# Characteristics of Farmers in Relation to Adoption of Recommended Practices of Hybrid Sorghum\*

Ву

B. SUNDARA SWAMY and K. N. DORAISWAMY2

### ABSTRACT

This study was conducted in Chamarajanagar taluk of Mysore district to identify the relationship between the adoption of recommended practices of hybrid sorghum and farmers' characteristics like their age, education, economic status, social participation, contact with extension agency and media of participation based on the data collected from randomly selected 100 farmers. It was observed that except age other variables were positively related with the adoption of recommended practices.

## INTRODUCTION

d

High yields are obtained only by following a specific technology that goes with every crop. As no two indi viduals can think and believe alike in absolute term even if provided with the same stimulus at a given point of time, the decision making process of the farmers with regard to the adoption of new innovations is bound to vary because of their difference in age, education, economic status, social participation, contact with extension agency, media of participation and other such social and economic factors. In the present study, an attempt has been made to identify the relationship between farmers' characteristics and adoption.

## MATERIALS AND METHODS

The study was conducted in one taluk of Nanjangud sub-division, Mysore district, where hybrid sorghum was cul-

tivated more extensively. two stage sampling method was adopted for sampling purpose; village level workers' circle within the taluk as strata, the villages as primary units and the holdings as secondary units. A list of all the villages in each V. L. W's circle wherein at least five farmers who had harvested a minimum of two crops of hybrid sorghum was prepared with the assistance of extension officer and gramasevaks of the taluk. A total of 20 villages, one from each V. L. W's circle was selected by random method. A list of the names of the farmers who had harvested a minimum of two crops of hybrid sorghum in each of these villages was made. Five farmers from each of this list were randomly selected which formed 100 respondents in total. The respondents were interviewed with the help of a structured schedule.

The study was confined to ten recommended practices for hybrid sor-

<sup>\*</sup> Part of the M. Sc. (Ag.) dissertation in Agricultural Extension, University of Madras.

1. Division of Extension, Agricultural College, University of Agricultural Sciences, Hebbal, Bangalore-24 and 2. Formerly Director of Extension Education, Tamil Nadu Agricultural University, Coimbatore-641003.

ghum. The extent of adoption was measured in terms of the adoption quotient. The concept of adoption quotient developed by Sengupta (1967) was used. Farmers were classified as low adopters (A.Q. = 1—40 per cent) medium adopters (A.Q. = 41—80 per cent) and high adopters (A.Q. = 81—100 per cent).

In this study only 6 variables namely age, education, economic status, social participation, contact with extension agency and media of participation were selected and quantified based on the weightages given by Trivedi (1963) Farmers were grouped under low, medium and high group based on the score. In case of variables namely contact with extension agency and media of participation none of the farmers came under high group.

## RESULTS AND DISCUSSION

Age and adoption: The data in Table 1 points out that 62 per cent among low adopters, 63 per cent among medium adopters and 47 per cent among high adopters belonged to middle age group. As such it is seen in this study that middle aged farmers adopted more number of recommended practices than young and old farmers which is contrary to the belief that young farmers are more progressive. The nonsignificant chi-square value showed that age of the farmer and the number of practices adopted by him have no association. Similar findings were observed by Coleman (1951) who reported that farmers of age group 30 to 41 years were high adopters of farm practices. This implies that high adopters are to be found in all age groups and that the extension workers showed approach all farmers irrespective of their age.

Education and adoption: Among low adopters category, 57 per cent of the farmers belonged to low education level group and only 9 per cent belonged to high education level group (Table 1). But in case of high and medium adopters categories only 12 per cent and 19 per cent respectively belonged to low education level group. It is interesting to note that 70 per cent among high adopters category and 37 per cent among medium adopters category belonged to high education level group. There fore it can be said that adoption of recommended practices increased with the rise in educational level. Rai (1965) and Das and Sarkar (1970) reported that adopters of improved farm practices were better educated.

Economic status and adoption: Adoption of the improved practices is conditioned with the economic status Sixty five per cent of the farmer. among high adopters, 61 per cent among medium adopters belonged to medium economic status group and the percentage was 24 in case of low adopters Sixtytwo per cent of the (Table 1). farmers among low adopters belonged to low economic status group while among medium and high adopters 34 per cent and 12 per cent respectively belonged to low economic status group. The significant Chi-square value revealed that the economic status and the number of practices adopted were interpendent factors. Similar findings were re-

## Oct—Dec., 1975] CHARACTERISTICS OF FARMERS AND ADOPTION OF PRACTICES OF HYBRID SORGHUM

n t

e if h id ii-

n: is us nt ng um enc ers the ged hile per on-The aled umenreTable 1. Characteristics of farmers in relation to adoption of recommended practices of hybrid sorghum

	nore contacts wi	mers with	-mi to	h adoption	positively related wit
proved farm practices.					
RATANCH	AND and M.I. GUPT	PERSONAL SASTAN	SORAL	T. S. and	X <sup>2</sup> Value
	Characteristics	Low	Medium	High House	Social particip
on and		No. Per cent	No. Per cent	No. Per cent	
eton on	<u> </u>	The same of the sa	longed	adopters be	that none of the low
per cent					to the medium and hi
	Young Vol ban 218	4 19	7.171	6 19 35	
and high	Middle 10 9289		39 63	8 47	1.983* 0 1090 190
	per cent and 50	a erpters 426	9 14		
		of the fasm			groups respectively.
					high adopters 29 pe
	recommencwol		12 19	2 12	cent belonged to med
	Medium	72925934	27 44	3 18	22.281**
	ia of participation.	2 9	23 37	12 70	
	Economic status		Reddy		of recommended
	REFERENCES WOJ	13 62	21 34	bag bagad	(1962) and Rotano
			38 61	at social pa	(1966) cossilidad th
	Medium		diwb	y associate	19.888** 10.888**
of farmers	961. CharacteridgiH		3 5	bactices.	adoption of improved
	Social participation				
	Low	21 100			Contact with
	64. The adcmuibeM	80 <del>5</del> £, S. P19			and adoption: TI
	lest Bengal, Calcultill	Govt. of V			square value revea
		No. 2.			farmers with exten
	Contact with extens				the number of praction them have positive a
	workers in a New mulbeM	19 AM 90			13.290** GODE WOL
	Medium	2 10 Community			mers had low cont
	Media of participati				
	D. R. SAKAR. WOL	21 100			
	Medium Extra Education of fat	motivation	16 26	10 190598	of medium adopters
	EXER. Educe, 4. 103-			A	farmers had low
tions of the	* Not Significant				had medium contac
	** Significant at 0.				agency (Table 1). E
	rm practice and otheir				adopters 53 per ce
	on education. Unpub. N				had medium contac
					had low contact with

