

ROLE OF "KISAN CALL CENTER", PUNE IN DISSEMINATION OF AGRICULTURAL TECHNOLOGY

H.P.Bondale¹, A.M. Chavai², V.J.Tarde³, G.K.Sasane⁴

The challenges before Indian agriculture are immense. This sector needs to grow at a faster rate than in the past to allow for higher per capita income and consumption. It is an accepted fact that sound agricultural development is essential for overall economic progress. About two thirds of the workforce are directly or indirectly dependent on agriculture. This sector generates about 28 percent of the GDP and over 15 percent of exports. Rising consumer prosperity and the search by farmers for higher incomes will simultaneously drive crop diversification. Export opportunities for agricultural products are also expected to continue to grow, provided India could meet the stability, quality and presentation standards demanded by foreign trade and consumers and maintain its comparative advantage as a relatively low cost producer.

Given its range of agro-ecological setting and producers, Indian Agriculture is faced with a great diversity of needs, opportunities and prospects. The well endowed irrigated areas which account for 37 percent of the country's cultivated land currently contribute about 55 percent of agricultural production, whereas, rainfed agriculture which covers 63 percent accounts for only 45 percent of agricultural production. In these less favorable areas, yields are not only low but also highly unstable and technology transfer gaps are much wider as compared to those in irrigated areas.

If it is to respond successfully to these challenges, greater attention will have to be paid to information-based technologies. Strengthened means of dissemination will be needed to transmit information to farmers. Both technology generation and transfer will have to focus more strongly than ever before on the themes of optimization in the management of their available resources by producers, sustainability, coping with diversity by adapting technology more specifically to agro-ecological or social circumstances and raising the economic efficiency of agriculture.

¹Post Graduate student; ²Junior Research Assistant; ³Assistant Professor; ⁴Associate Professor, Department of Extension Education, College of Agriculture, Pune.



To make information transfer more effective, greater use will need to be made of modern information and communication technology among researchers, extensionists and farmers. Public extension system requires a paradigm shift from top-down, blanket dissemination of technological packages, towards providing producers with the knowledge and understanding with which they solve their own location - specific problems. Continuous two-way interaction among the farmers and agricultural scientists is the most critical component of Agricultural Extension.

At present, the issues have been addressed by the Extension Systems of State Departments of Agriculture, State Agricultural Universities (SAUs), KVKs, NGOs, private extension services through various extension approaches in transfer of technology. A limitation in Transfer of Technology (TOT) model continues to remain a challenge for the public and private extension systems. With the availability of telephone and Internet, it is now possible to bridge this gap to quite a large extent by using an appropriate mix of technologies.

The Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. of India has launched Kisan Call Centers (KCC) with a view to leverage the extensive telecom infrastructure in the country to deliver extension services to the farming community. The purpose of these Call Centers is mainly to respond to issues raised by farmers instantly in the local language.

The present study was conducted at the KCC Pune to study the profile of the farmers approaching the centre and the information needs of farmers.

Operational Mechanism of Kisan Call Centre

The Kisan Call Center is a synthesis of two hitherto separate technologies namely, the Information & Communication Technology (ICT) and Agricultural Technology. Both have their specialized domains and work cultures. To optimally utilize the strengths of both these systems, it was proposed to take full advantage of the professionally managed Call Centre mechanism and dovetail it with the specialized Subject Matter Specialists' knowledge of Agricultural Scientists and Extension Officers, so as to facilitate its reach to the farming community. It was accordingly proposed to make use of existing specialized infrastructure of Call Centers (which are normally industry-driven and serve high-end and many a times, mission critical service sector) and make this communication backbone available to the Subject Matter Specialists of Agriculture, Horticulture, Animal Husbandry, Marketing and other related areas. The Kisan Call Center, consists of three levels - namely Level-I (the basic Call Center interface, with high quality bandwidth and local language proficient Agricultural Graduate), Level-II (Subject Matter Specialists on concerned important crops and enterprises, connected through good bandwidth telecom and computer connectivity) and Level-III (the Management Group to ensure ultimate answering and resolution of all the farmers' queries which are not resolved at Level-II, connected on off line mode).

Level-I: The call coming to the call center is picked up by an operator (level - I functionary) who after a short welcome message takes down the basic information and the query of the caller. These details are entered into a computer located next to the operator by the operator himself. The first level receiver of the call also enters questions being asked by the farmer.

