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Adoption of Recommended Practices Disseminated through Agricultural Polyclinics

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A B S T R A C T

The present study was conducted in Parbhani, Nanded and Osmanabad districts of Maharashtra state with specific objectives; to study the extent of adoption of recommended practices disseminated through Agricultural Polyclinics among the respondents. Total 150 beneficiary respondents were interviewed for the study. It was observed that majority of the respondents (65.34 %) had medium level of overall adoption. Out of fifteen recommended extension activities / practices extended through Agricultural Polyclinic, only one activity i.e. utilization of their possessed land for cultivation was adopted by all the respondents. Other seven Agricultural Polyclinic activities / practices were adopted by majority of the respondents. The variables namely benefits availed, knowledge, risk orientation, annual income, economic motivation, land holding, education, attitude, extension contact and social participation were positively and significantly related with adoption of activities/practices extended through Agricultural Polyclinics.

Introduction

In the national perspective, agriculture should develop into an effective instrument for creating income, employment and food availability. These triple goals could be achieved if we generate and disseminate the agricultural technologies that are relevant to the end users. Farming is largely depends upon vagaries of monsoon in Maharashtra. The most outstanding feature of agriculture in Maharashtra is the large semi-arid tropics area with erratic rains causing dwindling in the production, most often small landholders, who constitute large majority, are worst affected during adverse monsoon. Mitigating such

situation and increasing yield per hectare implies the shift from traditional methods of production to new scientific methods that include new technological components such as, new varieties, cultural practices and new farming system.

Technology development and technology transfer are the two crucial processes in agricultural development and socio-economic upliftment of the farming community.

There is a large section of farming community, which is still unaware of technological development in the field of agriculture in Maharashtra state. In order to able to compete, farmers should not only be well informed about findings of agricultural research, which are relevant for their situation, but they should also learn from practical experience through training and demonstration.

In this regard, the government of Maharashtra has launched a pilot programme-"Agricultural Polyclinic" in 1997-98 as the innovative institutions for narrow down the gap between research and its actual application by imparting vocational farmers training, production technology demonstration and agricultural services (diagnostics) to farmers.

This is the programme for farmers to be able to increase their adoption level for maximise the productivity and production of farming. Keeping this in view, the present investigation was undertaken with the specific objectives.

To study the extent of adoption of recommended practices disseminated through Agricultural Polyclinics by the respondents.

To find out the relationship between profiles of respondents with adoption of recommended practices disseminated through Agricultural Polyclinic.

Materials and Methods

The present study was conducted in three districts namely, Parbhani, Nanded and Osmanabad of Maharashtra State. Two talukas were selected on the basis of earlier establishment of Agricultural Polyclinics and two Agricultural Polyclinics from each district were selected on the basis of same principle.

Twenty five (25) respondents were drawn by n^{th} method of random sampling from each Agricultural Polyclinics with the help of beneficiaries list of Agricultural Polyclinics. Thus, final sample comprised of 150 respondents.

The extent of adoption of the recommended activities / practices concerning Agricultural Polyclinic was measured by means of adoption index, developed on the lines of adoption intensity index used by Choubay (1972).

Fifteen technological practices were selected for the study of extent of adoption. The proportions for each of the fifteen practices (actual/potential) were calculated and multiplied by the corresponding weightage.

The values of all the fifteen items were summed and then divided by 45, the total number of weightage.

The resulting value was multiplied by 100 to indicate the percentage of the extent of adoption of practices extended through Agricultural Polyclinic. The resulting value was taken as 'adoption index'

Adoption index

$$= \frac{\text{Practices actual used}}{\text{Practices recommended or potential to be used}} \times 100$$

Results and Discussion

Adoption of recommended practices disseminated through Agricultural Polyclinic among the respondents

The adoption level of the respondents in relation to disseminated practices / activities was assessed and findings are presented Table 1 and 2.

Adoption of practices / activities disseminated through Agricultural Polyclinic

The data regarding adoption of different practices/activities extended through Agricultural Polyclinic by the respondents are illustrated in Table 1.

Table 1 revealed that cent per cent respondents were utilizing their possessed land for cultivation. Other practices adopted by majority of the respondents were insect / pests diagnostic facilities (97.33 %), improved implements (96.66%), Nadep compost (92.66%) and Neemark (92.00%).

Further, it was noted that equal (90.00 %) of the respondents had adopted soil testing practice and contour development technology. Vermicompost utilization activity was adopted by 87.33 per cent of the respondents.

Further, it was noticed that nearly half (47.33%) of the respondents had adopted use of HaNPV technology, whereas 44.00 per cent of the respondents had adopted the seed germination testing technology, while significant (36.00 %, 33.33%, 30.66% and 26.66%) had adopted Trichocard, improved irrigation systems, farm pond and cold storage (zero energy), respectively. Meagre percentage of the respondents (4.00%) had adopted high tech agricultural technology based on shadenet and green house.

