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# Constraints faced by beneficiary farmers in 'crop pest surveillance and advisory project' and suggestions to overcome the constraints

#### Nand Sagar, SR Jakkawad and ND Deshmukh

#### **Abstract**

The present study was confined to Parbhani District from Marathwada region of Maharashtra state. From Parbhani district Parbhani and Manwat blocks were selected purposively based on maximum number of beneficiaries under 'Crop Pest Surveillance and Advisory Project'. From two selected blocks, ten villages (five from each block) were selected randomly based on number of beneficiaries under 'Crop Pest Surveillance and Advisory Project'. From the each selected villages, six beneficiaries and six nonbeneficiaries were selected randomly. Thus, a total of 60 beneficiaries and 60 non-beneficiaries were selected total to the 120 respondents. The data were collected through personal interview method with the help of interview schedule. It is concluded that in the constraints, majority (90.00%) of the beneficiary farmers reported that, lack of reply facility to massages provided through CROPSAP was ranked first among all the constraints followed by lack of proper categorization of farmers according to their needs (83.33%) was ranked second, irregularity in delivering weather advisory services (41.67%) was ranked third and non-availability of plant protection measures in time (38.33%) ranked fourth. Whereas, complex information delivered through SMS (35.00%) was ranked fifth, network and internet connectivity problems (31.67%) ranked sixth and unaware about benefits of advisory SMS (11.67%) was seventh. All the above constraints were hindering the impact of Crop Pest Surveillance and Advisory Project in Parbhani district and in the suggestions, majority (90.00%) of the beneficiary farmers suggested that, provide feedback facility and it was ranked first among all the suggestions followed by provide particular massage according to need of farmers (75.00%) was ranked second, visit of Extension Personnel should be organized on regular basis (56.67%) was ranked third and make SMS simple to understand (45.00%) ranked fourth. Whereas, provide plant protection measures related text on time (41.67%) was ranked fifth, improve network and internet connectivity in villages (35.00%) ranked sixth and Provide accurate and timely weather advisory (31.67%) was seventh.

Keywords: Constraints, crop pest surveillance & advisory project, suggestions

### 1. Introduction

The State Agriculture Department, Maharashtra is the CROPSAP implementation authority with the funding through RKVY of Central Government till 2012 followed by Government of Maharashtra from 2013 till date. Nearly 44000 villages across 348 talukas of 34 districts from eight divisions of Maharashtra are being covered under this programme.

# 1.1 Objectives of CROPSAP

- Implementation of scientific pest surveillance approach for pest management Use of ICT for real time monitoring and management of target pests on chosen crops Mass awareness creation among field functionaries and farmers on IPM
- Pest status based hot-spot identification and issue of timely advisories
- Guidance for management of pests of selected crops by issuing appropriate advisories (village boards/short message services (SMS)/print media) to the farmers
- Ensuring timely availability of critical inputs with subsidy for pest management to keep the pest populations below economic threshold levels (ETL)

#### 1.2 Salient features of CROPSAP

- E-pest surveillance and digital delivery of pest management advisories.
- Awareness creation among farmers.
- Implementation of IPM including the supply of critical inputs.

Surveillance of crops to detect early signs of buildup of pests and diseases is crucial for the Success of IPM. For timely and effective intervention in the face of an emerging pest/diseases situation, it is necessary for the surveillance data to be interpreted by technical experts and advisories issued in real time. Delay in issuing an advisory could lead to breaches of the economic threshold level of the pest leading to loss in production and quality.

State Department of Agriculture, Maharashtra has piloted State level e-pest Surveillance through 'Crop Pest Surveillance and Advisory Project' since 2009 involving extension functionaries and farmers with the help of institutions of Indian Council of Agricultural Research and State Agricultural Universities of Maharashtra that reduced the lead time between surveillance and pest management interventions. Awareness creation amongst and systematic surveillance structured pest implementation of pest management at farmer fields are the focal points involving tools of ICT. Implemented from 2009, the 'Crop Pest Surveillance and Advisory Project' has not only resulted in monetary dividends to the growers of cotton, soybean, rice, pigeon pea and chickpea but also led to no pest outbreaks across the state. 'Crop Pest Surveillance and Advisory Project' work as bridge between research and extension mechanism. The findings of the study would be helpful to understand the constraints faced by beneficiary farmers in 'Crop Pest Surveillance and Advisory Project' and their suggestions to overcome the constraints at grass root level and also provide useful guidelines for effective and efficient changes in technology for the policy maker, administrators, researcher, developing agencies and extension functionaries for the whole system of 'Crop Pest Surveillance and Advisory Project' which could be beneficial and suited to farmers. With this background the present investigation carried out with the following specific objectives given here under;

- 1. To study the constraints faced by beneficiary farmers in 'Crop Pest Surveillance and Advisory Project'.
- 2. To invite suggestions from the farmers to overcome the constraints of 'Crop Pest Surveillance and Advisory Project'.

# 2. Methodology

The present study was confined to Parbhani District from Marathwada region of Maharashtra state. From Parbhani district Parbhani and Manwat blocks were selected purposively based on maximum number of beneficiaries under 'Crop Pest Surveillance and Advisory Project'. From two selected blocks, ten villages (five from each block) were selected randomly based on number of beneficiaries under 'Crop Pest Surveillance and Advisory Project'. From the each selected villages, six beneficiaries and six non-beneficiaries were selected randomly. Thus, a total of 60 beneficiaries and 60 non-beneficiaries were selected total to the 120 respondents. The data were collected through personal interview method with the help of interview schedule. The data were tabulated and subjected to statistical analysis and interpretation.

