

Extent of Adoption of Recommended Production Practices of Onion (*Allium Cepa L.*) in Gadag District of Karnataka

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Abstract:- The present investigation entitled “Extent of Adoption of Recommended Production Practices of Onion in Gadag District of Karnataka” was carried out during 2018-19 in Gadag taluk of Gadag district. 120 respondents from 10 villages were randomly selected and data were low category and followed by 27.50 per cent were collected and analysed by using appropriate statistical methods. The overall distribution of the respondents according to the socio-economic status is that about 37.50 per cent of the respondents come under medium category of socio-economic status followed by 35.00 per cent were fall under in high level of socio-economic status. It was found that about 40.00 per cent of the respondents were in medium adoption category, followed by 38.33 per cent and 21.67 per cent of the respondents were in high and low level of adoption regarding recommended production practices of onion.

Keywords:- Socio-Economic Status, Graph, Adoption Level, Correlation Coefficient.

I. INTRODUCTION

The history of Agriculture in India dates back to Indus Valley Civilization Era and even before that in some parts of Southern India. India ranks second worldwide in farm outputs. As per 2018, Agriculture employed 50% of the Indian work force and contributed 17-18% to country's GDP in 2016 Vegetable cultivation in India is quite ancient. A variety of vegetable crops like fruit vegetable, leafy vegetables, cole vegetable, bulb vegetable etc. are grown throughout India. Vegetable growing is an effective source for generating greater income from per unit area. Among vegetables, onion is the most important bulb crop and one of the most popular vegetable crops. Onion (*Allium cepa L.*) belongs to family Alliaceae is among the oldest cultivated plant species and its reference can be found in the inspiration of ancient civilization of Egypt, Rome, Greece, India and China. The varieties of onions are

grouped according to their size, colour and pungency. The most important ones are brown red, yellow and white. Yellow coloured onions are rarely grown. The big sized bulbs have a mild flavour, sweet in taste and are less pungent when compared to the local small size onion grows well in mild climate without extremes of high or low temperatures even though it can be grown under a wide range of climatic conditions. The plant at early stage can withstand the freezing temperature. Karnataka is one of the states with great potential for horticultural development. The state is blessed with ten agro-climatic zones suitable for growing variety of fruits and vegetables around the year. The major districts growing horticulture crops in the state are Bangalore, Belgaum, Bijapur, Bagalkot, Chitradurga, Dharwad, Dakshina Kannada, Kolar, Hassan, Mysore, Shimoga and Tumkur.

II. RESEARCH METHODOLOGY

➤ Selection of District

Gadag district is situated between 14°33 to 14°62 North Latitude and 75°13 to 75°42 East Latitude. It is bounded East by Koppal district, in the West by Dharwad district, in the North by Bagalkot district and in the South by Haveri and Bellary districts. Gadag district of Karnataka was selected purposefully for the present study as onion is the major crop in the area.

It is the major onion growing district in North Karnataka. It ranks third in the state next to Belgaum and Hubli with respect to total area under onion. The study is conducted in Gadag taluk of Gadag district. has been selected purposively based on the highest area under onion cultivation. From the selected taluk, 10-12 villages will be selected purposively based on the highest area of onion cultivation. Thus total 10 villages were selected for present investigation and from each village total 12 respondents were selected randomly. The interview schedule was prepared in sequence to collect the data from the respondents by including all the aspects as per the objectives set forth for the study. The schedule was pre-tested in non-sample area. In the light of pre-testing, necessary changes were incorporated in the format items. The data was analysed by using statistical tools such as frequency, percentage, mean, standard deviation and correlation.

III. RESULT AND DISCUSSION

A. Socio- Economic Profile of the Respondents:

Category	Frequency	Percentage
Low (<19)	42	35.00
Medium (20-27)	45	37.50
High (>28)	33	27.50
Total	120	100.00

Table 1:- Overall distribution of the socio-economic level of the onion growers

The table 1. Shows that (35.00%) respondents comes under low category, (37.50%) were fall under medium category and followed by (27.50%) were in high level of overall socio-economic profile of the respondents. The findings is in the line of *Rai, et. al., (2012)*.

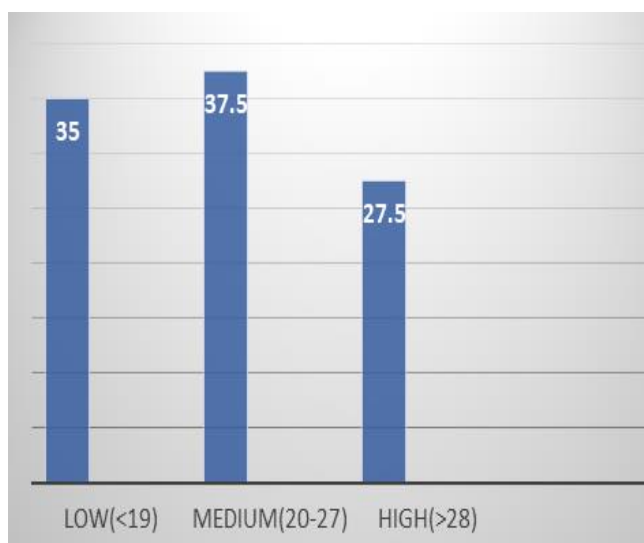


Fig 1:- Overall distribution of onion growers according to socio-economic level.

B. Adoption of Respondents in Recommended Production Practices of Onion

The table 2 revealed that (53.33%) of the respondents are fully adopted Suitable soil for onion cultivation, (28.34%) were partially adopted and followed by (18.33%) were not adopted suitable soil for cultivation of onion respectively.

