

RESEARCH ARTICLE :

Knowledge level of farmers of Surendranagar district of Gujarat state about organic farming practices

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SUMMARY : Organic farming in India is being followed from ancient time. Organic agriculture in India has its roots in traditional agricultural practices that evolved in countless villages and farming communities over the millennium. Gujarat has remained a pioneer state in adopting organic farming. Adoption of organic agriculture necessarily involves a sequence of steps that need to be followed by the growers and verified by certification and inspection agencies. To find out the level of knowledge level of organic farming practices, respondents were selected from three talukas and 9 villages purposively. From each selected village, 10 farmers who were engaged in organic farming partially or fully were selected purposively. Thus, sample size consisted of 90 respondents from 9 village covered under study. Most of the respondents (98.89 %) had knowledge about mechanical cultivation practices, use of bio fertilizers in organic farming while 97.78 per cent respondents had knowledge about use of bio pesticide in organic farming and importance of crop rotation and use of oil cake for organic farming. 96.67 per cent respondents had knowledge about type of organic fertilizer may used for organic farming. 94.44 per cent respondents were aware about land preparation methods. Least knowledge was about organic farming certification process. Only 6 per cent respondents had proper knowledge about organic certification process.

KEY WORDS :

Organic farming, Adoption, Socio - economic characteristics

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BACKGROUND AND OBJECTIVES

The Indian agriculture is traditionally organic and farmers were following organic cultivation. The green revolution, started in India during sixty, has been the cornerstone of India's agricultural achievement, transforming the country from the stage of food deficiency to self-sufficiency. But

indiscriminate and excessive use of chemicals during this period has put forth a question mark on sustainability of agriculture in the long run calling attention for sustainable production which will address soil health, human health and environmental health and eco-friendly agriculture. Besides plants are more prone to pest and diseases in intensive agriculture, use of chemicals can have residues on the

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produce, in the soil and in ground water. With more of purchased inputs, cost of production is also mounting up.

RESOURCES AND METHODS

The research study was conducted in jurisdiction of Krishi Vigyan Kendra, JAU, Surendranagar. Three talukas were selected purposively where organic farming is being practiced for conducting the present investigation. Three villages were further selected from each selected taluka by purposively; where organic farming is being practiced and village-wise organic farmers' list was prepared. From each village, ten farmers were selected by random sampling method. Accordingly, 90 farmers were selected for the study purpose. An interview schedule was prepared to collect the required information as per the objectives of the study. For measurement of knowledge, an interview schedule was developed and data were collected by personal interview method. This study was carried with objective to find out extent of knowledge about organic farming among farmers of Surendranagar district.

OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

Overall knowledge level of respondents about organic farming practices:

Overall knowledge of respondents, engaged in organic farming was assessed with reference to practices they knew. The knowledge score of respondents was gathered through structured interview schedule and calculated and interpreted. The respondents were categorized into three broad categories based on their knowledge level *viz.*, low knowledge level, medium knowledge level and high knowledge level. The results are presented in Table 1.

It was observed from Table 1 that most of

respondents (65.56 %) were found in medium level of knowledge about organic farming practices followed by 20 per cent respondents who possessed high knowledge level about organic farming practices. Only 14.44 per cent respondents had low level of knowledge about organic farming practices.

Distribution of respondents according to their extent of knowledge about organic farming practices:

The data in Table 2 reveal that most of farmers had knowledge about organic farming practices *viz.*, use of bio-fertilizers in organic farming (98.89 %), know about the mechanical cultivation act as a part of organic farming (98.89 %), 97.78 per cent of respondents were known about the use of bio-pesticide in organic farming, importance of crop rotation in organic farming and use of oil cake for organic practices. 96.67 per cent respondents had knowledge about organic fertilizers which are added in to the soil and different practices of weed management with respect to organic farming. 95.56 per cent respondents had knowledge about the different seed treatment used for organic farming. 94.44 per cent respondents had known proper method of land preparation. Almost 93.33 per cent respondents were found familiar with the use of bio-insecticides/fungicides/agent in organic farming. 82.22 per cent respondents opined that they knew about importance of deep ploughing as a practice of organic farming and crop production quality improved by doing organic farming. large number of respondents had knowledge about different method of mulching in organic farming (81.11 %) while 76.67 per cent respondents possessed knowledge about vermicompost, how it can make and its use. 74.44 per cent respondents know about the use of yellow stripes for pest control.