## 3. Findings

# A. Constraints faced by beneficiary farmers of Crop Pest Surveillance and Advisory Project:

The findings of the study are given below, multiple responses

were taken to ascertain the problems faced by the beneficiary farmers of CROPSAP those are given as shown in Table 1.

Table 1: Constraints faced by beneficiary farmers of CROPSAP

N = 60

| Sr.<br>No. | Constraints   | Frequency | Per<br>cent | Rank |  |
|------------|---|-----------|-------------|------|--|
| 1          | Lack of reply facility to massages provided through CROPSAP       | 54        | 90.00       | I    |  |
| 2          | Lack of proper categorization of farmers according to their needs | 50        | 83.33       | II   |  |
| 3          | Non-availability of plant protection measures in time             | 23        | 38.33       | IV   |  |
| 4          | Complex information delivered through SMS                         | 21        | 35.00       | V    |  |
| 5          | Unaware about benefits of SMS advisory                            | 7         | 11.67       | VII  |  |
| 6          | Irregularity in delivering weather advisory services              | 25        | 41.67       | III  |  |
| 7          | Network and connectivity problems                                 | 19        | 31.67       | VI   |  |

In the constraints, majority (90.00%) of the beneficiary farmers reported that, lack of reply facility to massages provided through CROPSAP was ranked first among all the constraints followed by lack of proper categorization of farmers according to their needs (83.33%) was ranked second, irregularity in delivering weather advisory services (41.67%) was ranked third and non-availability of plant protection measures in time (38.33%) ranked fourth. Whereas, complex information delivered through SMS (35.00%) was ranked fifth, network and internet connectivity problems (31.67%) ranked sixth and unaware about benefits of advisory SMS (11.67%) was seventh constraint.

All the above said constraints were hindering the impact of Crop Pest Surveillance and Advisory Project in Parbhani district.

Similar finding were reported by Bhosale (2014) <sup>[2]</sup>, Adsul (2016) <sup>[1]</sup> and Chavhan (2019) <sup>[3]</sup> and the results of the study are in contradictory with Ramesh Rao (2009) <sup>[4]</sup> and Todmal (2013) <sup>[5]</sup>.

**B.** Suggestion by the farmers to overcome the constraints in Crop Pest Surveillance and Advisory Project: The suggestions given by beneficiary farmers of Crop Pest Surveillance and Advisory Project to overcome constraints presented in table 2.

**Table 2:** Suggestion by the farmers to overcome the constraints in CROPSAP

N=60

| Sr.<br>No | Suggestions  | Frequency | Per<br>cent | Rank |
|-----------|--|-----------|-------------|------|
| 1         | Provide feedback facility.   | 54        | 90.00       | I    |
| 2         | Provide particular massage according to need of farmers.           | 45        | 75.00       | II   |
| 3         | Provide plant protection measures related text on time.            | 25        | 41.67       | V    |
| 4         | Make SMS simple to understand.                                     | 27        | 45.00       | IV   |
| 5         | Visit of Extension Personnel should be organized on regular basis. | 34        | 56.67       | III  |
| 6         | Provide accurate and timely weather Advisory                       | 19        | 31.67       | VII  |
| 7         | Improve network and internet connectivity in villages              | 21        | 35.00       | VI   |

In the suggestions, majority (90.00%) of the beneficiary farmers suggested that, provide feedback facility was ranked first among all the suggestions followed by provide particular massage according to need of farmers (75.00%) was ranked second, visit of extension personnel should be on regular basis. (56.67%) was ranked third and make SMS simple to understand (45.00%) ranked fourth. Whereas, provide plant protection measures related text on time (41.67%) was ranked fifth, improve network and internet connectivity in villages (35.00%) ranked sixth and provide accurate and timely weather advisory (31.67%) was seventh suggestion.

These findings are similar with the findings of Adsul (2016)  $^{[1]}$  and Chavhan (2019)  $^{[3]}$ .

#### 4. Conclusions

- 1. In the constraints, majority (90.00%) of the beneficiary farmers reported that, lack of reply facility to massages provided through CROPSAP was ranked first among all the constraints followed by lack of proper categorization of farmers according to their needs (83.33%) was ranked second, irregularity in delivering weather advisory services (41.67%) was ranked third and non-availability of plant protection measures in time (38.33%) ranked fourth. Whereas, complex information delivered through SMS (35.00%) was ranked fifth, network and internet connectivity problems (31.67%) ranked sixth and unaware about benefits of advisory SMS (11.67%) was seventh. All the above constraints were hindering the impact of Crop Pest Surveillance and Advisory Project in Parbhani district.
- 2. In the suggestions, majority (90.00%) of the beneficiary farmers suggested that, provide feedback facility and it was ranked first among all the suggestions followed by provide particular massage according to need of farmers (75.00%) was ranked second; visit of extension personnel should be organized on regular basis (56.67%) was ranked third and make SMS simple to understand (45.00%) ranked fourth. Whereas, provide plant protection measures related text on time (41.67%) was ranked fifth, improve network and connectivity in villages (35.00%) ranked sixth and provide accurate and timely weather advisory (31.67%) was seventh.

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