

Knowledge and Information Sources Utilisation Pattern of Soybean Growers

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ABSTRACT

This study investigates the pattern of information sources utilised and the knowledge level on Know-how and Do-how dimensions in soybean cultivation technology with 120 soybean growers of Nagapattinam district at Tamil Nadu. The findings revealed that Majority of growers possessed good How-to knowledge in the case of seed treatment with biofertilizer and 2 per cent DAP foliar spray and poor How-to knowledge in the case of herbicide application. There were distinct pattern of information sources utilised by Soybean growers. Field Assistants, Field Officers were predominantly used among the personal cosmopolite sources. Fellow farmers and friends were emerged as the major source of information in the case personal localite sources. With regards to impersonal cosmopolite sources leaflets, radio and television were the prime sources of information for the Soybean growers.

Key words: *How-to knowledge; Information sources utilization; Soyabeen growers;*

There has been a paradigm shift in the consumption of vegetable oil basket. In the early seventies major oil consumed were groundnut and rapeseed, while in 2003-04 Soybean and Palm oil were major contributors accounting for 21 and 36 per cent respectively of total consumption in the country. The contribution of Soybean in the oil seed basket of the world has been maximum. The total oilseed production during 2007-08 is projected to be only about 28.83 MT and thus country may have to import around 55 – 59 lakh tonnes to meet the rising demand. Indian oil seeds yields are around half of the world average (10.86 Q/ha) and the same trend is applicable to Soybean also. Nevertheless, scope still exists for further augmenting its productivity to the level of world average (18 Q/ha). It is a well established fact that good knowledge on practices and adoption of recommended package of practices could substantially increase the yield and productivity. The Know-how and Do-how dimensions of the technologies are very important prerequisites for better adoption of recommended technology, which consequently responsible for increasing the production. The Soybean has its own 'niche' for oil seed production in the country. This could be strengthened through the sources of information available. Information is a critical input for

Agricultural Development which can be efficiently converted in to economically rewarding opportunities. The information hungry farmers are approaching very many sources and channels for getting information on farm innovation. There are many agencies of farm information engaged in disseminating the scientific innovation on Soybean cultivation technology. However, the diffusion of Soybean innovation is not getting adequate momentum. Hence the study was designed to measures the how-to knowledge of soybean growers in soybean cultivation technology study the information sources utilization pattern of soybean growers.

METHODOLOGY

The study was conducted in two selected blocks of Nagai-Quid-e Milleth District of Tamilnadu considering the maximum area under Soybean cultivation. From each selected block 5 villages were selected. A proportionate random sampling method was adopted to select the respondents from 10 villages, totaling 120. The primary data was collected from M/s Sakthi Soyas Ltd., Mayiladhurai Unit. The survey was carried out with well structured and pre-tested interview schedule and observation.

Measurement of How-to knowledge : How-to

knowledge refers to information necessary to use an innovation properly. In the present study How-to knowledge dimension denotes the farmer's understanding with Soybean cultivation technologies viz., Seed treatment with biofertilizer, Herbicide application, 2 per cent DAP spray and Micro nutrient spray application, selected out of judges scores. The farmers were asked on the following dimensions viz., What, When, Where, How and How much. Every correct answer in each dimension was received One score, while the incorrect answer received a score of Zero. The score thus obtained were subject to the development of How-to knowledge index. Cumulative frequency method was employed to classify the respondents.

The pattern of information sources utilisation : The pattern of information sources utilised by the respondents were studied in terms of their frequency of contact and credibility towards different sources of information. Mean scores and ranking method were employed to understand the preference of Soybean growers towards the information source.

RESULTS AND DISCUSSION:

The How-to knowledge dimension of the respondents on selected Soybean technologies were studied and findings are presented in Table 1.

Table 1. How-to Knowledge in Soybean Cultivation Technologies (N = 120)

S. No.	Technologies	Soybean Growers			
		Known		Un known	
		No.	%	No.	%
1	Seed treatment with bio-fertilizers	112	93.34	8	6.67
2	Herbicide application	01	0.83	119	99.17
3	2 per cent DAP Foliar spray	93	77.50	27	22.50
4	Micronutrient spray application	47	39.16	73	60.84

Seed treatment with Biofertilizer: A perusal of Table 1 shows that a vast majority of the respondents (93.00%) has good How-to knowledge about the seed treatment practices with biofertilizer *Rhizobium japonicum*. As this seed treatment practice in Soybean is similar to other pulses viz., *Blackgram, Greengram*, they possessed good How-to knowledge. However, since the price of chemical fertilizers had increased multi

plies the farmers were not offered so much for the inorganic fertilizers and they found that biofertilizer treatment is one of the best ways to supplement its nutrient requirements. This situation plays an active role in developing good How-to knowledge about the practice.

