

## Awareness of Farmers Regarding Plant Protection Methods, Equipments and Information Sources

**J. K. Patel<sup>1</sup>, F. K. Chaudhary<sup>2</sup> and V. T. Patel<sup>3</sup>**

1 Assistant Professor, Dept.of Extn.Edu, C.P.C.A, S.D.A.U, Sardarkrushinagar.

2 Subject Matter Specialist ( Pl.Pro), K.V.K, S.D.A.U, Deesa.

3 Programme Coordinator, K.V.K, S.D.A.U, Deesa.

Email : jk\_sweta@yahoo.in

### ABSTRACT

*This study was conducted in Vadgam taluka of Banaskantha district of Gujarat state. The information was collected by distributing the questionnaires to ten randomly selected farmers who were present these mass campaigns. A total 25 villages were covered and the size of the sample was kept 250 for the study. Based on the finding of the study, majority of the farmers had knowledge about major pests of the crops, spraying insecticides in the crops and giving seed treatment and used plant protection equipments. While majority of the farmers prepared a pesticides solution approximately and did not use protective wears at the time of preparing & spraying pesticide.*

**Keywords :** Awareness, Krushi Rath

### INTRODUCTION

Krushi Mahotsav is an intensive convergence and mass contact strategy was successfully organized for four consecutive years i.e. 2007, 2008, 2009 and 2010 before the onset of monsoon in respective years. Gujarat was a pioneer in having such unique month – long programme of mass contact of agricultural scientist with the farmers of the state. The contact was made through a mobile exhibition van called KRUSHI-RATH in each and every village of the state. The farmers were educated with collective efforts of all the government and non-government agencies engaged in rural development with highly qualified agricultural scientists. Thus, this campaign was meant for all round development of farming community. As we know, successful plant protection increases the crop production to the tune of 20-30 per cent. Keeping this fact the study was undertaken to know awareness of the farmers regarding plant protection in agriculture with following specific objectives:

### METHODOLOGY

The present study was carried out in vadgam taluka of banaskantha district of Gujarat state during krushi mahotsav – 2010. The questionnaire was developed with the help of Associates professor of the extension education department. The information was collected through interview

schedule from ten randomly selected farmers who were present in the mass campaigns (Krushi mahotsav). Thus, total 250 farmers were selected from 25 villages randomly. The data were tabulated, analyzed and interpreted in light of the objectives of the study.

**Table 1 : Distribution Of The Respondents According To Their Personal Attributes** n= 250

Sr. No.	Personal Attributes	Number	Percent
1	<b>Age Group</b>		
	Young Age (15-35Yrs.)	46	18.40
	Middle Age (35-50Yrs.)	116	46.40
	Old Age (Above 50 Yrs.)	88	35.20
2	<b>Education level</b>		
	Illiterate	54	21.60
	Primary level (1-7 std.)	116	46.40
	Secondary level (8-10std.)	30	12.00
	Higher Secondary level (11-12 std.)	44	17.60
	College level	06	2.40
3	<b>Caste Group</b>		
	General	24	09.60
	S.E.B.C (Baxi)	214	85.60
	Schedule Caste ( S.C )	12	04.80
	Schedule Tribe ( S.T )	00	00.00

The data presented in Table 1 that majority (46.40 per cent) of Respondents belongs to middle age group (35-50 years), having primary education (46.40 per cent) and coming from Socially and Economically Backward Class (85.60 per cent).

**Table 2 : Distributions of the respondents according to their knowledge about pest**

n=250

Sr.No	Name of Crop	Name of Pest	Number	Per cent
1	Groundnut	(a) White grub	94	37.60
		(b) Aphids	10	04.00
2	Cotton	(a) Spotted ball worm	88	35.20
		(b) Heliothis	112	44.80
		(c) Sucking pest	112	44.80
3	Sesamum	(a) Ear head worm	226	90.40
4	Castor	(a) Semilooper	236	94.40
		(b) Capsule borer	16	06.40
5	Mustard	(a) Aphids	236	94.40
		(b) Saw fly	14	05.60
6	Wheat	(a) Heliothis	12	04.80
		(b) Termites	238	95.20

It can be seen from the Table 2 that great majority (more than 90.00 per cent) of the respondents had knowledge about Termites in wheat, Aphids in mustard, Semilooper in castor and Ear head worm in sesamum. Between 35 to 45 per cent of the respondents had knowledge about White grub in groundnuts and cotton pest. It is clear from the table that majority of the respondents had knowledge about major pest of the crop.