Overall adoption level of recommended practices / activities disseminated through Agricultural Polyclinic

The data pertaining to overall adoption level of practices /activities disseminated through Agricultural Polyclinic by the respondents are given in Table 2.

So far as distribution of the respondents on the basis of overall extent of adoption of activities/ practices extended through Agricultural Polyclinic was concerned, it is visible from Table 2 that majority of the respondents (65.34 %) had medium level of adoption, followed by 21.33 per cent and 13.33 per cent respondents had high level and low level of adoption, respectively.

Looking to the importance of the Agricultural Polyclinic activities/practices from the point of view of increasing the crop production, decreasing expenditure, proper utilization of available resources and inputs, the adoption receives a boost and the beneficiaries were seen to be motivated to adopt Agricultural Polyclinic activities/practices.

Relationship between profile of the respondents with adoption of activities/practices disseminated through Agricultural Polyclinic

Data pertaining to the relationship between personal, socio economic and psychological characteristics of the respondents and adoption of activities/ practices disseminated through Agricultural Polyclinic are presented in Table 3.

Table.1 Distribution of the respondents by adoption of practices / activities of Agricultural Polyclinic

Sr. No.	Practices/Activities	Adoption		Non adoption	
		Frequency	Percent	Frequency	Percent
1	Land Utilization of possessed	150	100.00	00	00.00
2	Contour development	135	90.00	15	10.00
3	Farm pond preparation	46	30.66	104	69.34
4	Use of improved irrigation systems	50	33.33	100	66.67
5	Nadep compost utilization	139	92.66	11	7.34
6	Vermicompost utilization	131	87.33	19	12.67
7	Insect/pests diagnostic facilities utilization	146	97.33	04	2.67
8	Use of HaNPV	71	47.33	79	52.67
9	Use of Trichocard	54	36.00	96	64.00
10	Use of Neemark	138	92.00	12	8.00
11	Soil testing	135	90.00	15	10.00
12	Utilization of improved implements	145	96.66	05	3.34
13	Use of cold storage (zero energy)	40	26.66	110	73.34
14	Use of shade net & green house	06	04.00	144	96.00
15	Use of seed germination testing lab	66	44.00	84	56.00

Table.2 Distribution of the respondents by level of Adoption of activities/ practices disseminated through Agricultural Polyclinic

Sr.No.	Category	Frequency	Per cent
1.	Low (score below 35.00)	20	**13.33**
2.	Medium (score 35.01to 63.69)	98	**65.34**
3.	High (score 63.70 and above)	32	**21.33**
	Total	150	**100.00**
	Mean		**49.35**

Table.3 Relationship of profile of the respondents with adoption of activities / practices disseminated through Agricultural Polyclinic

Sr. No.	Profile / Characteristics of the respondents	Correlation coefficient
1	Age	0.042
2	Education	0.465 **
3	Occupation	- 0.058
4	Land holding	0.494 **
5	Annual income	0.547 **
6	Social participation	0.285 **
7	Extension contact	0.358 **
8	Risk orientation	0.552 **
9	Economic motivation	0.500 **
10	Attitude	0.415 **
11	Knowledge	0.830 **
12	Benefits availed	0.833 **

** Significant at 0.01 level of probability

The results of correlation analysis showed from Table 3 that out of 12 variables, benefits availed, knowledge, risk orientation, annual income, economic motivation, land holding, education, attitude, extension contact and social participation, were positively and significantly related with adoption of activities/practices at 0.01 per cent level of probability. Whereas age and occupation could not show any relationship with adoption of Agricultural Polyclinic activities/ practices.

These findings are in line with the findings of Mohammad *et al.,* (2004), Prakash and Brar (2006), Halakatti *et al.,* (2007) and Meenal and Rajan (2007).

From the above findings, it can be concluded that out of fifteen recommended extension activities / practices disseminated through Agricultural Polyclinic, only one activity i.e. utilization of possessed land for cultivation was adopted by all the respondents. Other seven activities/practices, namely insect/pests diagnostic facilities, improved implements, Nadep compost, Neemark, soil testing practice, contour development technology and Vermicompost were adopted by more than three-fourth of the respondents. Remaining six activities/practices namely HaNPV, seed germination testing, Trichocard, improved irrigation systems, farm pond preparation and facility of cold storage (zero energy) were adopted by less than half of the respondents. Meagre proportion of the respondents adopted high tech agricultural technology based on shade net and green house. It was seen that majority of the respondents had medium level of overall adoption.

The variables namely benefits availed, knowledge, risk orientation, annual income, economic motivation, land holding, education, attitude, extension contact and social participation were positively and significantly related with adoption of activities/practices extended through Agricultural Polyclinics.

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