

Participation and Information Seeking Behavior of Farmers from Uttarakhand Hills at Pantnagar Farmers' Fair: A Study

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ABSTRACT: A study was conducted on participation and information seeking behavior of farmers from hilly areas of Uttarakhand visited the All India Farmers' Fair and Industrial Exhibition organized at G.B. Pant University of Agriculture and Technology, Pantnagar. Sample size of the study was 234 farmers came to visit the farmers' fair at Pantnagar from hilly areas of Uttarakhand. It was found that farmers from different age groups up to fifty years of age visited the fair almost in equal proportion. Education Level of most of the farmers was not more than intermediate. Higher numbers of farmers were having less land holding. Vegetable production was the main commodity contributing in the family income of most of the respondents. Highest number of the respondents received information on new varieties of crops followed by farm implements for hills, vegetable production techniques, crop production techniques, animal husbandry and insect-pest management. All the farmers who received information on organic farming, fruit crops production, intercropping, irrigation management, water harvesting techniques and Kisan credit card, found the information suitable for their farming conditions while none of the farmer found the information provided on fodder production and animal nutrition, relevant to their farming conditions. Few farmers suggested that emphasis must be given on post harvest technologies, production technologies for hill crops, farm implements for hills and medicinal plants cultivation in hills.

Key words: Farmers, Uttarakhand, Information seeking behavior, Pantnagar Farmers' Fair, Participation behavior,

INTRODUCTION

Fairs are the integral part of cultural life of the society since the time immemorial. Even in today's era of information explosion fairs have the vital relevance as source of new information, entertainment and platform for commodity exchange for rural mass. Almost all the agricultural universities are using the concept of farmers' fair as an effective method of communicating improved practices to a large number of farmers. These fairs generally include agro-industrial exhibition, demonstration of improved practices and sale of agricultural inputs [1]. Farmers' fairs are the important source of agricultural information for farmers. Dhayal *et al.* [2] found 'farmers fair' as the most used personal cosmopolite channel for seeking information on improved ber cultivation by the ber growers of Jaipur district of Rajasthan.

G. B. Pant University of Agriculture and Technology, Pantnagar (hereinafter referred as Pantnagar University) has been holding the All India Farmers' Fair and Agro-Industrial Exhibition twice in each year since initial years of its inception. Large numbers of farmers from all the 13 districts of Uttarakhand and from neighboring states of Uttar Pradesh, Bihar, Punjab, Haryana, Rajasthan visit the farmers' fair (kisan mela). The farming situations of hilly areas of Uttarakhand are entirely different from the plains. Thus, it is obvious that farmers from hilly areas of Uttarakhand visiting the fair will have different socio-economic profile and information needs than the farmers visiting the fair from plain districts of Uttarakhand and neighboring states. Keeping these facts in view a study was conducted on participation and information seeking behavior of hill farmers of Uttarakhand visiting the Pantnagar farmers' fair.

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MATERIALS AND METHODS

G. B. Pant University of Agriculture and Technology, Pantnagar organizes two All India farmers' fair each year. One is organized for *kharif* season and second is for *Rabi* season. The study was conducted on the all India farmers' fair organized for *Rabi* season. Respondents of the study were farmers coming to visit the fair from hilly areas of Uttarakhand. Interview schedule was developed for the study and administered on 234 respondents. Variables of the study were age, sex, educational level, land holding, district, additional agri-based enterprises with farming, additional occupation with farming, main crops grown, major enterprises/ commodity / crop contributing in family income, source of information about the fair, sponsoring agency of the visit to the fair, objective of visiting the fair, numbers of visit to the fair, thematic areas of information received from the fair, view about appropriateness of the received information in the context of hill farming and suggestions about thematic areas of information must be given emphasis in the fair.

