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Important sources and channels of information available by the guava growers for seeking information regarding recommended guava production technology

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Abstract

The present research study was conducted in Sawai Madhopur district of Rajasthan. The Sawai-Madhopur district was purposively selected for the present investigation. The present study was undertaken in one panchayat samiti of Sawai-Madhopur district i.e. Sawai-Madhopur panchayat samiti. From the list first six villages were selected for the research study on the basis of maximum area under the guava cultivation. The number of guava growers was decided for each village by proportionate sampling method. The farmers of each village were selected by simple random sampling techniques. Sample size of fifty-four small and sixty six big guava growers was selected. Thus, the total study sample consisted of 120 respondents from all the six selected villages of Sawai-Madhopur panchayat samiti.

A specially designed schedule for sources and channels of information was used to measure the intensity of access to sources and channels with which they seek information the mean per cent score and standard deviation was worked out to arrange them in the order of performance. The study highlight that the personal localite sources of information, progressive farmers (87.50%) and experienced guava growers (85.28%) were the most important sources of information utilized by the guava growers ranked 1 and 2 in ranks order. Further reported that the personal cosmopolite sources of information, agriculture supervisors (90.28%) and subject matter specialists (Horticulture) (74.17%) were ranked 1 and 2 in ranks order. Further recorded that all the personal cosmopolite channels of information, the demonstration (87.22%) and discussion (83.89%) proved to be most important channels of information much utilized by the guava growers were ranked 1 and 2 in ranks order. Further observed that the various impersonal cosmopolite channels of information radio (89.17%) and traditional media (84.17%) with ranked 1 and 2 in ranks order. Further reveals that the marketing agencies as channels of information, Krishi Upaj Mandi (89.17%) was used with rank 1 was much utilized channels of information among the guava growers. The major category of information's relevant to impersonal cosmopolite channels of information (76.03%) was ranked on top by the guava growers regarding recommended guava production technology in the research study area.

Keywords: Sources, channels, seeking information, KVK-SMSs, DOH (Govt. of Raj.), [Small & Big] guava growers

Introduction

Guava (*Psidium guajava* L.) is one of the most important fruit crop of India. It was originated in tropical America. It covers around 3.3% of the total area under fruit crops and contributes 3.3 % of the total fruit production in India. In India, Uttar Pradesh leads in production, while Allahabad region of U. P. produces best quality of guava in India as well as in the world. Guava is rich source of ascorbic acid. It is good source of dietary fiber and pectin. It can be processed into a number of products like jam, jelly, nectar, juice, guava cake, puree etc. Its roots, bark, leaves and fruits has great medicinal value.

Fruits have great importance in human diet. It is stated that the standard of living of the peoples of a country can be judged by its production and per capita consumption in the world. Although India is the second largest producer of fruits (46.60 million tonnes) in the world after China (60.00 million tonnes). Its share in the world fruit production is 10 per cent Although India may unable to cater the nutritional demands of even increasing population in the present scenario the percapita availability of fruits in the country is 46 gm per day against 92 gm per day recommended by the Indian council of medical research This may be due to very low production and increasing population pressure of the country.

Guava Fruit is successfully grown all over India. The total area and production of guava in the country are 1.90 lakh hectare and 1.68 million tonnes. Guava is the fifth most important sub tropical fruit crop of India after mango, banana, citrus and apple. Thus, the total area under guava fruits was increased but the total production was decreased. Major guava growing /producing states are Bihar, Uttar Pradesh, Maharashtra, Madhya Pradesh, Gujarat, Andra-Pradesh, Tamil Nadu, Karnataka, Assam, Punjab, Kerala, West Bengal, Orissa and Tripura.

Rajasthan is considered as the most important guava producing state of India. Despite of poor status, production of certain fruit crops in Rajasthan State occupies an important place in the country. The Rajasthan State is considered to be the potential area for fruits like mango,

orange, lemon, guava, kinnow, mosambi, banana, grapes, papaya, ber, aonla, malta, phalsa, pome granate, date-palm, etc. Fruits are grown in various Regions of the State. The Bharatpur Region has reputation of growing the best quality of guava in the State. Bharatpur Division (Alwar, Bharatpur, Dholphur, Karauli and Sawai-Madhopur) is well known for its area and production. The Sawai-Madhopur District covers an area 278.40 hectares and production was 37419.60 quintals under guava fruits.

