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Perception and constraints of vegetable growers towards organic farming

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Abstract

The present study was conducted to assess the perception of vegetable growers towards organic farming and to identify the constraints perceived by them in adopting organic farming. The study was conducted in Chhatrapati Sambhajnagar district of Maharashtra. Three talukas, namely Phulambri, Sillod and Paithan, were purposively selected based on the maximum area under organic vegetable farming. Four villages from each selected taluka and ten vegetable growers from each village were selected purposively, resulting in a total sample of 120 respondents. Data were collected through a structured interview schedule and analysed using frequency, percentage, mean and standard deviation. The findings revealed that a majority (59.17%) of the vegetable growers had a medium level of perception towards organic farming, followed by 23.33 per cent with a low level and 17.50 per cent with a high level of perception. The major constraints reported were high cost of organic inputs and labour requirement (82.50%), lack of cold storage facilities near the village (80.00%), lack of market support and assured premium prices (74.17%) and non-availability of separate market spaces for organic vegetables in APMC markets (71.67%). The study suggests strengthening technical guidance, extension services, storage infrastructure and market support to encourage wider adoption of organic vegetable farming.

Keywords: Organic farming, vegetable growers, perception, organic vegetable farming, adoption constraints

Introduction

Organic farming has emerged as an important approach for sustainable agricultural development, with increasing emphasis on maintaining soil health, protecting the environment and ensuring safe and nutritious food. The growing awareness among consumers regarding food safety and the harmful effects of excessive use of chemical fertilizers and pesticides has increased interest in organically produced agricultural commodities.

Vegetable crops play an important role in providing food and nutritional security and also contribute substantially to farm income. However, vegetable cultivation is generally input-intensive and frequently involves the use of chemical fertilizers and plant protection chemicals. Excessive and indiscriminate use of such inputs may adversely affect soil health, environmental quality and human health. Organic farming provides an alternative approach by emphasizing the use of organic manures, crop residues, biological inputs and environmentally sound crop management practices.

Despite its potential benefits, adoption of organic vegetable farming remains challenging among farmers. Production-related difficulties, availability and cost of organic inputs, higher labour requirements, weed management, technical knowledge, certification, storage and marketing facilities may influence farmers' willingness to adopt organic farming. Farmers' perception plays an important role in determining

their acceptance of and response to organic farming practices. A favourable perception may encourage farmers to continue or expand organic cultivation, whereas unfavourable perceptions regarding cost, yield, labour and marketing may discourage adoption.

Understanding the perception of vegetable growers and the constraints experienced by them is therefore essential for developing appropriate extension strategies and policy interventions. Hence, the present study was undertaken in selected areas of Chhatrapati Sambhajnagar district of Maharashtra to assess the perception of vegetable growers towards organic farming and identify the major constraints perceived by them in adopting organic farming.

Objectives

- To study the perception of vegetable growers towards organic farming.
- To study the constraints perceived by vegetable growers in adopting organic farming.

Materials and Methods

The present study was carried out in Chhatrapati Sambhajnagar district of Marathwada region of Maharashtra State. From Chhatrapati Sambhajnagar district, three talukas namely Phulambri, Sillod and Paithan were purposively selected based on the maximum area under organic vegetable

farming. From each selected talukas, four villages were selected purposively. From each selected village, ten vegetable growers were selected purposively. Thus, a total of 120 farmers were selected for the study. The research design followed for the study was Ex- post-facto research design. The collected data were analysed using frequency, percentage, arithmetic mean and standard deviation.

The perception of vegetable growers towards organic farming was assessed using 20 statements, comprising both positive and negative statements. The respondents' responses were recorded under three categories, namely Agree, Undecided and Disagree providing score 3, 2 and 1 respectively for positive statement and reverse i.e. 1, 2 and 3 for negative statement. Appropriate scores were assigned to the responses, and the overall perception score was calculated. Based on the mean and standard deviation, respondents were classified into low, medium and high perception categories. The constraints perceived by vegetable growers in adopting

organic farming were identified through a structured schedule. The respondents were asked to indicate whether they perceived each constraint. The constraints were ranked based on the frequency and percentage of respondents reporting them.

The collected data were classified, tabulated and analysed using appropriate statistical tools, including frequency, percentage, mean and standard deviation.

