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Knowledge of recommended package of practices of greengram

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ABSTRACT

The present study was conducted in Parbhani district of Marathwada region of Maharashtra state. Parbhani, Jintur and Selu talukas of Parbhani district were purposively selected for study. Forty respondents were selected from each taluka on the basis of maximum area under greengram. Thus, 120 respondents were selected as sample for this study. The respondents were interviewed with the help of well structured interview schedule. Majority of the greengram growers were from medium farming experience, Middle School level of education, medium land holding, joint family type and medium extension contact, social participation, annual income, economic motivation, risk orientation, sources of information, market orientation with medium knowledge level of recommended package of practices of greengram. It was also observed that education, extension contact, social participation, annual income, economic motivation, risk orientation, sources of information, were positively and significantly related with the level of knowledge of recommended package of practices of greengram growers.

INTRODUCTION

Greengram (*Vigna radiata*) commonly known as 'Mung', mungbean', or 'golden gram' is one of the most important short duration pulse crops of India. It is the third important pulse crop after chickpea and pigeonpea. Greengram is protein rich staple food. It contains about 25 per cent protein which is almost three times that of cereals. Greengram also plays important role in sustaining soil fertility by improving soil physical properties and leaves nitrogen effect for succeeding crops. In agriculture, the contribution made by Agricultural Universities not only helped to increase production and productivity of food crops but it has also helped in achieving socio-economic upliftment of the Maharashtra state. State Agriculture Universities in Maharashtra have generated number of farm innovations. Some of farmers having knowledge about new practices but they do not adopt at all because of some constraints in adoption. So, the present study was carried out for judging the knowledge level of greengram growers.

Objectives :

- To study the profile of respondents.
- To study the knowledge level of respondents about recommended package of practices of greengram.
- To find out relationship between the profile of respondents with knowledge of recommended package of practices of greengram.

METHODS

The present investigation was conducted in Marathwada region of Maharashtra state. For the study, three talukas Parbhani, Jintur and Selu were selected from Parbhani district. Four villages from each taluka were selected on the basis of maximum area under greengram. Thus, 12 villages from 3 talukas were selected for this study. From each village 10 greengram growers were selected randomly. Thus a total of 120 respondents were elected as sample for this study.

Table 1 : Profile of greengram growers **(n=120)**

Sr. No.	Categories	Frequency	Per cent
A.	**Education**		
1.	Illiterate	11	9.16
2.	Primary School level (1st to 4th std.)	15	12.50
3.	Middle School level (5th to 7th std.)	59	49.16
4.	High School level (5 to 10th std.)	24	20.00
5.	College level (above 10th std.)	11	9.16
B.	**Land holding (ha)**		
1.	Marginal farmers (Up to 1 .0)	09	7.50
2.	Small farmers (1.01 to 2.0)	43	35.83
3.	Semi-medium farmers (2.01 to 4.0)	43	35.83
4.	Medium farmers (4.01 to 10)	24	20.00
5.	Big farmers (10.01 and above)	01	0.84
C.	**Farming experience**		
1.	Low (Up to 8 years)	18	15.00
2.	Medium (9 to 32 years)	78	65.00
3.	High (33 years and above)	24	20.00
D.	**Annual income**		
1.	Low (Up to Rs. 75693)	20	16.66
2.	Medium (Rs. 75694 to 250439)	81	67.50
3.	High (Above Rs. 250439)	19	15.84
E.	**Family type**		
1.	Joint family	81	67.50
2.	Nuclear family	39	32.50
F.	**Economic motivation**		
1.	Low (up to 19)	19	15.84
2.	Medium (20 to 23)	76	63.33
3.	High (24 and above)	25	20.83
G.	**Risk orientation**		
1.	Low (up to 19)	24	20.00
2.	Medium (20 to 23)	81	67.50
3.	High (24 and above)	15	12.50
H.	**Extension contact**		
1.	Low (up to 7)	26	21.67
2.	Medium (8 to 12)	68	56.66
3.	High (13 and above)	26	21.67
I.	**Social participation**		
1.	Low (up to 2)	31	25.83
2.	Medium (3 and 4)	72	60.00
3.	High (5 and above)	17	14.17
J.	**Sources of information**		
1.	Low (up to 15)	17	14.17
2.	Medium (16 to 20)	84	70.00
3.	High (21 and above)	19	15.83
K.	**Market orientation**		
1.	Low (up to 19)	13	10.83
2.	Medium (20 to 23)	84	70.00
3.	High (24 and above)	23	19.17

