

CCSHAU FARMERS' FAIR: ENABLING FARMERS TO ACCESS TECHNOLOGY AND ADVISORY SERVICES

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ABSTRACT

Farmers' fairs are in existence for a long time and regarded as one of the most effective technology dissemination tool. Despite various ICT tools are available for information dissemination, farmers' fair continued to be a significant mode of transfer of technology owing to many advantages. Considering its importance, an exploratory study was carried out to assess the effectiveness of farmers' fair in transfer of technology. The present study was conducted during 2019-20 at CCSHAU, Hisar main campus. Empirical data were collected through personal interview technique with the help of well-structured and pre-tested interview schedule and analyzed using 26th version of the Statistical Package for Social Sciences (SPSS). Findings of the study revealed that more than two-fifth of the farmers (41.25%) mentioned 'friends and relatives' as the main source of possessing information regarding the fair. Nearly half of the respondents (46.25%) were frequent visitors and visited fair to 'purchase seeds of high yielding varieties'. Moreover, most of them were 'satisfied' with the purpose of visiting the fair and opined that 'seeds sale' activity was the most effective activity. Study also concluded that variables; education, socio-economic status, land holding, mass media exposure, extension contact and risk orientation exhibited positive and significant correlation at 0.05 level of probability with effectiveness of farmers' fair.

(Keywords: Agriculture, Agro-industrial exhibition, digital technology and farmers' fair)

INTRODUCTION

Strengthening of agricultural infrastructure should be given utmost priority including input delivery, credit, minimizing post-harvest losses, cold storage chains, marketing, etc. Shrinking of the extension services is another component of infrastructure that needs attention. The government has a huge research and development infrastructure in the form of institutions such as Indian Council of Agricultural Research (ICAR), State Agricultural Universities (SAUs), Krishi Vigyan Kendras (KVKs) and Agricultural Technology Information Centres (ATICs). The role of this set-up in research and extension activity is of immense importance. However, crumbling public extension services are a cause of concern (Gandhi and Tripathi, 2010).

Despite of the new technologies in agricultural and allied sectors, farmers have to face the problem of proper media channel or resources to make them aware of current technologies within a period of time used in agricultural practices. Hence, there is a tremendous gap between knowledge production and knowledge utilization by the farmers (Sharma, 2014). To reduce this gap, different agencies carry out a number of extension activities including

Kisan Melas/ farmers' fairs, consultancy, demonstrations, exhibition, farmer study tours, farmers' field school, field-days, group discussions, trainings, popular articles, radio talks and TV programmes.

Kisan Melas/ farmers' fair are in existence for a long time and regarded as one of the most effective technology dissemination tool. The main purpose of organizing such farmers' fair is to create awareness among visitors about new technologies developed by researchers primarily from the government sector, agricultural and allied research centres and SAUs. Extension is one of the three major mandates of the CCS Haryana Agricultural University, Hisar. The responsibility for planning, organizing, conducting and coordinating the extension education activities of the university in Haryana lies with the Directorate of Extension Education. Farmers' fair is one of the most important extension education activities of the Directorate for transfer of technology to the potential users/farmers. The farmers' fairs are organized in the both crop seasons for two days during *rabi* and *kharif* seasons. Thousands of farmers from Haryana and adjoining states i.e. Uttar Pradesh, Rajasthan, Himachal Pradesh, Uttarakhand, and union territory of Delhi visit the fair. In 1982, the fair attracted only 10,000 farmers,

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whereas the farmers' fairs organized in 2019 attracted about 75,000 farmers indicating the utility and popularity of the activity (hau.ac.in). There are two types of farmers' fairs organized by the university every year i.e. State level farmers' fair and regional level farmers' fair. State level farmers' fair is popularly known as 'Kisan Mela' is organized on campus in the months of March and September. The fair generally include agro-industrial exhibition, farmer-scientist interaction (buzz session), effective demonstration of improved practices and sale of extension publications and improved varieties seed in small packets.

Keeping in view the above facts and importance of agricultural technology for the country in general and farming community of Haryana state in particular, the study was carried out to assess the effectiveness of farmers' fair in transfer of technology.