Results and Discussion

1. Perception of vegetable growers towards organic farming

Farmers' perceptions are important for understanding their preparedness to accept, adopt and continue improved agricultural practices. The perception of vegetable growers towards organic farming was assessed using 20 statements covering environmental, health, economic, production, marketing and future-oriented aspects of organic farming.

Table 1: Statement-wise perception of vegetable growers towards organic farming

Sl. No.	Statements	Response		
		Agree Freq (%)	Undecided Freq (%)	Disagree Freq (%)
1)	Neighbours/relatives discourage me from shift to organic farming. (-)	36 (30.00)	25 (20.83)	59 (49.17)
2)	Government support is available for promoting organic vegetable farming. (+)	38 (31.66)	37 (30.83)	45 (37.5)
3)	Initially, shifting to organic vegetable farming requires a costly investment. (-)	24 (20.00)	53 (44.16)	43 (35.83)
4)	The non-availability of sufficient quantities of organic inputs is a major problem in adopting organic vegetable farming. (-)	55 (45.83)	23 (19.67)	42 (35.00)
5)	Adoption of organic farming reduce the cost of production because farm residues can be used as fertilizers. (+)	72 (60.00)	39 (32.50)	9 (7.50)
6)	Organic farming improves soil health and fertility in the long run. (+)	110 (91.67)	10 (8.33)	0 (0.00)
7)	Inorganic fertilizer, insecticides and other chemical used in conventional farming causes long-term harmful effects on the environment. (+)	89 (74.16)	31 (25.83)	0 (00.00)
8)	Pest and disease management is more difficult to manage in organic vegetable farming. (-)	70 (58.33)	23 (19.17)	27 (22.50)
9)	Organic vegetable farming requires more labour. (-)	81 (67.50)	35 (29.16)	4 (3.33)
10)	Organic vegetable farming gives lower yield than conventional. (-)	46 (38.33)	41 (34.16)	33 (27.50)
11)	The cost of production is lower than that of conventional farming. (+)	67 (55.83)	44 (36.66)	9 (7.50)
12)	Organic vegetables have better shelf life than conventionally grown vegetables. (+)	61 (50.83)	54 (45.00)	5 (4.16)
13)	Organic farming reduces health risks associated with farmers' exposure to harmful chemicals. (+)	100 (83.33)	20 (16.66)	0 (0.00)
14)	Consumer demand for organic vegetables is increasing in my locality due to health concerns. (+)	55 (45.83)	48 (40.00)	17 (14.16)
15)	Organic vegetables can fetch premium price in the local market. (+)	77 (64.16)	31 (25.83)	12 (10.00)
16)	Marketing of organic vegetables is a major problem for farmers. (-)	59 (49.17)	36 (30.00)	25 (20.83)
17)	Profit is comparatively lower than that of the conventional farming. (-)	58 (48.33)	18 (15.00)	44 (36.66)
18)	I am satisfied with the practices followed in organic vegetable farming. (+)	67 (55.82)	32 (26.66)	22 (18.32)
19)	I intend to continue, start or expand organic vegetable cultivation in the future. (+)	70 (58.33)	48 (40.00)	2 (1.66)
20)	I would like to recommend organic vegetable farming to other farmers. (+)	96 (80.00)	24 (20.00)	0 (0.00)

The data in table 1 revealed that, the highest proportion of vegetable growers (91.67%) agreed that organic farming improves soil health and fertility in the long run. Similarly, 83.33 per cent agreed that organic farming reduces health risks associated with exposure to harmful chemicals. A substantial proportion (80.00%) of the respondents were willing to recommend organic vegetable farming to other farmers.

Further, 74.16 per cent of respondents perceived that chemical fertilizers and insecticides used in conventional farming cause long-term harmful effects on the environment. About 64.16 per cent agreed that organic vegetables can fetch a premium price in the local market, while 60.00 per cent perceived that organic farming can reduce production costs through the use of farm residues as fertilizers.

At the same time, some negative aspects of organic farming were also perceived by the respondents. About 67.50 per cent agreed that organic vegetable farming requires more labour, while 58.33 per cent perceived pest and disease management as more difficult under organic farming. Nearly half (49.17%) considered marketing of organic vegetables to be a major problem.

The findings therefore indicate that vegetable growers were aware of the environmental and health benefits of organic farming, but their perception was moderated by concerns related to labour requirements, pest and disease management, input availability and marketing.