RESULTS AND DISCUSSION

General profile of the farmers visited the all India farmers' fair from hill areas of the Uttarakhand

The data regarding general profile of the farmers from hill areas of the Uttarakhand visited the All India Farmers Fair and Industrial Exhibition; Pantnagar is presented in Table 1. Perusal of the Table 1 revealed the preponderance of male farmers visiting the mela, as more than three-fourth respondents were male and near about one-fourth respondents was female. Distribution of the respondents in different age groups of five years class interval category was almost equal i.e. average 13.6 per cent up to fifty years of age. However, 18.38 per cent respondents were older than fifty years of age. Near about one-fourth respondents were educated up to high school followed by intermediate and middle school, respectively. About ten percent respondents were educated up to primary level only. Near about fifteen percent of the respondents were graduate and few respondents (5.55 per cent) were educated up to post graduation level. Percentage of the farmers visited the fair was in reverse order with their land holdings. Higher number of the respondents were having smaller land holding. Maximum numbers of farmers were from Uttarkashi followed by Almora, Chamoli, Nainital, Pithoragarh, Tehri Garhwal, Pouri Garhwal, Rudrapryag, Bageshwar, Champawat, Haridwar

Table 1
General Profile of the visitors of the fair from hilly areas of the Uttarakhand

(n = 234)

S. No.	Profile attribute	Number of the respondents	Percentage
1.	Gender		
	Male	182	77.77
	Female	52	22.22
2.	Age (in years)		
	Up to 25	32	13.68
	26 to 30	27	11.54
	31 to 35	36	15.38
	36 to 40	30	12.82
	41 to 45	33	14.10
	46 to 50	33	14.10
	51 to 55	19	8.12
	56 to 60	9	3.85
	61 to 65	12	5.13
	66 to 70	03	1.28
3.	Educational Level		
	Illiterate	15	6.41
	Primary	23	9.83
	Middle School	43	18.38
	High School	56	23.93
	Intermediate	49	20.94
	Graduate	35	14.96
	Post Graduate	13	5.55
4.	Land holding (in <i>nali</i>) (1 <i>nali</i> = 0.02 ha)		
	Up to 10	54	
	11 to 20	52	22.22
	21 to 30	34	14.53
	31 to 40	25	10.68
	41 to 50	14	5.98
	51 to 60	11	4.70
	61 to 70	12	5.13
	71 to 80	10	4.27
	More than 80	22	9.40
5.	District		
	Uttarkashi	54	23.08
	Almora	40	17.09
	Chamoli	36	15.38
	Nainital	34	14.53
	Pithoragarh	20	8.55
	Tehri Garhwal	15	6.41
	Pouri Garhwal	13	5.55
	Rudraprayag	08	3.42
	Bageshwar	05	2.14
	Champawat	05	2.14
	Haridwar	04	1.71
6.	Additional farming enterprises *		
	Animal husbandry	214	91.45
	Bee-keeping	07	2.99
	Vermi-compost production	01	0.43
	Floriculture	09	3.85
	Vegetable nursery production	15	6.41
	Fish production	03	1.28
	Poultry production	02	0.85
	Fruit crops production	01	0.43
7.	Additional Occupation with farming		
	Shop keeping	25	10.68
	Job	18	7.69
	Own Jeep Driving	05	2.14
	Labourer	12	5.13
	Handicraft	03	1.28
	None	171	73.08

*multi response

districts of Uttarakhand, respectively. More than ninety per cent farmers were also doing animal husbandry with crop production. Few farmers were also engaged in vegetable nursery production, floriculture, bee-keeping, fish production, poultry production, vermi-compost production and fruit crop production with agriculture as main enterprise. Majority of the respondents were dependent on farming for their livelihood, however, about eleven percent respondents were also engaged in shop keeping followed by other employment and income generation activities.

Major crops grown and main enterprises/commodity/ crop contributing in family income

Data pertaining to major crops grown by the respondents is presented in Table 2 and data on main enterprises/ commodity/ crop contributing in family income is presented in Table 3. It is evident from the data that major crops grown by the respondents were wheat, rice, and vegetables followed by finger millets (*mandua*), potato, soyabean, horse gram (*gahat*), fruit crops, rajma, barnyard millet (*jhangora*), black soybean (*bhatt*), lentil, urdbean, barley, mustard, amaranth (*choulai/ ramdana*), *kondon*, cowpea (*lobia*), zinger, chickpea and spices, respectively. Tiny numbers of respondents reported that they are also growing pearl millet, tea and strawberry.

More than one-fourth of the respondents (27.78 per cent) reported that vegetable production is main enterprise/commodity contributing in the family income followed by animal husbandry, pulses production, fruit production, wheat and potato, respectively. Floriculture, rice, tea, spices, strawberry, bee-keeping and poultry production were reported by very few numbers of respondents as main enterprise/ commodity/ crop/ contributing in family income. (Table 3).

