

## Most Preferred Animal Husbandry Information Sources and Channel among Dairy Farmers of Punjab

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### ABSTRACT

*The present study was conducted to know the most preferred Animal Husbandry information sources among dairy farmers of Punjab for perceiving knowledge about various animal husbandry practices. A simple random sampling technique was used in the selection of dairy farmers. Dairy farmers were divided into three categories on the basis of herd size as small, medium and large dairy farmers. Information sources taken in present study was divided into four major categories viz mass media, institutional, non-institutional and extension activities. The total samples constitute 250 dairy farmers. The selected respondent was interviewed personally with the help of a pre structured interview schedule to elicit information. The study revealed that among all four categories of information sources viz mass media, institutional, non-institutional and extension activities overall mean score of preference for TV, Dairy Co- operatives, family members and pashu palan mela were higher by dairy farmers. A significance difference was found among small, medium and large dairy farmers in relation to their preference for internet, veterinary university, KVK and training programme as animal husbandry information sources.*

**Key words:** Animal Husbandry, Information sources, Dairy farmers, Knowledge.

India has the largest livestock population in the world which is more than 529.7 million during the year 2007 (NDDDB), with the top position in the total number of Cattle, Buffalo and Goat. Further, India has obtained a proud production of 132.4 million tonnes of milk in the year 2013 (NDDDB), which is highest in the world. Although, India is highest milk producing country in the world but considering the number of cattle and livestock farmers involved in it, the performance of dairy animals is not very satisfactory. It has been proved by scientists that one of the main reasons for low productivity of our animals is the lack of awareness and knowledge about recommended management practices among the farmers. Scientists generate continuous stream of innovations to serve 103 million farm families involved in the crop and animal husbandry sectors. But still there is wide gap between innovation generated by scientists and utilized by target farmers. The benefit of such innovations is actually derived only when it is efficiently utilized by individual and target farmers in their local situations. These innovations have to be disseminated to the farmers through effective communication

methods which become important sources of information to obtain knowledge for them. Effective information sources play an important role in adoption of scientific technologies related to animal husbandry practices by dairy farmers thus help in reducing the gap between technologies produced and adopted by farmers. Information is viewed as a resource much like land, labour and capital. The information explosion in modern technologies has created a unique situation, making the recipient unable to understand and cope up with the vast amount of information.

The main purpose of animal husbandry information sources is education, not propaganda and to render essential help in the dissemination of information up to farmers and others, who cannot be reached through personal contacts with extension workers. At present, the main objective of animal husbandry information sources is to reach the masses in the shortest possible time. Various methods, including field trips, guest speakers, group discussions, workshop, on-farm demonstrations, audio-visual aids, printed matter and interactive telecommunications have been advocated by

extension practitioners for information dissemination in agriculture and allied sectors. The choice and selection of information sources generally depends on the number and location of the target audience and time available for communication. Access to the right information at the right time in the right format and from the right source may shift the balance between success and failure of the farmer. Identification of most preferred information sources and channels, by the dairy farmers will be helpful for extension agencies and persons engaged in transfer of technology programmes thus, selection of appropriate information sources is very important for effective and rapid transfer of new animal husbandry technologies (Sharma *et al* 2008). The preference and selectivity of information sources varies among the farmers depending upon several conditions such as cosmopolitan/local, richness/poverty, liking/disliking, sources of availability and credibility of source (Balasubramanian and Charles 1996). So it is very necessary to identify different sources and channels of animal husbandry information available to the dairy farmers and to locate the most utilized sources and channels so as to develop a suitable communication strategy.

## METHODOLOGY

The present study was conducted in the State of Punjab in India. A total of 250 respondents were randomly selected from the dairy farmers visiting to Veterinary Clinics of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), various Training programmes, Animal Welfare Camps, Pashu Palan Melas and Livestock shows to know about the most preferred information sources among them for perceiving knowledge about various animal husbandry practices. A farmer who is maintaining a herd of four and above milch animal was considered as dairy farmers in present study. The respondents were categorized as small (4-15 animals), medium (16-45 animals) and large (>45 animals) categories on the basis of herd size. Cumulative cube root frequency method was used to formulate categories of farmers. A comprehensive list of livestock farm information sources was prepared consulting the relevant literature available and discussion with the experts. For the present study the information sources such as mass media, institutional sources, non-institutional sources and extension activities were taken into consideration. The preference of different information sources among dairy farmers measured

through response categories as highly preferred, preferred and not preferred giving score 2 for highly preferred, 1 for preferred and 0 for not preferred. The data was collected through personal interview on the basis of structured interview schedule. The data was statistically analyzed with the help of mean score, percentage, Z test and ANOVA technique the calculated value of 'F' which was significant at decided level of significance was also considered.