The data in table 1.2 revealed that, majority (59.17%) of the vegetable growers had a medium level of perception towards organic farming. This was followed by 23.33 per cent of respondents with a low level of perception, while 17.50 per cent exhibited a high level of perception.

Table 2: Distribution of vegetable growers according to their perception towards organic farming (N=120)

Sr. No.	Category	Frequency	Percentage
1.	Low (Up to 41)	28	23.33
2.	Medium (42 to 50)	71	59.17
3.	High (Above 50)	21	17.50
	Total	120	100.00

The predominance of respondents with a medium level of perception may be attributed to their moderate awareness and partial exposure to organic farming practices through extension agencies, fellow farmers and mass media. Although most respondents recognized the environmental and health benefits of organic farming, they also expressed concerns related to higher labour requirements, pest and disease management, availability of organic inputs and marketing difficulties. Such mixed perceptions may have resulted in the predominance of a medium level of overall perception.

The comparatively smaller proportion of respondents with a high level of perception may be associated with inadequate practical training, limited technical guidance, insufficient practical exposure and marketing-related difficulties. Strengthening extension support and practical demonstrations may therefore help improve farmers' perception towards organic farming.

2. Constraints perceived by vegetable growers in adopting organic farming

The constraints refer to the hurdles or obstacles perceived by vegetable growers in adopting organic vegetable farming. The response was quantified and ranked.

Table 3: Distribution of vegetable growers according to constraints perceived in adopting organic farming

Sl. No.	Constraints	Yes		No		Rank
		F	%	F	%	
1	Lack of proper guidance for practicing organic vegetable farming.	61	50.83	59	49.17	VI
2	Limited extension activities related to organic vegetable farming and government schemes.	54	45.00	66	55.00	VIII
3	High cost of organic inputs.	99	82.50	21	17.50	I
4	Lack of market support and assured premium prices.	89	74.17	31	25.83	III
5	Non-availability of separate market spaces for organic vegetables in APMC markets.	6	71.67	34	28.33	IV
6	Lack of value addition facilities for organic vegetables.	57	47.50	63	52.50	VII
7	Weed management is difficult under organic vegetable farming.	82	68.33	38	31.67	V
8	Lack of cold storage facilities near the village.	96	80.00	24	20.00	II

The data presented in table 3 revealed that, high cost of organic inputs and labour requirement was the most important constraint, reported by 82.50 per cent of the respondents and ranked first. The relatively high cost of organic inputs and greater labour requirement may increase the economic and managerial burden on vegetable growers. The lack of cold storage facilities near the village was the second most important constraint, reported by 80.00 per cent of respondents. Inadequate storage infrastructure may increase post-harvest losses and limit farmers' ability to store vegetables until favourable market prices are available.

The lack of market support and assured premium prices was reported by 74.17 per cent of respondents and ranked third. Similarly, 71.67 per cent perceived the non-availability of separate market spaces for organic vegetables in APMC markets as a constraint. These findings clearly indicate the importance of developing appropriate marketing channels

and market infrastructure for organic vegetables.

Further, 68.33 per cent of respondents reported that weed management was difficult under organic vegetable farming, ranking fifth. About 50.83 per cent perceived lack of proper guidance as a constraint. Lack of value addition facilities was reported by 47.50 per cent, while 45.00 per cent perceived limited extension activities related to organic vegetable farming and government schemes as a constraint.

Overall, the major constraints were associated with input and labour costs, storage facilities, market support, separate marketing arrangements and weed management. Addressing these constraints is essential for creating a favourable environment for the adoption and expansion of organic vegetable farming.

Conclusion

The study revealed that a majority of vegetable growers had

a medium level of perception towards organic farming. The respondents showed favourable perceptions regarding the benefits of organic farming for soil health, environmental protection and farmers' health. A considerable proportion also recognized the potential for premium prices and reduced production costs.

However, the respondents also perceived several difficulties associated with organic farming, particularly higher labour requirements, pest and disease management and marketing problems. The major constraints identified were high cost of organic inputs and labour requirement, lack of cold storage facilities, lack of market support and assured premium prices, and non-availability of separate market spaces for organic vegetables in APMC markets.

The findings suggest that improving farmers' perception alone may not be sufficient to encourage wider adoption of organic vegetable farming. Appropriate institutional, technical, infrastructural and marketing support is required to address the constraints faced by vegetable growers.

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