



*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*



## **Constraints Faced by Vegetable Growers in Amaravati Division of Maharashtra**

**K. Sindhura <sup>a\*†</sup>, V. S. Tekale <sup>b#</sup> and Pranali N. Thakre <sup>c†</sup>**

<sup>a</sup> Division of Agriculture Extension and Communication, SKUAST-J, Chatha, India.

<sup>b</sup> College of Agriculture, Mul, Chandrapur (Dist.), Dr. PDKV, Akola, India.

<sup>c</sup> Department of Extension Education, Dr. PDKV, Akola, India.

### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

### **Article Information**

DOI: 10.9734/AJAEES/2021/v39i1130792

*Editor(s):*

(1) Dr. Golubkina Nadezhda Alexandrovna, Agrochemical Research Center, Federal Scientific Center of vegetable production, Russia.

*Reviewers:*

(1) Amarendra Kumar, Bihar Agricultural University, India.

(2) Raj Kumar Yogi, Indian Council of Agricultural Research, India.

(3) Junior Miranda Scheuer, University of the Republic, Uruguay.

Complete Peer review History, details of the editor(s), Reviewers and additional Reviewers are available here:

<https://www.sdiarticle5.com/review-history/77205>

**Received 28 September 2021**

**Accepted 02 December 2021**

**Published 09 December 2021**

**Original Research Article**

### **ABSTRACT**

Vegetable cultivation involves intensive cultural operations since sowing to marketing, providing regular employment opportunities to unemployed youth and farm family. Vegetable production is now commercialized, but still traditional farming is done in far flung areas. Besides, they are not as well served by the extension system as the farmers growing food grains. Moreover, most of the vegetable growers in this region are small and marginal farmers, and they have their peculiar concerns and problems which need to be studied urgently and earnest. The present study was carried out in Akola and Amravati districts of Vidarbha region of Maharashtra state during the year 2019 with a sample size of 120 respondents to define the constraints faced by vegetable growers in Amravati division of Maharashtra. The major constraints faced by the vegetable growers were price fluctuation, electricity, fertigation, exploitation by middle men and lack of market knowledge.

**Keywords:** Vegetables; vegetable growers; Amravati division; constraints.

<sup>#</sup> Ph.D. Scholar;

<sup>†</sup> Associate Dean;

\*Corresponding author: E-mail: karukumallisindhura95@gmail.com, karukumallisindhura5@gmail.com;

## 1. INTRODUCTION

India is principally a vegetarian country and second largest producer of vegetables, next to China. Vegetables occupy 38.90% of area and 61.00% of total horticultural area and production, respectively [1]. Vegetables share about 2.00% of cropped area. India shares about 14.00% of the total vegetable production of the world. Maharashtra is the leading producer of onions and fresh onion contributes 25.00% among horticultural crops export. But the Post-harvest handling losses in vegetables are high up to 20-30% [2].

In era of shrinking land holding and more pressure per unit area of land, cultivation of fruit and vegetable has emerged as profitable venture [3]. Cultivation of vegetable not only provides nutritional security; it also provides a substantial employment to rural people as well as opens the door for export. Thus, plays an active role in increasing the livelihood condition of poor rural folks. Vegetables are one of the cheapest sources of natural protective food, contributing carbohydrates, vitamins and mineral in human diet [4]. Vegetable consumption provides taste, increase appetite, palatability and provides necessary fibre, essential for proper functioning of digestive system [5].

Vegetable cultivation has a number of added advantages like vegetables are of shorter duration than cereal crops so, more crops can be taken per unit area of land in a year, vegetable cultivation is helpful in diversification of agriculture, providing ample opportunities to conserve soil and moisture depletion [6]. Most of the vegetable crops, if properly grown can give yield which is 5-10 times more than any cereal crop. A farmer can fetch more prices for his produce in comparison to cereal crops from the small unit area of land, he can take more produce than other crops [7]. Vegetable cultivation involves intensive cultural operations since sowing to marketing, providing regular employment opportunities to unemployed youth and farm family. At the same time perishable nature of vegetables demand skill and comprehensive planning for storage, movement and distribution as well as processing of vegetable produce [8].

Now-a-days, people are aware regarding their health proposition, as a result they want to add more and more fruit and vegetable in their food basket. Vegetable production is now commercialized, but still traditional farming is

done in far flung areas [9]. Besides, they are not as well served by the extension system as the farmers growing food grains. Moreover, most of the vegetable growers in this region are small and marginal farmers, and they have their peculiar concerns and problems which need to be studied urgently and earnest. The purpose of the study was to find the Constraints faced by vegetable growers in Amaravati division of Maharashtra.

