

Knowledge and adoption of sugarcane management practices by the farmers

G.K. SASANE, R.P. KHULE AND U.D. JAGDALE

ABSTRACT

The respondents belonged to the old age group of above 56 years (41.67 per cent) followed by middle age group (36.66 per cent) and young group (21.67 per cent). A half of the respondents belonged to nuclear family (50.00 per cent) and joint type (50.00 per cent) of families. A large majority (90.83 per cent) of the respondents had small sized families. About 98.33 per cent of respondents had agriculture as their main occupation. More than two-fifth (41.66 per cent) of the respondents had obtained annual income less than Rs. 50,000. that almost all the paddy growers was complete knowledge about selection of soil and preparatory tillage operations, planting season, Improved varieties and Intercultural operations. Majority of Sugarcane growers complete knowledge about Source of planting material (98.33 per cent), seedrate(99.17 per cent), irrigation management (98.33), yield (97.50 per cent), harvesting (93.33), plant protection (86.66 per cent). that almost all the paddy growers was complete adoption about selection of soil (90.00per cent) and preparatory tillage operations(92.50), harvesting(87.50 per cent).,Majority of sugarcane growers complete adoption about planting season (38.33 per cent), seed rate (58.33 per cent) ,interculturaling (92.50), improved varieties (67.50 per cent), plant protection (48.33 per cent). All the respondents faced the constraints like load shading of electricity. A large majority (76.67 per cent) of respondents facing the constraints as non availability of improved varieties and non availability fertilizer (72.50 per cent).The 70.00 per cent farmers faced the constraint lack of quantity of water supply for irrigation and 70.00 per cent farmer faced the constraint of lack of technical knowledge about proper use of micronutrient.

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INTRODUCTION

Sugarcane is the major cash crop of Western Maharashtra. Kolhapur is the major sugarcane growing district of Western Maharashtra. Mahatma Phule Krishi Vidyapeeth has given many improved varieties / hybrids of the vegetables and of different crops grown in the state. Similarly improved animal breeds, farm implements innovation in high-tech Agriculture, crop and water management and integrated pest management have also been recommended and given to the farming community.

Under the services at College Development Block, the extension personnel are engaged in the transfer of agriculture and allied innovations at the farms of the farmers by using the various and suitable extension teaching methods. However, the efforts taken by the personnel of extension education for the transfer of MPKV's innovations are not known. Hence, to know the extent of the knowledge and adoption of farm technologies generated by Mahatma Phule Krishi Vidhyapeeth, Rahuri in Maharashtra, the present study was designed with the following objectives : to study the socio-economic characteristics of the respondents, to study the extent of knowledge

and adoption of sugarcane management practices by the respondents and to study the constraints faced by the respondents in adoption of sugarcane management practices by respondents.

METHODOLOGY

The study was conducted in the College Development Block situated in Hatkanangle, Radhanagari and Bhudharghar Tahsils of Kolhapur district. In all, 12 villages from College Development Block were selected randomly. From these selected villages, 10 farmers from each village were selected randomly. The farmers were interviewed with the help of structured interview schedule personally. In all 120 farmers were interviewed for this study.

RESULTS AND DISCUSSION

The findings of the present study have been presented under following heads:

Personal and socio-economic profile1:

Age:

The respondents belonged to the old age group of above 56 years (45.83 per cent) followed by middle age group (36.67 per cent)

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and young group (21.67 per cent).

Education:

So far education is concerned, 46.67% had Secondary and 16.67% had Higher Secondary education.

Family type:

A half of the respondents belonged to nuclear family (50.00 per cent) and also the same per cent *i.e.* (50.00 per cent) to the joint type of families.

Family size:

A large majority (90.83 per cent) of the respondents had small sized families and very small had medium (9.17 per cent) sized families.

Occupation:

About 98.33 per cent of respondents had agriculture as their main occupation and majority (87.50 per cent) were enjoying dairy as their secondary occupation.

Size of land holding:

Majority (58.33 per cent) of the respondents had land holding in between 1.01 to 2 hectares.

Source of irrigation:

The majority (71.67 per cent) of the respondents had well as a source of irrigation followed by river (24.17 per cent).

Annual income:

More than two-fifth (41.67 per cent) of the respondents had obtained annual income less than Rs. 50,000/ and about 35.00 per cent of the respondents obtained annual income more than Rs. 1, 50,000/-

Knowledge and adoption of sugarcane management practices:

The data regarding the knowledge and adoption of sugarcane management practices are presented in Table 2 and the results obtained are as follows.

