International Journal of Chemical Studies

P-ISSN: 2349–8528
E-ISSN: 2321–4902
IJCS 2017; 5(4): 1413-1415

Received: 12-05-2017
Accepted: 14-06-2017

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Knowledge of Sesamum growers about Sesamum cultivation practices

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Abstract
This study was carried out in Anand and Kheda district of middle Gujarat to assess the knowledge of Sesamum growers about Sesamum cultivation practices and the study revealed that nearly three forth (72.00 per cent) of the Sesamum growers had knowledge regarding land preparation, more than three fourth (79.00 per cent) of them had knowledge regarding improve variety, slightly more than half (62.00 per cent) from them had knowledge regarding seed rate while 58.00 per cent, 56.00 per cent and 60.00 per cent of respondents had knowledge regarding time of sowing, spacing and gap filling respectively. Only 37.20 per cent of the respondents had knowledge about application of organic manure and fertilizers. More than fifty (61.33 per cent) of Sesamum growers had knowledge about weed management practices. Slightly more than half (51.91 per cent) of Sesamum growers had knowledge about plant protection measures. Nearly two third (66.00 per cent) of respondents had knowledge about required numbers of irrigation.

Keywords: knowledge, Sesamum, growers and cultivation

Introduction
A number of agricultural improvement programmes have been introduced in India to increase the agricultural production and income of the farming community, but the outcome of these programmes is not satisfactory in terms of achieving higher agricultural production. The most important factor identified for this poor outcome was lack of understanding by the farmers about various technological recommendations made by the research institutes. As a result, more emphasis on farmers training activities is being given by the ICAR, SAUs along with the respective State Department of Agriculture. It is a known fact that training to farmers increases the technical efficiency of an individual. Sesame (*Sesamum indicum*) is grown in areas with annual rainfall of 625-1100 mm and temperature of >270C. The crop is tolerant to drought, but not to water logging and excessive rainfall. Sesame is well adapted to a wide range of soils, but requires deep, well-drained, fertile sandy loams. In some parts of Anand and Kheda district, farmers grow sesamum as summer crop however, get very low yields due to use of low yielding variety and poor knowledge about scientific cultivation of sesamum. In order to bring out the lacunas from farmers the present study was undertaken with the objective to assess the knowledge of sesamum growers about sesamum cultivation practices.

Methodology
The present investigation was being carried out in Anand and Kheda districts of Gujarat state. Three talukas of Kheda district i.e. Mahemdabad, Kathlal and Kapadvanj whereas two talukas of Anand district i.e. Borsad and Petlad were purposively selected. Among the selected four talukas, four villages were selected randomly from each talukas. Among the selected villages, five sesamum growers from each village were selected randomly. Thus, total 100 sesamum growers were selected for the study. The questionnaire was prepared in accordance with the objectives. The data were collected personally, tabulated, analyzed and interpreted with frequency and percentage.

Results and Discussion

Table 1: Characteristics of the sesamum growers n=100

Sr. No.	Characteristics	Frequency	Per cent
1	Age		
	i. Young Age (up to 30 years)	31	31.00
	ii. Middle Age (31 to 50 years)	48	48.00
	iii Old Age (Above 50 years)	21	21.00
2	Education		
	i. Illiterate	04	04.00
	ii. Primary education (up to vii std.)	42	42.00
	iii.Secondary education(viii to x)	40	40.00
	iv.Higher secondary(xi to xii)	08	08.00
	v. Graduate	06	06.00
3	Type of family		
	i. Joint family	41	41.00
	ii. Nuclear family	59	59.00
4	Land holding		
	i. Up to 1 hectare	36	36.00
	ii. 1.1 to 2 hectares	41	41.00
	iii. Above 2 hectares	23	23.00

Table 1 shows that nearly half (48.00 per cent) of sesamum growers were belonging to middle age group. More than one third (42.00 per cent) and 40.00 per cent of sesamum growers had primary and secondary level of education respectively, while more than half (59.00 per cent) of sesamum growers were belonging to nuclear family. More than one third (41.00 per cent) of sesamum growers had up to two hectare land holding followed by 36.00 per cent and 23.00 of respondents had up to one hectare and above two hectare of land holding respectively.

