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Knowledge Level of Cash Crop Growers About Pesticides in Guntur District of Andhra Pradesh

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ABSTRACT

The research was conducted on knowledge level of cash crop growers about pesticides used in cash rops (Cotton, Chilli) cultivation in 40 farm families of Guntur district of Andhra Pradesh during the year 995. Unit of the study was 'whole family'. The results of the study reveal that all the three categories of rowers were having medium level of pesticide knowledge. The mean knowledge score was highest in case f off springs followed by their parents (male head and spouse).

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INTRODUCTION

To a considerable extent the yield of sh crops (cotton, chilli) is affected by many sts and diseases. Adoption of timely control easures of pests and diseases by the rmers is therefore, one of the several portant ways of increasing the yield. A mber of pesticides are available for mbining pests and diseases. However, for ective control of pests and diseases it is not ough to know the names of pesticides to be ed, but farmers also need to know as to at extent, at what time and which of the ecticide and fungicides should be applied to rious pests. The main point is that sticides (Insecticides, Fungicides and aricides) can make an effective contribution hey are used in appropriate manner. Thus, healthy plant protection practices farmers ould have a strong knowledge about the use of pesticides (Bhalara *et al.*, 1988). In this direction the present study was taken up with the following objectives :

1. To examine the knowledge level of respondents (male head, spouse and off springs) about pesticides used in cash crops cultivation.

2. To find out relationship between socio-personal, agro-economic and communi-cation characteristics with extent of pesticide knowledge of the cash crop growers.

MATERIALS AND METHODS

The study was conducted in Guntur district of Andhra Pradesh because it is considered as a progressive agricultural belt of the state. Among different mandals of the

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district, Guntur mandal was selected for the present study. Among different villages of mandal, four villages were selected based on the cultivable area of cotton and chilli crops. The unit of the study was 'whole family'. A total of 120 respondents were selected from three categories i.e., 40 male heads, 40 spouses and 40 off springs. The data was collected through structured schedule after preliminary testing. Personal interview was followed for data collection. The off springs here refers to eldest son of the family above fifteen years of age. The female off springs of the same category were not interviewed because of their nil response due to some traditional beliefs and other socio-cultural conditions. Based on scores on knowledge items, the respondents were grouped into three categories namely low, medium and high by using mean and standard deviation.

Sim independent variables viz., age, education, size of land holding, farm power and machinery, average annual income and sources of agricultural and pesticide information were selected for the study and thier relationship with pesticide knowledge was tested by using correlation coefficient (r).

RESULTS AND DISCUSSION

It is evident from Table 1 that all the three categories of respondents were having medium level of knowledge about pesticide use in cash crop cultivation. The mean knowledge score was highest in case of off springs, followed by male heads and female heads (spouses). The lowest mean score among female heads might be due to their less participation in field activities.

TABLE 1

Distribution of cash crop growers according to their pesticide knowledge level.

N = 120

Case	*Category*	*Number of respondents*	*Percaetage*
Male head	Low	3	7.5
	Medium	28	70.0
	High	9	22.5
	N = 4 Mean $(\bar{x})$ =	7.597, S. D. = 9.207	
Female head (spouse)	Low	5	12.5
	Medium	25	62.5
	High	10	25.0
	N = 40, Mean $(\bar{x})$ =	60.875, S. D. = 6.107	
Off springs	Low	7	17.5
	Medium	24	60.0
	High	9	22.5
	N = 40, Mean $(\bar{x})$ =	71.075, S. D. = 5.42	
High = $(\bar{x}) + S. D.)$	Medium = $(\bar{x} \pm S. D.)$		Low = $(\bar{x} - S. D.)$

TABLE 2

Correlation coefficients between independent variables and pesticide knowledge cash crop growers.

Sr. No.	Independent variable	Dependent variable (r - value) pesticide knowledge		
		Male	Female (spouse)	Off- springs
1.	Age	0.594**	0.415**	0.447**
2.	Education	0.793**	0.172^{NS}	0.744**
3.	Size of land holding	0.708**	0.161^{NS}	0.142^{NS}
4.	Farm power and machinery	0.719**	0.632**	0.649**
5.	Average annual income	0.672**	0.748**	0.577**
6.	Sources of agricultural and pesticide information	0.386*	0.280^{NS}	0.815**

** Significant at 0.01 level of probability * Significant at 0.05 level of probability NS = Non significant.

Findings in the Table 2 depicted that, age, education, size of land holding, farm power and machinery, average annual income and sources of agricultural and pesticides information were positively and significantly related with pesticide knowledge level of male heads. Age, farm power and machinery, average annual income were positively and significantly related with pesticide knowledge level of female heads (spouses). Whereas education, size of land holding, sources of agricultural and pesticides information were non-significantly related with pesticides knowledge level of spouse respondents. This means, age, farm power and machinery and average annual income, exert their influence on the pesticide knowledge level of spouse respondents.

Regarding off springs, except size of land holding all other five independent variables were highly and significantly related with pesticide knowledge level. This means that except size of land holding, all other variables except influence on the pesticide knowledge level of the off springs.

Conclusion

There is a significant difference between the three categories of users of pesticides within a family. This knowledge difference can be attributed to level of education, extent of outside contact and media use pattern. The study brings out vividly the need for proper understanding of safe handling, packaging, storage and spraying dosage of pesticides at field level.

Recommendations

The villagers belonging to all age groups and sex should be educated well about pesticides. Both formal and informal methods of education should be used. Training of farmers, their wives and off springs be arranged by Agricultural Universities, Krishi Vigyan Kendra Non Governmental organisations in spraying operations as well as storage of pesticides.

Individual, group and mass contact methods of communication should be adopted for safe handling of pesticides information.

REFERENCES

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