MATERIALS AND METHODS

The study was conducted in 2019-20 during the farmers' fair (*rabi*) organized by Directorate of Extension Education, CCS Haryana Agricultural University, Hisar at university campus. The farmers visiting the farmers' fair (*rabi*) were taken as the sample. After completion of their visit, 40 farmers were selected through simple random sampling technique each day for successive two days of the fair. In this way, a total number of 80 farmers were selected for the study during the farmers' fair. The data were collected through personal interview technique with the help of well-structured and pre-tested interview schedule and analyzed with the help of appropriate statistical tools using 26th version of the Statistical Package for Social Sciences (SPSS). The responses of farmers' were obtained on five-point continuum in case of effectiveness of various activities of farmer's fair (very useful, useful, somewhat useful, not useful and uncertain) and scores were given as 4,3,2,1 and 0, respectively and weighted mean score (WMS) and rank were assigned accordingly. Moreover, Correlation and regression analysis were computed for drawing the inferences based on statistical results obtained from statistics analysis. The extent of association was calculated by using Karl Pearsons' coefficient of correlation formula:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]}$$

Where,

N= Number of observations

$\sum XY$ = Sum of product of x and y

$\sum X$ = Summation of entries of Ist variable

$\sum Y$ = Summation of entries of IInd variable

$\sum X^2$ = Sum of square value of each entry of Ist variable

$\sum Y^2$ = Sum of square value of each entry of IInd variable

Significance of observed correlation coefficient was tested by using:

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \sqrt{n-2} \sim t_{N-2}$$

if t_{cal} to then observed coefficient of correlation was significant at 1% or 5% value of t for N-2 d.f.

RESULTS AND DISCUSSION

Results of the study are presented and discussed under broad headings and sub heading as follows:

Source of information about farmers' fair

Table 1 explains the different types of media used by farmers and the extent of their utilization for seeking information regarding farmers' fair.

It was observed that more than two-third of the respondents (41.25%) mentioned that web of mouth of 'friends and relatives' was the main source of possessing information regarding farmers' fair (rank I) followed by 'fellow farmers' (38.75%), 'farm magazine/ newspaper' (27.50%), 'KVKs/ University' (26.25%), 'State Agriculture Department' (25.00%), 'internet' (23.75%), 'social media' (22.50%), 'SMS services' (21.25%), 'others' (private organizations, etc.) (17.50%), 'poster/publicity' (10.00%), 'television' (11.25%) and 'radio' (07.50%) with ranks II, III, IV, V, VI, VII, VIII, IX, X, XI and XII, respectively. It reflected that now-a-days personal localities source like friends, neighbours, opinion leaders and progressive farmers played an important role in transfer of technologies to fellow farmers. The findings are in line with those of Bhawana (2002) and Yadav and Kumar (2018), who both reported that friends and relatives were the main source of information about farmers' fair. Contrary to this, Malik *et al.* (2015) illustrated that one-third of the respondents mentioned that line departments were the main source of information about farmers' fair.

Table 1. Source of information about farmers' fairs (n=80)

Source of information	Frequency (percentage)	Rank
Radio	06 (07.50)	XII
Television	09 (11.25)	X
Internet	19 (23.75)	VI
Friends and relatives	33 (41.25)	I
Poster/ Publicity	08 (10.00)	XI
Farm magazine/ newspaper	22 (27.50)	III
KVKs/ University	21 (26.25)	IV
Social media	18 (22.50)	VII
SMS services	17 (21.25)	VIII
Fellow farmers	31 (38.75)	II
State Agriculture Department	20 (25.00)	V
Others (private organization, etc.)	14 (17.50)	IX

Data are based on multiple responses

Frequency of visit to farmers' fair during last 10 years

It is clear from the Table 2 that nearly half of the respondents (46.25%) were frequent visitors of farmers' fair and visited farmers' fair almost every year, whereas 32.50 per cent farmers visited more than four times during last 10 years. A few of them (16.25%) visited 3-4 times and remaining 05.00 per cent of the respondents visited farmers' fair up to two times during last 10 years. The possible reason behind this trend may be due to the fact that in present era of information explosion farmers' fair still has the vital relevance as source of new information, entertainment and platform for commodity exchange for rural mass. Moreover, CCS Haryana Agricultural University, Hisar is organizing these fairs on regular basis and a large number of farmers were aware about it due to the wide publicity campaign undertaken by the university. Similarly, Gulave *et al.* (2019) reported that more than three-fourth of the farmers (78.34%) attended farmers' fairs 'frequently', while only 13.33 per cent visited these fairs for the 'first time' and remaining 8.33 per cent respondents 'irregularly' visited farmers' fair. Suryawanshi and Khan (2011) also highlighted higher participation of the farmers in the different agricultural technologies dissemination programs implemented in Chhattisgarh state.

