



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2021; SP-10(11): 154-157
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www.thepharmajournal.com
Received: 13-09-2021
Accepted: 15-10-2021

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Impact of farmers field school on knowledge and adoption of rice cultivation practices by the beneficiaries in Ratnagiri district

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Abstract

This study was conducted in Dapoli, Mandangad and Khed tahasils of Ratnagiri district of Konkan region. The sample constituted of 120 i.e., 60 beneficiaries and 60 non-beneficiaries' farmers from 12 villages. The respondents were interviewed with the help of specially designed schedule. Collected data was classified, tabulated, and analyzed by using statistical method. In case of beneficiaries, it was observed that majority of the respondents belong to 'Middle' age group. Maximum number of the respondents had education up to primary school level. Majority of the respondents had medium farm size. Majority of the respondents had 'medium' experience in rice cultivation. Half of the respondents had 'high' level of scientific orientation. Majority of the respondents had 'medium' level of extension contact. Majority of the respondents had 'high' level of mass media exposure. Majority of the respondents had 'medium' level of innovativeness. Half of the respondents had 'high' level of FFS trainings received. In case of non-beneficiaries, majority of respondents were 'medium' aged with pre-primary school education (28.33 per cent), had 'medium' farm size more than half, 'medium' farming experience, 'low' scientific orientation, 'medium' extension contact, 'low' mass media exposure and 'low' innovativeness. The study showed that majority (88.33 per cent) of the beneficiary farmers had 'high' level of knowledge, whereas majority (71.67 per cent) of the non-beneficiary farmers had low level of knowledge. Majority (60.00 per cent) of the beneficiaries had 'high' adoption of recommended rice cultivation practices, whereas majority (73.34 per cent) of non-beneficiaries also had 'low' adoption of recommended rice cultivation practices.

Keywords: farmer field school, knowledge, adoption, beneficiaries, non-beneficiaries

Introduction

The Farmer Field School (FFS) approach is based on the idea that the best learning comes from experience, and in the case of farmers, from field observations. The FFS combines ecology and non-formal education to enable farmers to learn more about their crops, share their experiences, and learn from one another. Farmer Field School (FFS) is based on "learning by doing" to motivate communities and increase their capacity for making informed decisions. It gives farmers a place to share their experiences and expertise to enhance their existing methods through experiential learning processes that lead to sustainable agriculture development. Through a discovery-based approach, farmers are given the ability to choose their production methods. It's a "school without walls" made up of groups of farmers who get together regularly during the growing season to try out new production methods as a group. FFS seeks to improve groups of farmers' abilities to test emerging innovations in their fields, evaluate the findings, and determine their suitability to their specific circumstances. They engage with researchers and extension staff on a more demand-driven basis, and they seek assistance in most situations when they are unable to solve a particular problem themselves. In general, the FFS aims to provide farmers with the information and skills that will enable them to become experts in their fields; to improve farmers' ability to make important and educated decisions that will make their farming productive and sustainable; to educate farmers about new ways of thinking and problem solving, and to assist farmers in learning how to organize themselves and their communities. As a result, a farmer field school is a process rather than a goal.

Objective

- To study the selected characteristics of the beneficiaries and non-beneficiaries of Farmers Field School on Rice.

- To study the knowledge level and adoption behaviour of rice beneficiaries and non-beneficiaries of Farmers Field School.

Methodology

The study was purposively conducted in Ratnagiri district of the Konkan region of Maharashtra state. Three tahsils from Ratnagiri district were identified for investigation because the large numbers of beneficiary farmers who provide large area under rice crop were present in these tahsils. On the basis of participation of villagers in Rice Farmers Field School four villages were selected from each tahsil on random basis and thus, the total twelve villages were selected. A total of 120 rice farmers were considered as respondents for present study.

The respondents were interviewed with the help of specially designed schedule. Collected data was classified, tabulated, and analyzed by using statistical method. The Ex-post facto research design was used for the present study. The 'personal interview' method was used to collect field data in an informal setting. The respondents' data were scored, tabulated, and analyzed using appropriate statistical techniques such as frequency, percentage, mean, and standard deviation.

Result and Discussion

The data in respect of the selected personal and socio-economic profile characteristics of the rice beneficiaries and non-beneficiaries of Farmers Field School are presented and discussed in Table 1.

