

Information Needs and Constraints Faced by Farm Women in Hill Region of Uttarakhand

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ABSTRACT This paper was conducted in the Kumaon Division of Uttarakhand with an objective to find out the information needs and the constraints faced by the farm women covering two blocks. From each block, two villages were selected randomly. By using Probability Proportional to Size sampling method, 25 percent of total farm women from each of the chosen villages were selected randomly. A sample of 120 respondents were included in the study. The results depicted that women were very much interested to know about treatment of animals and animal breeding in the area of dairy farming and also to know more about their health and hygiene. Major constraints expressed by farm women in accessing the information were traditional and cultural norms, domestic responsibilities, not willing to take risk, lack of awareness of the programmes running for the development and illiteracy. Unavailability of extension functionaries, lack of technical guidance, lack of required field staff and inadequate supporting facilities and services were the major technical/extension constraints.

INTRODUCTION

Information irregularity at farm level has been observed as one of the main causes for low production and productivity efficiency. Access to accurate, reliable and timely information plays a significant role in the adoption of suitable technology. It enables individuals, groups and communities to realize their full potential and promote sustainable agricultural development (Ansari and Sunetha 2014). Women in India are major producers of food in terms of value, volume and number of hours worked almost 63 percent of all economically active men are occupied in agriculture as compared to 78 percent of women (Banerjee et al. 2016). Active participation of farm women is also increasing in agriculture and allied fields. Although women are involved in farming activities but their skills and knowledge about modern agricultural technologies are remaining extremely low. In order to improve agricultural productivity, the extension system will have to first acknowledge the contribution of farm wom-

en in agriculture and allied fields and then initiate appropriate steps for up scaling their knowledge and skills.

Women share almost all the small and large farm operations. They are equally efficient in seed bed preparation, tilling, sowing, fertilizer application, fodder cutting, weeding, inter-culturing, transplanting, husking, threshing, drying, storing cereals and fodder, selling produce and harvesting of all crops, fruits and vegetables (Shah and Khan 2004). Women contribute to marketed agricultural products through their labor, even if the food produced would not necessarily be attributed to them. This is especially true when they are working as contributing family members or as wage workers on others' fields (Doss et al. 2017). They carry out these tasks in addition to their normal domestic responsibilities of work. To this end, we need to identify their diverse and varied information needs related to agriculture, livestock and other important aspects like childcare, health hygiene, etc. Information related to various aspects of farm and home are assumed to be the main support for efficiently doing these activities which is mainly supplied by both private and public extension systems. But, surprisingly only 5 percent of agricultural extension resources are directed to women around the world (Gowda 2001; Mo-

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hammed 2002). The information needs of women should be of concern to most because women are the foundation of any society (Olorunda 2004). In case of Uttarakhand, agriculture seems the main occupation of people and women play a crucial role in the farming activities. The limitations imposed by the topography and geography of land in hilly areas, multiply the problem of access to information and services. This is directly reflected in low farm productivity and production efficiency. A woman in Uttarakhand is earning Rs.18.13/day. This is more than the per capita income of India (Sharma 2012). But the potential of Uttarakhand women is still not fully utilized. The contribution of women to agricultural and livestock production over the years has been acknowledged and there is a need to make available to them appropriate information to enhance their productivity.

Objectives

In order to find out the above backdrops, the present study was conducted with objectives:

1. To determine their information needs related to livestock and other aspects like child care and health hygiene.
2. To identify the constraints as perceived by farm women in accessing information.

METHODOLOGY

The present investigation was carried out in Kumaon region of Uttarakhand state. Out of the six districts of the Kumaon region, one district (Pithoragarh) was selected randomly. There are eight development blocks in Pithoragarh district out of which two blocks Gangolihat and Berinag blocks were selected randomly. - For documenting the information needs of farm women, out of 311 villages, two villages were selected randomly from Berinag block namely; *Ritha* and *Bana* and out of 332 villages, two villages namely; *Devradi Bora* and *Simalta* from Gangolihat block were selected randomly. Members of those households whose main occupation had been agriculture/ animal husbandry were considered as the respondents for the study. The respondents were selected purposively as the research was focused on farm women. From each village a list of all the farm women engaged in agriculture/ animal husbandry was

made using census method. Probability Proportionate to Size (PPS) method was used to select the respondents and 25 percent of total farm women from each of the selected villages were selected randomly. Thus, a sample of 120 respondents I.E. farm women, who actually performed the farming activities were included in the study. In order to provide answer to selected research questions and to control variance by statistical principal, descriptive research design was used for conducting the present study. The data were collected with the help of semi structured interview schedule on information needs of the farm women and the constraints faced by them to get that information. In order to validate the data collected through quantitative technique some qualitative technique like observation was also used. After data collection, data was tabulated and analyzed in the light of the objectives set forth for the study using different statistical tools like percentage, frequency, weighted mean and ranking.

