

## AWARENESS AND ADOPTION OF KITCHEN GARDENING IN URBAN AREAS

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### ABSTRACT

*This study investigates the adoption and awareness of urban kitchen gardening in Surat city. With the rise of non-communicable diseases such as cancer, diabetes, and cardiovascular diseases, the need for fresh, organic home-grown food is becoming increasingly critical. A total of 300 kitchen gardening owners were selected over three years using purposive and random sampling methods. Data were collected through structured interviews to assess the level of awareness, adoption, and constraints faced by participants in their gardening practices. The findings revealed that 71.67% of respondents had a medium level of awareness, and 70% exhibited a medium level of adoption of kitchen gardening. Factors such as age, education, occupation, sources of information, and social participation were positively correlated with higher levels of awareness about kitchen gardening. The primary constraint identified was pest and disease management, which posed significant challenges for gardeners. Based on these results, the study recommends frequent expert visits and guidance to address these issues and improve garden productivity. Despite the positive awareness and adoption rates, the study highlights the need for continued efforts to expand kitchen gardening in urban areas, ensuring healthier and sustainable food practices.*

**Keywords:** kitchen garden, awareness, adoption

### INTRODUCTION

In today's world, health issues caused by pollution and chemical-laden food are on the rise. Non-communicable diseases like cancer, diabetes, and cardiovascular diseases are becoming more common and are often untreatable. To prevent these diseases, adopting a healthy lifestyle and consuming fresh, chemical-free food is crucial. However, most store-bought fruits and vegetables are treated with harmful chemicals. Kitchen gardening provides an ideal solution. It can be easily developed in both urban and rural areas, even in small spaces using pots or grow bags. This practice not only supplies fresh, organic produce but also offers physical, mental, and spiritual benefits. Nutrient-rich vegetables and fruits grown in kitchen gardens boost immunity and protect against degenerative diseases. As demand for organic produce grows, kitchen gardens offer an easy and cost-effective way to ensure a regular supply of healthy food. They also provide social benefits like better nutrition, increased income, food security, and stronger community bonds. By utilizing vacant land, urban households can contribute to their own food needs and improve the food security of their communities. In a rapidly developing Surat city, which faces urban congestion and environmental challenges, kitchen gardening serves as a practical, healthy and eco-friendly practice that promotes a sustainable lifestyle for its residents.

### OBJECTIVES

- (1) To study the profile of the respondents
- (2) To study on awareness and adoption of kitchen gardening by the urban people
- (3) To study the constraints experience by respondents and seek their suggestion to overcome of kitchen gardening

### METHODOLOGY

The present study was conducted in Surat city, Gujarat, focusing on urban kitchen gardening. A total of 300 kitchen gardening owners were selected over a period of 3 years, with 100 respondents surveyed each year. The selection was carried out using a combination of purposive and random sampling methods. Data were collected through a pretested, structured interview schedule, administered via personal interviews. The questionnaire was designed to assess both the awareness and the extent of adoption of kitchen gardening practices. Key aspects related to the adoption of these practices were critically enumerated while developing the interview schedule. The collected data were analyzed and interpreted in line with the study objectives, using appropriate statistical tools such as percentages, ranking, mean, and standard deviation.

## RESULTS AND DISCUSSION

**Table 1: Distribution of respondents according to their personal characteristics** (n=300)

Sr. No.	Personal characteristics	Frequency	Percentage
<b>1</b>	<b>Age</b>		
(1)	Young (Below 30 years)	47	15.67
(2)	Middle aged (30-50 years)	169	56.33
(3)	Old (above 50 years)	84	28.00
<b>2</b>	<b>Levels of education</b>		
(1)	Secondary education	06	02.00
(2)	Diploma education	28	09.33
(3)	Higher secondary education	35	11.67
(4)	Graduation and above	231	77.00
<b>3</b>	<b>Occupation</b>		
(1)	Agriculture	13	04.33
(2)	Homemakers	70	23.33
(3)	Government job	79	26.34
(4)	Business and others	138	46.00
<b>4</b>	<b>Annual Income (₹)</b>		
(1)	Up to ₹ 2,00,000/-	30	10.00
(2)	₹ 2,00,000/- to ₹ 5,00,000/-	163	54.33
(3)	Above ₹ 5,00,000/-	107	35.67
<b>5</b>	<b>Type of Family</b>		
(1)	Joint	68	22.67
(2)	Nuclear	232	77.33
<b>6</b>	<b>Source of information</b>		
<b>A</b>	<b>Personal cosmopolite</b>		
(1)	Family members	17	05.67
(2)	Neighbours	18	06.00
(3)	Friends/relatives	27	09.00
(4)	KVK-Scientists	75	25.00
<b>B</b>	<b>Mass contact</b>		
(5)	News paper	32	10.67
(6)	Television	15	05.00
(7)	Magazine	19	06.33
(8)	Internet	68	22.66
(9)	WhatsApp	29	09.67
<b>7</b>	<b>Social Participation</b>		
(1)	One organization	157	52.33
(2)	More than one organization	50	16.67
(3)	Not participation	93	31.00