The first level operators preferably would be an agricultural graduate with rural background knowing the local language and with good communication skills. They would be in a position to answer a majority of the questions likely to be asked by the farmers.

Level-II: The Level-II consists of Subject Matter Specialists (SMS) who are located at their respective place (Research Stations, ATICs, KVKs, Agricultural colleges), of work. In case the first level operator is not able to answer the question, the operator forwards (in call sharing mode) the call to the concerned Subject Matter Specialist. The data relating to the caller including the question asked is also transferred to the Level-II functionary on his computer along with the call. Hence, when the specialist takes the forwarded call, his computer also shows the data and question asked so that there is no repetition. It is envisaged that in normal cases, the entire spill over questions from the first level get answered at this level. In case, it is not possible to answer, there is a system to revert back to the caller by post / fax / e-mail or by telephone in 72 hours.

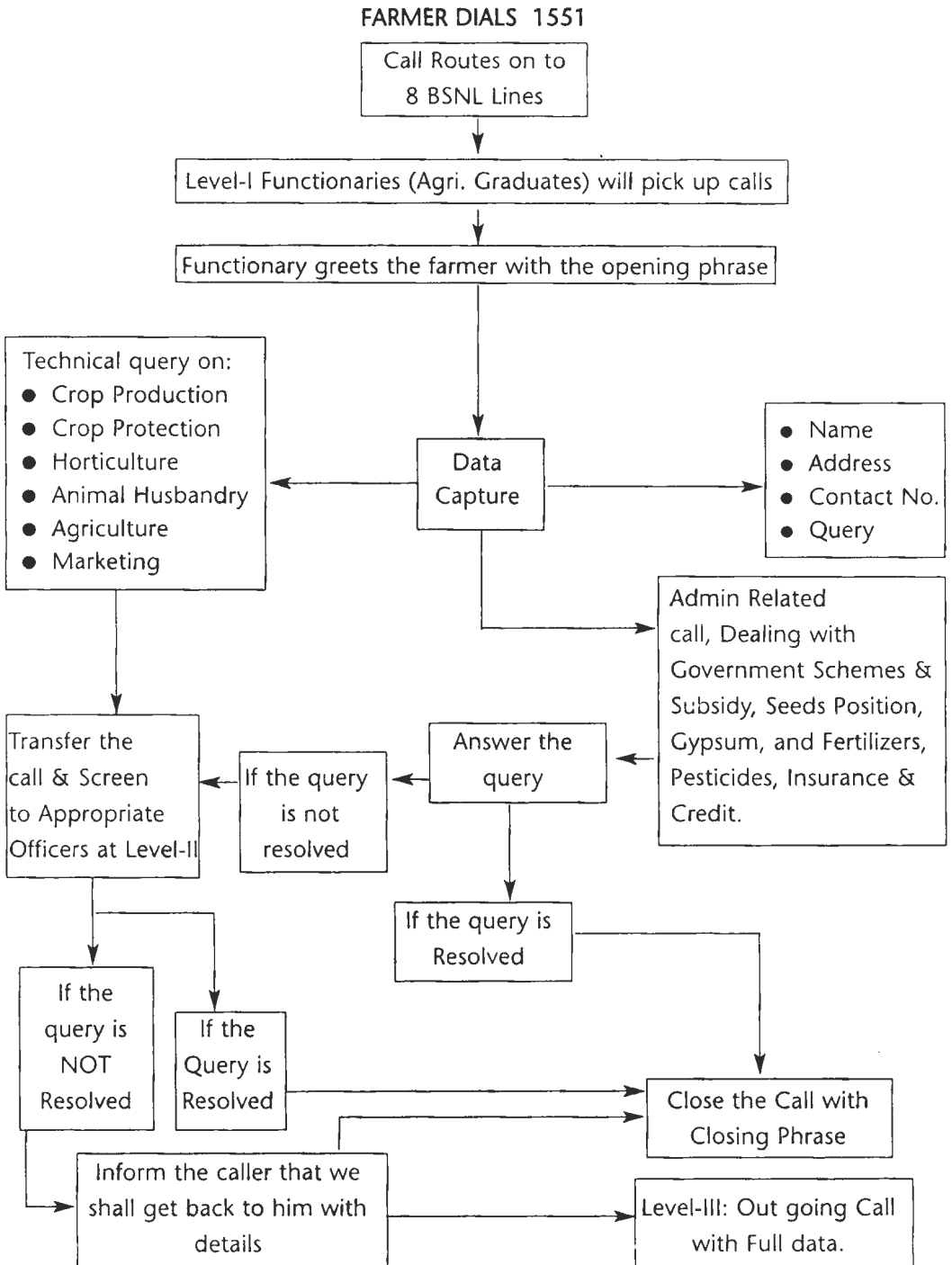
While selecting the specialists, it would be important to first identify the major crops in that state and the issues on which the questions are likely to be asked. These specialists should be such that they will answer most of the questions that are likely to be asked. There could be two options available on the selection of the specialists.