Table 2: Knowledge of sesamum growers about sesamum cultivation practices n=100

Sr. No.	Particulars	Knowledge	
		Frequency	Per cent
1	Land Preparation	72	72.00
2	Improved variety	79	79.00
3	Seed rate	62	62.00
4	Seed treatment		
	Name of fungicide	58	58.00
	Dose of fungicide	41	41.00
5	Time of sowing	58	58.00
6	Spacing	56	56.00
7	Gap filling	60	60.00
8	Fertilizers		
A	Basal application		
	i. Organic Manure	64	64.00
	ii. Nitrogen	34	34.00
	iii Phosphorus	26	26.00
	iv Potash	28	28.00
B	Top dressing		
	Urea	34	34.00
9	Weed Management		
	Manual	78	78.00
	Chemical		
	-Name of herbicide	60	60.00
	-Quantity of herbicide	46	46.00
10	Insect/Disease Management		
	1. Sphinx Moth		
	-Nature of damage	70	70.00
	Control Measure		
	-Name of pesticide	34	34.00
	-Dose of pesticide	49	49.00
	2. Sesamum Gall Fly		
	-Nature of damage	83	83.00
	Control Measure		
	-Name of pesticide	58	58.00
	-Dose of pesticide	51	51.00
	1. Leaf Spot Disease		
	-Nature of damage	68	68.00
	Control Measure		
	-Name of fungicide	40	40.00
	-Dose of fungicide	32	32.00

	2. Sesamum Phyllody		
	-Nature of damage	74	74.00
	Control Measure		
	-Name of fungicide	30	30.00
	-Dose of fungicide	34	34.00
11	Irrigation		
	No. of irrigation	66	66.00

Table 2 revealed that nearly three forth (72.00 per cent) of the sesamum growers had knowledge regarding land preparation, more than three fourth (79.00 per cent) of them had knowledge regarding improve variety, nearly two third (62.00 per cent) from them had knowledge regarding seed rate while more than half (58.00 per cent) and 41.00 per cent of sesamum growers had knowledge about name of fungicides and its proper dose respectively. 58.00 per cent, 56.00 per cent and 60.00 per cent of respondents had knowledge regarding time of sowing, spacing and gap filling respectively. Nearly two third (64.00 per cent) of the respondents had knowledge about application of organic manure whereas 34.00 per cent, 26.00 per cent and 28.00 per cent of respondents had knowledge regarding application nitrogenous, phosphatic and potashic fertilizers respectively. More than three fourth (78.00 per cent) of sesamum growers had knowledge about manual weed management while 60.00 per cent and 46.00 per cent from them had knowledge about name of herbicide and its quantity to control the weeds. Slightly more than two third (70.00 per cent) of respondents had knowledge about nature of damage of sphinx moth whereas 34.00 per cent and 49.00 per cent of them had knowledge about name of pesticide and its proper dose to control sphinx moth. Majority of respondents (83.00 per cent) had knowledge about nature of damage of sesamum gall fly while 58.00 per cent and 51.00 per cent from them had knowledge about name of pesticide and its dose. Slightly more than two third (68.00 per cent) and nearly third fourth (74.00 percent) of sesamum growers had knowledge about nature of damage of leaf spot disease and sesamum phyllody while 40.00 per cent and 30.00 per cent from them had knowledge about name of fungicide to control leaf spot disease and sesamum phyllody whereas 32.00 per cent and 34.00 per cent of sesamum growers had knowledge regarding its proper doses respectively. Nearly two third (66.00 per cent) of respondents had knowledge about required numbers of irrigation.

Conclusions

To epitomize the results it can be said that majority of the farmers belonged to middle age group, having secondary to higher secondary level of education, belonged to nuclear family, had small to medium size of land holding. As far as knowledge about sesamum cultivation practices is concerned majority of sesamum growers possess medium to high level of knowledge regarding cultural practices but they had low to medium level of knowledge regarding chemical measures of weed, insect and disease management.

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