## 2. MATERIALS AND METHODS

### 2.1 Research Design

An exploratory design of social research was used for present study.

### 2.2 Selection of Districts

Maharashtra state comprises of six revenue divisions viz., Mumbai, Pune, Nashik, Aurangabad, Nagpur and Amravati. The Nagpur and Amravati together popularly known as Vidarbha region. Vidarbha region comprises of eleven districts namely Buldana, Akola, Amravati, Yavatmal, Wardha, Nagpur, Bhandara, Chandrapur, Gadchiroli, Washim and Gondia. Out of which Amaravati division i.e. Akola and Amravati districts from Vidarbha region were selected for the present study.

### 2.3 Selection of Talukas

Two talukas namely, Patur taluka of Akola district and Achalpur taluka of Amravati district were purposively selected for the study as they were having high area under vegetable cultivation than other talukas of these selected districts.

### 2.4 Selection of Villages

In Patur and Achalpur talukas, 5 villages from each taluka were selected purposively based on high area under vegetable cultivation. Comprising total sample of 10 villages for the present study.

### 2.5 Selection of Respondents

A list of vegetable growers having minimum area of 0.20 ha under vegetable cultivation was obtained from Taluka Agriculture Office of selected talukas. Thus, from selected two talukas and selected 10 villages, 120 respondents were selected i.e. 12 respondents from each village were selected randomly and they were considered as sample respondents in the present study.

The basic instrument used for study was interview schedule. The data was collected by personal interview, so as to get valid and complete responses. Keeping the objective of the study in view an interview schedule was developed, pre-tested and was personally administered. In this study, a personal interview schedule having 23 statements, regarding various constraints faced by the respondents were asked. The responses observed from different respondents were divided into two categories i.e., yes or no. The statement having "NO" response was given zero mark and "YES" statement was given one mark. So, the

respondent can get a maximum of 23 marks and a minimum of zero marks.

### 3. RESULTS AND DISCUSSION

A perusal of Table 1, revealed that 32.50% of the respondents faced problem about initial investment followed by, problem with working capital 26.67%. These were the constraints faced by respondents regarding the finance. These results were in line with findings of Kumar [10], Mandeep Sharma [11], Jyoti [12], and Tiwari et al. [5]. Among the resource constraints, 70.83% of respondents had electricity problem, followed

**Table 1. Distribution of the vegetable growers according to constraints faced by them**

Sl. No	Particulars	Respondents (n=120)		
		Frequency (%)	Component wise Rank	Overall rank
1	<b>Financial constraints</b>			
	a) Initial investment	39(32.50)	I	XVIII
	b) Working capital	32(26.67)	II	XX
2	<b>Resource constraints</b>			
	a) Plants /Seedlings	24(20.00)	IV	XXIII
	b) Manures	42(35.00)	III	XV
	c) Chemicals and fertilizers	54(45.00)	II	XI
	d) Electricity (for irrigation)	85(70.83)	I	II
3	<b>Plant management constraints</b>			
	a) Knowledge on proper dose of weedicide / insecticide	69(57.50)	I	VI
	b) Difficulty in diagnosis of disease and insect pests	48(40.00)	II	XIII
4	<b>Labour constraints</b>			
	a) High cost of labour	57(47.50)	I	IX
	b) Lack of skilled labour	41(34.17)	III	XVI
	c) Non- availability of labour	55(45.83)	II	X
5	<b>Technical constraints</b>			
	a) Improved varieties	45(37.50)	II	XIV
	b) Fertigation	81(67.50)	I	III
	c) Modern production techniques	37(30.84)	IV	XIX
	d) Soil testing facility	40(33.34)	III	XVII
6	<b>Marketing constraints</b>			
	a) Transportation cost	28(23.34)	IV	XXI
	b) Price fluctuation	97(80.83)	I	I
	c) Lack of market knowledge	74(61.67)	III	V
	d) Exploitation by middlemen	78(65.00)	II	IV
7	<b>Storage constraints</b>			
	a) Poor shelf life	51(42.50)	III	XII
	b) Lack of cold storages	61(50.83)	II	VIII
	c) Lack of processing units	68(56.67)	I	VII
8	<b>Others</b>			
	a) Wild animals	27(22.50)	-	XXII

by, problem with chemicals and fertilizers 45.00% had problem with manures 35.00% and plants/seedlings 24.00%. In case of plant management constraints, more than half 57.50% of respondents had problem about knowledge on proper dosage of weedicide/insecticide/fungicide, followed by difficulty in diagnosis of disease and insect pests 40.00%. These are in accordance with the findings of Dhillon and Kumar [13].

