

## **Extension Contact and Extension Participation of Livestock Farmers in Jalandhar District of Punjab- A Benchmark Analysis**

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### **ABSTRACT**

A study of the socioeconomic aspects of livestock farmers is a prerequisite for the appropriate design and successful execution of Governments' developmental programmes. The present study was conducted to assess the socio-economic status and credibility of various extension activities among the livestock farmers. For this, primary data was collected through structured interview schedule using a sample size of 150 respondents from Jalandhar district of Punjab. Most of the respondent (92.70%) have their strong linkage with Panchayat members and participation in various extension activities were found highest (19.10%) among young farmers. Majority of the farmers participated in Kisan melas (68.70%) albeit relative credibility index was found highest for demonstration activity. Hence efforts should be undertaken by the Government, Veterinary Universities and other extension agencies in providing information on improved livestock farming practices, result oriented extension activities and strong farmer-extension-research-linkages so that farmers could bring about change in their living standard and can improve their socio-economic status.

**Keywords:** Credibility, Extension Activities, Livestock Farmer, Socio-economic Status

### **INTRODUCTION**

The livestock sector is one of the fastest growing segments of the agricultural economy, particularly in the developing country like India which provides nutritive food rich in animal protein and it also helps in supplementing family incomes and generating gainful employment for 70.0 million farm families of landless, marginal and small farmers. Animal husbandry is second largest economical activity in rural India next to agriculture. Livestock sector is directly related to a more balanced development of rural economy and upliftment of poorer sections of the society. Despite of rapid advances in the animal husbandry

technologies and their roles in improving livestock sector, the productivity of this sector is still very low in India (Chander *et al.*, 2010) which may be due to various reasons like poor adoption and diffusion of new technologies and poor knowledge level of farmers. Most of the farmers are not aware of scientific livestock management practices and adoption of improved animal husbandry practices which is very essential for the growth of livestock economy (Aulakh and Singh, 2015). Indian livestock industry has a unique characteristic that the bulk of animal produce is handled by small farmers who are illiterate and ignorant of commercial and economic aspects of livestock production. Thus a vigilant study of

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the socio-economic status of livestock farmers is a prerequisite and need of the hour for the legitimate design and well-tuned execution of any developmental plan at field level. Therefore, the present study was undertaken with the objective to assess the socio-economic status of livestock farmer and their approach to extension personnel for gather the information of livestock managemental practices so that further need based livestock developmental interventions can be supplemented to the end users.

## MATERIAL AND METHODS

The study was conducted in Jalandhar district of Punjab state. 10 villages from two blocks were selected for the study purpose and from these villages 15 livestock farmers were randomly scrutinized for interview, thus sample size of this study was 150. A well-structured pre-tested interview schedule was used for collection of data and the data was analyzed by using appropriate statistical methods. The information on socio-economic status and extension intervention was collected through this personal interview, observation and available secondary resources. Socio-economic information comprises educational status, age, land holding, herd size, herd composition, annual income, social participation, risk orientation and decision making. Information regarding extension interventions viz; demonstration, training, awareness camp, Kisan melas and field days was also collected. Credibility index were calculated, out of given sources of information, the respondents were asked to indicate only the most and least credible activity related to animal husbandry. The relative credibility index was worked out with the following formula (Sandhu, 1973).

$$\text{Relative credibility index} = (X/Y) \times (100/N)$$

X = Number of respondents who believed a source most credible  
Y = Number of respondents who believed a source least credible  
N = Total number of respondents.

## RESULT AND DISCUSSION

It could be observed from the Table 1 that 62.00 per cent of the farmers i belonged to middle age group, 84.00 per cent respondents had level of education in between primary to higher secondary, 31.30 per cent and 34.70