Source of information about the fair and sponsoring agency

Data pertaining to source of information about the fair and sponsoring agencies of visit of the fair is presented in table 4. Data reveals that visit to fair of near about one-third of the respondents was sponsored by non-governmental organizations and visit of almost equal number of respondents was facilitated by line departments. Among NGOs, *Shri Bhuvneshwari Ashram*, Chamoli sponsored the visit of maximum number of respondents followed by *Central Himalyan Rural Action Group (CHIRAG)*, Nainital and *Jyoti Mahila Sangathan*, Chamoli, respectively. In case

Table 2
Main Crops Grown by the respondents

S. No.	Crop*	No. of respondents	Percentage
1.	Wheat	151	64.10
2.	Rice	121	51.70
3.	Vegetables	83	35.47
4.	Finger millets (<i>mandua</i>)	77	32.91
5.	Potato	52	22.22
6.	Soya bean	47	20.09
7.	Horse gram (<i>gahat</i>)	35	14.96
8.	Fruit crops	35	14.96
9.	<i>Rajma</i>	33	14.10
10.	Barnyard millet (<i>jhangora</i>)	30	12.82
11.	Maize	30	12.82
12.	Black soybean (<i>bhatt</i>)	26	11.11
13.	Urdbean	23	9.83
14.	Lentil	23	9.83
15.	Barley	22	9.40
16.	Mustard	21	8.97
17.	Amaranth (<i>choulai/ ramdana</i>)	17	7.26
18.	<i>Kondon</i>	14	5.98
19.	Cowpea (<i>Lobia</i>)	07	2.99
20.	Zinger	07	2.99
21.	Chick pea	03	1.28
22.	Spices crops	03	1.28
23.	Sis mum	03	1.28
24.	Pearl millet	01	0.43
25.	Tea	01	0.43
26.	Strawberry	01	0.43

*multi response

Table 3
Major enterprises/ commodity / crop contributing in family income

S. No.	Enterprises/ commodity/ crop*	Number of respondents	Percentage
1.	Vegetable production	65	27.78
2.	Animal husbandry	44	18.80
3.	Pulses	23	9.83
4.	Fruit crops	15	6.41
5.	Wheat	13	5.55
6.	Potato	12	5.13
7.	Finger millets (<i>mandua</i>)	08	3.42
8.	Floriculture	06	2.56
9.	Paddy	05	2.13
10.	Bee-keeping	02	0.85
11.	Tea	01	0.43
12.	Spices	01	0.43
13.	Strawberry	01	0.43
14.	Poultry production	01	0.43
15.	Substantial Agriculture	04	1.71
16.	No response	33	14.10

*multi response

of line departments, visit of the farmers was facilitated by Jalagam, department of agriculture and department of horticulture. Few respondents reported that their visit to the fair is facilitated by Krishi Vigyan Kendra/ outer research stations of the university. All

the respondents who visited the fair with the help of any organization / institution / centre reported also their sponsoring agency as source of information about the fair. Near about one-tenth of the respondents got information about the fair from their friends/ fellow farmers/ relatives. Almost similar proportion of the respondents got information regarding the fair through newspaper. Few respondents got information about the fair from *gram pradhan* of their village. Very few respondents

reported that they got information about the fair through radio. All the respondents who got information about the fair through mass media such as newspapers, radio and localite sources like *gram pradhan*, friends/ fellow farmers/ relatives visited the fair on their personal expenses. Based on their study Rathore *et al.* [3] also reported that majority of the farmers have got information about Pantnagar Kisan Mela from their neighbours, social workers and development offices.

Table 4
Source of information about the fair and sponsoring agency

S. No.	Department/organization/agency	Reported by No. of respondents	
		As source of information	As sponsoring agency
1.	Non Governmental Organizations		
	Shri Bhuvneshwari Ashram, Chamoli	56 (23.93)	56(23.93)
	Central Himalyan Rural Action Group (CHIRAG), Nainital	15(6.41)	15(6.41)
	Jyoti Mahila Sangathan, Chamoli	05(2.14)	05(2.14)
2.	Line Departments		
	Department of Agriculture	31(13.25)	31(13.25)
	Jalagam	40(17.09)	47(20.08)
	Department of Horticulture	08(3.42)	08(3.42)
3.	Krishi Vigyan Kendras / Outer research stations of the University	11(4.70)	11(4.70)
4.	Newspapers	27(11.54)	-
5.	Radio	04(1.71)	-
6.	<i>Gram pradhan</i>	07(2.99)	-
7.	Friends/fellow farmers/ relatives	30(12.82)	-
8.	On personal expenditure	-	61(26.07)

