ISSN No:-2456-2165

Knowledge of the Respondents Regarding Improved Plant Protection Measures in Coconut Cultivation in Salem District of Tamil Nadu

[1] Visakkaa R, [2] Dr. Dipak Kumar Bose, [3] Dr. Jahanara
[1] Research Scholar, [2]Associate Professor, [3] Prof. & Head
Department of Agricultural Extension and Communication, Naini, Agricultural Institute
Sam Higginbottom University of Agriculture, Technology And Sciences, Naini, Prayagraj, U.P. 211007

Abstract:- The present investigation was carried out to ascertain the knowledge and adoption of improved plant protection measures in coconut cultivation in Salem District of Tamil Nadu during 2018-19. A total of 120 respondents from 12 villages were randomly selected and data were collected through pre structured interview schedule, analysed by using appropriate statistical methods. The study inferred that about 40.00 per cent of the respondents have low socio economic status followed by 39.17 per cent of the respondents have medium level and 20.83 per cent of the respondents with high level of socio-economic status. It was found that 44.17 per cent respondents had medium level of knowledge regarding the improved plant protection measures in coconut cultivation.

Keywords:- *Area Mapping, Socio-Economic Status, Knowledge Level. Corelation Coefficient.*

I. INTRODUCTION

Horticulture has a very long history. The origins of horticulture lie in the transition of human communities from nomadic hunter-gatherers to sedentary or semi-sedentary horticultural communities, cultivating a variety of crops on a small scale around their dwellings or in specialized plots visited occasionally during migrations from one area to the next. The coconut fruit botanically known as fibrous drupe popularly known as 'Nut'. It takes 12 to 13 months for maturity if tall varieties and in case of 11 months in draft varieties. Coconut (Cocos nucifeurm Linn.) is one of the most useful trees. The coconut palm is referred to as 'Kalpavriksha' - the 'tree of heaven' as each and every part of the palm is useful to mankind in one way or other. It provides food, drink, fuel and timber. The four southern states viz. Kerala, Tamil Nadu, Karnataka and Andhra Pradesh are the major coconut producing states in India accounting for more than 90% of area and production. The important horticultural crops are grown over 638.55 thousand hectares i.e., 19% of total cropped area in Tamil Nadu and the estimated total income generated exceeds Rs.980 crores per annum. *(agritech.tnau.ac.in)*

II. RESEARCH METHODOLOGY

The present study was conducted in Salem district of Tamil Nadu. Salem is a Geologist's paradise, surrounded by hills and the landscape dotted with hillocks. Salem has a vibrant culture dating back to the ancient Kongu Nadu. There are 9 taluks in Salem district. Out of which Salem and Vazhapady taluks has been selected purposively based on the highest area under coconut cultivation. From the selected taluk, 12 villages were selected purposively based on the highest area of coconut cultivation. From each village total 10 respondents were selected randomly. A structured interview schedule was constructed in consultation with the expert's opinion in the concerned field and also by including the scales devised and questions framed in relation to the variables considered for the study. The data was analysed by using statistical tools such as frequency, percentage, mean, standard deviation and correlation coefficient.

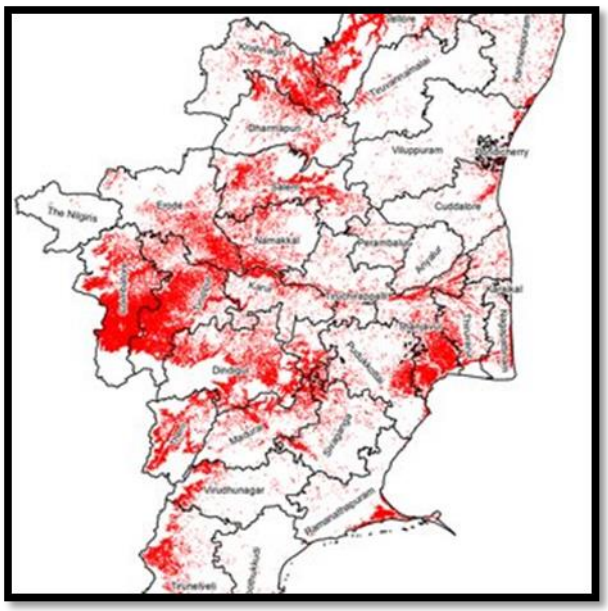

Fig 1:- Area showing major coconut cultivation.