ported by Jalihal (1960) and Bose (1964) who have observed that higher economic status of the farmers was positively related with adoption of improved farm practices.

Social participation and adoption: The data in the Table 1 reveals that none of the low adopters belonged to the medium and high social participation groups, while 16 per cent and 9 per cent of medium adopters belonged to medium and high social participation In the case of groups respectively. high adopters 29 per cent and 24 per cent belonged to medium and high social participation groups respectively. This shows that farmers who had higher social participation adopted more number of recommended practices. Reddy (1962) and Rotanchand and Gupta (1966) concluded that social participation was significantly associated with adoption of improved practices.

Contact with extension agency The significant Chiand adoption: square value reveals that contact of farmers with extension agency and the number of practices adopted by them have positive association. Among low adopters, 90 per cent of the farmers had low contact with extension agency, only 10 per cent of the farmers had medium contact whereas in case of medium adopters 84 per cent of the farmers had low and 16 per cent had medium contact with extension agency (Table 1). But in case of high adopters 53 per cent of the farmers had medium contact and 47 per cent had low contact with extension agency.

Similar findings have also been reported by Bose (1961) and Sohal and Ranjit Singh (1968) who concluded that farmers with more contacts with extension workers adopted more number of practices.

Media of participation It is surprising to note adoption: that among low adoptors, 100 per cent of the farmers had low media of participation. In case of medium and high adopters 26 per cent and 59 per cent of the fasmers had medium media of participation (Table 1). It implies that adoption of recommended practices increases with the increases in the level of media of participation.

## REFERENCES

- BOSE, S. P. 1961. Characteristics of farmers who adopt agricultural practices in Indian village. Rur. Socio., 26: 138-45.
- BOSE, S. P. 1964. The adopters. Dept. of Agri., Govt. of West Bengal, Calcutta, Extn. Bull., No. 2.
- Contact with extension agenc COLEMAN A. 1951. Differential contact with extension workers in a New York Rural Community. Rur. Socio., 16:207-16.
- DAS, K. K. and D. R. SAKAR. 1970. Economic motivation and adoption of farm practices. Indian J. Extn. Educ., 4:103-7.
- JALIHAL, K. A. 1960. Some implications of the sociological research on diffusion and adoption of farm practice and otheir application to extension education. Unpub. M. S. Thesis, Univ. of Tennessee, U.S. A.

e

ers ian

gri.,

with {ural

omic

of the adopcation

- RAI, M. N. 1965. Diffusion of information and farmers response in relation to an improved farm practice (hybird maize). *Indian J. Extn. Educ.*, 1:140.
- RATANCHAND and M.L. GUPTA. 1966. Adopters improved farm practice. *Indian J. Extn. Educ.*, 1:259-65.
- REDDY, M. S. K. 1962. A study of improved agricultural practice as a function of some socio-economic factors and sources of information. *Unpub. M. Sc. Thesis*, I. A. R. I., New Delhi.

was conducted in three purposively sected blocks viz. Madurai East, Madurai West and Thirupparankundram Panchayat Unions. Twenty six villages were selected at random from these panchagat unions which constituted 10 per cent of the total villages and 180 randomly selected farmers who had grown high yielding varieties of rice were interviewed in these villages with the schedule. The responses were tabulated and statistically analysed to find out the mers on the effectiveness of extension indirect influence. Use of radio, use of indirect influence, use of radio, use of illustrated talk which were found to be responsible for the adoption of high vielding varieties of rice by the farmers. The chi-square test was applied to assess the influence of personal factors of the farmers.

- SENGUPTA, T. 1967. A simple adoption scale for farmers for high yielding varieties programme on rice. Indian J. Exn. Educ., 3:107-15.
- SOHAL, T.S. and RANJIT SINGH, 1968. Association between the personal characteristics of farmers and their level of farming aspiration. Indian J. Extn. Educ., 4.
- TRIVEDI, G. 1963. Measurement and analysis of socio-economic status of rural families. Unpub. Ph. D. Thesis, I. A. R. I., New Delhi.

## INTRODUCTION

The main function of extension all over the world in education which in simple words, is the production of designable changes in human behaviour. The extension worker's job is to communicate useful and gractical research finding to farmers in such a way that they understand accept, and adopt recommended practices for their well being. The farmers differ in personal and sociol economic attributes, isuch as ageneducation and economic condition, which are likely to influence the effectiveness of different extension teaching methods, to study the influence of personal factors as age, education and income of the farmers on the effectiveness of selected extension teaching methods.

#### MATERIALS AND METHODS

Evaluatory type of research design was adopted for this study. The study

 Mead of the department, 2 and 4. Instructors and 3. Assistant Professor, Department of Agricultural Extension, Agricultural College and Research Institute). Madurall.