Constraints Faced by Rice Growers and Suitable Extension Strategies in Adoption of Rice Production Technologies in Meerut District of Western Uttar Pradesh, India

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Abstract

The study was conducted in district Meerut during 2018 to investigate the constraints faced by rice growers. To this end, primary data was collected through pre-structured interview schedule using a sample of size eighty allocating to four block selected purposively, each comprising four villages selected on the basis of highest production area of rice and 10 farmers selected from each village. Thus total sample size 160 farmers were selected for study. It was observed that the maximum respondent were facing lack of knowledge about micro nutrients, it was ranked in first followed by lack of knowledge about bio-fertilizer and least constraints untimely availability of electricity faced by rice growers. Suitable extension strategies for promotion of rice productionGovt should increase the information center near farmers community, the Govt. Should be reduces cost of fertilizers, chemical, new seeds and irrigation charges show farmers should be more adopted in new technique so rice production will be increase and the extension personnel should be proper visit at farmer’s field and provide adequate & timely information to the farmers and solve their problems on the spot.

Key words: Rice growers, Constraints and suitable extension strategies.

Introduction

Rice (Oryza Sativa) is the most important cereal crop of Uttar Pradesh and India. India is an important centre of rice production. The rice is produced on the largest areas in India. It is usually grown as an annual plant, but in the tropics it can be grown as a perennial. Rice generally prefers a warm or tropical climate, with heavy rainfall. But if irrigation facility available, rice could also be grown in drought prone areas or during dry season. Rice is usually a self-pollinating crop, but cross pollination through wind is possible. Rice is individual and primary source of food of the half population of world. A total of 49% calories consumed by the human population come from wheat, maize and rice where 17% are provided by wheat, 9% by maize and 23% are provided by rice (Subudhi et al., 2006). The area production of rice in India 43.79 million hectare, the production of rice is 112.91 million tones and the
productivity is about 2578 kg/ha. Rice having cultivated in almost all the states in the India however the 5 major states in rice production are West Bengal, Uttar Pradesh, A.P., Punjab and Tamil Nadu. The west Bengal produces 15 percent of total quantity of rice produced in the country. The production of rice in Uttar Pradesh 13.27 million tonnes, area 5.81 million hectare and productivity 2283 kg/h. (Directorate of Economics & Statistics, DAC&FW-2018).

Methods and material

The study was conducted in Meerut District of Western Uttar Pradesh during year 2017-18. Meerut district comprise of 12 blocks in which four blocks namely Sardhana, Sarurpur, Parikshitgarh and Hastinapur were purposively selected. Four villages from each block were purposively selected and 160 rice growers were selected from all villages. Thus total sample size was of 160. The sample was collected through personal pre-structured interview Schedule. The constraints related to rice farmers respect of adoption of improved production technologies were studying and computing constraints score. Simple comparison has been done on the basis of percentage of the constraints faced by the rice growers. Data were summarized analysed in terms of mean percentage score and rank order. The following formula was used to calculate the percentage-

\[
\text{Percentage} = \frac{\text{Frequency}}{\text{Number of Respondents}} \times 100
\]

Result and Discussion

Table: Frequency and percentage distribution of respondents’ according to various constraints of rice growers.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Constraints</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lack of knowledge about improved high yielding varieties</td>
<td>102</td>
<td>63.75</td>
<td>X</td>
</tr>
<tr>
<td>2.</td>
<td>Lack of knowledge about plant protection measure</td>
<td>129</td>
<td>80.62</td>
<td>IV</td>
</tr>
<tr>
<td>3.</td>
<td>Unavailability of critical inputs in government’s sales centers</td>
<td>92</td>
<td>57.5</td>
<td>XII</td>
</tr>
<tr>
<td>4.</td>
<td>Lack of knowledge about quality seeds and chemicals</td>
<td>75</td>
<td>46.87</td>
<td>XVI</td>
</tr>
</tbody>
</table>
The data presented in the above table revealed that maximum rice growers had lack of knowledge about micro nutrients in rice crop, it was ranked first. The findings revealed that majority of the respondents lack of knowledge about bio-fertilizer ranked second followed by high prices of new chemicals, lack of knowledge about plant protection measure and low price of produce in the market ranked third, fourth and fifth respectively. Reported that the lack of knowledge about balance fertilizer is ranked sixth followed by government tube well are not proper functioning, high prices of new seeds, high irrigation charges and lack of knowledge about improved high yielding varieties was ranked seventh, eighth, nine and tenth respectively. The result revealed that majority of the respondents faced the problems high cost of fertilizer, it was ranked eleventh followed by unavailability of critical inputs in government sale centers, poor roads and transports facilities, unavailability of organic manure ranked was twelfth, thirteen and fourteen respectively. The result revealed that least constraints faced by rice farmers was less number of information centers followed by lack of knowledge about quality seeds and chemicals and untimely availability of electricity was ranked fifteen, sixteen and seventeen respectively. It was found that there were positive significant correlations between the variables: experience in familiarity with agricultural extension services, rate of paddy farmers' participation in extension-educational courses, FFS programs and as well the number of extension contacts and the variable of: adoption of IPM technology among the paddy farmers by Borkhani, F. R. et al 2013.

Suitable extension strategies for removal of constraints in adoption of basmati rice production technologies.

1. Create knowledge and awareness about improved rice production technology for rice growers through trainings, meetings, demonstrations and media exposure on different aspects of rice production technology in the study area.
2. The Govt. Should be reduces the cost of chemicals & fertilizers, new seeds and irrigation charges so farmers should be more adopted of new production technique so rice production will be increase.

3. Government regional research station, SAUs, KVKs, NGOs and line department provide timely information to the rice growers through on and off campus training on all aspects of rice production technology.

4. Provide regular & timely electricity in rural areas for reasonable irrigation of rice to increase the production of rice.

5. Promoting Integrated Pest Management Practices for effective control of weeds, pests and diseases by emphasizing the need based application of pesticides for quality rice production sustain soil health and save environment.

   The extension personnel should be timely visit at farmers’ fields to provide timely and adequate information to farmers and solve their problems on spot. For the desire impacts better linkages should be within the extension personnel, agriculture department, K.V.Ks., NGOs, line department experts. Investigate the effect of drying air temperature influenced the drying rate significantly by Tabassum and Jindal 1992.

**Conclusion**

It was observed that maximum rice growers faced input related problems like high price of seeds and chemicals and less aware about the balance dose of micro nutrient & fertilizer and farmers have very less information about new package and practices of rice production. Hence it is suggested to government provide timely technical training & information about new package and practices of rice production technology.

**Reference**