Utilization of improved agricultural technology by the farmers to a large extent depends upon the effective sources of information and channels to which they are generally exposed directly or indirectly. One of the major problems of agricultural development in India is not the availability of improved agricultural technologies but that technology should reach to farmers in adoptable form within a period of time. There is a tremendous gap between knowledge production and knowledge utilization by the farmers. Since knowledge on one hand is increasing every day and on the other hand its utilization is relatively slow.

Generally there is also a technological gap between the technology generated and its adoption. Adoption of improved package of practices by the farmers varies from farmer to farmer depending upon their situation and availability of information sources to them. Although the Department of Horticulture (Govt. of Rajasthan), Krishi Vigyan Kendra (ICAR, New Delhi) and Regional Research Station are working on fruits. A number of other agencies are also working in Sawai Madhopur District for the transfer of improved fruit production technology to the farmers. They are imparting technological know how to needy farmers even then the guava production is less than the potential. Individuals lend to use different communication sources and channels of information for obtaining the latest technology.

This gap is partly filled in by various information sources channels of communication. In many cases sources and channels of information are not easily accessible to the farmers ultimately leads to poor response towards farm practices. The use of sources and channels of information have direct bearing on gain in knowledge and its concealment adoption by the farmers. Change agents are the chief sources of inter personal communication and act as gatekeepers of information. The inter personal communication is very effective due to its direct contact with the receiver. The mass media are quick and economical but lack of crucial elements of empathy and feedback which are apparent in face to face situation.

Keeping in view of the above facts in to consideration, the present research study was undertaken to entitled "Technological gap among the guava (*Psidium guajava*) growers in Sawai-Madhopur district of Rajasthan" to assess with object to find out the important sources and channels of information available to the guava growers for seeking information regarding recommended guava production technology.

Research methodology

The present study was conducted in Sawai Madhopur district of Rajasthan. The Sawai-Madhopur district was purposively selected for the present investigation. The present investigation was conducted in one panchayat samiti of Sawai-Madhopur district i.e. Sawai-Madhopur panchayat samiti. The criteria for selecting this panchayat samiti were the maximum area under guava fruits among all the seven panchayat samities of the district.

A list of all the guava growing villages was prepared in consultation with tehsil personnel's and with the help of Department of Horticulture (Government of Rajasthan). From the list first six villages were selected for the research study on the basis of maximum area under the guava cultivation in Sawai Madhopur panchayat samiti.

A comprehensive list of all guava growers of the selected villages was prepared in consultation with the patwari and agricultural supervisors of the concerned villages. The number of guava growers was decided for each village by proportionate sampling method. The farmers of each village were selected by simple random techniques.

In this way a sample of fifty-four small and sixty six big guava growers was selected. Thus, the total study sample consisted of 120 respondents from all the six selected villages of Sawai-Madhopur panchayat samiti. A specially designed schedule for sources and channels of information was used to measure the intensity of access to sources and channels with which they seek information the mean per cent score and stander deviation was worked out to arrange them in the order of performance.

Result and Discussion

A. Information Sources

Important sources and channels of information available to the guava growers for seeking information's about recommended guava production technology

In many cases, sources and channels of information are not easily accessible to the farmers ultimately leads to poor response towards farm practices. The use of sources and channel of information's have direct bearing on gain in knowledge and its consequent adoption by the farmers.

Efforts were made to know about the sources and channels of information used by the guava growers for seeking information's regarding improved guava production technology in the study area. To locate most utilized sources and channels, mean per cent score for each sources and channels in each category was worked out. The results have been presented in following tables 1 to 6.