Table 2. Frequency of visit to farmers' fair during last 10 years (n=80)

Frequency of visit	Frequency (percentage)	Rank
Up to 2 times	04 (05.00)	IV
3-4 times	13 (16.25)	III
More than 4 times	26 (32.50)	II
Almost every year	37 (46.25)	I

Purpose of visiting farmers' fair

From the Table 3 it is apparent that more than half of the respondents (53.75%) visited the farmers' fair for 'purchase of high yielding varieties of seed' (rank 1st) followed by 'to visit agro-industrial exhibition' (47.50%), 'to attend cultural programme' (47.50%), 'to gain latest information about agricultural research and new agricultural implements' (43.75%), 'to visit university demonstration and experimental plots' (31.25%), 'to purchase university publications' (16.25%), 'to discuss the field problems with university experts' (13.75%), 'soil and water testing' (07.50%) and 'to participate in crop competition' (06.25%) with ranks II, III, IV, V, VI, VII, VIII and IX, respectively. Frequent visit to farmers' fair may be attributed to the fact that they provides latest agricultural information, guides/motivates farmers to adopt new scientific and profitable practices. Moreover, farmers also get benefitted to know about latest technologies like improved farm machinery, new improved varieties, harvesting and management of crops, etc. Similar results were observed by Bhawana (2002), who reported

that majority of the farmers (84.00%) visited the fair for purchasing seeds, micro-nutrients, pesticides and low-cost farm implements. Contrary to this, Malik *et al.* (2015) reported that majority of the respondents (92.74%) mentioned that their major objective of visiting the fair was 'to get new information' followed by 'purchasing of agricultural inputs', 'to see the university campus', 'for entertainment' and 'to have a look of VIPs coming to the fair'.

Table 3. Purpose of visiting farmers' fair

Purpose	Frequency (percentage)	Rank
To purchase high yielding varieties of seeds	43 (53.75)	I
To gain latest information about agricultural research and new agri-implements	35 (43.75)	IV
To visit university demonstration and experimental plots	25 (31.25)	V
To discuss the field problems with university experts	11 (13.75)	VII
To purchase university publications	13 (16.25)	VI
To visit agro-industrial exhibition	41 (51.25)	II
For soil and water testing	06 (07.50)	VIII
To participate in crop competition	05 (06.25)	IX
To attend cultural programme	38 (47.50)	III

Data are based on multiple responses

Farmers' knowledge regarding farmers' fair activities

Examination of the data presented in Table 4 indicated that that majority of the respondents (85.00%) were aware about the 'seeds sale' (rank I) followed by 'agro-industrial exhibition' (83.75%), 'cultural programs' (81.25%), 'buzz session' (42.50%), 'farm exposure visit' (32.50%), 'university publication' (31.25%), 'soil and water testing' (27.50%), 'crop competition' (16.25) and 'others' (Demonstration and experimental plots, etc.) with ranks II, III, IV, V, VI, VII, VIII and IX, respectively. It reflected that most of the respondents were aware about the various activities conducted at CCS HAU farmers' fair, as these fairs played an important role in dissemination of scientific and technical knowledge to them and also improved adoption of technologies. Similarly, Yadav and Kumar (2018) also reported that maximum number of farmers (84.00%) were aware about 'seeds sale' followed by 'agro-industrial exhibition' and 'cultural programs'.

