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Information needs of osmanabadi goat entrepreneurs in Marathwada region of Maharashtra state

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Abstract

The present study was conducted in four districts which were selected purposively i.e. first four districts possessed highest goat population in Marathwada region. From each district 40 respondents were selected purposively i.e. possessed at least 10 or more goats and running farm from last three years. Thus a sample of 160 respondents was considered for the study. The data was collected by interview method. Ex-post facto research design was used for conducting research. From the study it was concluded that a majority of respondents were of middle age group (69.20%), had medium family size (81.30%), educated up to college level (31.80%) possessing medium flock size (83.10%). Majority of the respondents had medium level of annual income (73.75%), social participation (71.25%), information sources (75.62%) and market orientation (66.88%), had medium level of knowledge (76.25%) and adoption level of scientific management practices (78.75%) followed by Osmanabadi goat entrepreneurs. Also it was found that majority of the respondents expressing most need information in the areas of breeding management (45.25%), feeding management (38.44%), health management (41.25%), care and management (41.25%) and marketing and other (41.25%) and expressed as needed information for the housing management (37.00%).

Keywords: Flock size, market orientation, annual income, breeding, housing, health management

Introduction

Goats were among the first farm animals to be domesticated. As indicated by the archaeological evidence, they have been associated with man in a symbiotic relationship for up to 10,000 years (Ensminger and Parker, 1986) [5]. Genus, species, *Capra hircus*. Goats disseminated all over the world because of their great adaptability to varying environmental conditions and the different nutritional regimes under which they were evolved and subsequently maintained. They proved useful to man throughout the ages due to their productivity, small size and non-competitiveness with him for food. Goats provide their owners with a broad range of products and socio-economic services and have played an important role in the social life of many people being used as gifts, dowry, in religious rituals and rites of passage (Peacock, 1996) [13]. However, the average carcass and milk yields remained stagnant over this period. In India, the growth in goat population can be improved by technological interventions for cutting down mortality among kids and adult animals and enhancing productivity. The diseases in goats result in mortality

ranging from 5 to 25 per cent in adults and 10 to 40 per cent in kids (Rekib and Vihan, 1997) [15]. No information was available on the socio-economic aspects of commercial goat farming under semi-intensive and intensive systems of production in the country (Kumar 2007) [7]. Poor people on zero input mostly rear goats in India (Gopala *et al.*, 2010) [6]. Majority of the world's goat population is found in the small holding farming system where nutritional conditions are often sub-optimal (Sibanda *et al.*, 1999) [16]. This zero purchased input profession is the most popular in the scheduled tribe community and supported them substantially to cater their needs (Deshpande *et al.*, 2009) [3]. Therefore, by considering above facts, the present study was attempted to assess information needs and the personal and socio-economic characteristics of Osmanabadi Goat Entrepreneurs in Marathwada region of Maharashtra state.

Material and Methods

The study was conducted in four districts in Marathwada region with highest goat population. From each district 40 respondents selected purposively with at least 10 or more

goats and running farm from last three years .thus a sample of 160 respondents was considered for the study.

Table 1: District wise goat population in Parbhani, Jalna, Latur and Nanded districts

Sr. No.	Area	Goat Population
1.	Parbhani	1,33,657
2.	Jalna	1,83,603
3.	Latur	1,22,615
4.	Nanded	2,53,302
5.	Marathwada	1,62,2283
6.	Maharashtra	84,35,307

(Source: Report on 19th Livestock Census – 2012 Maharashtra State Commissioner on Animal Husbandry, Pune)

Table 2: Area wise list of respondents

Sr. No.	Names of districts	No. of respondents
1.	Parbhani	40
2.	Jalna	40
3.	Latur	40
4.	Nanded	40
Total		160

In this study age, education, family size, flock size, land holding, annual income, social participation, market orientation, knowledge and adoption level, sources of

information and dependent variable information needs was considered. Interview schedule was prepared by consulting subject matter specialists, practitioners, and field veterinarians. To cover the domain of research statement related to housing, breeding, feeding, health care, marketing of goat rearing were collected edited and finalized by following guidelines given by Edward and Kilpatrick (1948)^[4]. Simple self-explanatory, clear and meaningful questions were framed in Marathi (Mother tongue) for easy understanding by the respondents for receiving accurate response from them. For refinement in the interview schedule pretesting was done by subjecting to 15% of respondents I.E. 24 respondents from non-sample population. From the collected responses reliability was calculated and Cronbach α was found 0.87 which indicates high reliability of instrument. For content validity a meeting of advisory committee was called and corrections were incorporated in the final instrument.

