



# Problems Faced by the Farmers in Adoption of Improved Rice Technology in Khowai District of Tripura

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### ABSTRACT

The study to ascertain several problems faced by the farmers in adoption of improved rice technology in Khowai district of Tripura. It was conducted in four purposively selected villages under KVK Khowai district of Tripura with 120 sample size from the adopted villages selected through simple random sampling with equal allocation. Mainly rice is the key crop grown in Tripura state. We can say it is the staple food in Tripura. There are several problems enumerated by the farmers during adoption of latest recommended agricultural technologies in rice cultivation. Inadequate availability of quality seed at proper time, Lack of knowledge about scientific cropping pattern and cropping system and their method of application, Non-availability of improved implements and other critical inputs such as FYM/organic fertilizers, Low price of product in local market were the major problems faced by the respondents while adopting the recommended practices in their rice cultivation. The findings will be of use for the official of the State Department of Agriculture, researcher, Krishi Vigyan Kendra of Khowai district and policymakers to plan and revise the extension programmes so as to eliminate the problems of rice farmers in order to amplify the adoption of recommended rice cultivation practices at farm level. Strong extension network for effective transfer of latest technologies, Improvement of credit and market facilities and crop insurance were the important suggestion made by the farmers to solve the problems related to rice cultivation.

## 1. Introduction

Rice is the most important and extensively grown food crop in India and it is the staple food for more than half of the world population. The main agricultural crops grown in the State of Tripura are paddy, maize, wheat, pulses, oilseeds, jute and mesta. The demand for food grains in Tripura is projected at 8.79 lakh tons for the year 2014-15. Rice continues to hold the key to sustained food security in the State. Rice alone contributes 96 per cent to the total food grain production target and will require a productivity level of 2863 kg/ha in 2013-14, which is significantly greater than the present average yield of 2800 kg/ha.

The yield level of rice which is comparatively low at present need to be increased substantially. Higher rice production can be achieved by adoption of all the recommended technologies by large number of farmers. In general, recommended rice technologies are not accepted by all the farmers at a time and also to full extent. In this context the study was conducted with the objective to study the problems faced by the farmers in the adoption of improved rice cultivation technologies.

## 2. Methodology

The study was conducted during 2017-18 at Purba Ramchandraghat, Paschimganki, East Sonatala and North Chebri villages of Khowai district of Tripura which were selected purposively. A sample of 120 rice growing farmers was drawn using simple random sampling technique with

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equal allocation. Personal interviews were conducted using a pre tested structured interview schedule.

### 3. Results and Discussion

#### 3.1 Problems faced by the respondents

In the present study constraints refers to the limitation or hindrances perceived by the trained farmers in adoption of improved technology in their farming system. An attempt was made to find out the constraints faced by the respondents. The frequency along with the percentage indicating each of the constraints was taken into account. The highest percentage so obtained among the constraints was considered as the most important constraints accordingly. For the present study those constraints which are expressed by more than 50 per cent of the respondents is considered as the major constraints faced by the trained rice grower. Among the various problems identified by the respondents, (Table 1). Inadequate availability of quality seed at proper time (96.67%), Lack of knowledge about scientific cropping pattern and cropping system and their method of application (90.84%), Non-availability of improved implements and other critical inputs such as FYM/organic fertilizers *etc.* (82.50%), Low price of product in local market (87.50%), Lack of storage and marketing facilities (79.16%), Lack of guidelines about seed treatment (75.00%) were considered as the major problems as indicated by its corresponding frequency. The other problems associated were Lack of credit facilities (66.67%), High cost and risk to adopt improved agricultural practices (58.34%), Irregular supply of electric power

(55.00%), Unawareness of various developmental programs of the government (58.34%), Training time was not convenient (60.00%), Lack of self employment opportunities (58.34%), Lack of proper demonstration (62.50%), Lack of transportation facilities (57.50%), Non – availability of subject material at hand (60.00%) respectively.

#### Conclusion

Majority of the farmers showed medium level of overall adoption of recommended technology. Among the various problems identified by the respondents, inadequate availability of quality seed at proper time, Lack of knowledge about scientific cropping pattern and cropping system and their method of application, Non-availability of improved implements and other critical inputs such as FYM/organic fertilizers *etc.* Low price of product in local market, Lack of storage and marketing facilities, Lack of guidelines about seed treatment were considered as the major problems by the respondents. Strong extension network for effective transfer of latest technologies, Improvement of credit and market facilities and crop insurance are required, Organizing as many as awareness and training programme towards improved practices covering more village in the district. To encourage the integrated pest management approach for effective control of pests and diseases by emphasizing the need based application of pesticides were the suggestion made by the farmers to solve the problems related to rice cultivation. Therefore, it was necessary to intensify the extension efforts to increase their knowledge level and adoption of recommended rice technologies, which would help in increasing the yield of rice at farm level.

**Table 1.** Problems faced by the trained farmers in rice cultivation practices

Sl. No.	Problems	Frequency (f)	Percentage (%)
1.	Inadequate availability of quality seed at proper time	116	96.67
2.	Lack of knowledge about scientific cropping pattern and cropping system and their method of application	109	90.84
3.	Non-availability of improved implements and other critical inputs such as FYM/organic fertilizers <i>etc.</i>	99	82.50
4.	Low price of product in local market	105	87.50
5.	Lack of storage and marketing facilities	95	79.16
6.	Lack of guidelines about seed treatment	90	75.00
7.	Lack of credit facilities	80	66.67
8.	High cost and risk to adopt improved agricultural practices	70	58.34
9.	Irregular supply of electric power	66	55.00
10.	Lack of transportation facilities	69	57.56
11.	Non – availability of subject material at hand.	72	60.00
12.	Unawareness of various developmental programs of the government	70	58.34
13.	Training time was not convenient	72	60.00
14.	Lack of self employment opportunities	70	58.34
15.	Lack of proper demonstration	75	62.50

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