KNOWLEDGE EXTENT OF FARMERS ABOUT CHICKPEA PRODUCTION TECHNOLOGY

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ABSTRACT

This study was undertaken on 100 respondents (Chickpea growers) selected from 4 villages of Asoha block of Unnao district. The maximum percentages of the respondents were found having medium level of knowledge, which the respondents were distributed accordingly to the knowledge categories viz. low, medium and high. Out of 12 agricultural practices of chickpea production, knowledge about field preparation was ranked at first (92%) followed by seed rate (90.00%) and harvest and post harvest (83.71%) ranked at second and third respectively. The poor extent of knowledge was reported for the practices viz. insects and pests control (28.22%), seed treatment (24.83%) and disease control (12.88%). The overall extent of knowledge was found to be 52.86 per cent. The variables like caste, education, housing pattern, annual income, house hold materials, transportation materials, communication media possession, overall materials possession, extension contact with information sources, economic motivation, risk orientation, adoption, occupation, social participation and scientific orientation had significant and positive correlation ship with extent of knowledge; means that the value of these variables increases, the knowledge extent is also increased.

Key words : *Chickpea growers; Chickpea production*

INTRODUCTION :

India grows chickpea on about 6.86 m ha producing 5.35m tones of grains, which represents 32 per cent and 42 per cent of the national pulse acreage and production, respectively. Chickpea production has gone up from 3.65 to 5.35 m tones between 1950-51 and 1999-2000 registering a modest growth of 0.1 per cent annually. During the period, while the area has declined from 7.51 to 6.86 m/ha, the yield has steadily increased to 780 kg/ha from 482 kg/ha. Not withstanding its distribution through out the country, four states, viz., Madhya Pradesh, Rajasthan, Uttar Pradesh and Maharashtra, together contribute 87 per cent of the production from 65 per cent area. Knowledge is recognized as one of the most important components of human behaviour, which gives impetus to adopt a technology. A proper understanding of improved practice is prerequisite for its adoption by chickpea growers at his farm. Knowledge in the present context was conceptualised as the amount of information about currently recommended practices for chickpea production technology and knowledge possessed by the farmers. This study was conducted the following specific objectives:

1. To study the socio-economic profile of the chickpea growers.
2. To find out the extent of knowledge about chickpea growers.
3. To find out the relationship between different variables and extent of knowledge about chickpea production technology.

METHODOLOGY

The present study was undertaken in Asoha block of Unnao district, which was purposively selected. A list of chickpea growers was prepared for each selected village. In all 100 farmers were selected from the lists through proportionate random sampling technique. To measure the knowledge of chickpea growers the scale developed by Ernest (1973) was used after suitable modification. All the questions in the knowledge test were dichotomised having yes/no or correct / incorrect questions, if the answer was 'yes or 'correct' it was assigned a score of (1) and if the answer was (no) or incorrect it was assigned a score of (0). The mean of scores for each item in the knowledge test was calculated and a total score for all the items was computed with the help of following formula.

$$\text{KnowledgeExtent} = \frac{\text{Total scores obtained by theres pondents}}{\text{Maximum attainable scores in the aspect}} \times 100$$

The range of scores obtained by the respondents might vary from 0 to 70 in the knowledge test which indicated the knowledge level of the respondents.

RESULTS AND DISCUSSION

Socio-economic profile of the check pea growers: The study depicted that the respondents (66%) were found in middle age group belonging to general caste (43%) and literate (85 %). Joint families were observed maximum having 6 to 10 members (69%) in their families. The holding size below 1 ha was observed with majority of the farmers (54%). Pucca houses were 54 per cent. Agriculture was observed as main occupation (73%) and 25 percent respondents earned the annual income in the range of Rs. 20,000 to 40,000. Half of respondents did not associate to any organization. Gram Pradhan (0.65) and VDO (0.37) among formal, family members (0.99) and neighbours (0.89) among informal and in case of mass media, radio (0.94) and TV (0.68) were main sources of information. The scientific orientation (43%), economic motivation (51%) and risk orientation (63%) were observed of medium levels.