1. Personal localite sources of information's

Table 1: Personal localite sources of information utilized by the guava growers

S. No.	Personal localite sources of information	Small guava growers (n = 54)		Big guava growers (n =66)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1.	Progressive farmers	82.10	2	91.92	1	87.50	1
2.	Neighbours	76.54	4	88.38	3.5	83.06	3
3.	Friends	70.99	5	88.38	3.5	80.56	4
4.	Relatives	85.19	1	72.22	5	78.06	5

5.	Local leaders	50.62	7	41.41	8	45.56	8
6.	Religious heads	33.33	9.5	33.33	9.5	33.33	9.5
7.	Panchayat members	33.33	9.5	33.33	9.5	33.33	9.5
8.	Agriculture students	59.88	6	71.72	6	66.39	6
9.	Experienced guava growers	78.395	3	90.91	2	85.28	2
10.	Members of Kisan Mandal Meeting	44.44	8	67.68	7	57.22	7
	Over all	61.48		67.928		65.03	

It is clear from table 1 that among the personal localite sources of information, progressive farmers (87.50 %) and experienced guava growers (85.28 %) were the most important sources of information utilized the guava growers and they have ranked 1 and 2 respectively. The other important utilized sources of information by the guava growers were; neighbours (83.06 %), friends (80.56 %), relatives (78.06 %), agriculture students (66.39 %) and members of Kisan Mandal Meeting (57.22 %) as they were ranked 3, 4, 5, 6 and 7 on priority by the respondents respectively. On the other hand, least important sources of information were; local leaders (45.56 %), religious heads (33.33 %) and panchayat members (33.33 %) which ranked 8, 9.5 and 9.5 as they were less preferred by the guava growers for seeking information's.

2. Personal cosmopolite sources of information's

Table 2: Personal cosmopolite sources of information's utilized by the guava growers

S. No.	Personal cosmopolite sources of information	Small guava growers (n = 54)		Big guava growers (n = 66)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1.	Input dealers	77.78	2	66.67	4	71.67	3
2.	Agriculture supervisors (Ag. Department)	93.83	1	87.37	1	90.28	1
3.	SMSs (Horticulture)	67.28	3	79.80	2	74.17	2
4.	AAOs (Ag. Department)	53.09	4	74.24	3	64.72	4
5.	Research scientists (ARS & KVK)	43.21	5	63.13	5	54.17	5
6.	NGO's personnel's	33.33	7	33.33	7	33.33	7
7.	Any others	38.89	6	37.88	6	38.33	6
	Over all	58.20		63.20		60.95	

The data presented in table 2 indicates that among the personal cosmopolite sources of information, agriculture supervisors (90.28%) and subject matter specialists (Horticulture) (74.17%) were the most important sources of information utilized by the guava growers as they were ranked 1 and 2 respectively. The important personal cosmopolite sources of information utilized by the majority of guava growers were; input dealers (71.67%), Assistant Agriculture officers (64.72%) and Agriculture Research Scientists (ARS & KVK) (54.17%) considered credible personal cosmopolite sources of information as they were indicated by 3, 4, 5 and 6 ranks by the respondents respectively. Contrary to this personal cosmopolite sources of information were; any others (38.33%) and Non Govt. Organizations Personnel's (33.33%) which accorded last ranks 7 and 8 in the rank order. They were least important utilized by the guava growers for seeking information's.

B. Channels of Information's

3. Personal cosmopolite channels of information's

Table 3: Personal cosmopolite channels of information utilized by the guava growers.

S. No	Personal cosmopolite channels of information	Small guava growers (n = 54)		Big guava growers (n = 66)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1.	Discussion	78.395	3	88.38	3	83.89	2
2.	Demonstration	79.01	2	93.94	1	87.22	1
3.	Farmer's fair	33.33	8.5	33.33	9	33.33	9
4.	Educational tour	88.89	1	66.67	6	76.67	4
5.	Field trip	33.33	8.5	33.33	9	33.33	9
6.	Training programme	66.67	4	92.93	2	81.11	3
7.	Kisan gosthi	62.35	5	68.67	5	64.72	5
8.	Kisan Mandal Meeting	48.15	6	68.18	4	59.17	6
9.	NGO mobile services	33.33	8.5	41.41	7	37.78	7
10.	Workshop	33.33	8.5	33.33	9	33.33	9
	Over all	55.68		61.82		59.055	

