping + Landless labour	45	56.25%
	Goat keeping + Farming	35	43.75%
7.	Annual income		
	Upto Rs. 50,000/-	27	33.75%
	Rs. 50,001 – 1,00,000/-	24	30.00%
	Rs. 1,00,001 - 1,50,000/-	05	06.25%
	Rs. 1,50,001 – 2,00,000/-	12	15.00%
	Above Rs. 2,00,000/-	12	15.00%
8.	Social participation		
	Low (Upto 1)	34	42.05%
	Medium (2 to 3)	34	42.05%
	High (Above 3)	12	15.00%
9.	Infrastructure facilities		
	Low (Upto 18)	08	10.00%
	Medium (19 – 24)	58	72.05%
	High (above 24)	14	17.05%

Source: Field survey, 2017

of goat keepers had Goat keeping + Farming occupation. The present findings are similar to the findings of Kadam (2004) who reported that majority of the goat keepers had agricultural labour as predominant occupation. It was found that majority of goat keepers (33.75%) had low level of annual income, whereas medium high and high level of annual income was equal (15.00%) and (15.00%) followed by low medium and medium high was (30.00%) and (6.25%). It was observed that the proportion of goat keepers having social participation of low and medium level was almost equal (42.05 % and 42.05 %), whereas high level of social participation was 15 per cent. In the category of Infrastructure facilities majority of the goat keepers (72.05%) had infrastructural facilities were medium category. The percentage of goat keepers in low and high categories of infrastructural facilities was 10.00 and 17.5 per cent, respectively.

The practice wise knowledge of goat keepers (Table 2) reveals that in selection of descript breeds of goat for

goat keeping and meat production, only 22.5 and 13.75 per cent of goat keepers had correct knowledge. In breeding management, 91.25 per cent of goat keepers had knowledge about puberty age of goat *i.e.* 9 to 12 months. Symptoms of heat such as shaking tail, becoming restless, swelling and slight reddening of the genital opening were known to only 73.75 per cent of goat keepers whereas duration of heat periods *i.e.* 18 to 24 hours was known to 75 per cent. Majority of goat keepers (77.5%) had knowledge about methods of breeding in goat *i.e.* natural and artificial breeding. more than half of the goat keepers (81.25%) had knowledge about gestation period of goat *i.e.* 150 days.

In housing management, it was noticed that 62.5 per cent of goat keepers had knowledge about type of housing *i.e.* Kachha or Packka, Whereas goat keepers (72.5%) had knowledge about maintaining one breeding buck for 20 to 25 does. In feeding management, it was noticed that 81.25 per cent of goat keepers had

Table 2 : Distribution of goat keepers according to their knowledge about goat husbandry practices		(n = 80)	
Sr. No.	Name of practice	Respondent	
		Frequency (80)	Per cent (100)
Use of goat breeds			
1.	Descript goat breeds for goat keeping-Omanabadi, BarberiSangamneri ,Jamunapari.	18	22.5%
2.	Descript goat breed for meat production - Osmanabadi, Sangamneri , Jamunapari, Barberi	11	13.75%
3.	Descript goat breed for milk production – Osmanabadi , Sangamneri, Jamunapari , Barberi	4	5%
Breeding management			
4.	Puberty age of goat – 9 to 12 months	73	91.25%
5.	Age at first conception - 12 to 18 months	67	83.75%
6.	Symptoms of heat - shakes tail, becomes restless, swelling and slight redening of the genital opening	59	73.75%
7.	Gestation period of goat - 150 days	60	75%
8.	Interval in heat and conception - 18 to 24 hours	65	81.25%
9.	Breeding buck for natural service	62	77.5%
Housing management			
10.	Type of housing – Kachha, Packka	50	62.5%
11.	Space required for adult doe - 12 to 16 sq. ft.	31	38.75%
12.	Space required for adult buck - 20 sq. ft.	18	22.5%
13.	Method of rearing - extensive method	44	55%
14.	Number of goats in a flock - 60 to 80	55	68.75%
15.	Maintaining one breeding buck for 20 to 25 does	58	72.5%
Feeding management			
16.	First feeding of colostrum immediately after birth Duration of colostrum feeding - 3 to 5 days	65	81.25%
17.	Duration of colostrum feeding - 3 to 5 days	58	72.5%
18.	Feeding of concentrates to milking goat - 250 g concentrates	48	60%
Health management			
19.	Disease of goat like, mastitis, foot rot, bloat, Brucellosis	41	51.25%
20.	Goat insurance	21	73.75%

Table 3 : Distribution of goat keepers according to their knowledge level

Sr. No.	Knowledge level	Frequency (80)	Percentage (100)
1.	Low (upto 45)	13	16.25%
2.	Middle (46-63)	56	70.00%
3.	High (above 63)	11	13.75%

Table 4 : Co-efficient of correlation of characteristics of the respondents with their knowledge about of goat husbandry practices

Sr. No.	Variables	Co-efficient of correlation (r)
1.	Age	0.2306*
2.	Education	0.2339*
3.	Family size	-0.2258*
4.	Type of family	0.2427*
5.	Herd size	0.2201*
6.	Occupation	-0.2295*
7.	Annual income	-0.2316*
8.	Social participation	0.2316*
9.	Infrastructure facilities	-0.2267*

Source : Field survey, 2017 NS=Non-significant, * indicates significance of value at P= 0.05 level of probability

knowledge about duration of feeding of colostrum to newly born kids *i.e.* 3 to 5 days, followed by 72.5 per cent of them having knowledge about first feeding of colostrum to newly born kids. The goat keepers (73.75%) had knowledge about goat insurance.

It is evident that majority of majority of the goat keepers (70,00%) appeared in medium level of knowledge about goat husbandry practices. This was followed by (13.75%) of goat keepers who fell in high level of knowledge. A few of goat keepers (16.25%) were found to possess low level of knowledge. The present findings go to corroborate the findings of Rahul Dhude (2012) who reported that the majority of the goat keepers had medium level of knowledge about different goat husbandry practices.

It was evident from Table 3 that, The findings of the correlation analysis revealed that the characteristics such as age, education, type of family, herd size, social participation, were positive and significantly correlated

with knowledge of goat keepers at 0.05 level of probability.

Whereas family size, occupation, annual income, and infrastructure facilities were negative and significantly correlated with knowledge of goat keepers 0.05 level of probability. The present finding go to corroborate the finding of the observation of Dhude (2012) lend support to the findings of the study.

Conclusion :

It was found that fifty six (70 %) goat keeper felt in the medium knowledge level, whereas eleven goat keepers (13.75%) were found in high knowledge and remaining thirteen (16.25%) goat keepers possessed low knowledge about goat husbandry practices.

In this study it indicated that the reason for having significant correlation to independent variable with knowledge might be that more respondents were educated in goat keeping.

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