Similarly moderate no. of respondents had knowledge of importance of seed treatment with cow urine (67.78%), use of parasite for control of aphid (66.67%), use of 'Amrutpani' and 'Amrut Sanjivani' in

Sr. No.	Overall knowledge level	No. of respondents	Percentage
1.	Low (upto 37)	13	14.44
2.	Medium (38 to 48)	59	65.56
3.	High (Score 49 and above)	18	20.00
	Mean = 42.4		SD = 11.41

organic farming (66.67%), know the use of ash for soil fertility improvement (64.44%), know about the crop residue and dry dung mixed in the furrow as a practice of organic farming (64.44%), know the use of concentrated manures in organic farming (53.33%), know about the seed treatment with '*Trichoderma harzianum*' (52.22%), know about the use of ripped banana and papaya act as growth promoter in organic farming (52.22%).

Among the least known practices organic farming

by respondents were knowledge about the important of seed treatment of cactus latex in different crops (17.78 %). Least knowledge was about organic farming certification process. Only 6 per cent respondents had possessed adequate knowledge about organic certification process. Similar work related to the present investigation was also carried out by Biswas *et al.* (1985); Chapke (2000); Joshi (2017); Patel *et al.* (2017) and Prajapati *et al.* (2018).

Table 2: Distribution of respondents according to their extent of knowledge about organic farming practices (n= 90)

Sr. No.	Question	Frequency	Percentage
1.	Do you know about the proper method of land preparation?	85	94.44
2.	Do you know about the organic fertilizers which are added in to the soil?	87	96.67
3.	Do you know about the different seed treatment used for organic farming?	86	95.56
4.	Do you know about the different practices of weed management with respect to organic farming?	87	96.67
5.	Do you know about the different method of mulching in organic farming?	73	81.11
6.	Do you know about the green manuring as a part of organic farming?	41	45.56
7.	Do you know about the use of oil cake for organic practices?	88	97.78
8.	Do you know the use of concentrated manures in organic farming?	48	53.33
9.	Do you know the use of bio-fertilizers in organic farming?	89	98.89
10.	Do you know the use of bio-insecticides/fungicides/agent in organic farming?	84	93.33
11.	Do you know the use of bio-pesticide in organic farming?	88	97.78
12.	Do you know about the mechanical cultivation act as a part of organic farming?	89	98.89
13.	Do you know the importance of crop rotation in organic farming?	88	97.78
14.	Do you know the procedure of organic farming certification?	6	6.67
15.	Do you know the use of ash for soil fertility improvement?	58	64.44
16.	Do you know about the crop residue and dry dung mixed in the furrow as a practice of organic farming?	58	64.44
17.	Do you know the use of wheat straw as mulching?	46	51.11
18.	Do you know about the marigold act as a trap crop in cotton crop?	38	42.22
19.	Do you know the importance of seed treatment with cow urine?	61	67.78
20.	Do you know about the important of seed treatment of cactus latex in different crops?	16	17.78
21.	Do you know about the seed treatment with ' <i>Trichoderma harzianum</i> '?	47	52.22
22.	Do you know the importance of application of ash in vegetable crops?	45	50.00
23.	Do you know about the use of 'Aak' (<i>Caliotropis gigantea</i>) for control of termite?	38	42.22
24.	Do you know about the use of Ardusi in organic farming?	41	45.56
25.	Do you know the importance of deep ploughing as a practice of organic farming?	74	82.22
26.	Do you know about the use of parasite for control of aphid?	60	66.67
27.	Do you know about the vermicompost and how it can make and its use ?	69	76.67
28.	Do you know about the use of 'Panchgavya' in organic farming?	42	46.67
29.	Do you know about the use of 'Amrutpani' and 'Amrut Sanjivani' in organic farming?	60	66.67
30.	Do you know about the use of yellow stripes for pest control?	67	74.44
31.	Do you know about the use of ripped banana and papaya act as growth promoter in organic farming?	47	52.22
32.	Do you know about the benefits of chilies and neem for grain storage? If yes give details?	41	45.56
33.	Do you know about that by doing organic farming quality of crop production is being improving?	74	82.22

Conclusion:

It can be concluded from the above study that majority of respondents (65.56 %) were having found in medium level of knowledge about organic farming practices followed by 20 per cent respondents who possessed high knowledge level about organic farming practices. Only 14.44 per cent respondents had low level of knowledge about organic farming practices.

Most of the respondents (98.89 %) had knowledge about mechanical cultivation practices, use of bio fertilizers in organic farming while 97.78 per cent respondents had knowledge about use of bio pesticide in organic farming and importance of crop rotation and use of oil cake for organic farming. 96.67 per cent respondents had knowledge about type of organic fertilizer may used for organic farming. 94.44 per cent respondents were aware about land preparation methods. Least knowledge was about organic farming certification process. Only 6 per cent respondents had proper knowledge about organic certification process.

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