It is clear from table 3 that among all the personal cosmopolite channels of information, the demonstration (87.22 %) and discussion (83.89 %) proved to be most important channels of information much utilized by the guava growers and they were ranked 1 and 2. The other important personal cosmopolite channels of information utilized by the guava growers were training programme (81.11 %), educational tour (76.67 %), Kisan gosthi (64.72 %) and Kisan mandal meeting (59.17 %) which were placed at 3, 4, 5 and 6 ranks, in the rank hierarchy respectively. Whereas, (Non-Govt. Organization) mobile services (37.78 %), farmers fair (33.33 %), field trips (33.33 %) and workshops (33.33 %) did not attract much to the respondents and hence they were utilized by comparatively

less number of guava growers which ranked i.e. 7, 9, 9 and 9 in the ranks order.

4. Impersonal cosmopolite channels of information's [Mass media channels of information's]

Table 4: Impersonal cosmopolite channels of information utilized by the guava growers

S. No	Impersonal cosmopolite channels of information	Small guava growers (n = 54)		Big guava growers (n =66)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1.	Radio	79.63	3	96.97	1	89.17	1
2.	Television	75.93	4	90.40	2	83.89	3
3.	News papers	87.04	2	75.25	6	80.56	4
4.	Farm publication	66.66	6	76.76	5	72.22	6
5.	Exhibition	69.14	5	77.78	4	73.89	5
6.	Film shows	35.19	7	58.09	7	47.78	7
7.	Traditional media	88.27	1	80.81	3	84.17	2
	Over all	71.69		79.44		76.03	

The data presented in table 4 makes it clear that among the various impersonal cosmopolite channels of information radio (89.17 %) and traditional media (84.17 %) with ranks 1 and 2 were much preferred channels of information among the guava growers in the study area. The other important impersonal cosmopolite channels of information utilized by the guava growers were televisions (83.89 %), newspapers (80.56 %), exhibition (73.89 %) and farm publication (72.22 %) which were placed at 3, 4, 5 and 6 ranks respectively in the order of preference. The least important impersonal cosmopolite channels of information were film shows (47.78 %) with last rank 7 was not much liked by the guava growers.

5. Marketing agencies as channels of information's:

Table 5: Marketing agencies as channels of information utilized by the guava growers.

S. No.	Marketing agencies as channels of information	Small guava growers (n = 54)		Big guava growers (n =66)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1.	Seed dealers	75.31	3	67.17	4	70.83	3
2.	Co-operative societies	45.06	4	84.34	2	66.67	4
3.	Krishi Upaj Mandi	81.48	1	95.45	1	89.17	1
4.	Fertilizers & chemical dealers	80.25	2	69.19	3	74.17	2
	Over all	70.525		79.04		75.21	

The data below in table 5 make it clears that among marketing agencies as channels of information, Krishi Upaj Mandi (89.17 %) was used with rank 1 was much utilized channels of information among the guava growers. This was followed by the fertilizers and chemical dealers (74.17 %) and seed dealers (70.83 %) were placed at 2 and 3 ranks, respectively in the order of preference. The co-operative societies (66.67 %) with rank 4 were not much utilized by the guava growers in the study area.

6. Category wise information's available to the guava growers

In order to find out the correlation between the ranks accorded by the two groups of respondents to different category of information's, rank order correlation was calculated. The results are presented here under:

H_0: There is no significant relationship in the intensity of information's available to the small and big guava growers in adoption regarding improved guava production technology.

H_1: There is significant relationship in the intensity of information's available to the small and big guava growers in adoption regarding improved guava production technology.

Table 6: Major categories of information's available to the guava growers.