Extent of knowledge of chickpea production technology: Table-1 shows that majority of the respondents (67%) were found possessing medium level of knowledge followed by 19 per cent and 14 per cent respondents who had low and high

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levels of knowledge respectively. The mean of scores was found to be 52.86 with a range of minimum 35.64 and maximum 77.54. Almost similar findings was obtained by Awasthi (2004) and Mishra (2005).

Table 1. Extent of knowledge of chickpea production technology N=100

S. No.	Categories	Respondents	
		f	%
1	Low (up to 44)	19	19.00
2	Medium (45 to 60)	67	67.00
3	High (61.00 and above)	14	14.00
	Total	100	100.00

Mean = 52.86, S.D. = 8.91, Min = 35.64, Max. = 77.54

Practice-wise knowledge extent of chickpea production technology: It is observed from the Table-2 that among all the 12 agricultural practices of chickpea production technology, field preparation was ranked at 1st (92 %) as far as knowledge of respondents concerned. The practices like seed rate was put at rank 2nd (90 %), harvest and post harvest ranked at 3rd (83.71 %), time of sowing at 4th (83.33 %), irrigation at 5th (62.5 %), sowing distance at 6th (46.66 %), improved varieties of chickpea at 7th (42.75 %), weeding at 8th (34.28 %) and manures and fertilizers application at 9th (33.25 %) respectively. The other practices viz. insects and pests control, seed treatment and disease control were ranked at 10th (28.22 %), 11th (24.83 %) and 12th (12.88 %) respectively. The overall knowledge index was calculated to be 52.86 per cent.

Table2. Practice wise knowledge extent of chick pea production technology N=100

S. No.	Practices	Extent of knowledge (%)	Ranks
1	Improved varieties of chick pea	42.75	VII
2	Field preparation	92.00	I
3	Seed rate	90.00	II
4	Seed treatment	24.83	XI
5	Time of sowing	83.33	IV
6	Sowing distance	46.66	VI
7	Manures and fertilizers application	33.25	IX
8	Irrigation	62.50	V
9	Weeding	34.28	VIII
10	Insects and pests Control	28.22	X
11	Disease control	12.88	XII
12	Harvest and Post harvest	83.71	III
	Average	52.86	

Relationship between different variables and extent of knowledge about chickpea production technology: It is revealed from Table-3 that the variables like caste, education, housing pattern, annual income, house hold materials, transportation materials, communication media exposure, overall materials possession, extension contact with information sources, economic motivation, risk orientation and adoption were found highly significant and positively correlated with the extent of knowledge of the respondents, where as the relationship with the occupation, social participation and scientific orientation had moderately significant and had positive correlation ship. Family type, Family size and agril. implements were found insignificant and negatively correlated with respect to knowledge level of respondents. Age, holding size and farm power were found insignificant but positively correlated.

Table 3. Correlation coefficient (r) between different variables and extent of knowledge about chickpea production technology

S. No.	Variables	Correlation coefficient (r)
1	Age	0.0176
2	Caste	0.3239**
3	Education	0.4116**
4	Family type	-0.0816
5	Family size	-0.017
6	Holding size	0.0869
7	Housing pattern	0.3263**
8	Occupation	0.2172*
9	Annual Income	0.2670**
10	Farm Power	0.1571
11	Agril. implements	-0.0127
12	House hold materials	0.3221**
13	Transportation materials	0.2730**
14	Communication media possession	0.4188**
15	Over all materials possession	0.3220**
16	Social participation	0.2290*
17	Extension contact with information sources	0.2812**
18	Scientific orientation	0.2320*
19	Economic motivation	0.2606**
20	Risk orientation	0.2930**
21	Adoption	0.3184**

* Significant at 0.05 Probability level = 0.195
** Significant at 0.01 Probability level = 0.254

CONCLUSION

It may be concluded that the overall extent of knowledge, which was 52.86 percent, seems to be medium level about chickpea production technology. Hence, there is need of special attention by providing training about checkpea production to the farmers so that their knowledge could be increased and the adoption of technology would ultimately be enhanced. There are many characteristics influencing the extent of knowledge about chickpea technology, which also need manipulation towards higher production of chickpea crop.

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