Role performance of farmers in result demonstrations for white grub management of sugarcane crop

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DOI: https://doi.org/10.22271/chemi.2020.v8.i2a.9260

Abstract
The study was conducted during the year 2018-19 in the Kolhapur district of Maharashtra state. The present investigation “Utility of Result Demonstrations for White Grub Management in Sugarcane” was conducted in Karveer, Kagal, Panhala, Gaganbawada, Shahuwadi, Shirol, Radhanagari and Chandgad tahsil of Kolhapur district. One village from each tahsil and 15 respondents from each village were selected. Data were collected by personally interviewing 120 Sugarcane growers with the help of specially designed interview schedule. Collected data were analyzed with the help of suitable statistical methods. The analysis of the result showed that maximum (62.50 per cent) respondents had good role performance in result demonstrations for White Grub management in Sugarcane. Most of the respondents had high role performance in organizing, coordinating and motivating other farmers.

Objective: To study the role performed by the respondents in Result Demonstration for White Grub management.

Keywords: role performance, result demonstration, white grub management, sugarcane.

Introduction
Sugarcane is considered as one of the important commercial crops in India and tropical countries and it is main source of sugar for hundreds of years for the whole world. The Sugarcane contributes 70 per cent of the world total sugarcane production. The contribution of sugarcane in India is 47.74 lakh ha area with 3550.90 lakh tons of production and 27.25 million tons sugar production with an average yield of 74.4 tons per ha. India ranks 2nd in area and production after Brazil. Maharashtra is second to Uttar Pradesh in area with it’s production as 177.06 million tons and 83.13 million tons respectively (Anonymous, 2017) [3]. In Maharashtra sugarcane is growing on the area of 9.02 lakh ha with annual production of 678.63 lakh tons and productivity is 75.23 tons per ha (Anonymous, 2018) [4]. The Kolhapur, Satara, Sangli, Ahmednagar, Pune, Nashik and Solapur are the major sugarcane growing districts of Maharashtra.

White Grubs have become increasingly difficult pest in Kolhapur region particularly on the banks of rivers due to monoculture. The several tactics have been adopted for the management of White Grub like cultural, mechanical, biological, chemical and integrated methods. A Pest management strategy is mainly depending on the use of highly poisonous chemical pesticides which is practically difficult and associated with high cost, environmental pollution and pesticide residue.

Therefore, keeping this in view, result demonstrations were conducted on White Grub management by using bio control agent *Metarhizium anisopliae* under RKVY Scheme by Regional Extension Centre, RCSM College of Agriculture, Kolhapur in 2012-13. The result demonstrations have remained an effective medium of extension, since 1928, when royal commission on agriculture in India emphatically started that agriculture researchers may be of use to the cultivators, their results must be given to him in a form in which they become a part of his ordinary practices.
Methodology
The present study was undertaken in Kolhapur district of Maharashtra state on the basis of Regional Extension Centre, Kolhapur conducted the Result Demonstrations for White Grub Management in Sugarcane. A list of farmers received from Regional Extension Centre, Kolhapur office in which there are 8 tahsils in kolhapur district they are viz. Karveer, Kagal, Panhala, Gaganbawada, Shahuwadi, Shirol, Radhanagari and Chandgad tahsil were selected for study. From each tahsil 1 village were selected, from each village 15 respondents were selected. The data was collected personally with the help of structured interview schedule as per the method given. The same was analyzed and presented in the following tables.

Results and Discussions
Role Performed by Respondents in Result Demonstrations

| Sr. No. | Category                        | Respondent (N=120) |         |         |
|---------|--------------------------------|--------------------|---------|---------|
|         |                                | Number             | Percentage |
| 1       | Poor (Upto 33)                 | 21                 | 17.50   |
| 2       | Good (34 to 40)                | 75                 | 62.50   |
| 3       | Best (41 and above)            | 24                 | 20.00   |
| Total   |                                | 120                | 100.00  |

The Data presented in table 1 indicated that majority (62.50 per cent) of the respondents had good Role performance in Result Demonstrations. whereas, 20.00 per cent and 17.50 per cent of the respondents were having best and poor Role performance in Result Demonstrations. It can be concluded that most of the Sugarcane growers had good Role performance.