ISSN No:-2456-2165

III. RESULT AND DISCUSSION

A. Socio- Economic Profile of the Respondents

The table 1 shows that 40 per cent respondents comes under low category, 39.17 per cent were fall under medium category and followed by 20.83 per cent were in high level respectively. Similar findings is also reported by ***Nagesh 2013.***

Category	Frequency	Percentage
Low (<17)	48	40.00
Medium (18-24)	47	39.17
High (>24)	25	20.83
Total	120	100.00

Table 1:- Overall distribution of the socio-economic profile of the coconut growers

B. Knowledge of Respondents in Improved Plant Protection Practices of Coconut Cultivation

The table 2 revealed that regarding the recommended climate for coconut growth 47.50 per cent were partially known. It stated that 66.67 per cent were partially known about the Suitable soil for coconut cultivation. About 46.66 per cent were partially known about the recommended coconut varieties. It revealed that regarding the recommended age of seedlings 55.00 per cent of respondents were partially known. It stated that 51.67 per cent were fully known regarding preparation of land. About 44.17per cent were partially known about the recommended pit size. It stated that 45.83 per cent were partially known the recommended time of planting. It revealed that 47.50 per cent of the respondents were partially known the recommended spacing between plant to plant. It was observed 45.00 per cent were fully known the amount of FYM/tree/year. It was found that 44.17 per cent were partially known about fertilizer nutrient supplement. About 44.17 per cent of respondents were partially known of optimum dose of fertilizer NPK (Kg/ha).Almost less than half of the percentage 41.67 per cent were fully known about the recommended intercultural operations. About 40.83 per cent were fully known about the recommended green manures. It was found that 48.33 per cent were fully known regarding the intercropping system. It revealed that 45.00 per cent were partially known of the major insect pest. About 40.00 per cent of the respondents were partially known of the recommended pest control measures. It was observed that 50.00 per cent were partially known and followed by 25.00 per cent were fully. About 43.44 per cent of respondents are not known about the recommended disease and its control measures.

	Statements	Fully known		Partially known		Not known	
		F	**P**	F	P	F	P
1	Recommended climate for coconut growth	50	41.67	57	47.50	13	10.83
2	Suitable soil for coconut cultivation	32	26.67	80	66.67	8	6.66
3	Recommended coconut varieties	47	39.17	56	46.66	17	14.17
4	Recommended age of seedlings	37	30.83	66	55.00	17	14.17
5	Preparation of land	62	51.67	39	32.50	19	15.83
6	Recommended pit size	47	39.17	53	44.17	20	16.66
7	Recommended time of planting	39	32.50	55	45.83	26	21.67
8	Spacing between plant to plant	51	42.50	57	47.50	12	10.00
9	Amount of FYM/tree/year	54	45.00	48	40.00	18	15.00
10	Fertilizer nutrient supplement	36	30.00	53	44.17	31	25.83
11	Optimum dose of fertilizer NPK (Kg/ha)	33	27.50	53	44.17	34	28.33
12	Recommended irrigation	31	25.83	47	39.17	42	35.00
13	Intercultural operations	50	41.67	49	40.83	21	17.50
14	Recommended green manures	49	40.83	45	37.50	26	21.67
15	Intercropping system	58	48.33	39	32.50	23	19.17
16	Major insect pest	32	26.67	54	45.00	34	28.33
17	Recommended pest control measures	25	20.83	48	40.00	47	39.17
18	Major diseases	30	25.00	60	50.00	30	25.00
19	Recommended disease control measures	19	15.83	49	40.83	52	43.44