RESULTS AND DISCUSSION

Information Needs Related to Livestock

The findings presented in Table 1 reveals that majority (75%) of the respondents reported information needs on 'Selection of breed' as 'most needed', followed by 25 percent of the respondents considering it as 'needed'. Majority (62.5%) of the respondents reported information need on 'Cutting and collection of Fodder' as 'most needed', followed by 37.5 percent of the respondents considering it as 'needed'. Majority (57.5%) of the respondents reported information on 'Heat detection' as 'most needed' with 42.5 percent of the respondents mentioning it as 'needed'. The information about 'Balanced feed ration and fodder production' was considered as 'most needed' by 90 percent of the respondents and only about 10 percent of the respondents considered it as 'needed'.

Majority (96.67%) of the respondents reported information on 'Cattle Feed and nutritive value' as 'most needed' while only 3.33 percent of the respondents considered the information on this aspect as 'needed'. The information on 'Feeding animals' was found 'most needed' by 45 percent of the respondents and about 55 percent of the respondents considered it as 'needed'. Further, 'Quality and Quantity of feed given

Table 1: Information needs related to livestock (N=120)*

S. No.	Areas	Most needed		Needed		Not needed	
		F	%	F	%	F	%
1.	Selection of breed	90	75	30	25	0	0
2.	Cutting and collection of fodder	75	62.5	45	37.5	0	0
3.	Heat detection	69	57.5	51	42.5	0	0
4.	Balanced feed/ration and fodder production	108	90	12	10	0	0
5.	Cattle feed and nutritive value	116	96.67	4	3.33	0	0
6.	Feeding animals	54	45	66	55	0	0
7.	Quality and quantity of feed given to pregnant cattle	108	90	12	10	0	0
8.	Precaution against prevalent diseases	97	80.83	23	19.17	0	0
9.	Care of newly born calves	97	80.83	23	19.17	0	0
10.	Vaccination	120	100	0	0	0	0
11.	Symptoms of diseases	90	75	30	25	0	0
12.	De-worming	110	91.67	10	8.33	0	0

*Multiple responses were allowed

to Pregnant Cattle' was reported as 'most needed' by 90 percent of the respondents while only 10 per cent of the respondents reported it as 'needed'. Similar findings were also reported by Dhaka et al. (2017).

Majority of the issues on livestock were found to be most needed for the farm women. The reason might be lack of extension agency contact due to their hectic work schedules as well as their geographic hindrance. It was observed during the investigation that farm women do all the works (on and off farm) but they are lacking in scientific information.

Ranking of Information Needs Related to Livestock

The results presented in Table 2 reveals that Vaccination was the most needed area for information (Rank I) followed by cattle feed and nutritive value (Rank II), De-worming (Rank III), Balanced feed ration and fodder production and Quality and Quantity of feed given to Pregnant Cattle (both Rank IV), Precaution against prevalent diseases and care of new born calves (both Rank V), Selection of Breed and Symptoms of disease (both Rank VI), Cutting and collection of fodder production (Rank VII), Balanced feed ration and fodder production (Rank VIII). It was also observed that Feeding of animals was the least important area of information (Rank IX).

As per the preferences most of the farm women wanted to know about the vaccinations of the livestock as they face critical situations due

Table 2: Ranking of information need related to livestock (N=120)

S. No.	Areas	Weighted mean	Rank
1.	Vaccination	3.00	I
2.	Cattle feed and nutritive value	2.96	II
3.	De-worming	2.91	III
4.	Balanced feed ration and fodder production and quality and Quantity of feed given to pregnant cattle	2.9	IV
5.	• Precaution against prevalent diseases		
	• Care of new born calves	2.80	V
6.	• Selection of Breed		
	• Symptoms of disease	2.75	VI
7.	Cutting and collection of fodder	2.62	VII
8.	Heat detection	2.57	VIII
9.	Feeding animals	2.45	IX

to various diseases in animals. Most of the farm women were also willing to be familiar with the feed and fodder as they invest most of their time to gather or collect fodders from far forest for their animals.