By following interview method data were collected, coded, tabulated, analyzed and interpreted. For the present study frequency, percentage, mean, standard deviation was used.

Result and Discussion

Personal socio-economic and psychological characteristics of Osmanabadi goat entrepreneurs

Table 1: The distribution of respondents according to their independent Variables

S N	Variable	Category	Frequency	Percentage	Mean	±S.D
1	Age	Young (up to 31)	23	14.50	44.47	12.97
		Middle (32 to 58)	111	69.20		
		Old (59 and above)	26	16.30		
2	Education	Illiterate	25	15.60	3.43	1.45
		Primary (Up to 4 th std.)	23	14.40		
		Secondary (5 th to 7 th std.)	22	13.80		
		Higher Secondary 8 th to 10 th std.)	39	24.40		
		College level (11 th and above)	51	31.80		
3	Family size	Small (up to 3)	8	8.10	6.68	2.83
		Medium (4 to 10)	130	81.30		
		Big (11 and above)	22	10.60		
4	Flock size	Small (Up to 16)	3	1.90	34.03	17.68
		Medium (17 to 52)	133	83.10		
		Large (53 and above)	24	15.00		
5	Land holding	Landless	21	13.12	3.04	2.60
		Marginal (0.1 to 1 ha.)	28	17.50		
		Medium (1.1 to 2 ha)	27	16.88		
		Large (2 ha. and above)	84	52.50		
6	Annual Income	Low (up to 56)	18	11.25	109.46	52.58
		Medium (57 to 162)	118	73.75		
		High (163 and above)	24	15.00		
7	Social Participation	Low (up to 13)	33	20.62	19.48	5.57
		Medium (14 to 25)	114	71.25		
		High (26 and above)	13	8.13		
8	Market orientation	Low (up to 4)	21	13.12	5.67	1.26
		Medium (5 to 7)	107	66.88		
		High (8 and above)	32	20.00		
9	Knowledge	Low (up to 6)	12	7.50	15.34	9.24
		Medium (7 to 25)	122	76.25		
		High (27 and above)	26	16.25		
10	Adoption	Low (up to 5)	10	6.25	13.5	8
		Medium (6 to 22)	126	78.75		
		High (23 and above)	24	15.00		
11	Information Sources	Low (up to 13)	19	11.88	19.49	5.57
		Medium (14 to 25)	121	75.62		
		High (26 and above)	20	12.50		

It can be concluded that a majority number of respondents were of middle age group (69.20%), medium family size (81.30%), educated up to college level (31.80%) possessing medium flock size (83.10%). Majority of the respondents had medium level of annual income (73.75%), social participation (71.25%), information sources (75.62%) and market orientation (66.88%). had medium level of knowledge (76.25%) and adoption level of scientific management practices (78.75%) followed by Osmanabadi goat entrepreneurs. These results are similar with the results from Singh and Dalal (2006) [17] and Prasad *et al.*, (2013) [14]. Budak *et al.*, (2010) [11] and Ogola *et al.*, (2010) [12]. Misra and Pal (2003) [8] and Kumar (2007) [7]. The probable reason behind this situation might be that unemployed youth are in search of income generation so to satisfy inherent family responsibilities.

Information needs of Osmanabadi goat entrepreneurs in six major areas of goat management practices

Producers were asked their opinions about quality and quantity of goat information available. A series of Likert-scaled statements was provided and respondents indicated whether they, most needed, needed and not needed with the statement.

Table 2: Distribution of the respondents according to information needs

N = 160

Sr. No.	Information needs	Frequency			Percentage		
		2	1	0	2	1	0
1	Housing	65	53	42	36.75	37.00	26.25
2	Breeding management	72	58	30	45.25	35.75	19.00
3	Feeding management	61	53	46	38.44	32.76	28.80
4	Health management	66	62	32	41.25	38.66	20.09
5	Care management	66	52	42	41.25	32.50	26.25
6	Marketing and others	66	61	33	41.25	38.12	20.63

Table No.2 reveals that majority of the respondents expressing most need information in the areas of breeding management (45.25%), feeding management (38.44%), health management (41.25%), care and management (41.25%) and marketing and other (41.25%) and expressed as needed information for the housing management (37.00%). The probable reason could be that an entrepreneur is collecting information, finding an opportunity to undertake new product development and marketing the same.

