



ISSN (E): 2277-7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2022; 11(8): 847-850

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www.thepharmajournal.com

Received: 01-05-2022

Accepted: 05-06-2022

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Constraints and suggestions regarding vegetable cultivation in Varanasi district of Uttar Pradesh

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Abstract

The present study was carried out during the year 2021-2022 in four blocks of Varanasi district of Uttar Pradesh. The present study was conducted on 160 respondents and data were collected through personal interview method to know the constraints. It was observed that the majority of vegetable growers (64.37%) face problem of Non availability of fertilizers and pesticides at planting time followed by Non availability of Quality seed at sowing time (60.63%), High cost of fertilizers and plant protection chemicals (56.87%), Limited government subsidy on the production inputs (55.62%), High cost of good quality seed (53.75%), High incidence of insect pest and diseases (51.87%), Insufficient and untimely credit facility (50.63%), Inadequate extension services (48.13%), Lack of knowledge about scientific method of vegetable production (44.37%) and Lack of irrigation facility (14.37%). The data also reveals that majority of respondents face problem in marketing related to Price fluctuation in the market (91.87%) followed by Lack of sufficient cold storage facilities (80.63%) and Un-remunerative market price for the produce (75.63%). So if proper vegetable production facilities like timely and good quality input are provided to farmers it will help them to increase their vegetable production without increasing production cost and ultimately their income will increase. Also most of the farmers suggested that if proper marketing facilities are made available to them at reasonable rate they can sell their produce at desired price and can get better profit.

Keywords: Vegetable grower, production, marketing, price fluctuation, constraints

Introduction

Vegetables are the fresh and edible portions of herbaceous plants. They are important food and highly beneficial for the maintenance of health and prevention of diseases. They contain valuable food ingredients which can be successfully utilized to build up and repair the body. Vegetables are valuable in maintaining alkaline reserve of the body. They are valued mainly for their high carbohydrate, vitamin and mineral contents. There are different kinds of vegetables. They may be edible roots, stems, leaves, fruits or seeds. Each group of vegetables contributes to diet in its own way. Vegetables are very important in our daily diet. Both our diet and the economic position can be improved by growing more vegetables throughout the year. Vegetable is a good source of roughages which promote digestion and helps to prevent constipation. Also they are rich sources of minerals, carbohydrates, vitamins, and bases for neutralization. It contains different minerals, proteins and vitamins that are necessary for the growth and development of human being. Vegetables are important constituents of Indian agriculture and nutritional security. Our country is blessed with diverse agro-climates with distinct seasons, making it possible to grow wide array of vegetables. India is the 2nd largest producer of vegetables in the world after China. Vegetables covers 7.14 percent of the world's total agricultural area. Major vegetables grown in India are Potato (26.75%), Onion (13.94%), and Tomato (10.12%). Cauliflower, Cabbage, Bean, Egg Plants, Cucumber, Garkin, Frozen Peas, Garlic and okra are other major vegetables grown in India. According to report of Ministry of Agriculture and Farmer's Welfare (2020) the total production of vegetables in India is 191.76 Million Tonnes from area of 10.35 Million Hectare. The contribution of vegetables remains highest (59-61%) in horticulture crop productions over the last five years. Globally India ranks second in vegetable production, however, the county is largest producer of okra and ranks second in production of green peas, tomato, potato, onion, cabbage, cauliflower and brinjal. The vast production base of vegetables offers India tremendous opportunities for export. According to report of The Agricultural and Processed Food Products Export Development Authority (APEDA) during 2019-20, India exported vegetables worth

Rs. 4,350.13 crores. Out of this the country has exported 7,50,111.99 MT of Fresh Vegetables other than Onion to the world for the worth of Rs. 2,029.43 crores and 2,53,276.92 MT of Processed Vegetables to the world for the worth of Rs. 2,760.57 crore in 2019-20. So apart from nutritional benefits, the production of vegetables improves the economy of a country as these are very good source of income and employment generation. But there are many problems which are faced by vegetable growers. So this study compiles all such problems faced by vegetable growers and suggestions given by them to overcome the problems.