Information Needs Related to Child Development and Care

The findings presented in Table 3 reveals that majority (76.67%) of the respondents reported information on 'pre-natal and post-natal care' as 'needed' while 23.33 per cent of the respondents considered information on this aspect as 'most

needed'. Most of the respondents (64.17%) considered information on 'identification of disease and viral' in children as 'most needed', followed by 35.83 percent of the respondents considering it as 'needed'. Further, 'care of new born' was reported as 'needed' by 86.67 percent of the respondents while only 13.33 percent of the respondents reported it as 'most needed'. Majority (91.67%) of the respondents reported information on 'types of vaccine and time of vaccination' as 'needed' while only 8.33 percent of the respondents considered the information on this aspect as 'most needed'. The study findings are supported by Papnai 2008 who also found that all (100%) the respondents mostly needed information about precautions to be taken by mother before and after birth, where as 64 percent of the respondents needed information about types of vaccine and its time. Patrick and Ferdinand 2016 also found somewhat similar findings.

It was observed by the researcher that most of the farm women needed information on care of infants as the medical facilities are far flung. Knowledge of identification of viral fever and vaccination schedule for children was also found very less.

Ranking of Information Needs Related to Child Development and Care

On the basis of weighted mean score and ranking, it is clear from Table 4 that Identification of disease and viral (fever) in children was ranked highest (Rank I) followed by Pre-natal and post-natal care (Rank II). Care of new born and Types of vaccine and time of vaccination were ranked III and IV, respectively. Hence, it may be concluded that farm women need information about these four areas.

Table 4: Ranking of information need related to child development and care (N=120)

S. No.	Areas	Weighted mean	Rank
1.	Identification of disease and viral (fever) in children	2.64	I
2.	Pre-natal and post-natal care	2.23	II
3.	Care of new born	2.13	III
4.	Types of vaccine and time of vaccination	2.08	IV

Information Needs Related to Health and Hygiene

In Table 5, the findings regarding the information need related to health and hygiene are presented. A careful perusal of the results show that 95 percent of the respondents reported information on 'Excretion of waste' as 'not needed' while only five percent of the respondents considered the information on this aspect as 'needed'. The information on 'Control of household germs' was reported as 'not needed' by majority (75%) of the respondents followed by 23.33 percent and 1.67 percent respondents saying 'needed' and 'most needed', respectively.

Further, majority (81.67%) of the respondents reported information on 'diseases and protection' as 'needed' with 13.33 percent and 5 percent of the respondents mentioning it as 'most needed' and 'not needed', respectively. Most of the respondents (92.5%) considered information on 'Personal Hygiene' as 'not needed' and only 7.5 percent of the respondents considering it as 'needed'.

The information on 'Tetanus during pregnancy' was reported as 'most needed' by majority (70%) of the respondents followed by 28.33 per cent and 1.67 percent respondents saying 'needed' and 'not needed', respectively. 'Food items abstained during pregnancy' was report-

Table 3: Information needs related to child development and care (N=120)*

S. No.	Areas	<i>Most needed</i>		<i>needed</i>		<i>Not needed</i>	
		<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>
1.	Pre-natal & post-natal care	28	23.33	92	76.67	0	0
2.	Identification of disease and viral (fever) in children	77	64.17	43	35.83	0	0
3.	Care of new born	16	13.33	104	86.67	0	0
4.	Types of vaccine and time of vaccination	10	8.33	110	91.67	0	0

*Multiple responses were allowed

Table 5: Information needs related to health and hygiene (N=120)*

S. No.	Areas	Most needed		Needed		Not Needed	
		F	%	F	%	F	%
1.	Excretion of waste	0	0	6	5	114	95
2.	Control of household germs	2	1.67	28	23.33	90	75
3.	Diseases and protection	16	13.33	98	81.67	6	5
4.	Personal hygiene	0	0	9	7.5	111	92.5
5.	Tetanus during pregnancy	84	70	34	28.33	2	1.67
6.	Food items abstained during pregnancy	69	57.5	51	42.5	0	0
7.	Food items abstained during lactation	97	80.83	23	19.17	0	0
8.	Breast feeding	32	26.67	85	70.83	3	2.5
9.	Supplementary milk feeding	83	69.17	37	30.83	0	0

*Multiple responses were allowed

ed as ‘most needed’ by 57.5 percent of the respondents while 42.5 percent of the respondents reported it as ‘needed’. The findings of the present paper are somewhat similar to study findings of Kumar and Bhardwaj 2005. It is evident from the data that most of the respondents not needed the information regarding personal as well as surrounding hygiene; this may be due to the fact that women do cleaning of home as one of their daily works. Whereas, regarding health issues they need the information well in time.

