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To Find out the Constraints Faced by Respondents in Adoption of Integrated Disease Management Practices and Seeking their Suggestion to Mitigate Constraints of Rice Crop in Lailunga Block of Raigarh District (Chhattisgarh)

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ABSTRACT

A study on Adoption of integrated disease management practices in rice crop was conducted in Raigarh district of Chhattisgarh covering one block, six purposively selected villages, and 120 randomly selected respondents to know the adoption of integrated disease management practices of the respondents as well as its associated correlates. The major constraint faced by the respondent's lack of agricultural material in village and lack of fertilizer, seed, tools, and chemicals and the major suggestion as given by the rice crop practices to overcome the constraints are presented as per the higher value of ranked. The majority 57.50 per cent of the Integrated Disease Management Practices in Rice crop suggested that Proper marketing facility should be available in the area followed by 50.83 per cent suggested that the proper plant protection measure should be given.49.17 per cent suggested that the electricity facility should be available at time. 48.33 per cent suggested that the technical advises and training should be given in time to time. 44.17 per cent suggested that Credit should be available earlier and timely and specialist should be carried on, 40.00 per cent suggested that Timely visit of extension personal, 35.83 per cent suggested that the critical inputs (seed and fertilizer) should be given at low price to the poor and small farmers. 31.67 per cent suggested that availability of fertilizer and other inputs should be in time and 30.00 per cent suggested that Hybrid seed should be available in time respectively.

Key words: *Constraints, Suggestion, Integrated Disease Management, Rice crop.*

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INTRODUCTION

Rice (*Oryza sativa*) is grown in most of the tropical and sub-tropical regions of the world and contributes for the staple food of the millions of people. Rice is the most important cereal crop.

De Candolle and Watt G. thought that South India was the place where cultivated rice originated. Vavillov suggested that India and Myanmar should be regarded as the centers of origin of cultivated rice. According to D. Chatterjee (1948), there are altogether 23 species of genus *Oryza* of which 21 are wild and two viz. *Oryza sativa* and *Oryzaglaberrima* are cultivated. *Oryza sativa* is grown in all rice growing areas, but *oryzaglaberrima* is confined to the West Africa only. Thus, it indicates that there might have been two centers of origin of our cultivated rice; South-Eastern Asia (India, Myanmar and Thailand) and West Africa.

Components of IDM:

Host resistance

Resistance is the character of a plant which suppress pathogen and disease development. The use of resistance genotypes is a highly effective approach to suppress disease to tolerable levels. In resistant genotypes, disease appears late, build-up slowly and results in little damage to the crop.

Biological control

In this method, the pathogen actively is reduced through the use of other living organisms example- hyper- parasites, resulting in a reduction of disease incidence and severity.

Cultural control

Included in this method are such practices as intercropping, crop rotation, field sanitation, manipulation of sowing dates etc.

Chemical control

In IDM programme chemical control implies the limited and need based use of pesticide (fungicides, insecticides, and herbicides). Chemical control is essential in areas where diseases appear in the early stage of plant growth and environmental conditions are likely to spread them.

MATERIAL AND METHODS

The study was conducted in Raigarh district which is situated in South Western part of Chhattisgarh State. The study covered one block, six purposively selected villages, 20 rice growers were selected randomly from each village. Thus, a total of 120 respondents constituted as sample size. Data were collected with the help of pre-structured interview schedule. Collected data were analysed and interpreted in the light of the objective to draw the conclusion.

RESULTS AND DISCUSSION

As per the frequency level of Integrated Disease Management Practices in Rice crop and accordingly the items constraints were Lack of agricultural material in village (ranked I) followed by do you get fertilisers, Seeds and Chemicals timely (ranked II), lake of transportation (ranked III), did Panchayat provide technological information (ranked IV), did RAEO have knowledge well about improved practices of Rice cultivation (ranked V), Information about seed treatments with their dose (ranked VI), Costly Fertiliser, Seed, Tools and Chemicals (ranked VII), did co-operatives provide fertilizers, seeds, tools and machineries (ranked VIII), Information about improved varieties of Rice (ranked IX), Did your field is away from market (ranked X), and lack of fund for buying Fungicides (ranked XI) respectively.

Table 1. Constraints faced by the Integrated Disease Management Practices in Rice crop:

Sr. No.	Constraints	Frequency N=120	Percentage	Rank
1.	Lack of fund for buying Fungicides.	28	23.33	XI
2.	Costly Fertiliser, Seed, Tools and Chemicals.	48	40.00	VII
3.	Do you get fertilisers, Seeds and Chemicals timely?	61	50.83	II
4.	Information about improved varieties of Rice.	35	29.17	IX

5.	Information about seed treatments with their dose.	49	40.83	VI
6.	Lack of agricultural material in village	78	65.00	I
7.	Did RAEO have knowledge well about improved practices of Rice cultivation?	51	42.50	V
8.	Did co-operatives provide fertilizers, seeds, tools and machineries?	38	31.67	VIII
9.	Did your field is away from market.	31	25.83	X
10.	Did you have lake of transportation?	60	50.00	III
11.	Did Panchayat provide technological information	52	43.33	IV

Suggestions for mitigating the constraints

The Integrated Disease Management Practices in Rice crop of study area have suggested for mitigating the constraints and to improve the rice cultivation in the area. These suggestions are presented in table 2.

Table 2. Suggestion perceived by the respondents to overcome the constraints: (N=120)

Sr. No.	Suggestions	Frequency	Percentage	Rank
1.	Proper marketing facility should be available in the area.	69	57.50	I
2.	The proper plant protection measure should be given.	61	50.83	II
3.	Timely visit of extension personal.	48	40.00	VI
4.	Technical advice and training should be given at time.	58	48.33	IV
5.	Availability of fertilizer and other inputs should be in time.	38	31.67	VIII
6.	Credit should be available earlier and timely.	53	44.17	V
7.	The electricity facility should be available at time	59	49.17	III
8.	The critical inputs (seed and fertilizer) should be given at low price to the poor and small farmers	43	35.83	VII
9.	Hybrid seed should be available in time	36	30.00	IX

CONCLUSION

The major constraints faced by the respondents were lack of agricultural material in village, lack of fund for buying fungicides, costly fertilizer, seed, tools and chemicals etc. and the major suggestions given by the respondents are vocational education and training intervention should be provided, proper plant protection measure should be given. In order to develop desired adoption of Integrated Disease Management practices in Rice crop.

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