Role of key communicator in dissemination of tomato production technology

Sashikant Divakar, P Jaisridhar, Anil Paswan and Chandan Kumar Panda

Abstract
The present study was conducted in Bhagalpur district of Bihar during to assess the role of key communicators in dissemination of Tomato Production Technology. Sociometric tools were used for assessing the role of key communicator. Sixty (60) farmers were sampled for the study. Their responses were noted and key communicators were identified and diagrammatically depicted using target Sociogram technique. Sociometric score, Percentage and Cumulative Percentage were calculated. Six key communicators were identified by the sample respondents, of which three were grouped under low communicators’ category, followed by two each in medium and one is high communicator categories. The findings of the study illustrated that there are six key communicators who are actively working in disseminating Tomato Production Technology information among the ordinary farmers. Among these six key communicators, one is high communicator who usually provide advice and information to ordinary farmers as well as other key communicators. Thus identifying these key communicators from a community, the development organization can train up them and use them successfully in the promotion of Tomato Production Technology in Bhagalpur district of Bihar.

Keywords: Communicator, dissemination, tomato production, technology

Introduction
Ramirez, (1997) [5] reported that the pattern of communication and information exchange among farmers constitutes an integral part of their farming system. Agricultural information plays a important role in enlightening them, raising their level of knowledge and help in their decision making process regarding farming activities. Economic progress of an agro-based nation depends on Effective communication between scientific information sources and the farmers. Since green revolution there had been a lot of changes in farm inputs and this trend is continuing even today. Continuous changes in farm inputs are due to situational, economic social factors and environmental. However, farmer should be kept aware of these scientific changes from time to time. The person engaged to convey scientific messages to farmers is extension personnel. The ideal ratio of extension Personnel to farmer is 1: 500 but the average ratio in the present situation is 1:1500 (Planning Commission, GOI; 2011) [6]. Key communicators or opinion leaders in the villages are the persons who can fill this gap of extension staff. At this juncture it is opportunistic to apply sociometry analysis in dissemination of agricultural information with the objective to find the key communicators involved. A study of Sarker and Itohara (2007) [6] showed that organic farmers in Bangladesh usually receive organic farming related information from friends and relatives, model farmers and opinion leaders who are treated as the key communicators. The key communicators are progressive farmers, input dealers, friends and community members who care about organic
agriculture and have a desire to help the organic farmers to provide them with the most useful information. The research of Kashem and Halim (1991) [3] showed that farmers pay more credibility to advice and information received from the model farmers, opinion leaders and other fellow farmers rather than any other sources. Thus it is essential to identify those key communicators and their needs for training to best optimize their role as the helping hands of the extension workers in promoting Tomato Production Technology Bhagalpur district of Bihar. Keeping in mind this reality the present study was carried out by the researchers.

Materials and Methods

The Sabour Block of Bhagalpur district of Bihar was selected, and the study was conducted at Farka village. The necessary data for the study was collected from 60 tomato production farmers out of 320 farm families of the study area. The key communicators regarding the dissemination of Tomato production technology information were identified by using the sociometric method as suggested by Giles (1974) [1], Young (1996) [7] and used by Manohari (2002) [3]. Statistical tools namely sociometric score, Percentage and Cumulative Percentage were applied. At first six communicators were identified through a focus group discussion (FGD) where the Tomato production farmers. In the next step the each respondent was asked to give their first, second and third choices of the persons whom they consulted in the village for advice in the matters of agriculture and related aspects. All the consulted persons were called as key communicators. Weightages of three, two and one were given for first, second and third choices respectively. For each of the key communicator, sociometric score was calculated by summing up all the weightages of the first, second and third choices. Thus the sociometric scores for one key communicator were calculated by using the formula: SS= (3X N₁) + (2XN₂) + (1XN₃); [where, N₁= Nr. of respondents gives the 1st choice; N₂= Nr. of respondents gives the 2nd choice and N₃= Nr. of respondents gives the 3rd choice]. Further the key communicators were categorized into 3 distinct categories based on the ascending order of cumulative percentage of sociometric scores. Based on the total sociometric scores obtained, the respondents were categorised into high, medium and low communicators using the range of cumulative percentages i.e. low communicator (0 to 25%); medium communicator (25 to 75%) and high communicator (75 to 100%). Target sociogram is indicated by concentric circles with the most chosen person as the centre and patterns of relationships shown in the usual way with arrows. It is so called as target because concentric circles are pre-established to resemble a bulls-eye target and the symbols are placed in the appropriate circle. Key communicators in the central circle are more central in the sense that they were chosen more often and at the edge were chosen less often. For this purpose first choice of the respondents were considered. The high communicators were placed in the central circle, followed by the medium communicators in the second circle and low communicators in the third circle from the centre. Symbols were used to depict different key communicators as represented in the sociogram.

Results and Discussion

Six key communicators were identified by the sample respondents as represented in Table 1. Three of them belong to the category of low communicator while two of them belong to medium and only one person belongs to high communicator categories respectively. The three low communicator’s sociometric score cumulative percentage ranged from 1.94 to 14.17 (>25%), the probable reason might be that only few farmers consult them for agricultural and related aspects as their 2nd and 3rd preference or both. The two medium communicators sociometric score cumulative percentage were 33.60 and 57.21 (23 to 77%), this is probably because majority of the farmers consult them for agricultural and related aspects as their 2nd or 3rd preference and a very few farmers consult as 1st preference. On the other side only one communicator was identified as high communicator with the 100 cumulative percentages of sociometric scores. The one high communicators sociometric score cumulative percentage were 100 (<75%), this is probably because majority of the farmers consult them for agricultural and related aspects as their 1st preference, followed by 2nd and 3rd preferences.

Table 1: Key communicators Categorisation profile based on sociometric scores

<table>
<thead>
<tr>
<th>Identified key communicator</th>
<th>Preference by nr. Of respondents</th>
<th>Socio-metric scores</th>
<th>%</th>
<th>Cumulative %</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>7.0</td>
<td>1.94</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>17.0</td>
<td>4.72</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>27.0</td>
<td>7.51</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>12</td>
<td>25</td>
<td>70.0</td>
<td>19.45</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>19</td>
<td>20</td>
<td>85.0</td>
<td>23.61</td>
</tr>
<tr>
<td>6</td>
<td>35</td>
<td>22</td>
<td>5</td>
<td>154.0</td>
<td>42.77</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>360.0</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on the first preferences of the respondents a sociogram was developed as depicted in Fig. 1. Only One high communicators with cumulative percentages 100.00 occupied the central circle indicating the power of influence with respect to dissemination of agricultural information on Tomato production technology. Two medium communicators with cumulative percentages 57.21 and 33.60 occupied the second circle from the centre. Three low communicators with cumulative percentages 14.17, 6.67 and 1.94 occupied the third circle from the centre.
Conclusions
From the above study it can be concluded that farmers believe much on their fellow farmers in matters of agriculture and related aspects. They feel that fellow farmers are the key communicators who give suggestions based on practical knowledge and experience. So, whenever extension personnel are to disseminate information to the farming community it is always beneficial to disseminate it through the key communicators. Moreover, it is difficult to channelize the information from one extension personnel to thousands farmers; this shortage of extension personnel could be filled by trained key communicators. Hence, key communicators come in a way of disseminating the agricultural information in time to large number of farmers.

References