Note: The figure in the parenthesis indicates the percentage

Objective and numbers of visit to the fair

Farmers from hilly areas of the Uttarakhand visiting the fair were asked to denote their objective(s) of visiting the fair on multi-response close ended question. Overwhelming majority of the respondents reported their objective of visiting the fair is to get new information (92.74 per cent) followed by purchasing of agricultural inputs (76.50 per cent), to saw the university campus (50.00 per cent), for entertainment

(35.47 per cent) and to have a look of VIPs coming to the fair (19.66 per cent). Few respondents also reported just to pass time and to meet the friends/ relatives as objectives of visiting the fair.

Near about two-third of the respondents were visiting the fair first time followed by second, third and fourth time, respectively. Few respondents reported that they have visited the fair more than six times.

Table 5
Objective and numbers of visit to the fair

S. No.	Objective of visiting the fair	No. of respondents and percentage	Numbers of visit to the fair	No. of respondents and percentage
1.	To get new information	217(92.74)	First time	157(67.09)
2.	Entertainment	83(35.47)	Second time	25(10.68)
3.	Purchasing of agricultural inputs	179(76.50)	Third time	21(8.97)
4.	To watch the campus of the University	117(50.00)	Fourth time	12(5.13)
5.	To watch the VIPs coming to the fair	46(19.66)	Fifth time	06(2.56)
6.	To meet the friends/relatives	14(5.98)	Sixth time	05(2.14)
7.	Just to pass time	17(7.26)	More than six time	08(3.42)

Note: The figure in the parenthesis indicates the percentage

Thematic areas of the information received from the fair

The farmers from hilly areas of Uttarakhand visiting the fair were asked to denote the information they have received from the fair. Their responses were grouped in broad thematic areas as given in table 6. Maximum number of respondents received information on new varieties of crops followed by farm implements for hills, vegetable production techniques, crop production techniques, animal husbandry and insect-pest management. Near about one-tenth of the respondents received information on nutrient management in crops and organic farming. Few respondents received information on nursery management for vegetable crops, mushroom production, fish production, weed management,

medicinal plants cultivation and human nutrition. Very less numbers of the respondents reported that they have received information on fruit crops production, inter cropping, handicrafts, irrigation management, poultry production, Kisan Credit Card, bee-keeping, fodder production, floriculture, food preservation techniques, water harvesting techniques and on animal nutrition.

Opinion regarding appropriateness of the received information for hill farming conditions:

The respondents were further asked to mention their opinion about appropriateness of the information they have received from the fair in the context of their farming conditions. Data in this regard also presented in Table 6. All the respondents who received

Table 6
Information received from the fair and views about appropriateness of the received information in the context of hill farming

<i>S. No. Thematic area of information</i>	<i>Number and percentage of the respondents received information</i>	<i>Number and Percentage of the respondents (out of previous column) having the opinion that received information is appropriate for hill farming conditions</i>
1. New varieties of crops	66 (28.21)	37 (56.06)
2. Farm implements for hills	53 (22.65)	39 (73.58)
3. Vegetable production techniques	45 (19.23)	27(60.00)
4. Crop production techniques	43 (18.38)	23 (53.49)
5. Animal husbandry	35 (14.96)	20 (57.14)
6. Insect-pest management	34 (14.53)	11 (32.35)
7. Nutrient management in crops	29 (12.39)	18 (62.06)
8. Organic farming	22 (9.40)	22 (100.00)
9. Nursery management for vegetable crops	18 (7.67)	13 (72.22)
10. Mushroom production	14 (5.98)	03 (21.42)
11. Fish production	13 (5.56)	10 (76.92)
12. Weed management	12 (5.13)	05 (41.67)
13. Medicinal plants cultivation	11 (4.70)	10 (90.90)
14. Human nutrition	10 (4.27)	02 (20.00)
15. Fruit crops production	08 (3.42)	08(100.00)
16. Inter cropping	08 (3.42)	08 (100.00)
17. Handicrafts	08 (3.42)	05 (62.50)
18. Irrigation management	07 (2.99)	07 (100.00)
19. Poultry production	07 (2.99)	20 (28.57)
20. Kisan Credit card	06 (2.56)	06 (100.00)
21. Bee keeping	05 (2.14)	03 (60.00)
22. Fodder production	05 (2.14)	0 (00.00)
23. Floriculture	04 (1.70)	01 (25.00)
24. Food preservation techniques	04 (1.70)	01 (25.00)
25. Water harvesting techniques	03 (1.28)	03 (100.00)
26. Animal nutrition	02 (0.85)	0 (00.00)