Table 4. Farmers' knowledge regarding farmers' fair activities (n=80)

Activities	Frequency (percentage)	Rank
Farm exposure visit	26 (32.50)	V
Agro-industrial exhibition	67 (83.75)	II
Buzz session	34 (42.50)	IV
Soil and water testing	22 (27.50)	VII
Crop competition	13 (16.25)	VIII
University publication	25 (31.25)	VI
Seeds sale	68 (85.00)	I
Cultural programs	65 (81.25)	III
Others (Demonstration & experimental plots, etc.)	09 (11.25)	IX

Data are based on multiple responses

Farmer's opinion about effectiveness of various activities of farmer's fair

It was revealed that more than two-third of the respondents (41.25%) opined that 'seeds sale' activity was the most effective activity ranked as first with highest mean score 2.60 (Table 5). This was followed by 'agro-industrial exhibition' (2.52), 'sale of university publication' (2.08), 'farmers-scientist interaction' (2.01), 'farm exposure visit' (1.50), 'demonstration and experimental plots' (1.20), 'farm advisory services' (1.42), 'soil and water testing facilities' (1.11) and 'crop competition' (0.86) with ranks II, III, IV, V,

VI, VII, VIII and IX, respectively. When further analyzed among the stalls of Agro-industrial exhibition, data revealed that 'private organizations' stalls ranked 1st with highest mean score (1.23) followed by 'CCSHAU/LUVAS stalls' (0.87) and 'Government/semi-government organizations stalls' (0.41) with ranks II and III, respectively. This might be due to the fact that farmers' fair provide reliable and relevant information on various aspects that can significantly help them to reduce risk and uncertainty which ultimately empower them to make good decisions at right time. These findings were partially supported by the report of Yadav and Kumar (2018), who revealed that most of the respondents regarded 'seeds sale' as most effective activity followed by 'agro-industrial exhibition', 'cultural programs, etc.

Satisfaction level of farmers attending farmers' fair

Data in Table 6 showed that 48.75 per cent of the farmers were 'satisfied' with the purpose of visiting farmers' fair followed by 'fully satisfied' (28.75%) and 'somewhat satisfied' (16.25%). Interestingly, 06.25 per cent respondents were 'not satisfied' with the purpose of visiting farmers' fair. The descriptive statistics mean was 2.00 and standard deviation was 0.84. Further analysis of the data revealed that majority of the respondents (77.50%) were significantly satisfied with the purpose of visiting farmers' fair as it helps them in efficient functioning on their farm. Shirur (2014) concluded in his study that most of the farmers agreed that they were benefitted with such *melas and goshtis* and would also recommend others to participate in such events in future. Similarly, Kumar *et al.* (2017) reported that about 17.50 and 33.00 per cent of the respondents were 'fully satisfied' and 'satisfied', with their purpose of visit. Therefore, continuous monitoring and evaluation of the development work needed to catch more attention of the individuals (Shrivastava and Shrivastava, 2018).

Table 5. Farmer's opinion about effectiveness of various activities of farmer's fair (n=80)

Activities	Very useful(4)	Useful (3)	Somewhat useful(2)	Not useful (1)	Uncertain (0)	Total score	Weighted mean score	Rank
Agro-industrial exhibition	26 (32.50)	16 (20.00)	19 (23.75)	12 (15.00)	07 (08.75)	202	2.52	II
CCSHAU/LUVAS	08 (10.00)	07 (08.75)	07 (08.75)	03 (03.75)	01 (01.25)	70	0.87	2 nd
Government/ semi-government organizations	04 (05.00)	03 (03.75)	02 (02.50)	04 (05.00)	02 (02.50)	33	0.41	3 rd
Private organizations	14 (17.50)	06 (07.50)	10 (12.50)	05 (06.25)	04 (05.00)	99	1.23	1 st
Demonstration and experimental plots	11 (13.75)	07 (8.75)	5 (6.25)	21 (26.25)	36 (45.00)	96	1.20	VI
Farm exposure visit	13 (16.25)	11 (13.75)	13 (16.25)	9 (11.25)	31 (42.50)	120	1.50	V
Farmers-scientist interaction (buzz)	22 (27.50)	13 (16.25)	12 (15.00)	10 (12.50)	23 (28.75)	161	2.01	IV
Soil and water testing facilities	14 (17.50)	5 (06.25)	4 (05.00)	10 (12.50)	47 (58.75)	89	1.11	VIII
Crop competition	3 (03.75)	9 (11.25)	11 (13.75)	8 (10.00)	49 (61.25)	69	0.86	IX
Sale of university publication	15 (18.75)	12 (15.00)	21 (26.25)	29 (36.25)	03 (03.75)	167	2.08	III
Seeds sale	33 (41.25)	19 (23.75)	6 (07.50)	7 (08.75)	15 (18.75)	208	2.60	I
Farm advisory services	9 (11.25)	8 (10.00)	19 (23.75)	16 (20.00)	28 (35.00)	114	1.42	VII

