

## ADOPTION OF IMPROVED GOAT REARING PRACTICES BY TRIBAL FARMERS

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### ABSTRACT

*The goat rearing is common among tribal farmers. It occupies an important place in Indian economy. Since it contributes effectively to the subsistence of small farmers, marginal farmers and landless poor. Tribal farmers are rearing goat since generation. Goat rearing by these tribal farmers gives considerable return for livelihood security. It has been observed that the tribal farmers are not adopting improved goat rearing practices. Thus, study on adoption of improved goat rearing practices by tribal farmers was felt necessary. The present study was conducted in Sabarkantha district. The Sabarkantha district has eight talukas. Out of which, three talukas are tribal dominated viz, Khedbrahma, Poshina and Vijaynagar were selected for the study. Four villages from each tribal taluka were selected randomly. From each selected village 10 goat owners were selected randomly. Total 12 villages and 120 goat owners were selected for the study. It can be concluded from the study that majority of the farmers had special feeding after kidding. Large majority of the farmers had appropriate age of breeding is 12-14 months followed by three fifth of the farmers had breeding after 2-3 months kidding, more than three fourth of the farmers had treatment of sick goats followed by more than two third per cent farmers had isolate the sick animals, vast majority of the farmers had feeding colostrum to kid after 2-3 hrs. of birth followed by timely feeding of colostrum i.e. thrice in day. The variable viz; education and number of goat had shown positive and significant association with adoption of goat rearing practices, whereas, Age, annual income and goat rearing experience were shown positive and non-significant association while family size and land holding had established negative and non-significant association with adoption of goat rearing practices.*

**Keywords:** goat rearing practices, adoption, tribal farmers

### INTRODUCTION

The main occupation of majority of tribal farmers is agriculture. It is customary to rear livestock as an additional income for tribal farmers. The goat rearing is common among tribal farmers. It occupies an important place in Indian economy. Since it contributes effectively to the subsistence of small farmers, marginal farmers and landless poor.

A Sabarkantha district has 3 tribal dominating taluka out of 8 talukas. Tribal farmers are rearing goat since generation. The goat is a dwarf and tiny animal which is easily manageable even by poorest among poor. Because of it's high production of marketable commodities such as milk, meat and manures, it is reckoned as poor man's cow.

With the advent of new technology it has now become possible to increase the production potential of goats. Goat rearing has socially and culturally accepted by tribal farmers. Majority of tribal farmers have marginal and small land holding, dependent on rain for crop production. Goat rearing by these tribal farmers gives considerable return

for livelihood security. It has been observed that the tribal farmers are not adopting improved goat rearing practices. Thus, study on adoption of improved goat rearing practices by tribal farmers was felt necessary.

### OBJECTIVES

- (1) To study the personal attributes of tribal goat owners
- (2) To know the extent of adoption of improved practices of goat rearing by the tribal goat owners
- (3) To ascertain the association between personal attributes of the tribal goat owner and extent of adoption

### METHODOLOGY

The present study was conducted in Sabarkantha district. The Sabarkantha district has eight talukas. Out of which, three talukas are tribal dominated viz, Khedbrahma, Poshina and Vijaynagar. All these three talukas were selected for the study. Four villages from each tribal taluka were selected randomly. From each selected village 10 goat

owners were selected randomly. Total 12 villages and 120 goat owners were selected for the study.

The data were collected with the help of interview

schedule. The interview schedule was prepared with the help of expert. The data was tabulated. The statistical tools viz; frequency, mean, S. D. and coefficient of correlation were used to analysis the data.

## RESULTS AND DISCUSSION

**Table 1: Distribution of respondents according to their personal attributes**

(n=120)

Sr. No.	Attributes	Categories	Frequency	Per cent
1	<b>Age</b>	Young (up to 35 years)	72	60.00
		Middle (36 to 50 years)	36	30.00
		Old (above 50 years)	12	10.00
2	<b>Education</b>	Illiterate	9	07.50
		Primary school level	21	17.50
		Secondary school level	45	37.50
		Higher secondary school level	33	27.50
		College education	12	10.00
3	<b>Family size</b>	Small(up to 5 members)	23	19.16
		Medium(6 to 9 members)	72	60.00
		Large(above 9 members)	25	20.84
4	<b>Number of goat</b>	Small (up to 4 animal)	45	37.50
		Medium (5 to 8 animal)	63	52.50
		Large (above 9 animal)	12	10.00
5	<b>Land holding</b>	Marginal (upto 1 ha.)	96	80.00
		Small (betn 1.01 to 2.00 ha.)	24	20.00
		Medium (betn 2.01 to 4.00 ha.)	00	-
		Big (More than 4.01 ha.)	00	-
6	<b>Annual income</b> Mean= ₹ 71750 S.D= ₹ 30207	Low (up to ₹ 41543)	12	10.00
		Medium (between ₹ 41544 to ₹101957)	90	75.00
		High (above ₹ 101958 )	18	15.00
7	<b>Goat rearing experience</b> Mean=16.77 years S.D=8.67 years	Low (up to 8 years)	12	10.00
		Medium (between 9 to 17 years)	66	55.00
		High(above 18 years)	42	35.00

The data presented in Table 1 reveals that 60.00 per cent of the goat owners were found in young age group, while 30.00 per cent were found in middle age group. The 10.00 per cent respondents were found in old age group.

