

## Adoption of the Practices Demonstrated under National Demonstration by the Farmers\*

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### ABSTRACT

The farmers who witnessed the harvesting stage of the crop under National Demonstration plots were better adopters than those who visited other stages. This was due to the farmers' conviction of the superiority of the crop by seeing the crop at harvest stage. The farmers who witnessed any one of the stages of the crop under N. D. plots were better than those who had not seen even a single stage of the crop and those who had seen only harvesting stage were far better than the farmers who had seen the other stages of the crop. The impact of N. Ds was also brought out in adjacent villages.

### INTRODUCTION

There are over 60 million agricultural holdings in India and a rapid increase in food production requires these cultivators to be convinced and motivated to adopt new innovations. Unless the agricultural technology is understood and adopted by the farmers, maximum food production cannot be achieved. The purpose of all agricultural demonstrations is to convince and persuade the farmers to adopt the new technology by showing the proof of its value in concrete ways and its application under field situations. In order to assess the effectiveness of N. D. programme it is essential to study whether the farmers who witnessed these demonstrations have adopted the demonstrated practices or not. Mahapatra (1969) reported that N. D. trials

have successfully attracted the attention of the farmers by their quick adoption of high-yielding varieties and their economic level has improved considerably. Shanmugasundaram (1966) observed that the farmers who witnessed harvesting stage of the crop under N. D. plots were very much impressed of the stand and high yield of Ragi Co 7. Swaminathan (1966) stated that N. Ds are not only the possibilities for improving the yields but also the new hybrids and varieties can exert a catalytic effect on the minds of the farmers and induce them to adopt the new practices.

With the following specific objectives this study was conducted: To find out the extent of adoption of the practices by the farmers (all respon-

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dents), and to assess the extent of adoption of demonstrated practices by the farmers who visited the demonstrations at various stages of the crop and to compare the extent of adoption of farmers who witnessed the demonstration with those who had not seen the demonstration plots.

## MATERIALS AND METHODS

This study was conducted in East Godavari District of Andhra Pradesh. Four villages namely Bhimavaram, Undur, Samalkot and Vallur of Samalkot samithi were selected for the study. N. Ds were conducted in the first two villages and the latter two villages are adjacent to the first two villages respectively. The adjacent villages were selected assuming that the farmers of those villages have attended these demonstrations. The investigation was limited to only one season i. e., *Kharif* 1970 and one crop i. e., IR 8 paddy which was raised in N.D. plots during the *Kharif* 1969. The package of practices selected for the study were seed rate, seed treatment, spacing, fertilizer dose (NPK) and plant protection measures which were demonstrated in the N. D. plots. The respondents were selected from the four villages by proportionate purposive random sampling. The data were collected through a pretested

interview schedule from the respondents. Hundred farmers were selected from the four villages in proportion to the farmers growing IR 8 paddy. The statistical tests used in this study were percentages and chi-square test. The extent of adoption of farmers was calculated using the scale developed by Chattopadhyay (1963) with some suitable modifications.

$$\text{Adoption Quotient} = \frac{Y_j W_j}{W} \times 100$$

$$Y_j = \frac{E/P}{t} = \frac{e_j/p_j}{t}$$

Where,

P = potentiality, P<sub>j</sub> = potentiality of j-th practice

E = extent, e<sub>j</sub> = extent of j-th practice

W<sub>j</sub> = weightage attached to j-th practice

W = weightage of all practices  
= summation.

## RESULTS AND DISCUSSION

The respondents were categorised into three levels based on their adoption quotient.

Out of 100 respondents 38, 53 and 9 were low, medium and high adopters respectively. Among the 52 farmers who visited the National Demonstration plots 16, 28 and 8 farmers were low, medium and high adopters respectively (Table 1).



Table 1. Extent of adoption of all the respondents and those who witnessed the N. D. plots

	Adoption quotient	Category	Number of respondents	Percentage
Extent of adoption of all respondents	upto 50%	Low	38	38
	51 to 70%	Medium	53	53
	Above 70%	High	9	9
	Total		100	100
Extent of adoption of demonstrated practices by the farmers who witnessed the demonstration	Upto 50%	Low	16	31
	51 to 70%	Medium	28	54
	Above 70%	High	8	15
	Total		52	100

From the Table 2 it is noted that high adopters were more (15 per cent) among the farmers who visited the N. D. plots and less (2 per cent) in the case of farmers who had not seen the N. D. plots.

Table 2. Extent of adoption of farmers who had visited the N. D. plots and those who had not seen N. D. plots

Adoption level	Farmers who visited N. D. plots		Farmers who had not visited N. D. plots	
	No.	%	No.	%
Low	16	31	22	46
Medium	28	54	25	52
High	8	15	1	2
Total	52	100	48	100

(df. 2) Chi-square value 6.49, significant at 5% level

It is obvious to note that 25 per cent were high adopters in the case of farmers who visited harvesting stage of the crop under N. D. plot and only 4 per cent were high adopters among

Table 3. Extent of adoption of demonstrated practices by the farmers who visited N. D. plots at various stages of the crop except harvesting stage and harvesting stage alone

Adoption level	Participants in various stages except in harvesting stage		Participants in harvesting stage alone	
	No.	%	No.	%
Low	11	46	5	18
Medium	12	50	16	57
High	1	4	7	25
Total	24	100	28	100

(df. 2) Chi-square value 6.89, significant at 5 per cent level



farmers who visited the crop under N.D. plots at various stages except harvesting stage. The chi-square test also proved that there was positive association between the adoption and witnessing the harvesting stage (Table 3).

Among the 53 respondents from the villages where N. D. plots were laid out 38 per cent, 53 per cent and 9 per cents were low, medium and high adopters respectively and in adjacent

Table 4. Extent of adoption in the villages where N. Ds were conducted and adjacent villages

Adoption level	Villages where N. D. plots laid out		Adjacent villages	
	No.	%	No.	%
Low	20	38	18	38
Medium	28	53	26	55
High	5	9	3	7
Total	53	100	47	100

(df. 2) Chi-square value 0.45, not significant at 5 per cent level

villages 38 per cent and 55 per cent and 7 per cents were low, medium and

high adopters respectively. The Chi-square value proved that there was not much difference in adoption level of farmers from the two village groups (Table 4).

#### ACKNOWLEDGEMENT

The first author expresses his thanks to Madras University for the permission accorded to write this article from his M.Sc. (Ag.) thesis and I.C.A.R. for the fellowship provided during the course.

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