Ranking of Information Needs Related to Health and Hygiene

Based on the weighted mean score, the results presented in Table 6 clearly indicate information needs about Health and Hygiene. It was found that need for information on Food items abstained during lactation was ranked highest (Rank I) followed by need for information on supplementary milk feeding (Rank II), Tetanus during pregnancy (Rank III), Food items abstain during pregnancy (Rank IV), Breast feeding

Table 6: Ranking of information needs related to health and hygiene (N=120)

S. No.	Areas	Weighted mean	Rank
1.	Food items abstained during lactation	2.80	I
2.	Supplementary milk feeding	2.69	II
3.	Tetanus during pregnancy	2.68	III
4.	Food items abstain during pregnancy	2.57	IV
5.	Breast feeding	2.24	V
6.	Diseases and protection	2.08	VI
7.	Excretion of waste	1.05	VII
8.	Personal hygiene	1.01	VIII
9.	Control of household germs	0.5	IX

(Rank V), Disease and protection (Rank VI), Excretion of waste and personal hygiene were ranked VII and VIII, respectively. Further, the Control of household germs was the least important area of information (Rank IX) for the respondents of this study.

Daily Work Pattern of Farm Women

Daily work activity of farm women also involved collecting fuel, cooking, cleaning of kitchen, dusting, mopping fetching water and washing clothes. Besides, the activity of knitting and stitching/embroidery was carried out occasionally. It is evident from Table 7 that the time spent by farm women was maximum in case of ‘fetching water’ (2.85 hours) as compared to other household activities followed by ‘cooking’ (2.47 hours) and ‘collecting fuel’ (1.57 hours). Fetching water was considered the most difficult task mainly because women had to bring water from very far-off places. Least time was spent in ‘dusting’ and ‘mopping’ (0.5 hours), respectively. During the planting and harvesting seasons, women work in the field for 1 or 2 months in groups from early morning till late evening. In addition to farm work, women perform household chores, including cooking, laundry and cleaning, and looking after their children or grandchildren (Akter et al. 2017).

Constraints/Problems Perceived by Farm Women

It refers to various hindrances/obstacles encountered by farm women in accessing the information related to agriculture and allied activities. Based on the respondent’s expressed opin-

Table 7: Daily Work Pattern of farm women (N=120)*

S. No.	Activities	Yes		No		Average time spent
		F	%	F	%	Hours
1	Collecting fuel	120	100	0	0	1.57
2	Cooking	120	100	0	0	2.47
3	Cleaning of kitchen	120	100	0	0	0.72
4	Dusting	120	100	0	0	0.5
5	Mopping	120	100	0	0	0.5
6	Fetching water	120	100	0	0	2.85
7	Washing clothes	120	100	0	0	1.17
8	Stitching/embroidery	28	23.33	92	76.67	1.32
9	Knitting	27	22.5	93	77.5	1.62

*Multiple responses were allowed

ion, they were further categorized into personal, socio-economic and technological factors.

Personal Constraints

Major constraints expressed by farm women in accessing the information were traditional and cultural norms, domestic responsibilities, not willing to take risk, lack of awareness of the programmes running for the development and illiteracy. The reasons for these constraints might be the existing social set up of Indian village, multiple roles of farm women, family responsibilities, not considered role of women in training programmes, lack of motivation of farm women towards any training programmes and no specialized efforts on the part of government to make farm women aware of their programmes. In general, Indian society is male dominated and women are not allowed to go freely for participation in any of the programmes. Above findings are in line with the findings of Ndifon et al. (2012).

Socio-economic Constraints

It comprises small size of land holding, high price of market inputs like seed and fertilizer, lack of infrastructure, and non-availability of loans and inputs in time. To avoid these constraints, efforts should be made to approach the government to make facilities in these areas. Similar findings were reported by Singh et al. (2017).

Technical/Extension Constraints

Unavailability of extension functionaries, lack of technical guidance, lack of required field staff and inadequate supporting facilities and services were the major technical/extension constraints.