Data are based on multiple responses. Figures in parentheses indicate percentage

Table 6. Satisfaction level of farmers attending farmers' fair(n=80)

Satisfaction level	Frequency (percentage)	Total score	Rank	Mean	St. dev.
Fully satisfied	23 (28.75)	23	IV	2.00	0.84
Satisfied	39 (48.75)	78	I		
Somewhat satisfied	13 (16.25)	39	II		
Not satisfied	05 (06.25)	20	IV		

Students' personal variables and their association with effectiveness of farmers' fair.

The study illustrated that personality traits like education ($r=0.581$), socio-economic status ($r=0.447$), land holding ($r=0.225$), mass media exposure ($r=0.406$), extension contact ($r=0.647$) and risk orientation ($r=0.541$) exhibited positive and significant correlation at 0.05 level of probability with effectiveness of farmers' fair, while age ($r=0.1210$), source of irrigation ($r=0.183$) and farm implements ($r=0.032$) did not show any significant association (Table 7). While, in case of the 'partial regression coefficient'; education (5.124), socio-economic status (4.486), mass media exposure (1.362), extension contact (1.055) and risk orientation (3.301) were found significant. However, age (2.109), land holdings

(1.219), source of irrigation (2.546) and farm implements (3.335) did not significantly contribute with effectiveness of farmers' fair. These findings were partially supported the report of Bhawana (2002), who revealed that personal characteristics like level of education, level of extension contacts and size of land holding were associated with effectiveness of farmers' fair, while age of the respondents did not show any association.

Further, it was revealed that all the nine independent variables included in the study jointly contributed 64.70 per cent variation in impact of farmers' fair when other factors were kept constant. This means that 64.70 per cent of the variation in the dependent variables was due to these variables and remaining 35.30 per cent variation was due to other variables.

Table 7. Students' personal variables and their association with effectiveness of farmers' fair (n=80)

Personality traits	Correlation coefficient (‘r’ value)	Regression coefficient (‘b’ value)	‘t’ values
Age	0.121 ^{NS}	0.433	2.109 ^{NS}
Education	0.581*	0.560	5.124*
Socio-economic status	0.447*	0.562	4.486*
Land holdings	0.225*	0.242	1.219 ^{NS}
Source of irrigation	0.183 ^{NS}	0.087	2.546 ^{NS}
Farm implements	0.032 ^{NS}	0.972	3.335 ^{NS}
Mass media exposure	0.406*	0.456	1.362*
Extension contact	0.647*	0.489	1.055*
Risk orientation	0.541*	0.134	3.301*

*Significant at $p=0.05$ level, NS= Non- Significant, $R^2=0.6470$

The results of the study indicated that majority of the information is disseminated to the farmers through friends and relatives. Most of them were frequent visitors and adjudged 'seeds sale' activity as the most effective activity of the fair. Moreover, farmers were also satisfied with their purpose of visit. Thus, it implies that farmers' fairs are playing a significant role in information dissemination to the farming community. The major advantage of these kinds of fairs is that they focus on the location specific issues and problems which will highly beneficial to the farmers. Farmers get enormous benefit

through participation in such fairs which is apparent from the large section of respondents who recognize these fairs to be beneficial for their farming activities. However, these fairs must be updated every year to catch more attentions of the farmers, as few of farmers were not satisfied with farmer fair. Moreover, organizers should make adequate announcement of the farmers' fair on different ICTs i.e. radio, television, social media, etc. before the kick off of the fair. This will keep the farmers abreast and enable them to plan their visit timely. Most of the farmers have a lot of queries and problems, so there is an urgent need of Customer Care Centre that will timely provide them the desired information.

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