One option could be to select commodity wise specialist, that is, every question related to a particular crop or commodity would be directed to that specialist, who would in turn answer that question. The other option could be to select general specialists who would deal with various subjects likely to arise. The specialists should ideally be located within a city. They should have good communication skills and should know the local language. These specialists should have at least a minimum of 10-15 years of field experience in their respective specialization.

Level-III: The Level-III consists of a dedicated cell located at the Nodal Office. This would receive the questions that have not been answered at the first and the second levels. Appropriate replies to these questions would be then framed in consultation with the concerned specialists available within or outside the State, by the nodal cell. The replies would be sent to the farmers promptly by post / e-mail / fax / telephone etc. within 72 hours of receipt of the question.



Schematic Representation of Kisan Call Centre (KCC)



Objectives

The study was conducted with the following objectives.

1. To study profile of the farmers approaching "Kisan Call Centre", Pune.
2. To know the information needs of farmers regarding various aspects of farming through "Kisan Call Centre" Pune.

Methodology

The study was conducted at "Kisan Call Centre" Pune. The data of recorded questions from March 2004 to November 2004 was studied and analyzed with the help of statistical tools.

Findings

The data regarding profile of the farmers approaching "Kisan Call Centre" Pune are in Table 1.

Table 1. Distribution of the farmers by their profile

Sr. No.	Profile	Respondents (N=42)	
		Number	Percentage
1.	Age (Years)		
	i) Young (upto 31)	26	61.90
	ii) Middle (32 to 46)	15	35.72
	iii) Old (47 and above)	01	02.38
2.	Education (Std.)		
	i) Illiterage (No education)	02	04.76
	ii) Primary (upto 7th)	04	09.52
	iii) Secondary (8th to 12th)	11	26.20
	iv) College (above 12th)	25	59.52
3.	Land Holding (ha)		
	i) Marginal farmers (upto 1.00)	05	11.90
	ii) Small farmers (1.01 to 4.00)	18	42.85
	iii) Medium farmers (4.01 to 10.00)	12	28.57
	iv) Large farmers (above 10.01)	07	16.62
4.	Approach Area (Tahsils)		
	i) Irrigated tahsils	28	66.66
	ii) Dryland tahsils	14	33.34

The data presented in Table 1 shows that the most of farmers approaching the Kisan Call Centre were young (61.90 percent), completed college education (59.52 percent), small farmers (42.85 percent) and from irrigated tahsils of Pune and adjoining districts. This indicates that young generation educated farmers from irrigated area were approaching Kisan Call Centre for agricultural technology.

Information needs of farmers regarding various aspects of farming

The data regarding information needs of farmers approaching "Kisan Call Center" are presented in Table 2.

Table 2. Distribution of farmers by their information needs.

Sr. No.	Profile	Respondents (N=42)	
		Number	Percentage
1.	Availability of seeds	24	57.14
2.	Rates of seeds	24	57.14
3.	Crop protection measures	20	47.61
4.	Marketing of the crop	15	35.71
5.	Cultivation Practices of Vegetables	14	33.33
6.	Economics of the crop	14	33.33
7.	Government schemes and subsidy	14	33.33
8.	Fertilizer and water management	10	23.80

The data in Table 2. revealed that farmers were more interested in seeking information about the availability and rates of seeds (57.14 percent), crop protection measures (47.61 percent). Marketing of crop (35.71 percent), cultivation practices of vegetables, economics of the crop, government subsidy (33.33 percent) respectively, followed by fertilizers and water management (23.80 percent).

Implications

The study implies that awareness should be created among the farmers to use the services of 'Kisan Call Centres". It was observed that the staff of "Kisan Call Centres" are trained in computer science only. It is essential to appoint the staff trained in the field of agriculture as well as in computer science. It was also observed that service of a Kisan Call Centre is provided during office hours only. There is need to provide the services of the Kisan Call Centre for 24 hours like customer care centre.

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