



Constraints in Adoption of Vegetable Production Practices by the Farmer and Remedial Measures in Bareilly District of Uttar Pradesh

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ABSTRACT: The study was carried out during the year 2016-2017 Selected from highest number of vegetable growers in Faridpur, Bhunta, Bitharichainpur and Shergarh, Block from Bareilly district of Uttar Pradesh. the maximum number of the respondents 85.41% with adopt a rank of first were agreed with the statements that “Lack of research support in providing scientific rationality of practices” and, followed by 77.91% “No documentation on vegetable farming practices”. In the marketing problem maximum number of the respondents 66.66% with adopt a rank of first were agreed with the statements that “Poor transport facility” is the common problem, followed by “lack of minimum support price for the vegetable product” 51.25% at ranks second.

INTRODUCTION

India is second leading vegetable producing country in the world. The country is blessed with a unique gift of nature of diverse climate and distinct seasons to make it possible to grow good number of vegetables in an area of 9205 thousand ha. With the annual production of 162186 thousand tones. The vegetable crops have been well advocated in solving the problem of food security, since they are rich source of minerals, vitamins, fiber and contain fair amount of protein as well as the cultivation of vegetables, which is done mainly for economic gain or for marketing purpose, is known as cash crop or vegetable cultivation. India is one of the largest producer of raw materials for the food processing industries in the world, the industry itself, is under developed in India. Less than 2 per cent of fruit and vegetable production is processed, compared with 30 per cent in Thailand, 70 per cent in Brazil, 78 per cent in Philippines and 80 per cent in Malaysia. The value addition in food sector is as low as 7 per cent. There is need for increasing food processing from 2 per cent to 10 per cent by 2010. This will require an investment of Rs. 1, 40,000 crore in food processing sector. The nearly 300g of vegetable daily



recommended from the food habits. Growing of vegetables is 4 to 8 times more remunerative than cereals and it also generate employment in the rural areas. Commercial vegetable cultivation is not getting as popular as it should be among growers because of high input costs, lack of irrigation facilities and difficulties in their marketing and storage. India is the second largest producer of vegetable in world next only to China. Currently per capita consumption of vegetable is 175g per capita per day, which is far below recommended dose of 300g (ICMR). Country's vegetable demand would be around 135 million tones. There is an urgent need to increase the productivity of vegetable in order to provide nutritional security to increasing population of India. Uttar Pradesh is second largest producer of vegetable after West Bengal. It has an area of 0.84 million ha under vegetable which account for 15.8 million tones production, a study was conducted to find out the adoption of production and marketing management behaviour of vegetable growers in Bareilly district for commercial cultivation of vegetable. In everyday usage, a vegetable is any part of a plant that is consumed by humans as food as part of a meal. The term *vegetable* is somewhat arbitrary, and largely defined through culinary and cultural tradition. It normally excludes other food derived from plants such as fruit, nuts, and cereal grains, but includes seeds such as pulses. The original meaning of the word *vegetable*, still used in biology, was to describe all types of plant, as in the terms "vegetable kingdom" and "vegetable matter". Originally, vegetables were collected from the wild by hunter gatherers and entered cultivation in several parts of the world, probably during the period 10,000 BC to 7,000 BC, when a new agricultural way of life developed. At first, plants which grew locally would have been cultivated, but as time went on, trade brought exotic crops from elsewhere to add to domestic types. Nowadays, most vegetables are grown all over the world as climate permits, and crops may be cultivated in protected environments in less suitable locations. China is the largest producer of vegetables and global trade in agricultural products allows consumers to purchase vegetables grown in faraway countries. The scale of production varies from subsistence farmers supplying the needs of their family for food, to agribusinesses with vast acreages of single-product crops. Depending on the type of vegetable concerned, harvesting the crop is followed by grading, storing, processing, and marketing. Vegetables can be eaten either raw or cooked and play an important role in human nutrition, being mostly low in fat and carbohydrates, but high in vitamins, minerals and dietary fiber. Many nutritionists encourage people to consume plenty of fruit and vegetables, five or more portions a day often being recommended. There has been a remarkable increase in the area, production and productivity of this crop during the last 2 decades. It has been mainly due to disease free planting material, optimum availability of fertilizers, improved irrigation facilities, adoption of modern crop production technologies and above all due to high yielding varieties used by the majority of the growers. The productivity of the state is 18.32 tonnes per hectare which is more than national productivity (15.87) could be



