

A study on the knowledge of farmers regarding transplanting techniques of paddy crop in western Uttar Pradesh

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Abstract

The present study was taken up keeping in view of the importance of paddy crop having a pioneer place in agricultural production in the country. The study was conducted with the specific objectives to critically generalized the level of knowledge of farming community to what extent they have gone to practice the technical guidance recommended by the scientists. The study was conducted in two districts viz. Aligarh and Mathura covering 4 blocks (2 blocks from each district), 8 villages and 225 respondents comprising 75 farmers from small, medium and large groups, respectively. The primary data was collected by personal interview method and processed and analyzed with the help of parametric and non-parametric test. The study concludes that in general, farmers are having fair knowledge regarding transplanting husbandry of paddy crop, however, majority of them are still poor in terms of practical knowledge regarding plant protection and weeding technology.

Key words: Paddy, agriculture production, knowledge, transplanting, husbandry

Introduction

Paddy is the main staple food crop of Uttar Pradesh after wheat crop and in this state, majority of the farmers are small one. It is the staple food of most of the people of South-Eastern Asia. About 90 per cent of all paddy grown in the world is produced and consumed in the Asian region. In India, paddy is the most important and extensively grown food crop, occupying about 40 million hectare of land.

Paddy is the world's leading feed crop. It provides about 22 per cent of world supply of calories and 17 per cent of the proteins. Maximum area under paddy cultivation is in Asia. Among the paddy growing countries, India has the largest area (40.2 million hectares) followed by China and Bangladesh. In India the production of paddy which is 81.7 million tonnes in 1996-97 reaches 100.38 million tonnes in 2006-2007. Contribution of paddy in total food grain production in India in 2006-2007 was 42.85 per cent.

Pradesh shares a significant proportion of the country's total area cultivated under paddy. But the results at the farmers' field have not been encouraged. It is irony that paddy being such an important crop of the state, its yield is so poor. The

low paddy production in U.P. and few other North-Eastern states like Bihar, Orissa, West Bengal and Madhya Pradesh has become not only the problem in these states but also it has bothered much at national level.

Keeping these problems in view, now at present, it is necessary to identify the knowledge of operating against wider adoption of high yielding production technology by the farmers and suggest the ways to overcome them. A multi-disciplinary approach involving agriculture as well as socio-economic aspects are also requires to built the feedback mechanism to enable adoption of effective approaches overcome difficulties in the transfer of technology.

In the present study, the knowledge gap percentage was worked out in paddy cultivation in Aligarh and Mathura districts situated in Western zone of Uttar Pradesh where the conventional technology available with the farmers and high yielding production technology generated by the scientists.

Materials and Methods

The study was carried out in Aligarh and Mathura districts purposively. Out of 15 blocks in Aligarh district and 12 blocks in Mathura district, four blocks (2 blocks from each district) were selected

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through random sampling technique. In all 8 villages (2 villages from each block) were selected through random sampling. In all 225 respondents (75 small, 75 medium and 75 large farmers) were selected by random sampling technique.

The respondents were interviewed with the help of well structured interview schedule specially developed for the purpose of present study. The collected data were coded, classified, tabulated and analyzed with the help of percentage, average and X2 test.

Results and Discussion

The level of knowledge of respondents about transplanting techniques, fertilizer application techniques, irrigation technology, weed control, insect-pest control and harvest and post harvest technology have been described in following tables. In these tables details has been furnished on all the above aspects.

(1) Level of knowledge about age, depth and spacing of seedling :

The knowledge about age, depth and spacing of seedling has been divided in to three categories namely correct, near correct and incorrect. The details are given in Table 1.

Table 1 reveals that majority i.e. 53.35% of large farmers, 46.67% of medium farmers and 42.67% small farmers possessed correct knowledge about age of seedling.

Table 1 also reveals that 46.67%, 42.66% and 40.00% of large, medium and small farmers

respectively possessed near correct knowledge regarding depth of seedling.

Table 1 further reveals that majority i.e. 53.35% of large farmers, 40.00% of medium farmers and 33.35% of small farmers possessed correct knowledge regarding spacing of seedling at the time of transplanting.

Thus the above tables concludes that 47.56%, 43.11% and 42.22% overall respectively possessed correct / near correct knowledge about age of seedling, depth of seedling and spacing of seedling.

(2) Level of knowledge about manure and fertilizer application :

To assess the level of knowledge of respondents about manuring and fertilizer application are given in Table 2.

Level of knowledge regarding manuring technique:

Table 2 reveals that 45.35% large farmers, 57.35% of medium farmers and 53.35% small farmers possessed correct knowledge about manuring techniques.

Table 2 also reveals that majority i.e. 69.35% large farmers, 40.00% medium farmers and 26.67% small farmers respectively possessed correct knowledge about fertilizer dose application.

Table 2 further reveals that majority i.e. 64.00% of large farmers, 42.66%% of medium farmers and 40.00% of small farmers possessed correct / near correct knowledge regarding method of fertilizer application.