S. No.	Major categories of information available	Small guava growers (n = 54)		Big guava growers (n =66)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1.	Personal localite sources of information	61.48	III	67.928	III	65.03	III
2.	Personal cosmopolite sources of information	58.20	IV	63.20	IV	60.95	IV
3.	Personal cosmopolite channels of information	55.68	V	61.82	V	59.055	V
4.	Impersonal cosmopolite channels of information	71.69	I	79.44	I	76.03	I
5.	Marketing agencies as channels of information	70.525	II	79.04	II	75.21	II

The data presented in table 6 shows the major categories of information available to the guava growers for orchard development. The major category of informations relevant to impersonal cosmopolite channels of information (76.03%) was ranked on top by the guava growers. The other major categories of information available to the guava growers in orchard development were marketing agencies as channels of information (75.21%), followed by personal localite sources of information (65.03%) and personal cosmopolite sources of information (60.95%) which were accorded II, III and IV ranks in rank order by the respondents. On the other hand, among major categories of

information, *viz*., personal cosmopolite channels of information (59.05%) with rank at V was less utilized by the respondents.

Further examination of table 6 explicates that information's *viz*., impersonal cosmopolite channels, marketing agencies, personal localite sources, personal cosmopolite sources and personal cosmopolite channels of information were assigned first, second, third, fourth and fifth ranks respectively by both the categories of guava growers. The results can be concluded that progressive farmers from personal locality source of information category and agriculture supervisors from personal cosmopolite source of information category were much utilized by the majority of guava growers for seeking information's about improved guava production technology. This may be due to the fact that both progressive farmers and agriculture supervisors were easily accessible to the farmers. This might have facilitated them to approach and seek information's about improved practices of guava cultivation like wise demonstrations as a personal cosmopolite channel of information was preferred by the guava growers. This in term reflects that demonstrations were conducted on scientific basis by field functionaries and the radio being cheap device was accessible to the majority of guava growers were more utilized by the respondents. Krishi Upaj Mandi is marketing agency, which were generally utilized by the common respondents to seek information's about improved guava production technology.

Conclusion

It was found that the progressive farmers (87.50 %), experienced guava growers (85.28 %), neighbours (83.06 %), friends (80.56 %) and relatives (78.06 %) ranked I, II, III, IV and V in ranks orders were most important sources of information utilized by the guava growers under the personal localite sources of information. On the other hand, agriculture supervisors (90.28%), subject matter specialists (Horticulture) (74.17 %), input dealers (71.67 %), Assistant Agriculture officers (64.72 %) and Agriculture Research Scientists (ARS & KVK) (54.17 %) ranked I, II, III, IV and V in ranks orders were much utilized by the guava growers among the personal cosmopolite sources of information category. (Table 1-2)

Further reported that the demonstration (87.22 %), discussion (83.89 %), training programme (81.11 %), educational tour (76.67 %), Kisan gosthi (64.72 %) and Kisan mandal meeting (59.17 %) ranked I, II, III, IV, V and VI in ranks orders much utilized by the guava growers among the personal cosmopolite channels of information, On the other hand, radio (89.17 %), traditional media (84.17 %), televisions (83.89 %), newspapers (80.56 %), exhibition (73.89 %) and farm publication (72.22 %) were ranked I, II, III, IV, V and VI in ranks orders much utilized by the guava growers among the various impersonal cosmopolite channels of information category. Whereas, in case of marketing agencies as channels of information like Krishi Upaj Mandi (89.17 %) fertilizers and chemical dealers (74.17 %) and seed dealers (70.83 %) ranked I, II, and III in ranks orders were more utilized by the guava growers. (Table 3-5).

The spearman rank correlation coefficient was computed between the small and big guava growers in reference major category of information's relevant to impersonal cosmopolite channels of information (76.03%) was ranked on top. The other major categories of information available were marketing agencies as channels of information (75.21%), followed by personal localite sources of information (65.03%) and personal cosmopolite sources of information (60.95%) were accorded II, III and IV ranks in rank order. On the other hand, among major categories of information, *viz*., personal cosmopolite channels of information (59.05 %) with rank at V was less utilized by the guava growers. It was found that the non-significant relationship, which led to the conclusion that both the categories of guava growers had realized these information's with different intensity. (Table 6).

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