Methodology

The present study was conducted in Varanasi district of Uttar Pradesh. Varanasi district comprises of eight blocks, out of

which four blocks namely Arajilina, Kashividyapith, Chiraigaon and Harahua were selected on the basis of maximum vegetable growers availability and highest area under vegetable production. From each selected blocks 4 villages were selected purposively where vegetables are grown and from each selected village 10 vegetable growers were selected on basis of systematic random sampling method. Thus the total sample size was of 160 respondents for the investigation. The data was collected through personal interview with the help of personal interview and collected data was coded, then analyzed using relevant statistical tools & techniques and the results were then interpreted.

Result and Discussion

Table 1: Distribution of respondents according to constraints in vegetable production

N=160

S. No	Constraints	Frequency	Percentage	Rank
1	Non availability of Quality seed at sowing time.	97	60.63	II
2	High cost of good quality seed	86	53.75	V
3	Non availability of fertilizers and pesticides at planting time.	103	64.37	I
4	High cost of fertilizers and plant protection chemicals.	91	56.87	III
5	High incidence of insect pest and diseases	83	51.87	VI
6	Lack of irrigation facility	23	14.37	X
7	Lack of knowledge about scientific method of vegetable production.	71	44.37	IX
8	Limited government subsidy on inputs	89	55.62	IV
9	Insufficient and untimely credit facility	81	50.63	VII
10	Inadequate extension services	77	48.13	VIII

*Multiple responses were allowed.

The data presented in table 1 reveals that majority of vegetable growers of Varanasi district 64.37 percent face problem of Non availability of fertilizers and pesticides at planting time followed by Non availability of Quality seed at sowing time (60.63%), High cost of fertilizers and plant protection chemicals (56.87%), Limited government subsidy on the production inputs (55.62%), High cost of good quality seed (53.75%), High incidence of insect pest and diseases (51.87%), Insufficient and untimely credit facility (50.63%), Inadequate extension services (48.13%), Lack of knowledge about scientific method of vegetable production (44.37%) and Lack of irrigation facility (14.37%). These constraints were ranked as I, II, III, IV, V, VI, VII, VIII, IX and X respectively.

The possible reason for farmers facing the problems in vegetable production could be that input couldn't reach to the hands of the farmers due to lack of proper distribution system of government. Another problem of high cost of inputs like fertilizer and pesticides were its high demand in the

agriculture sector, because of which the manufacturing companies were increasing the price of the fertilizers and plant protection chemicals at a very faster rate and also because of globalisation and open market system. Due to this farmers face a lot of difficulties in purchasing the product. Good quality seeds were also not available to the farmer on time failing which the production get decreased. The reason for this could be inappropriate government policies. Similarly lack of proper irrigation facility was also a main problem to the farmers. Due to lack of irrigation at the right stage of the crop growth, production get decreased. High incidence of insect, pest and diseases was the production constraints faced by the farmers. The reason could be congenial weather conditions which allow a lot of insect, pest to attack the vegetable. Sometimes repeated cultivation of same crop in the same piece of land also allow insect, pest to occur at regular interval. Lack of the technical guidance to control pest by the extension personnel and scientists could also be the cause of insect pest infestation.

Table 2: Distribution of respondents according to constraints in vegetable marketing

N=160

S. No	Constraints	Frequency	Percentage	Rank
1	Limited knowledge about Processing of vegetables	93	58.13	VII
2	Lack of sufficient cold storage facilities	129	80.63	II
3	High cost of storage and transportation	107	66.87	IV
4	Lack of transportation Facilities	95	59.37	VI
5	Un-remunerative market price for the produce	121	75.63	III
6	Lack of awareness about marketing trend	91	56.87	VIII
7	Exploitation by middleman	101	63.13	V
8	Price fluctuation in the market	147	91.87	I
9	Costly packaging material	58	36.25	X
10	Spoilage during transportation	83	51.87	IX

*Multiple responses were allowed.

The data presented in table 2 reveals that majority of respondents face problem in marketing related to Price fluctuation in the market (91.87%) followed by Lack of sufficient cold storage facilities (80.63%), Un-remunerative market price for the produce (75.63%), High cost of storage and transportation (66.87%), Exploitation by middleman (63.13%), Lack of transportation Facilities (59.37%), Limited knowledge about Processing of vegetables (58.13%), Lack of awareness about marketing trend (56.87%), Spoilage during transportation (51.87%) and Costly packaging material (36.25%). These constraints were ranked as I, II, III, IV, V, VI, VII, VIII, IX and X respectively.