Table 1 shows the personal profile of urban respondents. The majority (56%) were in the middle age group, while 28% were in the older age group and 15.67% in the younger age group. In terms of education, most respondents (77%) had a graduation or higher degree, with 9.33% having a diploma and 11.67% completing higher secondary education. Occupation-wise, 46% were involved in business or other sectors, 26.34% worked in government jobs, 23.33% were homemakers, and only 4.33% were engaged in agriculture. Regarding annual income, 54.33% earned between Rs. 2,00,000 and Rs. 5,00,000, 35.67% earned more than Rs. 5,00,000, and 10% earned up to Rs. 2,00,000. Most respondents (77.33%) lived in nuclear families, while 22.67% belonged to joint families. When it comes to sources of information, 25% received it from KVK scientists, 22.66% from the internet, and 10.67% from newspapers. Additionally, 52.33% of respondents were part of one organization, 31% were involved in multiple organizations, and 16.67% did not participate in any.

**Awareness regarding kitchen gardening****Table 2: Awareness of the respondents regarding kitchen gardening** (n=300)

Sr. No.	Category	Frequency	Percentage
1	<b>Low level</b> (up to 32.29 score)	54	18.00
2	<b>Medium level</b> (32.29 to 43.33 score)	215	71.67
3	<b>High level</b> (above 43.33 score)	31	10.33

Mean – 37.81, SD – 5.52

Awareness refers to a careful understanding and clear perception of facts or truths in any aspect of a situation. In the context of kitchen gardening, it signifies the degree of understanding an individual possesses regarding its importance, methods, and potential benefits, which enables one to anticipate possible outcomes in the future. Based on the observed awareness scores, the respondents were categorized into three groups: low level of awareness, medium level of awareness, and high level of awareness. The distribution of respondents according to their awareness levels on kitchen gardening is presented in Table 2. The data reveal that a majority (71.67%) of the respondents possessed a medium level of awareness, followed by 18% with a low level of awareness, and the remaining respondents exhibiting a high level of awareness. These findings are in agreement with the results reported by Singh et al. (2018), who also observed similar trends in awareness levels related to kitchen gardening.

**Adoption of Kitchen Gardening Practices**

**Table 3: Adoption rate of the respondents regarding kitchen gardening (n=300)**

Sr. No.	Category	Frequency	Percentage
1	<b>Low level</b> (up to 37.05 score)	48	16.00
2	<b>Medium level</b> (37.05 to 48.94 score)	210	70.00
3	<b>High level</b> (above 48.94 score)	42	14.00

Mean- 43.00, SD – 5.94

Adoption refers to the acceptance and implementation of certain recommended practices of kitchen gardening by the respondents. Based on the observed adoption scores, the respondents were classified into three categories, namely low level of adoption, medium level of adoption, and high level of adoption. The distribution of respondents according to their adoption level of kitchen gardening is presented in Table 3. The data reveal that a majority of the respondents (70%) had a medium level of adoption regarding kitchen gardening practices, followed by 16% who exhibited a low level of adoption. Only 14% of the respondents showed a high level of adoption. These findings are consistent with those reported by Kaur (2016), who also observed similar patterns of adoption among kitchen gardening practitioners.

