



Status of Goat Farming Practices, Knowledge and Adoption Status of Technologies in North Konkan Coastal Zone of Maharashtra

P M Mandavkar, A A Hanmante and M S Talathi

Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli,
District Ratnagiri 415 712 (Maharashtra)

ABSTRACT

The study was conducted in Raigad district of North Konkan Coastal Zone of Maharashtra to know the status of goat farming practices the knowledge and adoption level of technologies learned during training programme by the goat keepers. Out of 542 goat breeds, 73.9 per cent were local and 25.9 per cent were improved. More than 50 per cent respondents followed semi-stall feeding and providing concentrate feed to goats. The respondents knowledge was found enriched in the management practices like deworming of goats (60 %), feeding of colostrums to kids (60%) and use of vaccine like PPR, ET,FMD etc (56.7 %). Highest increase in adoption was found in feeding of colostrums to kids (53.3%), deworming of goats (46.7%) and use of mineral mixture and concentrate feed (36.7%). Lack of open fields was the major problem reported by most (60%) of the respondents followed by lack of timely veterinary facility at the village level (50%).

Key Words: Goat, Training, Status, Knowledge, Adoption, Deworming.

INTRODUCTION

Goat husbandry plays a prominent role in the rural economy in supplementing the income of rural house hold particularly the landless, small and marginal farmers. Goat is considered as poor man's cow and it can profitably be reared with low investment under semi-intensive as well as the extensive system of management. They provide quick return on account of their short generation intervals and higher rate of prolificacy.

Goats are reared predominantly by the tribals and also by other castes. A new goat breed named "Konkan Kanyal" has been developed by the Konkan Agricultural University *i. e.* Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Dist. Ratnagiri in Konkan region of Maharashtra due to the reason that local goats were poor in production with low reproductive efficiency. In North Konkan Coastal Zone of Maharashtra, the Krishi Vigyan Kendra, Roha, district Raigad conducted various need based and skill oriented trainings and other extension programmes with a special emphasis on goat farming with the

expectation that trained participants will translate the acquired knowledge and skill into action.

Keeping in view the different species of goat being reared by the farmers the efforts were made to study the status of goat farming practices, the knowledge and adoption status of technologies learned during training and the problems and opinion of trainees with respect to socio-economic indicators.

MATERIALS AND METHODS

The study was conducted in Raigad district of North Konkan Coastal Zone of Maharashtra. A list of 100 participants who attended vocational trainings on goat rearing organized by Krishi Vigyan Kendra, Roha- Raigad and technological interventions provided to goat rearing farmers during the year 2010 to 2012 was prepared. Out of that, 30 participants who started goat rearing after acquiring training were personally interviewed by using pre designed interview schedule developed for the purpose. The enrichment or gain in knowledge by the

*Corresponding Author's Email- manoj84048@yahoo.co.in and mandavkarp@rediffmail.com

respondents about improved management practices was measured in terms of percentage. The data regarding goat management practices were recorded under two heads i.e. knowledge before training and after training. Similarly, the findings of the knowledge and adoption status of technologies learned during and after trainings in relation to goat management practices were classified into nutrition and health care practices and general practices. The data were interpreted using frequency and percentage in order to draw the inference.

RESULTS AND DISCUSSION

i) Status of goat farming practices

The status of goat farming practices included type of goat shed, breeds, feeding system, use of concentrate feed, vaccination and deworming (Table 1).

Most of the respondents (46.7 per cent) had constructed a separate temporary shed for goats with locally available materials like bamboo, thatch, mud plastering, etc. (Bhattacharyya *et al* 2013) whereas, 33.3 per cent respondents made permanent shed and 20.0 per cent goat sheds were under construction. Data on goat breeds revealed that, out of 542 goat breeds, 73.9 per cent were local, 8.3 per cent were Osmanabadi and 10.1 per cent were Osmanabadi crossed breeds. In case of Konkan Kanyal breed developed by the University, only 4.9 per cent Konkan kanyal cross breeds were observed in the study area.