**Table 1: Socio-economic characteristic of the respondents (N= 150)**

Personal Characteristic	Frequency	Percentage
<b>Age</b>		
Young Age (<35)	19	12.70
Middle Age (35-55)	93	62.00
Old Age (>55)	38	25.30
<b>Educational qualification</b>		
Illiterate	04	02.70
Can read only	04	02.70
Can read and Write	08	05.30
Up to Primary	28	18.70
Middle	39	26.00
High School	35	23.30
Higher Secondary	24	16.00
Graduate and above	08	05.30
<b>Family size</b>		
Small (1-4)	36	24.00
Medium (5-8)	98	65.30
Large (>8)	16	10.70
<b>Land holding</b>		
Land less (No Land)	11	07.30
Marginal (Up to 2.5 acres)	47	31.30
Small (above 2.5 to 5 acres)	52	34.70
Medium (above 5 to 10 acres)	30	20.00
Large (above 10 acres)	10	06.70
<b>Herd size (Dairy Animals)</b>		
Small Herd Size (Up to 2)	20	13.30
Medium Herd Size (3 to 7)	101	67.30
Large Herd Size (8 and above)	29	19.30
<b>Herd composition</b>		
Indigenous Cattle	23	15.30
No descriptive Cattle	36	24.00
Cross Breed Cattle	94	62.70
Exotic cattle	47	31.30
Pure Breed Buffalo	49	32.70
Upgraded Buffalo	84	56.00
Goat	14	09.30
Poultry (Backyard)	46	30.70
Poultry (Commercial)	04	02.70
Piggery	11	07.30
Horse	04	02.70
Fisheries	03	02.00
Dog	24	16.00

**Table 1: contd.....**

Personal Characteristic	Frequency	Percentage
<b>Annual income</b>		
Low (up to 60000)	44	29.30
Medium (61000 to 150000)	76	50.70
High (151000 and above)	30	20.00
<b>Social participation</b>		
Low Social participation	55	36.70
Medium Social participation	64	42.70
High Social participation	32	21.30
<b>Risk orientation</b>		
Low (Score up to 15)	68	45.30
Medium (Score 16 to 25)	42	28.00
High Score (Score 26 and above)	40	26.70
<b>Decision maker of the family</b>		
Men	61	40.70
Women	12	08.00
Together	77	51.30

per cent of farmers were belongs to marginal and small land holding categories, 65.00 per cent having family size of 5 to 8 members and 65.30 per cent with medium size of herd of dairy animals. 62.70 per cent of the respondents possessed cross bred cow followed by upgraded buffalo (56.00%), pure breed buffalo (32.70%), exotic cattle (31.30%) and only 15.30 per cent and 24.30 per cent respondent possessed Indigenous cattle and non descriptive cattle, respectively. 50.70 per cent respondent

were in the medium level of income group and 42.70 per cent were in medium category of social participation . The results are well supported by Ravikumar (2005); Senthilkumar *et al.* (2006); Hanumanaikar *et al.* (2006); Kavitha and Reddi (2007); Sharma *et al.* (2009); Jagadeeswary (2009); Sathyanarayan (2009); Sathyanarayan *et al.* (2010) and Shekhawat *et al.* (2013).

In this study it has observed that farmer extension contact play important role in their livestock farming practices. Table 2 revealed that maximum number (92.70%) of farmers had had their contact with village panchayat sarpanch or members and ranked I. Out of these 46.00 per cent contacted village sarpanch in regular basis and the reason behind this is this local people can easily share their feelings with the local leaders or panchayat members. Further contact of respondent with input dealer from nearby town, Banks and insurance personnel, Animal Husbandry officials, Veterinary hospitals / A.I. Centers, KVK officials, Veterinary college/ Institutes, Dairy Mela/ Kisan Mela, NGOs and SHGs and ranked II, III, IV, V, VI, VII, VIII, IX and X rank respectively. Input dealers are mainly locally person or person from within the farmers who could approach farmer at any time and it was ranked as second highest linkage with respondents. Most of the farmers had their account in village level cooperative bank so they were able make frequently contact with the bank/insurance personnel. Farmers contact with Animal Husbandry