| Sr. No. | Role to be performed by the farmers | Always | Some time | Never |
|---------|------------------------------------|--------|-----------|-------|
| A       | Planning                           |        |           |       |
| 1       | Helps in identification of respondent farmers | 28 (23.33) | 44 (36.67) | 48 (40.00) |
| 2       | Helps in identification of sites/locations of demonstration plots | 33 (27.50) | 44 (36.67) | 43 (35.83) |
| 3       | Helps to extension personnel for upgradation of result demonstration | 23 (19.17) | 49 (40.83) | 48 (40.00) |
| 4       | Helps in planning for farmers meetings prior to result demonstration | 21 (17.50) | 65 (54.17) | 34 (28.33) |
| B       | Organizing                         |        |           |       |
| 1       | Informing and Organizing the farmers meetings | 54 (45.00) | 48 (40.00) | 18 (15.00) |
| 2       | Establishing linkages between farmers and extension personnel | 25 (20.83) | 52 (43.34) | 43 (35.83) |
| 3       | Organizing and helps in kit distribution and method demonstration programmes | 65 (54.17) | 25 (20.83) | 30 (25.00) |
| 4       | Facilitating farmers organization at village | 22 (18.33) | 44 (36.67) | 54 (45.00) |
| C       | Coordinating                       |        |           |       |
| 1       | Coordinating the implementation of extension programmes detailed in result demonstration | 26 (21.67) | 51 (42.50) | 43 (35.83) |
| 2       | Coordinating in meetings to discuss the issues problems faced by other farmers in white grub management | 84 (70.00) | 36 (30.00) | 0 |
| 3       | Coordinating the functioning of farmers group on regular basis | 32 (26.67) | 54 (45.00) | 34 (28.33) |
| 4       | Helps to other farmers by giving solutions to problems about Agril. Technology | 82 (68.33) | 38 (31.67) | 0 |
| 5       | Helps in information sharing       | 89 (74.17) | 31 (25.83) | 0 |

It is observed from Table 2 that about two fifth (40.00 per cent) of the respondents never helps in identification of respondent farmers, less than two fifth (36.67 per cent) of the respondents sometime helps in identification of sites/locations of demonstration plots, two fifth (40.83 per cent) of the respondents some time helps to extensional personnel for upgradation of Result Demonstration, more than half (54.17 per cent) of the respondents some time helps in planning for farmers meeting prior to Result Demonstration. Majority (45.00 per cent) of the respondents always informing and organizing the farmers meetings, majority (43.34 per cent) of the respondents “some time” establishes linkages between farmers and extension personnel, more than half (54.17 per cent) of the respondents always organizing and helps in kit distribution and method demonstration programmes, majority (45.00 per cent) of the respondents never facilitating farmers organization at village. More than two fifth (42.50 per cent) of the respondents some time coordinating the implementation of extension programmes detailed in result demonstration, near about three fourth (70.00 per cent) of the respondents always coordinating in meetings to discuss the issues problems faced by other farmers in White Grub management, majority (45.00 per cent) of the respondents some time coordinating the functioning of farmers group on regular basis, majority (68.33 per cent) of the respondents always helps to other farmers by giving solutions to problems about Agril. Technology, about three fourth (74.17 per cent) of the respondents always helps in information sharing.

Three fifth (60.00 per cent) of the respondents always motivating fellow farmers by explaining successful Agricultural practices to adopt which is followed by own, majority (66.67 per cent) of the respondents always encouraging fellow farmers by explaining the economic benefits of new Agricultural technology recommendation to adopt it, more than half (51.66 per cent) of the respondents some time encourages the fellow farmers to adopt new agricultural practices by direct help and guidance, more than three fifth (63.33 per cent) of the respondents always inviting other farmers to visit demonstrated plot for showing its results.
Conclusions
From the present research work it can be concluded that maximum number of the respondents (62.50 per cent) had good Role performance in Result Demonstrations for White Grub Management in Sugarcane followed by best and poor level of Role Performances.
On the basis of categories wise role performance, it was found that most of the respondents always participated in organizing, coordinating, motivating other farmers but poor in planning of Result Demonstrations.

Recommendation
As role performed by farmers in Result Demonstrations was good, so that, it is need to improve their participation interest in Agricultural extension programmes it can be achieved by extension personnel from various sector viz. State Department of Agricultural, Krishi Vigyan Kendras by providing the literature, audio, video material and should organize training cum brain storming programme in consultation with State Agriculture University.

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