**Constraints faced by the urban people**

**Table 5: Constraints faced by respondents in adoption kitchen gardening: (n=300)**

Sr. No.	Constraints	Frequency	Percentage	Rank
1	<b>Lack of knowledge about pest and disease problems in kitchen gardens</b>	245	81.67	I
2	<b>Unavailability of quality planting materials of high-yielding varieties (HYVs) of vegetable seeds</b>	201	67.00	II
3	<b>Shading of large buildings on the kitchen garden area</b>	175	58.33	III
4	<b>Limited availability of bio-pesticides</b>	132	44.00	IV
5	<b>Lack of interest among rural youth</b>	101	33.67	V
6	<b>Insufficient scientific knowledge about kitchen gardening</b>	127	42.33	VI

It can be seen from Table 5 that the lack of knowledge about pest and disease problems in kitchen gardens ranked first among the constraints faced by the respondents. The unavailability of quality planting materials of high-yielding varieties (HYVs) of vegetable seeds and the shading of large buildings on the kitchen garden area were ranked second

**Table 4: The relationship between dependents and independent variables (n=300)**

Sr. No.	Variables	Awareness (correlation 'r' value)	Adoption (correlation 'r' value)
X1	<b>Age</b>	0.056*	-0.048
X2	<b>Education</b>	0.039	0.154*
X3	<b>Occupation</b>	0.026	-0.009
X4	<b>Income</b>	0.096**	0.096*
X5	<b>Family Type</b>	-0.029	-0.024
X6	<b>Source of Information</b>	0.026	0.054*
X7	<b>Social Participation</b>	0.072*	0.103**

\* Correlation is significant at the 0.05 level (2 tailed)

\*\* Correlation is significant at the 0.01 level (2 tailed)

NS Non-significant

The data reveals that out of the seven identified independent variables, income had the most highly significant and positive correlation with awareness of kitchen gardening. Age, education, occupation, source of information, and social participation also showed significant and positive correlations with awareness in the urban population of Surat. However, family type exhibited a non-significant negative correlation with awareness regarding kitchen gardening. As shown in Table 4, education, income, source of information, and social participation were positively and significantly correlated with the adoption of kitchen gardening. On the other hand, age, occupation, and family type demonstrated non-significant and negative correlations with the adoption of kitchen gardening in urban people of Surat. The finding was carried out by Soni et. Al. (2020).

and third, respectively. Other major constraints included the limited availability of bio-pesticides, lack of interest among rural youth, and insufficient scientific knowledge about kitchen gardening. Similar findings were also reported by Chauhan (2012), Poshiya and Trivedi (2019), and Sethy et al. (2010).

**Suggestions given by the urban people****Table 6: Suggestions from the respondents to solve the problem in adoption kitchen gardening**

(n=300)

Sr. No.	Suggestions	Frequency	Percentage	Rank
1	Frequent visits of experts for providing advice on kitchen garden management	244	81.33	I
2	Need to increase training for scientific and efficient management of kitchen gardens	218	72.67	III
3	Provision of quality HYVs seeds of vegetables	240	80.00	II
4	Dissemination of indigenous knowledge about pest and disease control	179	59.67	IV

It is evident from Table 6 that the frequent visits of experts for providing advice on kitchen garden management ranked first among the suggestions given by the respondents (81.33%). The provision of quality HYVs seeds of vegetables was ranked second (80.00%), followed by the need to increase training for scientific and efficient management of kitchen gardens, which ranked third (72.67%). The dissemination of indigenous knowledge about pest and disease control was also suggested by a considerable proportion of respondents, ranking fourth (59.67%). These suggestions indicate the respondents' emphasis on technical guidance, availability of quality inputs, and the incorporation of traditional knowledge for improving kitchen gardening practices. These findings are in line with the results reported by Kaur (2016).

**CONCLUSION**

The study found that 56.33% of urban respondents were in the middle age group. Over 77% had a graduation or higher level of education. In terms of occupation, 46% were engaged in business or other types of work, and 54.33% earned an annual income between Rs. 2,00,000 and Rs. 5,00,000. A majority (77.33%) belonged to nuclear families. Regarding sources of information, 25% of respondents relied on KVK scientists, 22.66% used the internet, and other sources followed. Social participation showed that 52.33% of respondents were involved with one organization. 70% of respondents had medium-level awareness, while 71.67% showed medium-level adoption. Age, education, occupation, source of information, and social participation were positively and significantly correlated with awareness. However, family type showed a non-significant negative correlation with awareness. In terms of adoption, income, source of information, and social participation had positive and significant correlations, while age, occupation, and family type showed non-significant negative correlations.

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**CONFLICT OF INTEREST**

The authors declare no conflict of interest.

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