Table 1: Level of knowledge about age of seedling, depth of seedling and spacing

S. No.	Level of knowledge	Type of farmers						Total	
		Small		Medium		Large		No.	%
		No.	%	No.	%	No.	%	No.	%
a) Age of seedling									
1.	Correct	32	42.67	35	46.67	40	53.35	107	47.56
2.	Near correct	25	33.33	30	40.00	32	42.66	87	38.67
3.	Incorrect	18	24.00	10	13.33	3	4.00	31	13.77
	Total	75	100.00	75	100.00	75	100.00	225	100.00
b) Depth of seedling									
1.	Correct	22	29.35	27	36.00	32	42.66	81	36.00
2.	Near correct	30	40.00	32	42.66	35	46.67	97	43.11
3.	Incorrect	23	30.66	16	21.35	08	10.67	47	20.89
	Total	75	100.00	75	100.00	75	100.00	225	100.00
c) Spacing									
1.	Correct	25	33.35	30	40.00	40	53.35	95	42.22
2.	Near correct	30	40.00	35	46.66	30	40.00	95	42.22
3.	Incorrect	20	26.66	10	13.35	5	6.66	35	15.56
	Total	75	100.00	75	100.00	75	100.00	225	100.00

Table 2: Level of knowledge about manuring techniques, fertilizer dose application, and method of fertilizers application

S. No.	Level of knowledge	Type of farmers							
		Small		Medium		Large		Total	
		No.	%	No.	%	No.	%	No.	%
a) Manuring techniques									
1.	Correct	40	53.35	43	57.35	34	45.35	117	52.00
2.	Near correct	26	34.66	30	40.00	31	41.33	87	38.66
3.	Incorrect	9	12.00	2	2.66	10	13.33	21	9.34
	Total	75	100.00	75	100.00	75	100.00	225	100.00
b) Fertilizer dose application									
1.	Correct	20	26.67	30	40.00	52	69.35	102	45.34
2.	Near correct	25	33.33	35	46.67	20	26.66	80	35.55
3.	Incorrect	30	40.00	10	13.33	3	4.00	43	19.11
	Total	75	100.00	75	100.00	75	100.00	225	100.00
c) method of fertilizers application									
1.	Correct	10	13.34	25	33.34	48	64.00	83	36.89
2.	Near correct	30	40.00	32	42.66	25	33.34	87	38.66
3.	Incorrect	35	46.66	18	24.00	2	2.66	55	24.45
	Total	75	100.00	75	100.00	75	100.00	225	100.00

Table 3: Level of knowledge about irrigation technology

S. No.	Level of knowledge	Type of farmers							
		Small		Medium		Large		Total	
		No.	%	No.	%	No.	%	No.	%
1.	Correct	30	40.00	40	53.34	60	80.00	130	57.78
2.	Near correct	30	40.00	33	44.00	13	17.34	76	33.77
3.	Incorrect	15	20.00	2	2.60	2	2.60	19	8.45
	Total	75	100.00	75	100.00	75	100.00	225	100.00

Thus the above tables concludes that 52.00%, 45.34% and 38,66% of large, medium and small farmers overall possessed correct / near correct knowledge about manuring technique, fertilizer dose application and method of fertilizer application.

Level of knowledge regarding irrigation technology :

The details regarding level of knowledge about irrigation technology is given in Table 3.

Table 3 reveals that majority i.e. 80.00% of large farmers, 53.34% of medium farmers and 40.00% small farmers possessed correct knowledge about irrigation technology.

Thus the above tables concludes that 57.78% farmers of all categories overall possessed correct knowledge about irrigation technology.

(4) Level of knowledge of farmers about weed and insect-pest control :

The details of level of knowledge of

respondents about weed and insect- pest control are being presented in Table 4.

Table 4 reveals that majority i.e. 56.00% of large farmers, 40.00% of medium farmers and only 13.34% small farmers possessed correct knowledge about weed control.

Table 4 further reveals that 48.00%, 30.66% and 13.34% of large, medium and small farmers respectively possessed correct knowledge about insect-pest control.

(5) Level of knowledge about harvest and post-harvest technology :

The knowledge about harvest and post-harvest technology plays a great role in production of any crop. The details regarding the same aspect is being presented in Table 5.

Table 5 reveals that majority i.e. 73.34% of large farmers, 66.66% of medium farmers and 66.67

Table 4: Level of knowledge about weed control and insect-pest control

S. No.	Level of knowledge	Type of farmers							
		Small		Medium		Large		Total	
		No.	%	No.	%	No.	%	No.	%
a) Weed control									
1.	Correct	10	13.34	30	40.00	42	56.00	82	36.45
2.	Near correct	25	33.33	30	40.00	28	37.34	83	36.89
3.	Incorrect	40	53.33	15	20.00	05	6.66	60	26.66
	Total	75	100.00	75	100.00	75	100.00	225	100.00
b) insect-pest control									
1.	Correct	10	13.34	23	30.66	36	48.00	69	30.67
2.	Near correct	27	36.00	27	36.00	26	34.66	80	35.55
3.	Incorrect	45	60.00	22	29.33	20	26.66	87	38.67
	Total	75	100.00	75	100.00	75	100.00	225	100.00

Table 5 (a) : Level of knowledge about harvest technology and post harvest technology arrange the farmers

S. No.	Level of knowledge	Type of farmers							
		Small		Medium		Large		Total	
		No.	%	No.	%	No.	%	No.	%
a) Harvest technology									
1.	Correct	50	66.67	50	66.66	55	73.34	155	68.89
2.	Near correct	17	22.66	20	26.67	18	24.00	55	24.45
3.	Incorrect	8	10.67	5	6.67	2	2.66	15	6.66
	Total	75	100.00	75	100.00	75	100.00	225	100.00
b) Post harvest technology									
1.	Correct	20	26.67	25	33.34	30	40.00	75	33.33
2.	Near correct	25	33.33	27	36.00	27	36.00	79	35.11
3.	Incorrect	30	40.00	23	30.66	18	24.00	71	31.56
	Total	75	100.00	75	100.00	75	100.00	225	100.00

% small farmers possessed correct knowledge about harvest technology and 40.00% large farmers, 33.34% medium farmers and 26.67% small farmers possessed correct knowledge about post-harvest technology. thus it can be concluded that large farmers have better knowledge of harvest and post harvest technology. while the small farmers have low knowledge regarding such technology. Thus there is need to create awareness regarding different technology among small farmers.

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