increased to 22.5 by the end of the 11th five year plan. The percentage of potato growers is greater in the medium and large farm is less. The total seed requirement of the state is a about 11.20 million tonnes annually but only about 0.4 per cent seed is being replaced by the department which is very inadequate. At present the state has cold storage facilities of about 51 per cent of the total population against the requirement of 60 per cent of the total population. Cauliflower (*Brassica oleraceae* L. var. Botrytis) is one of the major vegetables in India. It is grown for its unopened flavor clusters known as curd, which is the edible part of the plant. The edible part consists of a compact terminal mass of greatly thickened and modified flower structures which subtending fleshy stalks. The curd forms at the top of the plant stem which broad and elongated leaves that extended far above the curd.

RESEARCH METHODOLOGY

The present study entitled “Study on Adoption of production and marketing management behaviour of vegetable growers in Bareilly district of Uttar Pradesh.” Was under taken during the Agricultural year 2016. Faridpur, Bhuta, Shergarh and Bithree chainpur had selected purposively for study of the research problem. The tehsil Faridpur has two Communities developmental blocks, out of these, both blocks had selected purposively for the study. In Faridpur tehsil, and Shergarh and Bithreechainpur block only 16 sample villages were selected for study, 4 villages from each block i.e. Faridpur Bhuta, Shergarh, and Bithreechainpur. Selection of the respondents had done by simple random sampling method and 15 respondents from each village taken to make a total sample size of 240. The author himself had collected the data from the respondents with the help of pre-tested interview schedule. Analysis was done with the use of percentage, mean and standard deviation for drawing the inferences. The study also highlighted the constraints as faced by the respondents in vegetable cultivation with suitable remedial measures.

Statistical methods used

The percentage and average will be used for making simple interpretation.

Percentage

The frequency of a particular cell will be divided by the total number of respondents in that particular category and multiplied by 100 for calculating the percentage.

Average (\bar{X})

The average (\bar{X}) will be calculated by adding the total scores obtained by the respondents and divided it by the total number of respondents using the following formula:

$$(\bar{X}) = \frac{\sum X}{N}$$



Where,

(\bar{X}) = Average or mean

$\sum x$ = Total number of scores obtained by respondents

N = Total number of respondents

Standard deviation

Standard deviation is the square root of mean of the squares of all deviations, the directions being measured from the arithmetic mean of the distribution. It is commonly developed by symbol sigma (σ).

$$\text{S.D. } (\sigma) = \sqrt{\frac{\sum d^2}{n}}$$

Where,

σ = Standard deviation

d = Deviation of variables mean

n = Total number items

Correlation coefficient (r)

The coefficient of simple correlation (r) is a measure of the mutual relationship between two variables that in *i.e.* x and y, where relationship is measured and commonly termed as product moment correlation coefficient and is computed by the following formula:

$$r = \frac{\sum (X - \bar{x})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{x})^2 \cdot \sum (Y - \bar{Y})^2}}$$

Where,

r = correlation coefficient

X = value of x independent variables

\bar{X} = mean of X independent variable

Y = value of Y dependent variables

\bar{Y} = mean of Y dependent variable.