The findings of the present study are similar to Singh et al. (2017) who observed that lack of technical training, lack of physical facilities at meeting place, technical inability in handling ICT Tools and inappropriate distribution of benefits were recognized as serious constraints encountered by women farmers.

CONCLUSION

On the basis of the major findings of the paper it was concluded that farm women of Kumaon region of Uttarakhand had moderate to high need for information. Efforts should be made to bridge the information gap in the area by regular visits of extension functionaries, involvement of women in training programme, proper demonstration in training along with theoretical knowledge, use of proper farm implements, providing marketing information, awareness about governmental schemes, etc.

RECOMMENDATIONS

The implications/recommendations emerged are as follows:

- ◆ Extension functionaries should conduct need based and well focused training programmes and generate mass awareness in the sub-areas like agriculture, dairy farming and health & hygiene.
- ◆ Government should encourage and assist women farmers by giving them special attention in terms of access to needed farm inputs.
- ◆ Considering women's involvement in agriculture production, agricultural information to farmers should be gender specific and sensitive.

- ♦ Government should implement various development plans and extension strategies to bridge the information gap between the research stations and the farm women.

REFERENCES

- Akter S, Pieter R, Htwe NM, Joyce L, San SS, Raharjo B, Pustika A 2017. Women's empowerment and gender equity in agriculture: A different perspective from Southeast Asia. *Food Policy*, 69: 270-279.
- Ansari MA, Sunetha Shweta 2014. Agriculture information needs of farm women: A study in State of north India. *African Journal of Agricultural Research*, 9(19): 1454-1460.
- Banerjee Tanushree, Mishra Aaanchal, Singh Prachi, Tahiliani Garima 2016. A study on the role played by women in agriculture sector in India. *International Journal of Recent Trends in Engineering & Research (IJRTER)*, 2(11): 380-386.
- Dhaka BL, Bairwa RK, Meena NL, Meena GS, Chayal K, Nagar BL 2017. Training needs assessment of women farmers on livestock production management in Bundi District of Rajasthan, India. *Int J Curr Microbiol App Sci*, 6(6): 796-803.
- Dossa Cheryl, Dicka Ruth Meinzen, Quisumbinga Agnes, Theisa Sophie 2017. Women in agriculture: Four myths. *Global Food Security*, 16: 69-74.
- Gowda MJC 2001. Micro level opportunities and challenges for privatization of agricultural extension. In: P. Chandrasekhar (Ed.): *Private Extension in India: Myths, Realities, Apprehensions and Approaches*. Hyderabad: National Institute of Agricultural Extension and Management, pp. 18-25.
- Kizilastan N 2007. Rural women in Agricultural Extension Training Research. *Journal of Social Sciences*, 2(1): 23.
- Kumar M, Bhardwaj N 2005. Information needs of Hill women on health and nutrition: A study in the Kumaon Division of Uttaranchal. *Journal of Communication Studies*, 23(2): 35-48.
- Mohammed A 2002. Women in Agriculture: Research on Women's Work in Agriculture. *Background paper of the Social Research Centre*. 1-4.
- Ndifon HM, Patrick IV, Idiku FO 2012. Extension educational needs assessment of women farmers in South-South Nigeria. *International Journal of Humanities and Social Science*, 2(13): 319-324.
- Olorunda OO 2004. *Women's Information Needs for Economic Development*. Unpublished Master's thesis. University of Ibadan, Oyo State, Nigeria.
- Papnai G 2008. *Participatory Designing and Development of Wall Newspaper: An Action Research in Almora District of Uttarakhand*. M Sc. Thesis. Unpublished. G. B. Pant University of Agriculture & Technology, Pantnagar.
- Patrick IO, Ferdinand OA 2016. Rural women and their information seeking behavior. *Library Philosophy and Practice (e-journal)*, 1396.
- Shah AM, Khan S 2004. *Women in Forestry: Pakistan Agriculture*. Islamabad: Agricultural Foundation of Pakistan.
- Sharma KS 2002. Media use pattern of dairy women in Uttarakhand. Delhi: *Agriculture Science Digest*, Delhi, pp.23-27.
- Singh Virendra, Rewani SK, Rajoria Sunil, Saini GR 2017. Constraints faced by women dairy cooperative society Members in Jaipur, Rajasthan, India. *International Journal of Current Microbiology and Applied Sciences*, 6(12): 2612-2618.

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