Knowledge :

The data of Table 2 reveal that almost all the sugarcane growers were having the complete knowledge about selection of soil and preparatory tillage operations ,planting season, improved varieties and intercultural operations. Majority of sugarcane growers had complete knowledge about source of planting material (98.33 per cent), seed rate (99.17 per cent), irrigation management (98.33), yield (97.50 per cent), harvesting (93.33), plant

Table 1: Distribution of the respondents by their socio-economic and personal characteristics

Sr. No.	Characteristics	No. of respondents (n=120)	Percentage
1.	Age		
	Up to 35 years	26	21.67
	36 to 55 years	44	36.67
	56 and above	55	45.83
2.	Education		
	Up to Primary	33	27.50
	Secondary	56	46.67
	Higher Secondary	20	16.67
	Degree	09	7.50
	Post graduate	03	2.50
3.	Type of family		
	Joint	60	50.00
	Nuclear	60	50.00
4.	Family size		
	Small (up to 5 members)	109	90.83
	Medium (6 to 9 members)	11	9.17
5.	Occupation		
	Main		
	Agriculture	118	98.33
	Service	02	1.67
	Secondary		
	Dairy	105	87.50
	Service	10	8.33
	Other	05	4.17
6.	Land (According to land holding)		
	Less than 1.00 ha.	23	19.17
	1.01 – 2.00 ha.	70	58.33
	More than 2.01 ha.	27	22.50
7.	Source of water		
	Well	86	71.67
	Bore well	08	6.67
	River	29	24.17
	Canal	14	11.67
8.	Annual income		
	Less than 50,000/-	50	41.67
	50,001 /- to 1,50,000 /-	28	23.33
	More than 1,50,001 /-	42	35.00

protection (86.66 per cent). Majority of them was complete knowledge about system of planting (81.67 per cent), seed treatment (64.17 per cent), fertilizer management (76.67). About 57.50 per cent farmers were having complete knowledge about use of micronutrient. These findings are also supported by Lanjewar *et al.* (2005) and Vaidya and Koshti (2005).

Table 2: Knowledge and adoption of sugarcane management practices

Sr. No.	Improved production technology	Knowledge (n=120)			Adoption(n=120)		
		Complete	Partial	No	Complete	Partial	No
1.	Selection of soil	120 (100.00)	-	-	108 (90.00)	04 (3.33)	08 (6.67)
2.	Preparatory tillage	120 (100.00)	-	-	111 (92.50)	03 (2.5)	06 (5.00)
3.	Planting season	120 (100.00)	-	-	46 (38.33)	-	74 (61.67)
4.	Source of planting material	118 (98.33)	-	02 (1.67)	15 (12.50)	-	105 (87.50)
5.	Selection of seed material	108 (90.00)	-	12 (10.00)	16 (13.34)	-	104 (86.67)
6.	System of planting	98 (81.67)	-	22 (18.33)	11 (9.17)	-	109 (90.83)
7.	Seed rate	119 (99.17)	-	01 (0.83)	16 (13.33)	-	104 (86.67)
8.	Seed treatment	77 (64.17)	21 (17.50)	22 (18.33)	29 (24.17)	4 (3.33)	87 (72.50)
9.	Improved varieties	120 (100.00)	-	-	81 (67.50)	-	39 (32.50)
10.	Irrigation management	118 (98.33)	-	02 (1.67)	28 (23.33)	-	92 (76.67)
11.	Fertilizer management	92 (76.67)	-	28 (23.33)	24 (20.00)	-	96 (80.00)
12.	Use of micronutrient	69 (57.50)	40 (33.33)	11 (9.17)	27 (22.50)	41 (34.17)	52 (43.33)
13.	Intercultural operations	120 (100.00)	-	-	111 (92.50)	03 (2.5)	06 (5.00)
12.	Plant protection	104 (86.66)	06 (5.00)	10 (8.33)	58 (48.33)	03 (2.50)	59 (49.17)
13.	Harvesting	112 (93.33)	08 (6.67)	-	105 (87.50)	11 (9.17)	04 (3.33)
14.	Yield	117 (97.50)	-	03 (2.50)	33 (27.50)	13 (10.83)	74 (61.67)

Adoption :

The data of Table 2 also reveal that majority of the sugarcane growers were aware about adoption about and selection of soil (90.00 per cent) and preparatory tillage operations (92.50), harvesting (87.50 per cent). Majority of sugarcane growers were having complete adoption about planting season (38.33 per cent), interculturing (92.50), improved varieties (67.50 per cent), plant protection (48.33 percent). These findings are supported by Sasane *et al.*, (2008)

non-availability fertilizer (72.50 per cent). About 70.00 per cent farmers faced the constraint of lack of quantity of water supply for irrigation and 86.67 per cent farmers faced the constraint of lack of technical knowledge about proper use of micronutrient.

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Constraints faced by the respondents:

It is revealed from Table 3 that all the respondents faced the constraints like load shading of electricity. A large majority (76.67 per cent) of respondents faced the constraints as non-availability of improved varieties and

Table 3: Distribution of respondents according to constraints faced by them

Sr. No.	Particulars	No. of respondent (n= 120)	Percentage
1.	Non-availability of improved varieties	92	76.67
2.	Electric load shading at the time of irrigation	120	100.00
3.	Non-availability of fertilizer	87	72.50
4.	Lack of quantity of water supply for irrigation	84	70.00
5.	Lack of technical knowledge about proper use of micronutrient.	104	86.67

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