OBSERVATIONS AND ANALYSIS

The findings of the present study as well as relevant discussion have been presented under following heads :

The profile of greengram growers :

The data of Table 1 reveal that 49.16 per cent of them have Middle School level of education while, equal percentage (35.83 %) of greengram growers were found in semi-medium land holding and small land holding category, 65 per cent of the greengram growers had experience of farming up to 9 to 32 years. Equal percentage of the respondents (67.50 %) had medium annual income and having joint family. Near about two third of the respondents (63.33 %) were having medium economic motivation, majority (67.50 %) of the greengram growers were in the medium risk orientation category, more than half of the greengram growers (56.66%) had medium extension contact. Sixty per cent of the greengram growers had medium social participation, more two third (70.00 %) of the greengram growers used medium sources of information, 70.00 per cent of the greengram growers had medium market orientation.

Knowledge of the greengram growers about recommended package of practices :

It is reported from Table 2 that majority (65.50 %) of the greengram growers had medium level of knowledge while 20.00 per cent of the greengram growers had low and only 17.50 per cent of them had high level of knowledge.

Table 2 : Distribution of the greengram growers according to their level of knowledge about recommended package of practices **(n=120)**

Sr. No.	Knowledge level	Frequency	Percentage
1.	Low	24	20.00
2.	Medium	75	62.50
3.	High	21	17.50

Table 3 indicate that greengram growers were having the least knowledge about some of the important recommended package of practices of greengram. The practice known by respondents about hybrid varieties give more yields as compared to local varieties (96.67 %), knowledge about preparation of land (1-ploughing-2-harrowing) (91.67 % and 94.17 %, respectively). If late sowing yield will decrease (91.67%), 90 per cent of the respondents have knowledge about manuring (15-20 carts / ha) application, 86.67 per cent of the respondent have knowledge about harvesting after 60 to 70 days, 86.67 per cent of respondents know that IPM is most useful method to control pest.

Knowledge about selection of soil (85 %), require supplementary irrigation 80 per cent of respondents, knowledge about inter cultivation *i.e.* 2-hoeing and 1-weeding known to

Table 3 : Distribution of respondents according to their practice wise knowledge about the recommended package of practices of greengram (n=120)

Sr. No.	Items / practices	Frequency	Percentage
1.	Selection of soil	102	85.00
2.	Manuring (15-20 carts / ha)	108	90.00
3.	Preparation of land (1-ploughing)	110	91.67
4.	Preparation of land (2-harrowing)	113	94.17
5.	Seed treatment with *Rhizobium*	75	62.50
6.	For controlling seed borne diseases use *Trichoderma*, carbendizim seed treatment	54	45.00
7.	Sowing in third week of June to first week of July	85	70.83
8.	If late sowing yield will decrease	110	91.67
9.	Thinning 10-15 days after sowing	49	40.83
10.	Depth of sowing (3-5cm)	78	65.00
11.	Use of varieties	52	43.33
12.	As compared to local varieties hybrid varieties give more yield (yes)	116	96.67
13.	Powdery mildew resistant variety (BPMR-145)	32	26.67
14.	Seed rate @12-15 kg/ha	75	62.50
15.	Row to row spacing (30 cm)	60	50.00
16.	Plant to plant spacing (10 cm)	75	62.50
17.	Inter cultivation (2-hoeing)	92	76.67
18.	Inter cultivation (1-weeding)	86	71.67
19.	Irrigation at proper stage (at flowering or pod filling stage)	96	80.00
20.	Application of NPK 25:50:0	47	39.17
21.	Diseases (powdery mildew)	41	34.17
22.	Insects (thrips)	34	28.33
23.	For controlling powdery mildew disease, spray sulphur.	30	25.00
24.	Use of lady bird bettle insect	28	23.33
25.	Use of IPM (yes)	104	86.67
26.	Use of diamethoate for controlling insect	65	54.17
27.	Use of 10 ml diamethoate in 10 lit. of water	47	39.17
28.	First harvesting at 75% maturity	58	48.33
29.	Harvesting after 60 to 70 days	104	86.67
30.	Yield (10-12Q/ha)	86	71.67