Z-test

$$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

*Analysis of* (ANOVA): The significance differences between the mean value of selected independent variables in case of small, medium and large farmers were tested by analysis of variance (ANOVA) technique, the calculated value of 'F' which was significant at decided level of significance was also considered.

## RESULTS AND DISCUSSION

*Selected Socio-economic traits of the dairy farmers:* An attempt was made to describe briefly the different trait of farmers taken as respondents for this study. Table 1 presented the summary of the profile of the dairy farmers. Majority (39.60%) of the dairy farmers were belonged to middle age group ranging from age 31-40 years of age followed by the category of young (?30) and old (>40) which accounted for 37.60 percent and 22.80 percent respectively. 20.80 percent of dairy farmers were illiterate majority (27.00%) of dairy farmers had education level up to higher secondary, and only 4.80 percent farmers had their education up to graduation. Maximum (15.38%) large farmers and minimum (1.709%) small farmers were educated up to graduation. These results were in line with the findings of Rajak (2005), Sharma (2004). Majority (54.40%) of dairy farmers were belonging to joint family, 45.60 percent were belong to nuclear family, 45.60 percent of dairy farmers having medium family size, 36.80 percent of dairy farmers having large and 17.60 percent of dairy farmers having small family. 59.20% of the dairy farmers were having dairy as their main occupation while 40.80% of dairy farmers were having dairy as their secondary occupation.

*Preference of dairy farmers for different mass media sources:* The given Table 2 revealed that among

**Table 1. Personal Profile of the Respondent**

Characteristics	Small (n=117)	Medium (n=81)	Large (n=52)	Total (N=250)
<i>Age (yrs)</i>				
≤ 30	50(42.73)	34(42.00)	10(19.23)	94(37.60)
31-40	37(31.62)	33(40.74)	29(55.76)	99(39.60)
>40	30(25.64)	14(17.28)	13(25.00)	57(22.80)
Mean±SE	35.37±1.15	32.40±0.98	36.21±1.00	34.58±0.66
<i>Education</i>				
Illiterates	30(25.64)	16(19.75)	06(11.53)	52(20.80)
Primary	15(12.82)	07(8.64)	03(5.77)	25(10.00)
Middle	23(19.65)	10(12.34)	05(9.62)	38(15.20)
High school	17(14.52)	24(29.62)	14(26.92)	55(22.00)
Higher sec.	30(25.64)	22(27.16)	16(30.75)	68(27.00)
Graduation	02(1.709)	02(2.47)	08(15.38)	12(4.80)
<i>Family type</i>				
Nuclear	51(43.59)	33(40.74)	30(57.69)	114(45.60)
Joint	66(56.41)	48(59.26)	22(42.31)	136(54.40)
<i>Family size</i>				
Small (≤ 4)	19(16.24)	11(13.58)	14(26.92)	44(17.60)
Medium (5-8)	53(45.30)	37(45.68)	24(46.15)	114(45.60)
Large (>8)	45(38.46)	33(40.74)	14(26.92)	92(36.80)
Mean±SE	7.96±0.32	9.09±0.45	7.42±0.49	8.21±0.24
<i>Occupation</i>				
Dairy as main	65(55.56)	47(58.02)	36(69.23)	14(59.20)
Dairy as secondary	52(44.44)	34(41.98)	16(30.77)	102(40.80)