Information needs of Osmanabadi goat entrepreneurs in four sub areas of goat housing

Table 3: Information needs of respondents about goat housings

N=160

Sr. No.	Information needs	Frequency			Percentage		
		2	1	0	2	1	0
1	Space requirement of goat	67	43	50	26.90	41.90	31.20
2	Layout of farm design	58	58	44	36.30	36.30	27.40
3	Factors affecting design of shed	76	47	37	47.50	29.40	23.10
4	Shed management	58	65	37	36.30	40.60	23.10
	Average	65	53	42	36.75	37.00	26.25

Table 3 reveals that in housing management 36.30% 47.50% of respondents expressed as most needed

information on layout of farm, factors affecting design of shed, respectively where as 41.90%, 36.30% and 40.60% expressed as needed information in the areas of space requirement, respectively. These finding are in line with Mary *et al.*, (2013) [9], Chah *et al.*, (2013) [2] Kumar and Deoghare (2015) [7]. The probable reason could be that education and experience of the respondents might have realized the effect of scientific house on production and reproduction performance of goats, labor management, health management etc. Table 4 reveals that 51.20%, 50.60%, 51.20%, 45.00% 47.50%, 42.50, 48.10 and 46.90% respondents were expressed as most needed information on preparation of flock for breeding purpose, increasing weight gain. Genetic improvement, importance of buck in flock, Replacing buck every 2 years, Pregnancy diagnosis, Weight at first kidding, Flushing and steaming up, respectively. Also, 48.10% and 43.80% respondents expressed needed information in areas of heat detection I goat and steaming up, respectively. These finding are in line with Ogola *et al.*, (2010) [12] Mary *et al.*, (2013) [9], Manzi *et al.*, (2013) [10] Nicole (2014) [11], Sinha *et al.*, (2016), [18]. The reason might be that education, experience, high cost on inputs, market opportunities have motivated them to drag maximum profit through sale of breedable does and buck to new entrepreneur, minimizing inter-kidding interval, improvement in fecundity and prolificacy and genetics.

Table 4: Information needs of respondents about goat breeding

N=160

Sr. No	Information needs	Frequency			Percentage		
		2	1	0	2	1	0
1	Preparation of flock for breeding purpose	82	52	26	51.20	32.50	16.30
2	Increasing weight gain	81	58	21	50.60	36.30	13.10
3	Genetic improvement	82	56	22	51.20	35.00	13.80
4	Importance of buck in flock	72	41	47	45.00	25.60	29.40
5	Heat detection in goat	55	77	28	34.40	48.10	17.50
6	Replacing buck every 2 years	76	55	29	47.50	34.40	18.10
7	Pregnancy diagnosis	68	65	27	42.50	40.60	16.90
8	Weight at first kidding	77	45	38	48.10	28.10	23.80
9	Flushing	75	53	32	46.90	33.10	20.00
10	Steaming up	56	70	34	35.00	43.80	21.20
11	Average	72	58	30	45.25	35.75	19.00

Table 5: Information needs of respondents about goat feeding management

N=160

Sr. No.	Information needs	Frequency			Percentage		
		2	1	0	2	1	0
1	Colostrum feeding of new born kid	17	36	107	10.60	22.50	66.90
2	Management of goats during different physiological stages	57	57	46	35.60	35.60	28.80
3	Importance of feeding dry, green and concentrates	60	63	37	37.50	39.40	23.10
4	Green fodder production	58	65	37	36.30	40.60	23.10
5	Feeding chaffed fodder	69	54	37	43.10	33.80	23.10
6	Silage making	76	63	21	47.50	39.40	13.10
7	Storage of fodder	56	54	50	35.00	33.80	31.20
8	Urea treatment	93	41	26	58.10	25.60	16.30
9	Home-made concentrate	63	42	55	39.40	26.30	34.30
10	Plantation around goat shed	66	49	45	41.30	30.60	28.10
11	Average	61	53	46	38.44	32.76	28.80

Table 5 reveals that majority of respondents expressed most needed information in the areas of these finding are in line with Mary *et al.*, (2013) ^[9], Sinha *et al.*, (2016) ^[18]. The probable reason might be that feeding alone contributes major part in cost of production and also plays major role in keeping the growth rate constant, to attend puberty in early age, to improve fecundity and prolificacy. Also it is difficult to manage goat during draught conditions. These respondents might be wanted to address all these concerns of feeding for making goat enterprise sustainable and economically feasible.