Results and Discussion

Table-1: Constraints faced by the respondents in vegetable cultivation: N=240

S. No.	Constraints	Number	%	Rank order
A.	Production related problems			
1	Lack of research support in providing scientific rationality of practices	205	85.41	I
2	Non availability of labourers	182	75.83	III
3	Limited and irregular power supply	175	72.91	IV
4	No documentation on organic farming Practices	187	77.91	II
5	Non availability of organic manures	167	69.58	V
6.	Lack of awareness in using Bio fertilizers and bio pesticide	158	65.83	VI
7	Non availability of local seed materials	152	63.33	VII
8	Non availability of water for irrigation	138	57.5	VIII
B.	Marketing related problems:			
1.	Fluctuation in the prices of commodities	116	48.33	IIIA
2	Lack of minimum support price for the organic products	123	51.25	IIA
3.	Exploitation by the middlemen	116	48.33	IIIB
4.	Non availability of Market related Information	123	51.25	IIB
5.	Poor transport facilities	160	66.66	I



A. Production related problems

Table- 1. Indicate that the maximum number of the respondents 85.41% with adopt a rank of first were agreed with the statements that “Lack of research support in providing scientific rationality of practices” is the common problem, followed by “No documentation on vegetable farming practices” 77.91% at ranks second, “non availability of labourers” 75.83% at rank third, “Limited and irregular power supply” 72.91% at rank fourth, “Non availability of organic manure” 69.58% at rank fifth, " Lack of awareness in using Bio-fertilizer and bio pesticide” 65.83% at ranks sixth, “Non availability of local seed materials” 63.33% at rank seventh, “Non availability of water for irrigation” 57.50% at rank eights, respectively.

B- Marketing related problems

Table-1 indicate that the maximum number of the respondents 66.66% with adopt a rank of first were agreed with the statements that “Poor transport facility” is the common problem, followed by “lac of minimum support price for the vegetable product” 51.25% at ranks II-A, non arability of market related information II-B “Fluctuation in the price of commodities” 48.33% at rank III-A, “Exploitation by the middlemen” 48.33% at rank III-B, respectively.

Table-2: Suggestive measures to overcome the constraints faced by the vegetable growers:

N=240

S. No.	Suggestive measures	Number	%	Rank order
1.	Government has to fix minimum support price for fertilizer produce	167	69.58	V
2.	Transfer of technology centers and agricultural universities and other concerned institutions may aim at proper documentation of vegetable cultivation practices	146	60.83	VII
3.	Strengthening information support from the concerned departments for educating the farmers	160	66.66	VI
4.	Government departments, NGOs, other agencies has to create awareness among the producers about the advantages of vegetable cultivation	181	75.41	I
5.	Government agencies, NGOs, and organic farmers clubs have to help the farmers in marketing of produce	175	72.91	III



6.	Arrangement for certification of produce for getting better price	95	39.58	IX
7.	Model farms should be established to create awareness about the importance and economics of vegetable cultivation among farmers and consumers.	173	72.08	IV
8.	Identification and multiplication of indigenous seed material	145	60.41	V
9.	Facility for processing and value addition to get high profits	180	75.00	II

Table-2 indicate that the suggestive measures to overcome the constraints faced by the farmer in vegetable cultivation can be placed in a descending order *viz.*, there should Government department, NGO, other agencies has to create awareness among the producers about the advantage of vegetable cultivation Ist (75.41%) followed by facility for processing and value addition to get high profit IInd (75%), government agencies, NGO and vegetable growers club have to help the farmers in marketing of produce IIIrd (72.91%), model farms should be established to create awareness about the importance and economic of vegetable cultivation among growers and consumers IV (72.08%), government has to fix minimum support price for fertilizer produce V (69.58%), strenthing information support from the concerned department for educating the farmers (66.66%) VI, transfer of technology center and agricultural university and other concern institution may aim at proper documentation of vegetable cultivation practices VII (60.83%), Identification and multiplication of indigenous seed material VIII (60.41%), arrangement of certification of produce for getting better price (39.58%) IX, respectively.

CONCLUSION:

the maximum number of the respondents 85.41% with adopt a rank of first were agreed with the statements that “Lack of research support in providing scientific rationality of practices” and, followed by 77.91% “No documentation on vegetable farming practices”. In the marketing problem maximum numbers of the respondents 66.66% with adopt a rank of first were agreed with the statements that “Poor transport facility” is the common problem, followed by “lack of minimum support price for the vegetable product” 51.25% at ranks second.



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