Note: The figure in the parenthesis indicates the percentage

information on organic farming, fruit crops production, intercropping, irrigation management, water harvesting techniques and on Kisan Credit Card, denoted that the information they have received is suitable for their farming conditions. More than ninety percent of the farmers who received information on medicinal plants cultivation found the information suitable for their farming conditions. Among the farmers who got information on farm implements for hills, nursery management for vegetable crops and fish production, near about three-fourth respondents for each thematic area reported that the information is appropriate for their farming conditions. Near about sixty percent each of the respondents who received information on vegetable production techniques, animal husbandry, nutrient management in crops, handicrafts and bee-keeping, reported that the information is appropriate for their farming conditions. Opinion of near about half of the respondents, who received information on new varieties of crops and crop production techniques found the information appropriate for them. The information on weed management, insect-pest management and poultry production was reported as appropriate by 41.67, 32.35 28.57 percent of the respondents, respectively. One-fourth of the respondents, who received information on floriculture and food preservation techniques, reported the information as appropriate. The respondents who received information on mushroom production and human nutrition, near about one-fifth of them found the information appropriate for them. None of the respondents who received information on fodder production and animal nutrition, found the information suitable for their farming situations.

Suggestions of the respondents about thematic areas of information must be given emphasis in the fair

The data regarding suggestions of the respondents about the thematic areas must be given emphasis in the fair is presented in Table 7. Near about one-fourth of the respondents reported that sufficient information relevant to hill agriculture is being provided in the fair while near about one-fifth of the respondents have not given any suggestion. Near about ten percent of the respondents suggested that emphasis must be given on post harvest technologies, production technologies for hill crops, farm implements for hills and medicinal plants cultivation in hills followed by insect and pest management. Few respondents suggested that emphasis must be given on information related to organic farming, varieties

suitable for hills, seed production in hills, fruit crops production in hills, animal husbandry in hills, fish production in hills and on sericulture.

Table 7
Suggestions of the respondents about thematic areas of information must emphasis in the fair

S. No.	Thematic areas of the information	No. of respondents	Percentage
1.	Post harvest technologies	23	9.83
2.	Production technologies for hill crops	22	9.40
3.	Farm implements for hills	21	8.97
4.	Medicinal plants cultivation in hills	21	8.97
5.	Insect and pest management	13	5.56
6.	Organic farming	05	2.14
7.	Varieties suitable for hills	05	2.14
8.	Vegetable production	05	2.14
9.	Seed production in hills	04	1.70
10.	Fruit crops production in hills	04	1.70
11.	Animal husbandry in hills	04	1.70
12.	Fish production in hills	04	1.70
13.	Sericulture	02	0.85
14.	Sufficient information is being provided	58	24.79
15.	No suggestion	50	21.37

CONCLUSION

On the basis of the study it can be concluded that up to fifty years of age, farmers from hilly areas of Uttarakhand visited the fair were in almost equal proportion from all the age groups. Education level of most of the farmers visited the fair was not higher than intermediate level. Percentage of the farmers visited the fair was in reverse order with their land holdings. Higher number of the respondents were having smaller land holding. Vegetable production was found as major commodity contributing in family income followed by animal husbandry, pulses production, fruit crops production, wheat and potato, respectively. Visit of the fair of majority of farmers was sponsored either by Non Governmental Organizations or line departments of state government. Main objective of the farmers visiting the fair was to get new information. Maximum number of respondents received information on new varieties of crops followed by farm implements for hills, vegetable production techniques, crop production techniques, animal husbandry and insect-pest management. All the farmers who received information on organic farming, fruit crops production, intercropping, irrigation management, water harvesting techniques and on kisan credit card found the information suitable for their farming

conditions while none of the farmer who received information on fodder production and animal nutrition, found the information suitable for their farming conditions. Few farmers suggested that emphasis must be given on post harvest technologies, production technologies for hill crops, farm implements for hills and medicinal plants cultivation in hills.

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