Herbicide application: None of them had possessed knowledge on herbicide application. The reason for this very poor How-to knowledge might be due to poor Awareness-knowledge, poor Extension efforts to popularise the technology and satisfaction with the advantage of traditional hand weeding. Besides, very much sentiment with regular cropping pattern, false perception about herbicide application etc., were also the contributing reasons for the reported findings. This finding is in accordance with the findings of *Subashini (1996)* who reported that poor knowledge on weedicide may due to lack of conviction on these practice.

2 Per cent DAP foliar spray application: Majority (77.6%) of the Soybean growers possessed good how-to knowledge on 2 per cent DAP foliar spray application. The possible reason attributed to this percentage might be due to extension efforts taken by the agency. However, this practice is not a new practice for Soybean alone, but common to most of the pulses, thus growers were aware and possessed enough how-to knowledge.

Micronutrient Spray application: Even though it was a very recent technology, nearly 40.0 per cent of the farmers had possessed enough How-to knowledge about the practice. The reasons attributed for this might be due to extension efforts taken by the agency and the wide publicity and field level demonstration taken by the input and promotion agency to show the effectiveness of micronutrient spray.

Overall How-to knowledge of respondents: The distribution of respondents according to their overall How-to knowledge level in Soybean cultivation technologies is prescribed in Table 2. It is seen from Table 2 that slightly more than half of the (53.33%) total respondents had medium level of How-to knowledge followed by high level of (35.0%) and low level of How-to knowledge (11.67%). It could be concluded that slightly more than half of the total respondents had medium level of How-to knowledge

because of the intensive field visits taken by the Soybean promoting agency.

Table 2. Classification of Soybean Growers based on their How-to-Knowledge (N= 120)

S. No.	Category	No.	%
1	Low	14	11.67
2	Medium	64	53.33
3	High	42	35.00
	Total	120	100.00

The information source utilisation : The different pattern of information source utilised by the Soybean growers were studied and the findings are presented in Table 3.

Table 3. Pattern of Information Source Utilisation (N=120)

S. No.	Sources of Information/ Utilisation	Frequency		Credibility	
		Mean scores	Rank	Mean scores	Rank
<i>I.</i>	<i>Cosmopolite Source</i>				
<i>A.</i>	<i>Agricultural Deptt.</i>				
1	Assitt. Agril. Officer	0.3166	III	0.6916	III
2	Agril. Officer	0.1500	V	0.1250	V
3	Agril. Deve. Officer	0.0166	VI	0.0250	VII
<i>B.</i>	<i>Private Agency</i>				
4	Field Assistant	2.9666	I	4.000	I
5	Field Officer	1.7750	II	3.9330	II
<i>C.</i>	<i>Other</i>				
6	Exhibition	0.2000	IV	0.5500	IV
7	Seminar	0.0166	VI	0.0333	VI
<i>II.</i>	<i>Personal Source</i>				
1	Friends	0.4000	II	0.6333	II
2	Relatives	0.0583	IV	0.0833	IV
3	Fellow farmers	1.9583	I	2.8660	I
4	Input Dealers	0.2666	III	0.4583	III
5	Field Demo.	0.333	V	0.4166	V
<i>III.</i>	<i>Impersonal Source</i>				
1	Radio	0.6583	II	1.0666	II
2	Television	0.2250	III	0.3916	III
3	Newspapers	0.0750	V	0.1000	V
4	Magazine	0.2083	IV	0.3250	IV
5	Posters	0.0500	VI	0.0660	VI
6	Film Slides	0.0416	VII	0.0416	VII
7	Leaflets	1.0750	I	1.6250	I

Pattern of Personal Cosmopolite Source Utilisation: Among the personal cosmopolite sources, the Field Assistant, Field Officer, AAO, Exhibition, AO

were the most frequently utilised information sources with credibility among the Soybean growers in the order.

More use of the source ‘Field Assistant’ for information may be due to their frequent visit and approachability. In Soybean promotion, the role of grass root level functionaries, were much emphasized. This finding is in accordance with the findings reported by *Nirmala (1995)*. Field officers were the second most utilised credible source of information. In the Soybean Production System hierarchically ‘Field Officer’ happens to be the immediate superior to ‘Field Assistant’ at unit level. Naturally he has to make periodical visit to their jurisdiction and supervise the subordinate namely ‘Field Assistants’. This might be the reason that field officers being the second most utilised information source. The functionaries under Department of Agriculture such as AAO, AO and ADO were also utilised as information sources in the absence of Soybean Promotion Agency. Exhibition ranks fourth. The reason might be the number of exhibition conducted by the agency in the region served as an information source about Soybean cultivation.