Out of three practices of feeding, 60.0 per cent respondents followed semi-stall feeding and remaining 40.0 per cent followed grazing in open field or forest area. Majority of respondents fed homemade concentrate feed i.e. wheat bran, rice bran, *Urd dal chuni*, vegetable wastage etc. to

Table 1. Status of goat farming practices.

Sr. No.	Particulars	Respondents(n=30)	
		Number	Percentage
A.	Goat shed		
	Permanent	10	33.3
	Under construction	06	20.0
	Temporary	14	46.7
B.	Breed (animal number)		
	Local	401	73.9
	Improved		
	1. Osmanabadi	45	08.3
	2. Osmanabadi crossed	55	10.1
	3. Sangamneri	5	00.9
4. Sangamneri crossed	9	01.7	
	Konkan kanyal (Crossed)	27	04.9
C.	Feeding system		
	Stall feeding	-	-
	Semi-stall feeding	18	60.0
	Grazing in open field/forest	12	40.0
D.	Use of concentrate feed		
	Homemade feed	18	60.0
	Commercial feed	-	-
E.	Vaccination		
	Followed regularly	15	50.0
	Irregular	12	40.0
	Not followed	03	10.0
F.	Deworming		
	Followed regularly	21	70.0
	Irregular	09	30.0
	Not followed	-	-

Status of Goat Farming Practices

goats. Vaccination and deworming in goats was followed regularly by 50.0 per cent and 70.0 per cent respondents, respectively. It was noticed that in vaccination, still there was a gap of 50 per cent. Hence, more follow up of these trainees was required.

ii) Knowledge and adoption status of technologies

It is assumed that the knowledge of a farmer to a large degree depends upon the extent of exposure given to him about the technology and the data were presented in Table 2.

The respondents gained highest knowledge in deworming of goats and feeding of colostrums to kids (60.0% each) and use of vaccine like PPR (Peste des Petits Ruminants), ET (Enterotoxaemia), FMD (Foot and Mouth Disease) (56.7%) followed by use of mineral mixture and concentrate feed and spraying of butox/malathion on goats to control ecto parasites (36.7 per cent). In case of general practices gain in knowledge was found highest for use of lime for sanitation (50%), proper housing management for keeping goats (50%) and keeping of appropriate proportion between male and female was reported by 43.3 per cent. These findings were in agreement with those reported by Soni *et al* (2011).

The adoption of nutrition and health care practices by the respondents before training was only 6.7 to 36.7 per cent whereas, after acquiring the trainings, the adoption of the technique of feeding of colostrums to kids, deworming of goats and use of mineral mixture and use of vaccine was found to be increased. Similar type of observations have been reported by Khadda *et al* (2012). It was found that the adoption level was highest for feeding of colostrums to kids (53.3%), deworming of goats (46.7%), and use of mineral mixture and concentrate feed (36.7%) followed by use of vaccine like PPR, ET, FMD etc (33.3%) and spraying of butox/malathion on goats to control ectoparasites (16.7%), proper housing management for keeping goats (36.7%), use of lime for sanitation (30.0%) and keeping improved bucks (23.3%).

iii) Problems and opinion of trainees

During the survey, it was observed that there were some problems being faced in rearing of

Table 2. Gain in knowledge and adoption of respondents trainees level regarding goat management practices.