**Table 2: Extension contact of livestock farmer in the Jalandhar district (N = 150)**

Particulars	Frequency (Percentage)					Rank
	Regularly	Most often	Sometimes	Never	Total Visited	
Animal Husbandry officials	22 (14.70)	42 (28.00)	41(27.30)	45(30.00)	105 (70.00)	IV
Village Panchayat Members	69 (46.00)	37 (24.70)	33(22.00)	11(07.30)	139 (92.70)	I
Veterinary hospitals / A.I. Centers	17 (11.30)	18 (12.00)	66(44.00)	49(32.70)	101 (67.30)	V
KVK / ATIC officials	27 (18.00)	46 (30.70)	20(13.30)	57(38.00)	93(62.00)	VI
Input Dealers from nearby town	36 (24.00)	56 (37.30)	16(10.70)	42(28.00)	108 (72.00)	II
Kisan Mela	6 (4.0)	7(04.70)	41(27.30)	96(64.00)	54(36.00)	VIII
Veterinary college/Institutes	23 (15.30)	9(06.00)	27(18.00)	91(60.70)	59(39.30)	VII
Banks and insurance personnel	27 (18.00)	17 (11.30)	62(41.30)	44(29.30)	106 (70.70)	III
Non-Government Organizations (NGOs)	0 (0.0)	0(0.0)	4(02.70)	146 (97.30)	4(02.70)	X
Self Help Groups (SHGs)	0 (0.0)	0(0.0)	6(04.00)	144 (96.00)	6(04.00)	XI

Figures in parenthesis indicate percentage of the respondents

officials (70.00%), Veterinary clinic (67.30%) and KVK official (62.00%) had not shown too much difference and in these mostly official make contact with the farmers for disseminate the information regarding scientific livestock farming practices or make farmers aware through various awareness programs, trainings and others extension activities due to distantly location of veterinary college/institute and place of Kisan mela and only 39.30 per cent and 36.00 per cent farmer were able to visit these two place, respectively and only 4.00 per cent and 2.70 per cent respondents had liaison with SHGs and NGOs respectively. The major reason behind few contacts with these institutes reflects the individual working attitude of the respondent as reported by Sidhu *et al.* (1997).

It is revealed from Table 3 that most of the farmers were showing enthusiasm toward Kisan melas which is organized by various government organizations and was found that 68.70 per cent of farmers have participated in Kisan melas. The least participation was observed in the field days (27.30%) activities and the possible reason behind this is the very few organization conducted such kind of activity and on some exclusive topic only thus

attract only specific participants. In between of these two activities about 41.30, 40.70 and 39.3 per cent participated in trainings, awareness camps and demonstrations respectively. Overall participation in various extension activities was found only 43.50 per cent in which maximum participation (19.10%) was shown by young generation which fall in the categories of 18–30 years of age followed by middle age (14.30%) farmers and old age (10.10%) farmers. Youth or young generation has demonstrated the keen interest in learning of new technologies thus shown maximum participation in various activities. Old group of farmers were found to have laggard attitude and not willing to take any risk, so their participation marked as least in extension activity and these findings were in-line with the results of Ravikumar (2006).

Credibility index had shown (Table 4) some different picture of reliability of various extension activities. Respondent had been perceived differently for different methods of transfer of technology. It was found that demonstration method had highest relative credibility index (0.79) which shown that maximum farmers rely on this method followed by training programs (0.71), field days

**Table 3: Involvement of respondent in transfer of technology activities of livestock (N = 150)**

Extension Activities	Age group of farmers in years (% of respondent)			Total
	18-30	30-45	> 45	
Demonstrations	35(23.30)	14(9.30)	10(6.70)	59(39.30)
Field days	19(12.70)	9(6.00)	13(8.70)	41(27.30)
Awareness Camp	18(12.00)	27(18.00)	16(10.70)	61(40.70)
Kisan Melas	45(30.00)	33(22.00)	25(16.70)	103(68.70)
Training programs	26(16.00)	24(16.00)	12(8.00)	62(41.30)
Overall Participation	28.6(19.10)	21.4(14.30)	15.2(10.10)	65.2(43.50)

**Table 4: Relative Credibility of personal cosmopolite channel of livestock information for transfer of technology (N = 150)**

Extension Activities	Relative Credibility			Rank
	High (Score)	Low (Score)	Relative Credibility Index	
Demonstrations	32	27	0.79	I
Field days	19	22	0.58	III
Awareness Camp	26	35	0.50	IV
Kisan Melas	39	64	0.41	V
Training programs	32	30	0.71	II

(0.58), awareness camps (0.50) and Kisan Melas (0.41). Higher index value of demonstrations and training programs were due to their practical and result oriented nature and these finding were the accordance with the results of Chaudhary and Khan (2017).