Pattern of Personal localite source utilisation by the Soybean growers: The fellow farmers and friends were the foremost credible personal localite sources of information utilised by the Soybean growers. The input dealers and relatives were occupied third and fourth place respectively with respect to information sources and credibleness. This finding supports the finding of *Venkatesan (2000)*. Frequent use of fellow farmers and friends by the Soybean growers for their information seeking might be because when a new practice is to be adopted, it is quite natural that he/she would like to have the moral support from his neighbours. Thus the fellow farmers and friends were the important sources for the spread of an innovation. The Input Dealers occupied third place as information source utilisation and credibleness. The visit made by the growers to the Input Agency to get their inputs would pave way for gathering information regarding the cultivation aspects. This may be the reason for them to occupy a moderate position among the information sources. Before adoption of any new practices getting reinforcement from their own relatives is quite natural. This might be the reason for the reported findings. Field Level Demonstration

occupied the fifth rank among the personal localite sources. The promotion agency concerned who had conducted number of field demonstration about the Soybean cultivation practices in the local area served as one of the personal localite sources for getting information.

Pattern of Impersonal Cosmopolite Source Utilisation: 'Leaflets' and 'Radio' were used to a greater extent by the respondents and pattern of utilisation observed was 'technical leaflets' 'Radio', 'Television', 'Magazine', 'Newspapers', 'Posters', 'Film slides' in that order. The education status of the respondents and the efforts taken by the Soybean promotion agency concern in distribution of technical leaflets were the contributing reasons for utilising leaflets as prime source. The next important and most utilised source was found to be 'Radio'. The wide variety of farm broadcast and its elements such as timeliness, spontaneity, emotional appeal etc. builds the conviction among farmers and subsequently leads to adoption. This finding was supported by *Knight (1973)* who also reported the same. 'Television' occupied the third place in utilisation of inter personal cosmopolite sources. Television with its elements of audio and video stimulate the real life experience. The periodical telecast of farm programme related to Soybean cultivation technology during the onset of seasons would also be the reason for being an important source. Though Television is effective medium it comes only next to 'Radio'. This could be due to the fact that all the farmers cannot afford to have a television and its availability is limited in the rural area. This finding confirms the results of *Babu (1990)*.

'Magazine' occupied the fourth place in utilisation of interpersonal cosmopolite sources. This might be due to reason that the magazines which might prove useful to Soybean growers in vernacular language were limited. 'News paper' covers lot of information related to agriculture. But the periodicities of occurrence of information related to Soybean cultivation technologies were occasional and limited. This could be the reason for newspaper occupying such position. 'Posters' occupied the 'sixth' place. The reason might be the placement of poster within the vicinity of the farmers viz., Teashop, Input Dealers etc. 'Film slides' occupy the last position among the seven impersonal cosmopolite source. This was due to fact that the efforts taken by the agency to popularise the Soybean crop among the farmers through local cinema theatre in rural areas.

CONCLUSION

The study identified distinct differences in the utilisation pattern of different types of information sources viz., personal localite, personal cosmopolite and impersonal cosmopolite. It would help the extension system to design appropriate diffusion model and strategies for the technology transfer of technical know-how and do-how with respect to Soybean innovation. The insight also could help in selecting the right type of communication channels so as to suit to the farmer's preference and taste and gearing up the diffusion of Soybean technology. In the broader perspective it helps in promoting the pluralism in extension service through information delivery system.

REFERENCES

1. Babu. S. Sehan (1990). Information Source Utilisation, Knowledge and Extent of Adoption of Sugarcane Technologies by Registered Cane growers. Unpub. M.Sc(Ag) Thesis, TNAU, Coimbatore.
2. Knight. A. John (1973). A Study on the Relative Effectiveness of Three Modes of Presentation, Preference, Listening and Post-listening behaviour of Farm Broad Cast Listeners. Unpub. Ph. D. Thesis, IARI, New Delhi.
3. Nirmala. L., V. Ravichandran, and T. Radhakrishnan (1995). Information Sources Utilization Influencing Knowledge and Adoption of Biofertilizers. *J. Ex. Edu.* **15** (2&3).
4. Subashini B. (1996). A Critical Analysis of Awareness, Knowledge and Adoption of Recommended Topiaca Technologies by the Farmers in SA District. Un published MSc (Ag) Thesis. Annamalai University, Annamalai Nagar.
5. Venkatesan. S. (2000). Awareness, knowledge and adoption level of recommended tomato cultivation practices in Tamil Nadu. Unpub. M.Sc. (Ag) Thesis, TNAU, Coimbatore.