### 3.1 Figures in Parentheses Indicate Percentage

Regarding labour constraints, nearly half 47.50% of the respondents had problem about high-cost of labour, followed by problem on non-availability of labour 45.83% and lack of skilled labour 34.17%. These findings were in line with Jyoti [12]. Among the technical constraints, nearly two-third 67.50% had problem about fertigation, followed by about improved varieties 37.50%, whereas, 33.34% and 30.84% of respondents had problem about soil testing facility and modern production techniques, respectively. The similar result was also reported by Tiwari et.al. [3]. In case of marketing constraints, majority 80.83% of the respondents had problem regarding price fluctuation, followed by exploitation by middle men 65.00%, lack of market knowledge 61.67% and transportation cost 23.34%. Regarding storage constraints, 56.67% of the respondents had problem about lack of processing units, followed by about lack of cold storages 50.83%, only 42.50% of respondents had problem about poor shelf life. These findings are in conformity with Gandhi et.al. [14] and Tiwari et.al. [5]. Other than this 22.50% of respondents faced constraints regarding wild animals.

## 4. CONCLUSION

The government should set up efficient marketing information regarding prices of vegetables and input availability. Price fluctuation should be minimized through fixing of minimum support prices. Provision of cold storage facilities to the farmers at the village level and adequate refrigerated transport facilities for the smooth movement of vegetables from the places of production to the various consumption centers are some of the means suggested to improve the efficiency of production and marketing of vegetables Kumar [9].

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Handbook on Horticulture Statistics, Ministry of Agriculture, Government of India. 2017. Department of Agriculture and Cooperation, New Delhi.
2. Government of India, Ministry of Agriculture. Horticultural Statistics at a Glance; 2018.
3. Planning Commission. Eleventh Five Year Plan (2007-2012). New Delhi: Government of India. 2008;1:3.
4. Choudhary B. Vegetables, 2<sup>nd</sup> edition, National Book Trust, India; 2006.
5. Tiwari AK, Tiwari JK. Constraints in Adoption of modern vegetable cultivation practices in Bastar plateau. International Journal of Current Microbiology and Applied Sciences. 2018;7(01): 820-826.
6. Agropedia. Vegetable Production: Advantages vs Limitations; 2009. Available:<http://agropedia.iitk.ac.in/content/vegetable-production-advantages-and-limitations>
7. Jantwal V. A study on extension needs of farm women and their attitude towards extension services in Kumaon region of Uttarakhand. M.Sc. (Agri) Thesis (Unpub), GBPUAT, Pantnagar; 2014.
8. National Commission on Agriculture. Report, Part I, Review and Progress, and Part XI, Research, Education and Extension. Ministry of Agriculture and Irrigation, Govt of India, New Delhi; 1976.
9. Kumar M. Role of the Punjab state farmers commission in promoting the cultivation of vegetable and oilseed crops. M.Sc. (Agri.) Thesis (unpub.) PAU, Ludhiana; 2008.
10. Sharma Mandeep. 2014. Constraints in adoption of recommended practices of vegetable crops. Indian Journal of Agricultural sciences, Veterinary and Medicine. 2014;2(3):66-72.
11. Jyoti R. A study on Extension needs of Vegetable growers in Kumaon Region of Uttarakhand. M.Sc. (Agri.) Thesis (unpub.) GBPUAT, Pantnagar; 2017.

12. Dhillon GS, Kumar K. Adoption of improved Metha cultivation practices among tomato growers. Indian Journal of Extension Education. 2004;40:40-43.

13. Gandhi VR, Hanchinal SN, Shivamurthy M, Shailaja H. Adoption of integrated pest management practices among tomato growers. Karnataka Journal of Agricultural Sciences. 2008;21:17-19.

14. Reading HF. Simple Dictionary of Social Sciences, New Delhi, Ambika Publication; 1971.

© 2021 Sindhura et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*

*The peer review history for this paper can be accessed here:  
<https://www.sdiarticle5.com/review-history/77205>*