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Constraints Faced by Vegetables Grower of Bundelkhand Region of Madhya Pradesh in Adoption of Improved Production-Protection Technology

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Abstract

The present study was conducted in Tikamgarh District under the Bundelkhand region of Madhya Pradesh in the 2021-22, to identify constraints of vegetable grower in bundelkhand region of Madhya Pradesh in adoption of improved technology. For this, constraints analysis was carried out in Tikamgarh block. out of four blocks (Tikamgarh, Jatara, Baldeogarh and Palera) only Tikamgarh block was purposely selected. In this block 10 villages were randomly selected. From these villages 6 vegetables growers were selected from each village by simple random sampling method. Thus the total numbers of 60 vegetables growers were selected. Average productivity of vegetables crop in Madhya Pradesh is very low (76.20 q/ha) and far from the national average yield of 180 q/ha. It is mainly because of poor knowledge as well as non-adoption of scientific technologies of vegetable cultivation. A wide gap exists between the yield obtained and the potential yields. By adopting improved varieties improved and technologies, the production and productivity can be increased. The major constraints faced were lack of knowledge about improved variety, seed rate and sowing time (86.66%), lack of knowledge of IPM technologies (81.66%), unavailability of improved seeds of vegetables (83.33%), lack of irrigation facility (70.00%), non-remunerative price (75.0%), lack of training of scientific vegetable production technology (75.0%) and lack of subsidy (66.66%).

Key words: *Vegetables, constraint, production technology, Bundelkhand region*

Introduction

Vegetables is a important component of daily diet; But unfortunately Average productivity of vegetables crop in Madhya Pradesh is very low (76.2 q/ha) and far low from the national average yield of 180 q/ha. It mainly because of poor knowledge as well as adoption of scientific technologies of vegetable cultivation. A wide gap exists between the yield obtained and the potential yields. By adopting improved varieties and technologies, the production and productivity can be increased. Promotion of hybrid vegetable technology or improved varieties is major strategy for increasing productivity. Vegetables provide essential vitamins (A, B, C & D), minerals (Fe, Ca), fibers etc for maintaining a good health. The daily requirement of vegetables in human diet in India is 300g/day/person but we are able to produce only 245g/day/person still short of 55g/day/ person. In India more than 40 different kinds of vegetables belong to different groups, viz., solanaceous, cucurbitaceous, leguminous, cruciferous (cole crops), root crops and leafy vegetables are being grown in tropical, subtropical and temperate regions. However, a planned development in the field of vegetable production is very much essential to improve the nutritional security for masses. India, with its wide diversity of climate and soil, has vast potential for growing different types of vegetables like potato, tomato, onion, brinjal, cabbage, cauliflower, okra and peas round the year. The most important aspect of vegetable cultivation is that it absorbs woman labour to a greater extent compared to therecrops. It is not out of

place to mention that in many cases housewives entirely manage the vegetable production system up to harvesting and marketing. Small land holders dominate both Indian agriculture and vegetable production. Across all production sectors, more than 80 percent of farms of are >2 ha. Income from staple crops is inadequate, so farmers supplement with off-farm and non-farm income, and increasingly grow high-value crops such as vegetables[1]. The major constraints could be detected to vegetable production technology like lack of knowledge about improved variety, seed rate and sowing time, lack of knowledge of IPM technologies, unavailability of improved seeds of vegetables, lack of irrigation facility, non-remunerative price, lack of training of scientific vegetable production technology and lack of subsidy and high cost of pesticides. Hence the present study was carried out to know the production constraints encountered by vegetable grows.

Material and Methods

The present study was conducted in Tikamgarh district of Madhya Pradesh in the year of 2021-22. Out of four blocksblocks (Tikamgarh, Jatara, Baldewgarh and Palera) only Tikamgarh block was purposely selected. In this block 10 villages were randomly selected, from these villages 6 vegetables growers were selected from each village by simple random sampling method. Thus the total numbers of 60 vegetables growers were selected.

A well structured and pre tested schedule was used to collect information from the vegetables growers after having thorough consultation with experts. The interview schedule used under study was having 20 statements regarding different constraints of vegetables production technology. The responses obtained towards these statements were recorded. The statements answered 'Yes' was given one mark and the statement having 'No' was given zero mark. Thus the maximum obtainable mark of each individual vegetables grower was 20 and minimum was zero.

Results and Discussion

The present investigation attempt was to categories the major constraints viz. technological, resource, market and miscellaneous constraints faced by farmers in vegetable production technology.

1. Technological constraints of vegetable production technology

Findings of Table 1 reveals that the lack of knowledge about improved varieties, seed rate and sowing time (86.66%) is the first technological constraints. The second and third constraints were lack of knowledge of IPM technologies (81.66%), lack of training of scientific vegetable production technology (75%), Inadequate demo of new variety (71.66%) and lack of mechanization (58.33%). The other technological constraints were lack of publication (53.33%) and non-availability of facilities of soil testing (50.00%)[4].

Table 1 Technological constraints of vegetable production

Sr. No.	Technological Constraints	Frequency	% age	Remark
1.	Lack of knowledge about improved varieties, seed rate and sowing time	52	86.66	I
2.	Lack of knowledge about IPM technology	49	81.66	II
3.	Lack of training of scientific vegetable production technology	45	75.00	III
4.	Inadequate demo of new variety	43	71.66	IV
5.	Lack of mechanization	35	58.33	V
6.	Non availability of facilities of soil testing	30	50.00	VII
7.	Lack of publication	32	53.33	VI

2. Resource constraints of vegetable production technology

Findings of Table 2 reveals that the unavailability of improved seeds of vegetables (83.33%), lack of irrigation facility (70.0%) and high cost of pesticides (68.33%) were the most important resource constraints mentioned by the vegetable growers. The other resource constraints were scattered and small size land holding (56.66%) and lack of cold storage (33.33%), Lack of effective supervision (30.00%), Lack of crop insurance facility (25.00%). Rolle (2006) indicated fresh produce losses ranged from 10 to 40 per cent globally, with losses in India at the high end. Priorities for improving the post harvest sector for vegetable handling have been reported in the past[2].