Table 6: Information needs about goat health management

Sr. No.	Information needs	Frequency			Percentage		
		2	1	0	2	1	0
1	Infections, parasitic and other diseases in goats	77	66	17	48.10	41.30	10.60
2	Care during vaccination	69	67	24	43.10	41.90	15.00
3	Deworming	55	59	46	34.40	36.90	28.70
4	Isolation of diseased animals	51	57	52	31.90	35.60	32.50
5	Digestive disorders in goats	61	60	39	38.10	37.50	24.40
6	Ecto-parasite control	83	62	15	51.80	38.80	9.40
7	Average	66	62	32	41.25	38.66	20.09

Table 6 reveals that majority of respondents expressed as most needed information in the areas of infections, parasitic and other diseases in goats (48.10%), care during vaccination (43.10%), digestive disorders (38.80%) ecto-parasite control (51.80%) whereas majority of respondents expressed as needed information in the areas of isolation of diseased animals (35.60%), digestive disorder in goat (38.80%). These finding are in line with Mary *et al.*, (2013) ^[9], Sinha *et al.*, (2016) ^[18]. The reason could be that the health affect production and reproduction of goat and increases expenditure on medicine, consultation charges and decreases growth and production. These respondents might be wanted to keep their flock disease free by vaccination, isolation of suspected animals, deworming, vaccination etc.

Table 7: Information needs about goat care and management

Sr. no.	Information needs	Frequency			Percentage		
		2	1	0	2	1	0
1	Care during pregnancy	79	55	26	49.40	34.40	16.20
2	Neonatal care	70	65	25	43.80	40.60	15.60
3	Management during different seasons	53	46	61	33.10	28.80	38.10
4	Labor management	31	31	98	19.40	19.40	61.20
5	Record keeping	66	40	54	41.20	25.00	33.80
6	Rearing Buck for chevon purpose	64	42	54	40.00	26.20	33.80
7	Compost manure	79	63	18	49.40	39.40	11.20
8	Recording weight gain and growth rate every month	82	57	21	51.20	35.60	13.20
9	Selling age of buck	69	63	28	43.10	39.40	17.50
10	Average	66	52	42	41.25	32.50	26.25

Table 7 described most needed information in the areas of care during pregnancy, neonatal care, record keeping, rearing bucks for chevon production, composting, recording weight gain and growth rate per month and selling age of buck by 49.40%, 43.80%, 41.20%, 40.00%, 49.40%,

51.20% and 43.10% of respondents, respectively. These finding are in line with Mary *et al.*, (2013) ^[9], Sinha *et al.*, (2016) ^[18]. The probable reason might be that management is to manage factors of production like man, money, material and organization which plays vital role in feasibility of enterprise by minimizing inputs and maximizing outputs and ultimately leads to wide cost benefit ratio. The respondent might have experienced the losses of mismanagement and fruits of efficient management.

Table 8: Information needs about goat marketing and others

Sr. No.	Particulars	Frequency			Percentage		
		2	1	0	2	1	0
1	Marketing practices followed by goat entrepreneurs	86	46	28	53.80	28.70	17.50
2	Care during transportation of goat	27	37	96	16.90	23.10	60.00
3	Break-even point	99	53	8	61.90	33.10	5.00
4	Benefit cost ratio	98	57	5	61.30	35.60	3.10
5	Insurance policy	55	45	60	34.40	28.10	37.50
6	Average	66	61	33	41.25	38.12	20.63

Table 8 reveals that 53.80%, 61.90%, 61.30% and 41.25% of respondents expressed information on the areas i.e. marketing practices followed by goat entrepreneurs, breakeven point, benefit cost ratio and insurance policy respectively. These finding are in line with Umata *et al.*, (2011) ^[19] Mary *et al.*, (2013) ^[9], Sinha *et al.*, (2016) ^[18]. The probable reason might be that form many years goat farmers are not addressing breakeven point, breakeven analysis, goat insurance but education, experience, short of resources and pressure of family budget might be forcing them to learn factors responsible for feasibility and to address them.

Conclusion

It is concluded that a majority of respondents were of middle age group had medium family size, educated up to college level, possessed medium flock size. Majority of the respondents had medium level of annual income, social participation, information sources and market orientation, had medium level of knowledge and adoption level of scientific management practices followed by Osmanabadi goat entrepreneurs. Also it was found that majority of the respondents expressing most needed information in the areas of breeding management, feeding management, health management, care and management and marketing and other and expressed as needed information for the housing management.

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