

## Dynamic Profile of the Tribal Livestock Owners and Their Attitude Towards Vaccination in Ruminants

P. C. Patel<sup>1</sup>, J. B. Patel<sup>2</sup> and N. R. Parmar<sup>3</sup>

1 and 3 P. G. Student, Department of Extension Education, BACA, AAU, Anand - 388 110

2 Associate Professor, Department of Extension Education, BACA, AAU, Anand - 388 110

Email: jbvadodara@gmail.com

### ABSTRACT

Present study was conducted to access the attitude of the tribal livestock owners towards vaccination in ruminants in two selected Talukas of Dahod district of Gujarat State. Randomly five villages from two selected Talukas of Dahod district were selected, where fairly good number of livestock owners having good herd size and had higher milk production capacity. After selecting villages, randomly 12 livestock owners were selected from each village. Thus, total sample size for this research study was 60 livestock owners. As stated by Kerlinger (1976), ex-post-facto research design is worthy to be applied when the independent variables have already acted upon. Different independent variables like age, education, and experience in livestock management, social participation, land holding, annual income, extension contact, mass media exposure, knowledge, economic motivation, scientific orientation and risk orientation were measured and majority of the livestock owners had moderately to most favorable attitude towards vaccination in ruminants.

**Keywords:** Tribal livestock owners, Profile, Attitude, Vaccination in ruminants

### INTRODUCTION

Animal Husbandry and Dairy Development sectors play an important role in the national economy and in the socioeconomic development of the country as well as in supplementing family income and generating gainful employment in the rural sector, particularly among the landless labourers, small and marginal farmers and women, besides providing cheap nutritional food to millions of people. India has the world's largest livestock population accounting for over 55 and 16 per cent of the world's buffalo and cattle populations, respectively.

The XI<sup>th</sup> Five Year Plan has included ambitious programs to increase the outlays for control of animal diseases. The present domestic animal health industry, which is of about Rs 1,000 crore, is only 4.5 percent of the total estimated domestic pharmaceutical market. The control of animal disease is important for many reasons. Resistance to disease improves animal welfare, makes livestock farming more efficient (and food more plentiful) and helps protect people from those animal borne diseases capable of infecting humans too. In each of these cases even the most effective treatments would not achieve these ends as well as an effective vaccination programme can. However, the animal health has

not received due attention in tribal areas that it deserves. To further evaluate attitude of tribal livestock owners towards vaccination in ruminants, the present investigation was carried out.

### OBJECTIVES

- (i) To Study the profile of the livestock owners adopting vaccination practices in ruminants
- (ii) To measure the attitude of livestock owners towards vaccination practices in ruminants

### METHODOLOGY

The present study was carried out in randomly selected villages of selected talukas of Dahod district of Gujarat state. Two talukas namely Dahod and Zalod were purposively selected for study having higher milk production capacity. Randomly five villages from two selected Talukas of Dahod district were selected and after selecting villages, randomly 12 livestock owners were selected from each village. Thus, total sample size for this research study was 60 livestock owners. Where having fairly good number of livestock owners having good herd size and had higher milk production capacity.

**RESULT AND DISCUSSION**

**Background information of the livestock owners**

The respondents were categorized into different groups

on the basis of their some of the important personal, social, economical, communicational and psychological characteristics of the livestock owner were selected and studied the findings of which have been presented in Table: 1

**Table 1: Component of Livestock owners**

n=60

Sr. No.	Components	Categories	Frequency	Percentage
1	Age	Young age ( up to 35 years)	17	28.33
		Middle age (36 to 50 years)	34	56.57
		Old age (above 50 years)	09	15.00
2	Education	a. illiterate	15	25.00
		b.read n write	09	15.00
		c.Primary (up to 7 <sup>th</sup> )	22	36.67
		d.Secondry (8 <sup>th</sup> -12 <sup>th</sup> )	08	13.33
		e.College level	06	10.00
3	Experience in livestock management	Very low (Up to 5 years)	11	18.33
		Low (6 to 10 years)	10	16.67
		Medium (11 to 15 years)	15	25.00
		High (16 to 20 years)	05	08.34
		Very high (21 and more)	19	31.66
4	Social participation	No membership.	0	00.00
		Membership in 1 organization.	33	55.00
		Membership in 2 organization.	07	11.67
		Membership in more than 2 organization.	11	18.33
		Position holder.	9	15.00
5	Land Holding	Marginal farmer (Up to 1 hectare)	19	31.67
		Small farmer (1.01 to 2 hectare)	24	40.00
		Medium farmer( 01 to 4 hectare)	08	13.33
		Large farmer (>4 hectare)	09	15.00
6	Herd Size	Very low (Up to 3 animals)	33	55.00
		Low (4 to 6 animals)	14	23.33
		Medium (7 to 10 animals)	08	13.34
		High (11 to 13 animals)	02	03.33
		Very high (14 and more animals)	03	05.00
7	Annual Inome	Very low (Up to ₹50,000)	14	23.34
		Low (₹50,001 to ₹1,00,000)	10	16.66
		Medium (₹1,00,001 to ₹1,50,000)	22	36.67
		High (₹1,50,001 to ₹2,00,000)	08	13.33
		Very high (Above ₹2,00,001)	06	10.00
8	Extension Contact	Very low (up to 2.40)	13	21.66
		Low (2.41 to 4.80 )	05	08.34
		Medium (4.81 to 7.20)	19	31.67
		High (7.21 to 9.60)	16	26.66
		Very high (more than 9.60)	07	17.67
9	Mass Media Exposure	Very low (up to 3.60)	08	13.33
		Low (3.61 to 7.20)	11	18.34
		Medium (7.21 to 10.80)	20	33.33
		High (10.81 to 14.40)	07	11.67
		Very high (more than 14.41)	14	23.33