Table 2 Resource constraints of vegetable production technology

Sr. No.	Resource Constraints	Frequency	% age	Remark
1.	Unavailability of improved seeds of vegetables	53	83.33	I
2.	High cost of pesticides	41	68.33	III
3.	lack of irrigation facility	42	70.00	II
4.	Scattered and small size land holding	34	56.66	IV
5.	lack of cold storage	20	33.33	V
6.	Lack of effective supervision	18	30.00	VI
7.	Lack of crop insurance facility	15	25.00	VII

3. Market constraints of vegetable production technology

After analyses the market constrains presented in table 3 indicated that non remunerative price was found to be the first market constraints expressed by 75.0 per cent of the vegetable growers. The second market constraints which was expressed by vegetable growers of lack of transportation facilities and high charges (65.0%). Poor marketing facilities resulting high risk (56.66%) was third constraints. The fourth and fifth constraints expressed by vegetable growers were approach roads not in good condition (45.0%) and market are distantly located (46.66%).where as other constraints is Poor source of information (55.00%) and Lack of commitment of farming (23.33%).

Table 3 Market constraints of vegetable production technology

S. No.	Market Constraints	Frequency	% age	Remark
1.	Poor marketing facilities resulting high risk	34	56.66	III
2.	Poor source of information	33	55.00	IV
3.	Market are distantly located	24	40.00	VI
4.	Lack of commitment of farming	14	23.33	VII
5.	Approach roads not in good condition	27	45.00	V
6.	Non remunerative price	45	75.00	I
7.	lack of transportation facilities and high charges	39	65.00	II

4. Miscellaneous constraints of vegetable production technology

As for as the miscellaneous constraints are concerned, data presented in Table 4 shows that the first miscellaneous constraints expressed by 66.66 per cent of the vegetables grower was lack of subsidy followed by poor extension contact (60.00%) and Lack of education (66.33%), non-availability of labour during peak season and high wages (53.33%), lack of information sources of vegetable production technology at village level (41.66%) and high risk of natural hazards (33.33%),Low credibility of extension worker (26.66%).

Table 4 Miscellaneous constraints of vegetable production technology

Sr. No.	Miscellaneous Constraints	Frequency	% age	Remark
1.	High risk of natural hazards	20	33.33	VI
2.	lack of subsidy	40	66.66	I
3.	Non-availability of labour during peak season and high wages	30	50.00	IV
4.	Poor extension contact	36	60.00	III
5.	lack of information sources of vegetable production technology at village level	25	41.66	V
6.	Low credibility of extension worker	16	26.66	VII
7.	Lack of education	41	66.33	II

5. Suggestion made by the vegetable growers for adoption of improved vegetables production technology

The suggestion for increased adoption of vegetables production technologies are presented in table 5. Most of vegetable grower suggested that input should be provided timely. Technical knowledge of IPM technologies should be provided, irrigation facilities should be straightened and training programme of vegetable production technology must be conducted. The other suggestion made by less than fifty per cent vegetable growers were transportation facilities, frequent visit to extension workers, financial assistance and demonstration should be conducted on their field.

Table 5 Suggestion for adoption of improved vegetables production technology

S. No.	Suggestion for adoption of improved vegetables production technology	Frequency	% age	Remark
1.	Input should be provided timely	40	66.66	II
2.	Non availability of quality input	45	75	I
3.	Demonstration should be conducted on their field	15	25.00	X
4.	Technical knowledge of IPM technologies should be provided	35	58.33	IV
5.	Financial assistance	32	53.33	V
6.	Irrigation facilities	38	63.33	III
7.	Marketing facilities	26	43.33	VI
8.	Transportation facilities	25	41.66	VII
9.	Conducted training programme of vegetable production technology	19	31.66	IX
10.	Frequent visit to extension workers	20	33.33	VIII

Conclusion

On the basis of aforesaid finding it can be concluded that lack of knowledge about improved variety, quality of planting material, seed rate and sowing time was the major constraints of vegetable production technology followed by lack of knowledge of IPM technologies, unavailability of improved seeds of vegetables, lack of irrigation facilities, non-remunerative price, lack of training of scientific vegetable production technology, lack of subsidy and high cost pesticides. If these constants eradicated by the remedial measure hen vegetable can be increased many folds.

References

1. Birthal, P. and Joshi P.K. (2007). Institutional innovations for improving smallholder participation in high-value agriculture: a case of fruit and vegetable growers associations in India. Quarterly Journal of International Agriculture, **46**(1):49-67.
2. Chikkasubbanna, V. (2006). India (2). In: R.S. Rolle (ed.). Postharvest Management of Fruit and Vegetables in the Asia-Pacific Region. Tokyo and Rome: Asian Productivity Organization (APO) and FAO. pp. 144-153.
3. Rolle, R.S. (2006). Improving postharvest management and marketing in the Asia-Pacific region: Issues and challenges. In: R.S. Rolle (ed.). Postharvest management of fruit and vegetables in the Asia-Pacific region. Tokyo and Rome: Asian Productivity Organization (APO) and FAO. pp. 23-31.
4. Meena, K.C. (2003). Constraints faced by the farmers in adoption of improved cultivation of cabbage in Udaipur district of Rajasthan. *Indian Research Journal of Extension Education*, **3**(2): 69-71.