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Research Note

Knowledge of production technology by soybean growers

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SUMMARY : The present study on knowledge of production technology by soybean growers was conducted in Bhatkuli tahsil of Amravati district (M.S). The main objective of this study was to find out the knowledge level about production technology of soybean growers in Amravati district of Bhatkuli tahsil. Bhatkuli tahsil was selected purposively as considerable area was under soybean cultivation. 12 villages and 120 respondents were selected for study. The finding revealed that about 44.16 per cent of respondents belonged to medium level of knowledge. The selected variables *viz*., age, education, land holding, size of land holding, size of family, source of information, social participation, risk orientation, cropping pattern, experience in soybean cultivation of the soybean growers respondents exhibited significant relationship with their knowledge level.

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KEY WORDS :
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BACKGROUND AND OBJECTIVES

At present, India is deficit in production of edible oils. A large quantity of oilseeds are being imported which results in outflow of scarce and precious foreign exchange. To overcome this problem, the government of India and all state governments are making efforts in increasing the production of oilseeds in the country. soybean is called as the miracle crop of 20th century. It has tremendous potentiality of higher protein production. It is widely used in the industrial production of different antibiotics. It is also popularly known as 'queen of pulses','wonder crop and agriculture's cindrella.

Now the major soybean growing districts from Maharashtra are Amravati, Washim , Nagpur, Wardha, Sangli, Kolhapur and Buldhana. The production of this crop in Amravati region during the year 2011-12 was 3.414 lakh MT and 4.449 lakh MT, respectively. However, this yield is below the world average yield *i.e.* 24.18 q/ha . It indicates that there is still scope to increase the yield level of soybean crop in Maharashtra .

RESOURCES AND METHODS

The study was executed during 2013-14 to yield out the knowledge of production technology by soybean growers. A total 120 soybean growers were selected in Bhatkuli Tahsil of Amravati district. 10 soybean growers from each villages were selected randomly from soybean growers. The structured interview schedule serves as a tool for collecting data keeping in the view of the objectives of the study, an interview schedule was prepared. Efforts were also made to formulate a schedule with clean and easy questions. The schedule was prepared in locale language (Marathi) in order to get accurate response from the soybean growers. The suitable questions regarding the knowledge of practices by the soybean growers were included in the schedule. Mean, S.D, correlation and 't' test methods were used for analysis of data.

OBSERVATIONS AND ANALYSIS

The data presented in Table 1 revel that that majority of respondents (55%) belonged to middle age group and majority of respondents (36.67%) were secondary school level educated . Profile size of land holding showed that majority of the respondents, 48.34 per cent had medium size of land holding, 39.16 per cent respondents belonged to medium high annual income 10.00 per cent belonged to low annual income, majority of respondents 49.16 per cent had medium size of family, 35.83 per cent of respondents had medium level of social participation, 53.33 per cent of the respondents had medium risk orientation, cropping pattern shows that 54.16 per cent of the respondents had medium category and experience in soybean cultivation. Profile of respondents, show that majority of 65.00 per cent of the respondents had medium experience in soybean cultivation .

Table 1: Profile of respondents

Sr. No.	Profile	Number	Percentage
1.	Age		
	Low	30	25.00
	Medium	66	55.00
	High	24	20.00
2.	Education		
	Illiterate	2	1.67
	Primary	6	5.00
	Secondary school	44	36.67
	High secondary	36	30.00
	College	32	26.66
3.	Land holding		
	Marginal	7	5.83
	Small	10	8.33
	Semi medium	34	28.34
	Medium	58	48.34
	Large	11	9.16
4.	Annual income		
	BPL	7	5.83
	Low	15	12.5
	Medium	4	3.34
	Low medium	35	29.17
	Medium high	47	39.16
	High	12	10.00
5.	Size of family		
	Small	28	23.34
	Medium	59	49.16
	Large	33	27.50
6.	Source of information		
	Low	27	22.50
	Medium	70	58.34
	High	23	19.16
7.	Social participation		
	Low	17	14.17
	Medium	43	35.83
	High	60	50.00
8.	Risk orientation		
	Low	23	19.17
	Medium	64	53.33
	High	33	27.5
9.	Cropping pattern		
	Low	23	19.17
	Medium	65	54.16
	High	32	26.67
10.	Experience in soybean cultivation		
	Low	14	11.67
	Medium	78	65.00
	High	28	23.33

Level of knowledge of soybean growers :

It is observed from findings presented in Table 2 that, 44.16 per cent of respondents had medium and 27.50 per cent of respondents had low level of knowledge. About 28.34 per cent of respondents had high level of knowledge about soybean production technology. Similar results were found by Gawande *et al.* (2007).

Table 2: Distribution of respondents by their level of knowledge of soybean production technology (n=120)

Sr. No.	Category	Number	Percentage
1.	Low	33	27.50
2.	Medium	53	44.16
3.	High	34	28.34

Relation analysis :

It is revealed from Table 3 that out of 10 independent variables age, education, annual income, land holding, size of family, source of information, social participation, risk orientation, cropping pattern and experience in soybean cultivation exhibited significant relationship with their knowledge about soybean production technology.

Table 3 : Relation analysis of the respondents

Sr. No.	Independent variables	Correlation co-efficient 'r'	't' Cal
1.	Age	0.3621	4.072**
2.	Education	0.3040	3.383**
3.	Land holding	0.2404	2.6515*
4.	Annual income	0.2016	2.2127*
5.	Size of family	0.2722	3.014*
6.	Source of information	0.3414	3.8255**
7.	Social participation	0.2285	2.5163*
8.	Risk orientation	-0.3258	3.4509*
9.	Cropping pattern	0.2383	2.6274 *
10.	Experience in soybean cultivation	0.2670	2.9548*

* and ** indicate significance of values at P=0.05 and 0.01, respectively

Constraints :

Major constraints faced by the respondents were high cost of machinaries or tractor drawn implements, high cost of labours ,unavailabity of chemical fertilizes in time, unavailabity of pesticides, lack of labours, lack of assumed market, high charges of transportation and lack of knowledge about seed treatment. Raghuwanshi and Jaiswal, 2011; Shinde, 2003, Todasam, 2009; Venkatta Kumar and Padmaiah, 2010 had worked on the related aspects of the present investigation.

Conclusion :

From the finding of the present study, it is concluded that age, education, land holding, annual income, size of family, source of information, social participation, risk orientation, cropping pattern, experience in soybean cultivation of the soybean grower respondents exhibited significant relationship with their knowledge .The finding revealed that majority of the (44.16%) respondents had 'medium' level of knowledge. Knowledge of respondents increased due to age, education, land holding, annual income, size of family, source of information, social participation, risk orientation, cropping pattern, experience in soybean cultivation of respondents these help to increase in level of knowledge.

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