Table 1: Distribution of the respondents according to selected personal and socio-economic profile characteristics of the rice beneficiaries and non-beneficiaries of Farmers Field School

Sl. No	Characteristics	Beneficiaries %	Non-beneficiaries %
1.	Age		
	Young (Up to 36)	11.67	25.00
	Middle (37 to 62)	73.33	56.67
	Old (63 and above)	15.00	18.33
2.	Education		
	Illiterate	5.00	6.67
	Pre-Primary School	20.00	28.33
	Primary School	36.67	23.33
	Secondary School	28.33	26.67
	Higher secondary	08.33	15.00
	Graduate	01.67	00.00
3.	Farm Size		
	Small	21.67	23.33
	Medium	65.00	65.00
	Large	13.33	11.67
4.	Farming Experience		
	Low	13.33	21.66
	Medium	70.00	56.67
	High	16.67	21.67
5.	Mass Media Exposure		
	Low	33.33	68.33
	Medium	18.33	16.67
	High	48.34	15.00
6.	Extension contact		
	Low	16.67	31.67
	Medium	68.33	58.33
	High	15.00	10.00
7.	Scientific Orientation		
	Low	01.67	46.67
	Medium	48.33	20.00
	High	50.00	33.33
8.	Innovativeness		
	Low	08.33	50.00
	Medium	55.00	28.33
	High	36.67	21.67
9.	FFS Training received		
	Low	33.33	-
	Medium	16.67	-
	High	50.00	-
10.	Knowledge		
	Low	00.00	71.67
	Medium	11.67	25.00
	High	88.33	03.33

In case of beneficiaries, it was observed that majority (73.33 per cent) of the respondents belong to 'Middle' age group, while 15.00 per cent of the respondents were in the 'old' age group and 11.67 per cent of them were in 'young' age group

in case of beneficiaries. Whereas, majority (56.67 per cent) of the respondents were in the 'middle' age group, while 18.33 per cent of the respondents were in the 'old' age group and 25.00 per cent of them were in 'young' age group in case of

non-beneficiaries. Maximum number 36.67 per cent of the respondents had education up to primary school level followed by secondary school (28.33 per cent), pre-primary school (20.00 per cent), higher secondary (8.33 per cent) and graduates (1.67 per cent) in case of beneficiaries. Whereas, in case of non-beneficiaries 28.33 per cent of respondents were educated up to pre-primary school level followed by secondary school (26.67 per cent), primary school (23.33 per cent), higher secondary (15.00 per cent) and higher secondary (8.33 per cent).

Majority (65.00 per cent) of the respondents had medium farm size, followed by 'small' (21.67 per cent), while 13.33 per cent of the beneficiaries had 'large' area under rice in case of beneficiaries. Whereas, in case of 'non-beneficiaries' majority (65.00 per cent) of the respondents were in the 'medium' area under rice, followed by 'small' (23.33 per cent), while 11.67 per cent of the non-beneficiaries had 'large' area under rice.

Majority of (70.00 per cent) of the respondents had 'medium' experience followed by 'high' (16.67 per cent) and 'low' level of experience (13.33 per cent) in case of beneficiaries. Whereas, in case of 'non-beneficiaries' majority (56.67 per cent) of the respondents were in the 'medium' level of farming experience, followed by each 'low' (21.66 per cent) and 'high' (21.67 per cent) in rice cultivation.

Majority (48.34 per cent) of the respondents had 'high' level of mass media exposure, followed by 'low' (33.33 per cent) and 'medium' level of mass media exposure (18.33 per cent) in case of beneficiaries. Whereas, in case of 'non-beneficiaries' majority (68.33 per cent) of the respondents were in the 'low' level of mass media exposure, followed by 'medium' (16.67 per cent) and 'high' (15.00 per cent). Majority (68.33 per cent) of the respondents had 'medium' level of extension contact, followed by 'low' level (16.67 per cent), while 15.00 per cent of the beneficiaries had 'high' level of extension contact in case of beneficiaries. Whereas in the case of "non-beneficiaries," a majority (58.33 per cent) of

the respondents were in the "medium" level of extension contacts, followed by the "low" level (31.67 per cent) and the "high" level (10.00 per cent).

Half (50.00 per cent) of the respondents had 'high' level of scientific orientation, followed by 'medium' (48.33 per cent) and 'low' (1.67 per cent) in case of beneficiaries. Whereas, in case of 'non-beneficiaries' majority (46.67 per cent) of the respondents were in the 'low' level of scientific orientation, followed by 'high' (33.33 per cent) and 'medium' (20.00 per cent).

Majority (55.00 per cent) of the respondents had 'medium' level of innovativeness, followed by 'high' level (36.67 per cent), while 8.33 per cent of the beneficiaries had 'low' level of innovativeness in case of beneficiaries. Whereas, in case of 'non-beneficiaries' majority (50.00 per cent) of the respondents were in the 'low' level of innovativeness, followed by 'medium' level (28.33 per cent), while 21.67 per cent of the non-beneficiaries had 'high' level of innovativeness.