Sr.No.	Management Practices	Gain in Knowledge			Change in adoption				
		Before training (a)	After training (b)	Undecided (c)	Know. enrichment (b-a)	Before training (a)	After training (b)	No adoption (c)	Increase in adoption (b-a)
A Nutrition and Health care practices									
1.	Use of vaccine like PPR, ET, FMD etc	05(16.7)	22(73.3)	8(26.7)	17(56.7)	05(16.7)	15(50.0)	15(50.0)	10(33.3)
2.	Deworming of goats	09(30.0)	27(90.0)	3(10.0)	18(60.0)	07(23.3)	21(70.0)	09(30.0)	14(46.7)
3.	Feeding of colostrums to kids (quantity and time)	10(33.3)	28(93.3)	2(6.7)	18(60.0)	08(36.7)	27(90.0)	03(10.0)	16(53.3)
4.	Use of mineral mixture and concentrate feed	07(23.3)	18(60.0)	12(40.0)	11(36.7)	07(23.3)	18(60.0)	12(40.0)	11(36.7)
5.	Spraying of butox/malathion on goats to control ectoparasites	04(13.3)	15(50.0)	15(50.0)	11(36.7)	02(6.7)	07(23.3)	23(76.7)	05(16.7)
B General practices									
1.	Use of lime for sanitation	10(33.3)	25(83.3)	5(16.7)	15(50.0)	04(13.3)	13(43.3)	17(56.7)	09(30.0)
2.	Proper housing management for keeping goats	15(50.0)	30(100.0)	0(0.0)	15(50.0)	05(16.7)	16(53.3)	14(46.7)	11(36.7)
3.	Keeping improved bucks	22(73.3)	30(100.0)	0(0.0)	08(26.7)	10(33.3)	17(56.7)	13(43.3)	07(23.3)
4.	Plantation/keeping of fodder tree/grasses	14(46.7)	26(86.7)	4(13.3)	12(40.0)	02(6.7)	09(30.0)	21(70.0)	07(23.3)
5.	Keeping of appropriate proportion between male and female	15(50.0)	28(93.3)	2(6.7)	13(43.3)	10(33.3)	16(53.3)	14(46.7)	06(20.0)

Table 3. Problems experienced by the respondents in goat rearing. (N=30)

Sr.No.	Problems	Respondents	
		Numbers	Percentage
1.	Lack of open fields for grazing	18	60.0
2.	Lack of timely veterinary facility at village level	15	50.0
3.	Non availability of faithful and skilled manpower	12	40.0
4.	Non availability of improved breed Konkan Kanyal on demand	12	40.0
5.	Lack of finance	12	40.0
6.	High cost of concentrate feed	11	36.4
7.	Wild animals menace	10	33.3

Goats and the views of the respondents were presented in Table 3.

The discussions made with the respondents revealed that lack of open fields for grazing was the major problem reported by most (60%) of the respondents followed by lack of timely veterinary facility at village level (50%). Non availability of faithful and skilled manpower, non availability of improved breed Konkan Kanyal on demand and lack of finance were the problems reported by 40.0 per cent. The other problems like high cost of concentrate feed and wild animals menace were reported by 36.7 and 33.3 per cent, respectively. Further, it was observed that increased profit/goat/annum through improved breeds, increased awareness about commercial goat farming and its advantages were the opinion reported by 33.3 and 20.0 per cent respondents, respectively.

CONCLUSION

Goat rearing is less prone to global warming and climate change. Lack of public field for open feeding, no veterinary facilities at village level and

high cost of concentrate feed has always been a constraint. The overall improvement in status of goat management practices with respect to enrichment or gain in knowledge and increase in adoption of improved technologies, increase in employment and increase in total income is possible by organizing trainings and technological interventions through diagnostic visits, animal health camp, farm and home visits by the subject matter experts in the rural area at the door step of the poor farmers.

REFERENCES

- Bhattacharyya H K, Baruah S, Sharma A K and Barooah A (2013). An analytical study of livestock sector in an adopted village. *J Krishi Vigyan* **1** (2) : 10-12.
- Khadda B S, Kanak Lata , Jadav J K , Kalash Poonam and Kumar Raj(2012). Impact of technological interventions on the attitude of goat rearing farmers in Panchmahals district of Gujarat, *Rajasthan J Extn Education* **20**: 15-18.
- Soni R L, Berathi Rajeev and Rathore R S (2011). Socio-economic impact of the improved goat farming practices in Tribal. *Rajasthan J Extn Education* **19**: 62-64.

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