The possible reason for farmer facing the problem in vegetable marketing could be that vegetables are of perishable nature so it needs to be sold as soon as possible to avoid the

loss and due to less cold storage farmers sell their produce in low price and don't get desired profit. Farmers face the problem of price fluctuation in the market throughout the year. The reason could be that vegetables are very good source of income for the people but due to lack of a good regulated market the price get changed from time to time. Hence farmers face a lot of difficulty in the selling of vegetables due to the price fluctuation and get less profit. Also high intervention of middle man makes producer get fewer prices than the normal market price. These middle man acts as a third party between buyer and seller. They get their commission which decreases the profit of the farmers.

Suggestions given by vegetable growers to overcome the constraints related to production

Table 3: Distribution of respondents according to suggestions in vegetable production

S. No	Suggestions	Frequency	Percentage	Rank
1	Training should be imparted to vegetable growers regarding scientific method of vegetable production techniques.	75	46.87	VIII
2	Ensuring supply of sufficient quantity and good quality of seeds by government agencies.	97	60.63	III
3	Improving availability of fertilizers and Pesticides on appropriate time.	103	64.37	I
4	Reduce the cost of quality seeds.	88	55.00	V
5	Fertilizers and pesticides should be made available at reasonable rate.	99	61.87	II
6	Appropriate and timely extension services should be provided.	79	49.38	VII
7	Ensure proper irrigation facility to vegetable growers.	23	14.37	X
8	Government should provide proper subsidy on the production inputs	91	56.87	IV
9	Sufficient credit facilities should be provided to farmers on time.	83	51.87	VI
10	More cooperatives and FPOs should be made available.	35	21.87	IX

*Multiple responses were allowed.

The data presented in table 3 reveals that majority of respondents (64.37%) suggested that government should ensure availability of fertilizers and Pesticides on appropriate time followed by Fertilizers and pesticides should be made available at reasonable rate (61.87%), Ensuring supply of sufficient quantity and good quality of seeds by government agencies (60.63%), Government should provide proper subsidy on the production inputs (56.87%), Reduce the cost of quality seeds (55.00%), Sufficient credit facilities should be provided to farmers on time (51.87%), Appropriate and timely extension services should be provided (49.38%), Training

should be imparted to vegetable growers regarding scientific method of vegetable production techniques (46.87%), More cooperatives and Farmer producer organization should be made available (21.87%) and Ensure proper irrigation facility to vegetable growers (14.37%). These suggestions were ranked as I, II, III, IV, V, VI, VII, VIII, IX and X respectively.

Suggestions given by vegetable growers to overcome the constraints related to marketing

Table 4: Distribution of respondents according to suggestions in vegetable marketing

S. No	Suggestions	Frequency	Percentage	Rank
1	Information should be provided to vegetable growers about recent marketing trends	97	60.62	I
2	Malpractices should be stopped	93	58.13	II
3	Establish more cold storage	87	54.37	IV
4	Government should fix MSP for vegetable produce	91	56.87	III
5	Proper transportation facilities should be made available at reasonable charge.	83	51.87	V
6	Training should be imparted to vegetable growers regarding processing and preservation of vegetables.	78	48.76	VI
7	Packaging material should be made available at reasonable rate.	58	36.25	VII

Multiple responses were allowed

The data presented in table 4 reveals that majority of respondents 60.62 percent suggested that Information should be provided to vegetable growers about recent marketing trends followed by 58.13 percent respondents suggested that Malpractices should be stopped, 56.87 percent suggested government should fix minimum support price for the vegetable produced, 54.37 percent told to Establish more cold storage, 51.87 percent told Proper transportation facilities

should be made available at reasonable charge, 48.76 percent said Training should be imparted to vegetable growers regarding processing and preservation of vegetables and 36.25 percent suggested that Packaging material should be made available at reasonable rate. These suggestions were ranked as I, II, III, IV, V, VI, VII, VIII, IX and X respectively.

Conclusion

It may be concluded that most serious constraints were non-availability of quality seeds, fertilizers and Pesticides and their unavailability at proper time and their high cost, price fluctuation in the market and lack of sufficient cold storage. Most of the vegetable growers suggested that information should be provided to vegetable growers about recent market trends, malpractices should be stopped, production input should be provided timely, proper marketing facilities should be made available to them at reasonable rate and cold storage facilities should be provided. So that it will help farmers to increase their vegetable production without increasing production cost and ultimately their income will increase.

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