Half (50.00 per cent) of the respondents had 'high' level of FFS trainings received, followed by 'low' (33.33 per cent) level of the respondents and 'medium' level of FFS training received (16.67 per cent) in case of beneficiaries.

It is seen that in case of beneficiaries 88.33 per cent of the respondents had 'high' level of knowledge and 11.67 per cent of the respondents had 'high' level of knowledge. With respect to non-beneficiaries, 71.67 per cent of the respondents had 'low' knowledge and 25.00 per cent respondents had 'medium' level of knowledge. The respondents with 'high' knowledge level were 3.33 per cent.

Knowledge is supposed to be a prerequisite for action. The degree of knowledge of an individual about any phenomenon decides the magnitude of his action. Majority of respondents under the study had adequate knowledge about improved farm technologies and inputs requirement for different technologies in case of beneficiaries and majority of respondents are under low knowledge level in case of non-beneficiaries.

Table 2: Distribution of the respondents according to their knowledge level

Sl. No.	Knowledge	Beneficiaries (N=60)		Non-beneficiaries (N=60)	
		Frequency	Percentage	Frequency	Percentage
1.	Low	00	00.00	43	71.67
2.	Medium	07	11.67	15	25.00
3.	High	53	88.33	02	3.33
	Total	60	100	60	100
Mean: 37.50				S.D.: 11.89	

It is concluded that in case of beneficiaries 88.33 per cent of the respondents had 'high' level of knowledge and 11.67 per cent of the respondents had 'high' level of knowledge. With respect to non-beneficiaries, 71.67 per cent of the respondents

had 'low' knowledge and 25.00 per cent respondents had 'medium' level of knowledge. The respondents with 'high' knowledge level were 3.33 per cent.

Table 3: Distribution of the respondents according to their overall adoption level

Sl. No.	Adoption	Beneficiaries (N=60)		Non-beneficiaries (N=60)	
		Frequency	Percentage	Frequency	Percentage
1.	Low	00	00.00	44	73.34
2.	Medium	24	40.00	14	23.33
3.	High	36	60.00	02	3.33
	Total	60	100	60	100
Mean: 48.00				S.D.: 17.00	

It is concluded that in case of beneficiaries 60.00 per cent of the respondents had 'high' adoption level, while 40.00 per cent respondents had 'medium' adoption improved rice

cultivation practices taught in FFS. Among the non-beneficiaries 73.34 per cent of the respondents had 'low' adoption level, while 23.33 per cent respondents had

'medium' adoption level and with 'high' adoption level were only 3.33 per cent.

The finding led to the conclusion that a majority of the respondents had high adoption of the recommended rice cultivation practices. It is obvious from these findings that there is tremendous scope for increasing adoption of the rice cultivation practices. It is a challenge before the extension organization which they will have to meet through their dynamic extension education programmes. Such programmes should support by an efficient extension service and input supply. These activities would lead in increasing both rate and level of adoption of recommended rice cultivation practices.

Conclusion

In case of beneficiaries, it was observed that majority (73.33 per cent) of the respondents belong to 'Middle' age group. Maximum number 36.67 per cent of the respondents had education up to primary school level. Majority (65.00 per cent) of the respondents had medium farm size. Majority of (70.00 per cent) of the respondents had 'medium' experience in rice cultivation. Half (50.00 per cent) of the respondents had 'high' level of scientific orientation. Majority (68.33 per cent) of the respondents had 'medium' level of extension contact. Majority (48.34 per cent) of the respondents had 'high' level of mass media exposure. Majority (55.00 per cent) of the respondents had 'medium' level of innovativeness. Half (50.00 per cent) of the respondents had 'high' level of FFS trainings received. In case of non-beneficiaries, majority of respondents were 'medium' aged (56.67 per cent) with pre-primary school education (28.33 per cent), had 'medium' farm size more than half (65.00 per cent), 'medium' farming experience (56.67 per cent), 'low' scientific orientation (46.67 per cent), 'medium' extension contact (58.33 per cent), 'low' mass media exposure (68.33 per cent) and 'low' innovativeness (50.00 per cent). It is revealed that majority (88.33 per cent) of the beneficiary farmers had 'high' level of knowledge, whereas majority (71.67 per cent) of the non-beneficiary farmers had low level of knowledge. Majority (60.00 per cent) of the beneficiaries had 'high' adoption of recommended rice cultivation practices, whereas majority (73.34 per cent) of non-beneficiaries also had 'low' adoption of recommended rice cultivation practices.

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