The 37.50 per cent goat owners were educated up to secondary level followed by 27.50 per cent who had higher secondary level education, 17.50 per cent had primary education and 10.00 per cent had completed graduation. On the other hand, 7.50 per cent respondents were illiterate.

The data reveals that 60.00 per cent goat owners were from medium sized family, followed by 20.84 per cent belonged to large family and 19.16 per cent respondents belonged to small family.

The 52.50 per cent of the respondents had medium herd size, followed by 37.50 per cent and 10.00 per cent respondents with small and large herd size, respectively.

The 80.00 per cent and 20.00 per cent of respondents were marginal and small farmers, respectively. There was no farmer having medium and big land holding.

As per the annual income the respondents were classified into three categories viz; low, medium and high on the basis of mean and standard deviation. The data presented revealed that 75.00 per cent of the respondents had medium annual income in between ₹ 41544 to ₹ 101957. The 15.00 per cent and 10.00 per cent respondents have high and low annual income, respectively.

As per the goat rearing experience, the respondents were classified into three categories viz; low, medium and high on the basis of mean and standard deviation. The 55.00 per cent of the respondents had medium goat rearing experience in between 9 to 17 years. The 35.00 per cent and 10.00 per cent respondents had high and low goat rearing experience, respectively.

## Extent of adoption of goat rearing practices by the tribal goat owner

Table 2: Distribution of respondents according to adoption of goat rearing practices

(n=120)

Sr. No.	Categories	Number	Percent
<b>(A) Feeding management</b>			
1	Stall feeding	21	17.50
2	Concentrate feeding to lactating dose	57	47.50
3	Concentrate feeding during advanced pregnancy	42	35.00
4	Special feeding after kidding	78	65.00
5	Concentrate feeding before 2-3 weeks of breeding	27	22.50
6	Supplementary feeding of mineral mixture	18	15.00
<b>(B) Breeding management</b>			
1	Appropriate age of breeding (12-14 months)	105	87.50
2	Libido as selection criteria for breeding bucks	52	42.50
3	Breeding after 2-3 months of kidding	72	60.00
4	Pregnancy diagnosis by veterinarian	00	00.00
5	Changing of breeding bucks	45	37.50
6	Adoption of heat detection	00	00.00
<b>(C) Health management</b>			
1	Deworming	36	30.00
2	Vaccination	60	50.00
3	Isolation of sick animals	87	72.50
4	Treatment of sick goats	93	77.50
5	Ecto-parasite control	48	40.00
6	Protection from extreme weather	72	60.00
<b>(D) Kid management</b>			
1	Ligation and disinfection of naval cord	00	00.00
2	Colostrums feeding to kids(2-3 hr. after birth)	99	82.50
3	Timely feeding of Colostrums (thrice a day)	81	67.50
4	Weaning of kid (at 3 month of age)	33	27.50
5	Green fodder of kids	94	78.00
6	Castration of male kids	57	47.50

**Association between personal attributes and extent of adoption of goat rearing practices**

To ascertain the association between selected independent variables and extent of adoption of goat rearing practices by respondents of goat owner the correlation

coefficient was calculated. On the basis of operational measures developed for the variables, null hypotheses were stated for testing the relationship and their significance on zero order correlation. The values of zero order correlation are given in Table 3.

**Table 3: Correlation coefficient showing relationship of selected independent variables with adoption of goat rearing practices** (n = 120)

Sr. No.	Independent variables	Correlation coefficient 'r'
X <sub>1</sub>	Age	0.1167 <sup>NS</sup>
X <sub>2</sub>	Education	0.3881*
X <sub>3</sub>	Family size	-0.1615 <sup>NS</sup>
X <sub>4</sub>	Number of goat	0.3652*
X <sub>5</sub>	Land holding	-0.0422 <sup>NS</sup>
X <sub>6</sub>	Annual income	0.2725 <sup>NS</sup>
X <sub>7</sub>	Goat rearing experience	0.2419 <sup>NS</sup>

\*\* Significant at 0.01 level of probability

NS- Non significant

\*Significant at 0.05 level of probability

The data regarding correlation coefficient of the adoption with the different attributes of tribal goat owners are presented in table 3. It clearly indicates that the variable viz; education and number of goat had shown positive and significant association with adoption of goat rearing practices.

Age, annual income and goat rearing experience were shown positive and non significant association while family size and land holding had established negative and non significant association with adoption of goat rearing practices.

## CONCLUSION

- ♦ Majority of the tribal goat farmers were young aged, secondary school level of educated, medium level of family size, medium number of herd size, marginal land holding, medium annual income and medium to high years of goat rearing experience.
- ♦ The farmers were having medium level of adoption regarding goat rearing practices. No single farmers adopted breeding management practices of pregnancy diagnosis and heat detection by veterinarian and kid management of ligation and disinfection of naval cord.
- ♦ Education and number of goat had established positive

and significant association and were important variables of improved goat rearing practices by tribal farmers

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