**Table 3 : Distributions of the respondents according to their sources of information regarding pesticide use**

n= 250

Sr.No	Motivational Sources	Number	Per cent	Rank
1	Village Level Worker	172	68.80	II
2	Pesticides Dealers	224	89.60	I
3	Relatives/Neighbours	04	01.60	VI
4	Self experience/Knowledge	38	15.20	V
5	SAU'S Scientists	48	19.20	IV
6	Farm Publication	98	39.20	III

The data presented in Table 3 reveal that Pesticides dealers was the main information source for getting information ( 89.60 per cent) of the respondents. The second important information source was village level worker, reported by (68.80 per cent) of the respondents. Remaining information sources for getting information in descending order were farm publication, SAU's scientists, self experience and relatives.

**Table 4 : Distributions of respondents according to method of application of pesticide**

n=250

Sr. No	Control Methods	Number	Per cent	Rank
1	Spray	240	96.00	I
2	Soil application	48	19.20	IV
3	Seed treatment	204	81.60	II
4	Pesticides application through irrigation water	106	42.40	III
5	Cleaning of bunds	18	07.20	V
6	Biopesticides/ Biocontrol	04	01.60	VI
7	Ploughing	02	00.80	VII

It is evident from the data presented in Table 4 that majority (96.00 per cent) of the respondents' spray the pesticides on the plants for control the pest, followed by seed treatment (81.60 per cent), through irrigation water (42.40 per cent) and soil application (19.20 per cent) respectively. It can be concluded from the table that majority of the farmer spraying pesticides on plants and giving seed treatment for pest control.

**Table 5 : Distributions of the respondents according to method of application of pesticide** n= 250

Sr. No	Protection Equipments	Number	Per cent
1	Knapsack sprayer	69	55.20
2	Aspee bollow sprayer	50	40.00
3	Rotary duster	23	18.40
4	Pheromones traps	09	07.20
5	Light traps	03	02.40

The data presented in the Table 5 that more than half (55.20 per cent) of the respondents use Knapsack sprayer for the spraying, followed by Aspee bollow sprayer and Rotary duster for the pest control by 40.00 and 18.40 per cent. It can be concluded from the table that majority of the respondents had used Knapsack sprayer and Aspee bollow sprayer for control of pest. They did not used the low cost methods of pest control.

**Table 6 : Distributions of the respondents according to use of pesticide dose** n= 250

Sr. No.	Statements	Number	Per cent	Total Score	Rank
1	As per recommendation	54	21.60	108	II
2	Approximate proportion	196	78.40	196	I

It is evident from the data presented in Table 6 that majority (78.40 per cent) of the respondents used approximate proportion of pesticides solution for control the pest, only 21.60 per cent respondents prepared a solution as per recommendation for control the pest.

**Table 7 : Distributions of the respondents according preparation of to use of pesticide solution**

n= 250

Sr. No.	Statements	Number	Per cent	Total Score	Rank
1	Hand shaking	86	34.40	172	II
2	Shaking with stick	104	41.60	208	I
2	Wear hand gloves	25	10.00	50	III
4	Use Mask	35	14.00	70	IV

The data presented in the Table 7 that majority (66.40 per cent) of the respondents shaking pesticides solution with stick, followed by shaking pesticides solution through hand. Mostly did not use mask as well as did not wear hand gloves.

## CONCLUSION

Majority of the respondents belonged to middle age, having primary education and from socially and Economically Backward Class. More than 90.00 per cent of the respondents had knowledge about major pests of the crop growing in the area and receiving information about pesticides from the pesticides dealers. Nearly about 90.00 per cent of the respondents spraying the pesticide on the crop and giving treatment to seed. Majority of the respondents used knapsack sprayer and Aspee bollow sprayer for spraying pesticides. More than two-third of the respondents used approximate proportion of pesticides solution for control the pest, majority of the respondents did not use mask as well as did not wear hand gloves while preparing solution and spraying.