Sr. No.	Components	Categories	Frequency	Percentage
10	Knowledge	Very low (up to 20 %)	07	11.67
		Low (21 % to 40 %)	09	15.00
		Medium (41 % to 60 %)	34	56.67
		High (61 % to 80 %)	06	10.00
		Very high (more than 80 %)	04	06.66
11	Economic motivation	Very low (up to 10.80)	06	10.00
		Low (10.81 to 15.60)	16	26.66
		Medium (15.61 to 20.40)	23	38.33
		High (20.41 to 25.20)	07	11.67
		Very high (25.21 to 30.00)	08	13.34
12	Scientific Orientation	Very low (up to 25.20)	07	11.67
		Low (25.21 to 36.40)	17	28.33
		Medium (36.41 to 47.60)	21	35.00
		High (47.61 to 58.80)	09	15.00
		Very high (58.81 to 70.00)	06	10.00
13	Risk Orientation	Very low (up to 18)	12	20.00
		Low(19 to 26)	04	06.67
		Medium (27 to 34)	33	55.00
		High (35 to 42)	08	13.33
		Very high (43 to 50)	03	05.00

**(1) Age**

The data presented in Table 1 show that more than half (56.67 per cent) of the livestock owners were found in the middle age group followed by 28.33 per cent in young age group. The rest 15.00 per cent of the livestock owners belonged to old age group.

**(2) Education**

The data presented in the Table 1 reveal that more than one third (36.678 per cent) of the livestock owners had secondary level of education followed by 25.00 per cent, 15.00 per cent and 13.33 per cent of them who had illiterate, primary and higher secondary level of education, respectively. Only 10.00 per cent of the livestock owners were found in the category of graduate and above level of education.

**(3) Experience in livestock management**

The data presented in Table 1 reveal that slightly more than one third of the livestock owners (31.66 per cent) had more than 21 years of experience in animal keeping, while 25.00 per cent, 18.33 per cent, 16.67 per cent of them had 11 to 15 years, up to 5 years and 6 to 10 years of experience in animal keeping, respectively. Whereas, only 8.34 per cent of the owners had experience of 16 to 20 years.

**(4) Social Participation**

The data presented in Table 1 show that more than half (55.00 per cent) of the livestock owners had membership in one organization, while 18.33 per cent of livestock owners had membership in more than two organizations. Further, 15.00 per cent of them had membership along with position holding, while 11.67 per cent of them had membership in more than one organization and none of the member was found in the category of no membership in any organization.

**(5) Land Holding**

It is obvious from the data presented in Table 1 that exactly two fifth (40.00 per cent) of the livestock owners possessed small size of land holding, whereas, 31.67 per cent and 15.00 per cent of them possessed marginal and large size of land holding, respectively. Only 13.33 per cent of them possessed medium size of land holding.

**(6) Herd Size**

The data presented in Table 1 show that more than half (55.00 per cent) of the livestock owners had very low herd size of 3 animals, followed by 23.33 per cent, 13.34 per cent and 5.00 per cent of the livestock owners had low, medium and very high herd size, respectively. Whereas, only

3.33 per cent of the livestock owners had high herd size.

**(7) Annual Income**

From the Table 1 we can reveal that nearly less than two fifth (36.67 per cent) of the livestock owners had medium annual income ranging from ₹1,00,001 to ₹1,50,000, followed by 23.34 per cent, 16.66 per cent, 13.33 per cent and 10.00 per cent had very low, low, high and very high annual income, respectively.

**(8) Extension Contact**

It is observed from Table 1 that slightly more than one third(31.67 per cent) of the livestock owners had medium level of extension contact followed by 26.66 per cent and 21.66 per cent of them had high and very low level of extension contact, respectively. Only 11.67 per cent and 08.34 per cent of livestock owners had very high and low extension contact.

**(9) Mass Media Exposure**

The data given in Table1 indicate that more than one third(33.33 per cent) of the livestock owners had medium exposure to mass media, followed by 23.33 per cent, 18.34 per cent, 13.33 per cent, 11.67 per cent of them had very high level, low level, very low level and high level of mass media exposure respectively. Thus it can be concluded that 76.67 per cent of the livestock owners had medium to high level of mass media exposure.

**(10) Knowledge**

A look at Table 1 makes it clear that more than half 56.67 per cent of the livestock owners had medium level of knowledge followed by 15.00 per cent and 11.67 per cent had low and very low level of knowledge respectively. Whereas, only 10.00 per cent and 06.66 per cent of the livestock owners had high and very high level of knowledge regarding vaccination and better animal healthcare practices.