different mass media sources Radio, TV, Newspaper, Magazine and Internet overall mean score (1.41±0.02) of preference for TV was higher by dairy farmers followed by newspapers (1.30±0.04), radio (0.32±0.02), internet (0.31±0.03) and magazine (0.28±0.01) for perceiving knowledge about various animal husbandry practices like Breeding, Feeding, Management, Healthcare, Fodder production, this might be because of its audio-visual effect, wide coverage easy availability and easiness to use also TV attached lesser importance to factor like 'skill to use'/ operate cost. Paliwal and Chandra (2003) also reported similar findings. On comparison among different categories we found that means score (1.54±0.05) of preference for TV were higher by large farmers followed by medium (1.42±0.06) and small farmers (1.34±0.06). Internet as animal husbandry information source was most preferred by large farmers, significance difference (P<0.05) were found among all three categories in relation to their preference for internet as indicated by F-ratio (3.58\*). *Preference of dairy farmers for different Institutional Source:* The result in Table 3 revealed that overall mean score (1.67±0.02) of preference for Dairy Co-operative was higher by dairy farmers for perceiving

**Table 2: Mean (±SE) level of preference for different mass media sources by dairy farmers**

Mass Media	Category Wise Number (N) of Farmers				F ratio
	Small N= 117	Medium N= 81	Large N= 52	Total N= 250	
Radio	0.31±0.04	0.33±0.05	0.35±0.05	0.32±0.02	0.98
TV	1.34±0.06	1.42±0.06	1.54±0.05	1.41±0.02	1.53
NP*	1.20±0.09	1.32±0.09	1.44±0.10	1.30±0.04	1.13
MG**	0.19±0.03	0.34±0.02	0.36±0.03	0.28±0.01	0.87
Internet	0.09±0.06	0.32±0.07	0.50±0.06	0.31±0.03	3.58*

\*News papers; \*\*Magazines

**Table 3: Mean (±SE) level of preference for different institutional Source by dairy farmers**

Source	Category Wise Number (N) of Farmers				F ratio
	Small N= 107	Medium N= 78	Large N= 52	Total N= 237	
Vet. Uni.	1.48±0.04	1.55±0.05	1.81±0.06	1.57±0.03	3.67*
KVK	1.21±0.06	1.38±0.07	1.59±0.07	1.33±0.03	3.89*
CVH	1.29±0.08	1.33±0.11	1.43±0.11	1.34±0.05	2.18
DDD	0.94±0.09	0.80±0.10	0.76±0.13	0.85±0.06	0.97
DC	1.60±0.04	1.68±0.05	1.79±0.05	1.67±0.02	1.09

Veterinary University; CVH=Civil Veterinary Hospital, DDD=Dairy Development Department; DC=Dairy Co-operatives

**Table 4: Mean (±SE) level of preference for different non institutional Source by dairy farmers**

Source	Category Wise Number (N) of Farmers				F ratio
	Small N= 75	Medium N= 49	Large N= 36	Total N= 160	
F	0.88±0.09	0.86±0.11	0.78±0.13	0.85±0.06	0.73
R	0.67±0.17	0.65±0.19	0.62±0.21	0.64±0.11	1.13
N	0.82±0.14	0.74±0.17	0.65±0.24	0.75±0.10	0.97
FM	1.10±0.06	1.02±0.08	1.12±0.07	1.08±0.04	1.67

Friends, R=Relatives, N=Neighbourers, FM=Family Members

**Table 5: Mean (±SE) level of preference for different extension activities by dairy farmers**

Extension Activities	Category Wise Number (N) of Farmers				F ratio
	Small N=89	Medium N=71	Large N=47	Total N=207	
Training	0.79±0.06	1.17±0.08	1.02±0.09	0.97±0.05	3.54*
Lectures	1.03±0.09	1.14±0.10	1.02±0.02	1.07±0.06	1.19
LS	1.28±0.08	1.26±0.10	1.28±0.10	1.27±0.05	0.85
AWC	1.16±0.11	1.24±0.11	1.33±0.09	1.23±0.06	2.12
PPM	1.49±0.04	1.65±0.03	1.69±0.03	1.59±0.02	2.13