### CONCLUSION

The socio-economic characteristics of the farmers are important for better policymaking decisions. Study revealed that more than half of the farmers involved in livestock farming belonged to middle age and medium level of income group. Due to low agricultural profitability, young people are not interested in agriculture and shift towards other allied business and service activities. Although they are having experimental nature and very keen to learn new things about scientific livestock farming practices (breeding, feeding, healthcare and management aspects) easy loan, credit facility and marketing linkage can develop their faith in the livestock related entrepreneurial ventures. Additionally, result oriented demonstration procedure would enhance the intellectuality regarding animal husbandry practices and would bring about some change in the attitude of livestock young farmers. Therefore, extension services should be more focused on skill development trainings and demonstrations of advanced proven livestock technologies at the farmer's field.

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### REFERENCES

- Aulakh, G.S. and Singh, R. (2015). Socio-economic characteristics of farmers and status of buffalo health care practices, *Indian Journal of Animal Sciences*, **85**(12), 1396–1398.
- Chander, M., Dutt, T., Ravikumar, R. and Subrahmanyeswari, B. (2010) Livestock technology transfer service in India: A review, *Indian Journal of Animal Science*, **80**, 1115-1125.
- Choudhary, S. and Khan, I.M. (2017). Credibility of different agriculture information sources and channels utilized by the anola growers, *International Journal of Current Microbiology and Applied Sciences*, **6**(7), 2277-2288.
- Gogoi, M. and Phukan, E. (2000). Extent of adoption of improved rice cultivation practices by farmers, *Maharashtra Journal of Extension Education*, **19**, 190-193.
- Hanumanaikar, R.H., Rajeshwari, N. and Nimbal, M.F. (2006). Socio economic status, constraints faced and suggestions expressed by the chilli growers in optimum use of pesticides in thunga bhadra project area of Bellary district, *Mysore Journal of Agriculture Science*, **40**, 261-266.
- Jagadeeswary, V. (2009). Ethnoveterinary Practices of tribal farmers - An exploratory study. Ph.D. Thesis (Unpublished), Acharya N.G. Ranga Agricultural University, Hyderabad.
- Kavitha, L. and Reddi, M.S. (2007). Personal and Socio-Economic Characteristics of Farm Women, *Journal of Research ANGRAU*, **35**(1), 79–83.
- Ravikumar, R.K. (2005). Livestock extension activities under the State Departments of Animal Husbandry in India: An institutional analysis. 'Ph.D. thesis, Indian Veterinary Research Institute, Izatnagar.
- Sandhu, A.S. (1973). Relative efficiency of four methods of measuring credibility of farm information source, *Indian Journal of Extension Education*, **9**(1), 71-74.
- Sathyanarayan, K. (2009). A benchmark analysis on livestock activities, *Mysore Journal of Agricultural Sciences*, **24**(2), 7–12.
- Sathyanarayan, K., Jagadeeswary, V., Chandrashekhar Murthy, V., Wilfred Ruban, S. and Sudha, G. (2010) Socio-economic status of livestock farmers of Narasapura Village - A Benchmark Analysis, *Veterinary World*, **3**(5), 215-218.
- Senthilkumar, T., Sudeepkumar, N.K. and Subramanian, R. (2006). Personal and socio-economic characteristics of urban dairy farmers utilizing mobile artificial insemination services, *Tamil Nadu Journal of Veterinary and Animal Sciences*, **2**(6), 220-223.
- Sharma, K., Singh, S.P. and Yadav, V.P.S. (2009). Knowledge of dairy farmers about improved buffalo husbandry management practices, *Indian Research Journal of Extension Education*, **9**(3): 51-54.
- Shekhawat, L.S., Mahajan, K.C. and Jaiswal, A. (2013). Cattle owners and their extent of knowledge about individual animal husbandry practices, *Journal of Progressive Agriculture*, **4**(2), 41-44.
- Sidhu, D.S., Tyagi, K.C., Chauhan, J.P.S. and KaIra, K.K. (1997). Study of dairies of Haryana State, *Indian Journal of Dairy Science*, **50**(4), 329-332.