76.67 and 71.67 per cent, respectively. 71.67 per cent of respondents were knowing that yield of greengram per hectare. 70.83 per cent of respondents were about sowing in June third week to July first week, 65 per cent of the respondents were having knowledge about depth of sowing, 62.50 per cent of the respondents were having knowledge about seed rate, plant to plant spacing and seed treatment.

The greengram growers were having less knowledge about some of the important recommended package of practices of greengram, knowledge of the respondents about the package of practices like use of diamethoate for controlling insect (54.17 %), row to row spacing 50.00 per cent, first harvesting at (75%) maturity (48.33 %), seed treatment (45.00 %), use of varieties (43.33 %), thinning 10-15 days after sowing (40.83 %). 39.17 per cent of the respondent have knowledge about application of FYM and use of 10 ml diamethoate in 10 lit. of water, knowledge of the respondents about the diseases and insects (34.17 and 28.33 %, respectively), knowledge about the powdery mildew resistant variety of greengram (26.67 %), for controlling powdery mildew disease spray sulphur 25.00 per cent and 23.33 per cent of the respondents have knowledge about use of lady bird bettle insect for control insect pest. The findings of the present study are similar to that of Mane (2001), Deshmukh (2006), and Mane (2012).

Relationship between profile of greengram growers with the knowledge of package of practices :

It is conspicuous from Table 4 that the results of correlation co-efficient (r) showed that the independent variables namely, education, extension contact, social participation, annual income, economic motivation, risk orientation and sources of information, were positively and significantly related with the level of knowledge of recommended package of practices of greengram growers. Whereas family type had negatively significant with knowledge of the farmers about recommended package of practices of greengram growers. Land holding, farming experience and market orientation were having non-

Table 4 : Relationship between profile of greengram growers and their level of knowledge of recommended package of practices

Sr. No.	Independent variables	Correlation co-efficient ('r')
1.	Education	0.425**
2.	Land holding	0.169^{NS}
3.	Farming experience	0.058^{NS}
4.	Annual income	0.226*
5.	Family type	-0.220*
6.	Economic motivation	0.347**
7.	Risk orientation	0.316**
8.	Extension contact	0.464**
9.	Social participation	0.430**
10.	Sources of information	0.409**
11.	Market orientation	0.010^{NS}

* and ** indicate significance of values at P=0.05 and 0.01, respectively
NS = Non–significant

significant relationship with knowledge of the farmers about recommended package of practices of greengram growers.

Conclusion :

It is concluded that majority of the greengram growers were having medium farming experience, Middle School level of education, medium land holding, joint family type, medium extension contact, medium type of social participation, annual income, economic motivation, risk orientation, sources of information, market orientation and possessed medium knowledge about recommended package of practices of greengram.

The data revealed that majority of greengram growers were having complete knowledge about selection of soil (85.00 %), manuring (90.00), preparation of land (91.67), use of recommended varieties (43.33), appropriate seed rate (62.50), sowing (70.83), seed treatment with Rhizobium (62.50), distance between plant and row (50.00), use of chemical fertilizers (39.17), interculturing (76.67), irrigation (80.00), plant protection (54.17) and 86.67 per cent farmers were having complete knowledge about harvesting. It was also observed that education, extension contact, social participation, annual income, economic motivation, risk orientation and sources of information, were positively and significantly related with the level of knowledge of recommended package of practices of greengram growers.

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