LS=Livestock Shows; AWC=Animal Welfare Camps, PPM=Pashu Palan Mela

knowledge about Breeding, Feeding, Management, Health-care etc of their animals followed by Veterinary University ( $1.57\pm 0.03$ ), CVH ( $1.34\pm 0.05$ ), KVK ( $1.33\pm 0.03$ ) and DDD ( $1.67\pm 0.02$ ), the reason might be because veterinary staff of Dairy Co-operatives personally visit to farmers so farmers can easily get any information from them, Gupta et al (2003) and Pradeep and Rajkamal (2010) also reported similar findings. Among different categories mean level of preference for dairy co-operatives were higher by large farmers ( $1.79\pm 0.05$ ) followed by medium ( $1.68\pm 0.05$ ) and small farmers ( $1.60\pm 0.04$ ). A significance difference ( $P < 0.05$ ) were found among all three categories in relation to their preference for veterinary university and KVK internet as indicated by F-ratio ( $3.67^*$ ) and ( $3.89^*$ ) respectively.

*Preference of dairy farmers for different non-Institutional Source:* Data presented in Table 4 revealed that among all four non-institutional sources i.e. Friends, Relatives, Neighbourers and Family Members the mean score ( $1.08\pm 0.04$ ) of preference for Family Members was higher than other sources, this can be attributed due to any time availability of Family Members during any decision making process followed by Friends ( $0.85\pm 0.06$ ), Neighbourers ( $0.75\pm 0.10$ ) and Relatives ( $0.64\pm 0.11$ ). Small farmers preferred family member as their most preferred animal husbandry information sources for perceiving knowledge about animal husbandry practices followed by medium and small farmers.

*Preference of dairy farmers for different Extension activities:* Data presented in Table 5 revealed that among all five extension activities viz. Training Programmes, Lectures, Livestock Shows, Animal Welfare Camps and Pashu Palan Mela the overall mean level of preference was higher for PPM ( $1.59\pm 0.02$ ), the reason might be because it covered more information along with source of information it is one of the source of enjoyment for dairy farmers, followed by Livestock Shows ( $1.27\pm 0.05$ ), AWC ( $1.23\pm 0.06$ ), Lectures ( $1.07\pm 0.06$ ) and Training programme ( $0.97\pm 0.05$ ). Our findings are similar in line with findings of Hai et al (2003) and Kumar (2006). A significance difference ( $P < 0.05$ ) were found among all three categories in relation to their preference for training programme as indicated by F ratio ( $3.54^*$ ).

## CONCLUSION

Among different selected information sources majority of dairy farmers were aware about radio, television, dairy co-operatives and pashu palan mela as animal husbandry information source. Therefore majority of large farmers were aware about dairy co-operatives and pashu palan mela dairy farmers utilized newspapers, dairy co-operatives, family members and pashu palan mela as considered television, dairy co-operatives, pashu palan mela as most preferred animal husbandry information sources.

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## REFERENCES

- Balasubramanian and Charles E M. 1996. Mass media and extension programmes. *Agricultural Extension Review* 8(15): 25-28.
- Gupta S P, Amardeep and Kushal. 2003. Utilization of information source by farmers under different production system in Uttaranchal and Uttar Pradesh. *Manage Extension Research Review* 4(2): 70-80.
- Hai A, Srivastava R M and Singh R P. 2003. Livestock farmer's preference of communication media and their use by Extension Workers in Tribal Bihar. *Indian Journal of Extension Education* XXXIX (1&2): 31-34.
- Kumar R. 2006. Information management behavior of khol crop growers of Belgaum District of Karnataka State. M.Sc. Thesis, University of Agricultural Sciences, Dharwad.
- Pradeep C A and Rajkamal P J. 2010. Availability preference and frequency of utilization of Communication sources to Dairy Entrepreneurs. *Journal of Dairying, Food and Home Science* 29(3&4).
- Rajak S K. 2005. Content and coverage of livestock information broadcast by all India radio, Bareilly and its perceived utility. Thesis submitted to Indian Veterinary Research Institute Izatnagar Bareilly.
- Sharma G R K. 2004. Internet communication among livestock farmers in Chittoor District of Andhra Pradesh. Ph.D. Thesis submitted to Indian Veterinary Research Institute Izatnagar, Bareilly.
- Sharma A K, Jha S K, Kumar V, Sachan R C and Kumar A. 2008. Critical Analysis of Information Sources and Channels Preferred by Rapeseed-Mustard Farmers.