It revealed that (54.17%) of respondents were fully adopted recommended onion variety, (31.67%) were partially adopted only (14.16%) were not adopted recommended variety respectively.

It stated that (50.00%) of respondents were partially adopted Certified seed from private company some prepared their own seedlings, (45.83%) were fully adopted and followed by (4.17%) were not adopted respectively.

About (46.67%) were partially adopted the Seed rate for one hectare, (32.50%) were fully adopted and followed by (20.83%) were not adopted respectively.

It shows that (53.33%) were partially adopted the seed treatment correctly, (27.50%) were fully adopted and followed by (19.17%) not adopted respectively.

About (55.00%) were partially adopted recommended Spacing between plant to row, (26.67%) were fully adopted and followed by (18.33%) were not adopted respectively.

About (52.50%) were fully adopted the type of manure required for onion cultivation (36.67%) were partially adopted and followed by (10.83%) of respondents were not adopted respectively.

It stated that (39.17%) were fully adopted the correct dosage of FYM t/ha, (34.17%) were not adopted and the (26.67%) were partially adopted the recommended dosage respectively.

About (41.67%) of respondents were partially adopted the recommended Fertilizer nutrient supplement to the crop, less than half of the percentage (32.50%) were not adopted and followed by (25.83%) were fully adopted respectively.

Almost (46.67%) were not adopted the optimum dose of fertilizer for onion cultivation (Kg/ac) NPK, were (30.00%) partially adopted and followed by (23.33%) were fully adopted respectively.

It revealed that (37.50%) were full adopted the Weed control stages in onion field, followed by (35.83%) and (26.67%) were partially adopted and not adopted respectively.

About (52.50%) were fully adopted, (34.17%) were partially adopted and (13.33%) of respondents were not adopted the Herbicide application for onion in their field respectively.

About (47.50%) were partially adopted the proper Irrigation requirement cause of water scarcity, (35.00%) were fully adopted, followed by (17.50%) of respondents were not adopted respectively.

About (35.83%) of respondents were fully adopted, followed by (33.33%) were partially and (30.83%) were not adopted the proper pest management activities respectively.

	Statements	Fully Adopted		Partially Adopted		Not Adopted	
		F	P	F	P	F	P
1	Suitable soil for onion cultivation	64	53.33	34	28.34	22	18.33
2	Recommended onion varieties	65	54.17	38	31.67	17	14.16
3	Certified seed for onion can be obtained from	55	45.83	60	50.00	5	4.17
4	Seed rate for one hectare	39	32.50	56	46.67	25	20.83
5	Seed treatment	33	27.5	64	53.33	23	19.17
6	Spacing between plant to row	32	26.67	66	55.00	22	18.33
7	Type of manure required	63	52.50	44	36.67	13	10.83
8	Amount of FYM t/ha	47	39.17	32	26.67	41	34.17
9	Fertilizer nutrient supplement	31	25.83	50	41.67	39	32.50
10	Optimum dose of fertilizer for onion cultivation (Kg/ac) NPK	28	23.33	36	30.00	56	46.67
11	Weed control stages in onion cultivation	45	37.50	43	35.83	32	26.67
12	Herbicide application for onion	63	52.50	41	34.17	16	13.33
13	Irrigation requirement	42	35.00	57	47.50	21	17.50
14	Pest Management	43	35.83	40	33.33	37	30.83

Table 2:- Adoption of Respondents in Recommended Production Practices of Onion

Sl. No.	Categories	Frequency	Percentage
1	Low(<22)	26	21.67
2	Medium (22-32)	48	40.00
3	High(>33)	46	38.33
	Total	120	100.00
	Mean= 25.16	SD= 9.18	

Table: 2.1 Overall adoption level of recommended production practices of onion: (n=120)

From the above table it is revealed that about (40.00%) of the respondents fall under medium category followed by (38.33%) will fall under high category and followed by (21.67%) will fall under low category of adoption level. The findings is in the line of the findings of *Ekale, et al., (2015)*. The reason for medium adoption level of the respondents is there is very low social participation and only medium level of extension contact. Therefore the respondents should involve in high social participation and extension contact to improve their adoption of recommended production practices of onion and eventually they can overcome their major constrain of quality yield production.

Table 3:Relation between socioeconomic profile and adoption level of onion growers

S. No.	Independent Variables	Correlation (r) values
1	Age	0.95599**
2	Education	0.71436*
3	Land holding	-0.6493NS
4	Farming experience	-0.6097NS
5	Annual income	-0.9317NS
6	Social participation	-0.5277NS
7	Extension contact	-0.0890NS
8	Extension participation	0.6129*
9	Mass media exposure	0.6054*
10	Innovativeness	0.8433**
11	Risk orientation	-0.3555NS
12	Economic motivation	0.6782*

CONCLUSION: It is concluded that majority of the respondents fall under medium category of overall socio-economic profile. It is concluded that the overall adoption level of the respondents regarding recommended cultivation practices of onion is medium. It is concluded from the above correlation table that there is a high correlation between age, innovativeness with the dependent variable adoption. Similarly there is a positive correlation between education, extension participation, mass media exposure and economic motivation with the dependent variable adoption. The independent variables like land holding, farming experience, annual income, social participation, extension contact and risk orientation have negative correlation with the dependent variable adoption. Government should give proper training and extension strategies which will lead to the maximum adoption of recommended production practices in onion to increase their yield.

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