**(11) Economic Motivation**

A look at Table 1 makes it clear that nearly two fifth (38.33 per cent) of the livestock owners had medium economic motivation, while 26.66 per cent and 13.34 per cent were found to have low and very high economic motivation. Further, 11.67 per cent and 10.00 per cent of them were found to have high and very low economic motivation.

**(12) Scientific Orientation**

A perusal of data presented in Table 1 reveals that 35.00 per cent of the livestock owners had medium level of scientific orientation followed by 28.33 per cent and 15.00 per cent of the livestock owners had low and high level of scientific orientation, respectively. Only 11.67 per cent and 10.00per cent of the owners had very low and very high level of scientific orientation.

**(13) Risk Orientation**

A perusal of data from Table 1 reveals that more than half (55.00 per cent) of the livestock owners had medium risk orientation followed by 20.00 per cent, 13.33 per cent of them with very low and high risk orientation. Only 06.67 per cent and 05.00 of them were observed to have low and very high degree of risk orientation.

**Attitude of the livestock owners towards vaccination in ruminants**

For the measurement of the attitude of tribal livestock owners towards vaccination, scale developed by research worker himself was applied. The data regarding tribal livestock owners towards vaccination are presented in arbitrary form in Table 2.

**Table 2: Distribution of Livestock owners according to their attitude towards vaccination in ruminants**  
n=60

Sr. No.	Level of Attitude	Frequency	Per cent
1	Least favorable(14.00 to 25.20)	04	06.66
2	Less favorable (25.21 to 36.40)	10	16.67
3	Moderately favorable (36.41 to 47.60)	38	63.33
4	More favorable (47.61 to 58.80)	03	05.00
5	Most favorable (58.81 to 70.00)	05	08.34

The data given in Table 2 illustrate that 63.33 per cent of the owners had moderately favorable attitude towards vaccination followed by 16.67 per cent and 8.34 per cent of them had less favorable and most favorable attitude towards vaccination in ruminants, respectively. Only 6.66 per cent and 5.00 per cent of the livestock owners were observed to have least favorable and more favorable attitude towards vaccination in ruminants. From the foregoing discussion, it can be concluded that majority (76.67 per cent) of the livestock owners had moderately to most favorable attitude towards vaccination in ruminants.

## CONCLUSION

From the above discussion it can be concluded that the attitude of livestock owners towards vaccination in ruminants needs to be changed by creating appropriate awareness about improved animal health care practices and improved vaccination as well, because there is a better scope of improvement in the animal health subsequently increasing the milk production and generating high income vice-versa in the tribal area if proper care is taken. We can conclude that majority of the livestock owners were of middle aged group having secondary to college level of education with experience of 11 to 12 year in livestock management. Great majority of the owners had poor social participation with one or two organization. Majority of the owners had marginal to small size of land holding having annual income of ₹1,00,001 to ₹2,00,000, medium to high level of extension contact, medium to very high level of knowledge and economic motivation and scientific orientation. Whereas majority of the owners had very low to medium level of scientific orientation and vast majority had herd size of 3 to 10 animals. Majority of the tribal livestock owners had moderately favorable to most favorable attitude towards vaccination in ruminants.

## REFERENCES

- Anonymous (2010). Veterinary Vaccine and Diagnostic Policy Paper 46 : 1
- Anonymous (2012). <http://www.nddb.org>
- Anonymous (2013). British veterinary association. Vaccination-The Facts: 8
- Eysenck, H. J. and Crown, S. (1949). An experimental study in opinion-attitude methodology. *Int. J. Opin. Attitude Res.*, 3: 47-86.
- Edward, A. L. (1957). Techniques for scale construction. Appeton century Inc., New York.
- Guilford, J. P. (1954). Psychometric methods. Tata McGraw-Hill Publication Co. Ltd., Bombay : 378-382.
- Hai, Abdul., Srivastava, R. M., and Singh, R. P. (2003). Livestock farmer's preference of communication media and their use by extension workers in tribal area of Bihar. *Indian Journal of Extension Education*, 39(1 & 2): 31-34.
- Karl, Pearson. (1978). Hand Book of Agricultural Statistics. I.C.A.R., New Delhi. 284-285
- Kerlinger, F. N. (1976). "Foundations of behavioural research" Surjeet Publications, New Delhi : 198-204.
- Likert, R. A. (1932). A technique for measurement of attitude scale. *Archive of Psychology*. (140).
- Temkar, G. K. (2000). A study on extent of knowledge and attitude towards artificial insemination in the milch animals of the dairy farmers of Anand district. M.Sc. (Agri.) Thesis, Gujarat Agricultural University, S. K. Nagar.
- Tiwari, R., Rupasi Tiwari. and Singh, R. (2000). Attitude of livestock owners towards piggery enterprise. *Agricultural Extension Review*, 12(4): 19-23.
- Thurstone, L. L. and E. G. Chave (1928). The measurement of opinion. *Journal of Abnormal psychology*, 22: 415-430

---

Received : September 2015 : Accepted : December 2015