Table 2:- Knowledge levels of the respondents in coconut cultivation

Sl. No.	Categories	Frequency	Percentage
1	Low (<33)	26	21.66
2	Medium (34-45)	53	44.17
3	High(>46)	41	34.17
	Total	**120**	**100.00**
	Mean = 37.83	**SD =10.41**	

Table 3:- Overall knowledge level of coconut growers about improved plant protection practices: (n=120)

From the above table it is stated that 44.17 per cent of the respondents are having medium level of knowledge followed by 34.17 per cent of the respondents are having high level of knowledge and (21.66%) of the respondents are having low level of knowledge. The findings is in the line of the findings of ***Patel, et al,.(2011)***

The reason for medium knowledge level of the respondents may be due to low education level and low involvement of the respondents in extension participation. Therefore the respondents should develop high social participation and innovativeness to gain knowledge in improved plant protection practices in coconut so that it would improve their medium knowledge level to high knowledge level regarding the plant protection measures in coconut cultivation.

S. No.	Independent Variables	Correlation (r) values
1	Age	0.8617*
2	Education	-0.8859NS
3	Land holding	-0.6559NS
4	Farming experience	-0.3276NS
5	Annual income	-0.6740NS
6	Social participation	-0.4300NS
7	Extension participation	-0.0869NS
8	Mass media exposure	0.2632**
9	Innovativeness	0.9307*
10	Risk orientation	0.3827**
11	Economic motivation	0.5274*

Table 3:- Relationship of independent variables with Knowledge towards improved plant protection practices in Coconut

**=Significant at the 0.01 level (2-tailed),
*=Significant at the 0.05 level (2-tailed),
NS=Non Significant.

IV. CONCLUSION

It is concluded that 40 per cent respondents comes under low category, 39.17 per cent were fall under medium category and followed by 20.83 per cent were in high level of overall social participation. It is concluded that the level of knowledge regarding improved plant protection practices in coconut cultivation is medium, 44.17 per cent. It is concluded from the above correlation table that there is a very high significant correlation between the independent variables like mass media exposure and risk orientation and the dependent variable knowledge. Similarly there is a positive correlation between innovativeness, economic motivation and age with the dependent variable knowledge. There is a negative correlation between education, land holding, farming experience, annual income, social participation and extension participation with the dependent variable knowledge. If training regarding plant protection measures and if Government subsidy for plant protection chemicals were provided to the respondents as per their suggestion their knowledge level will increase from medium to high level.

REFERENCES

[1]. **Ashok Kumar, B. 2011.** A study on entrepreneurial qualities and adoption behavior of banana growers in Gulbarga district of Karnataka. M.Sc. (Agri.) Thesis, (Unpublished) Univ. Agric.Sci., Dharwad, Karnataka (India).
[2]. **Gardi, P. B. And Kadam, R. P. (2016).** Knowledge of integrated weed management practices by the farmers in Marathwada region. Inter. J. of Forestry and Crop Improv 7: 108-113.
[3]. **Nagesh, 2013,** Study on entrepreneurial behaviour of pomegranate growers in Bagalkot district of Karnataka, *M.Sc. (Agri.) Thesis,* Univ. Agric. Sci., Dharwad, (India).
[4]. **Naik, K. S. and Deshmukh, P.R. (2016).** Knowledge and adoption of recommended package of practices of banana growers. 11 (1):41-44.
[5]. **Raghavendra B. N. 2015,** A study on management practices of pineapple growers in Karnataka. *M. Sc. (Agri.) Thesis*, Univ. Agric. Sci., Dharwad, (India).
[6]. **Romade, B. D, Shinde, S. B, and Patil S.D. 2014.** Knowiedge and adoption of dryland agricultural technologies in Western Maharashatra. *Asianjournal of Extension Education.* 7(2):117-119.