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Constraints in Adoption of Vegetables Production Technology in Nellore District of Andhra Pradesh, India

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A B S T R A C T

The present study was conducted in Nellore district of Andhra Pradesh in the year of 2018-19. Out of 43 mandals, only 5 mandals was purposely selected. From these mandals 12 villages were randomly selected, from these villages 8 vegetables growers were selected from each village by simple random sampling method. Thus the total numbers of 96 vegetables growers were selected. Average productivity of vegetables crop in Nellore is very low (98.72 q. /ha.) and far from the national average yield of 17 mT./ha. It is mainly because of poor knowledge as well as adoption of scientific technologies of vegetable cultivation. A wide gap exists between the yields 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. The major constraints could be detected to vegetable production technology like non-remunerative price (95.83%), lack of irrigation facilities (94.79%), lack of knowledge of IPM technologies and lack of subsidy (91.66%).

Introduction

Average productivity of vegetables crop in Nellore District of Andhra Pradesh is (97.32q./ha.) very low (97.32q.ha^{-1}) and far from the national average yield of 154.6 q. ha^{-1}. It is mainly because of poor knowledge as well as adoption of scientific technologies of vegetable cultivation. A wide gap exists between the yields obtained and the potential yields. By adopting improved varieties and technologies, production and productivity of vegetables can be increased. Promotion of hybrid vegetable technology or improved varieties is major strategy for increasing productivity. The major constraints could be detected to vegetable production technology like lack of knowledge about improved knowledge of IPM and technologies, unavailability of improved seeds of

vegetables, lack of irrigation facilities, non-remunerative price, lack of training about scientific vegetable production technology, lack of subsidy and high costs of pesticides.

Materials and Methods

The present study was conducted in Nellore district of Andhra Pradesh in the year of 2018-19. Out of 43 mandals, only 5 mandals (Venkatagiri, Balayapalli, Ojili, Dakkili and Naidupeta) was purposely selected. From these mandals 12 villages were randomly selected, from these villages 8 vegetables growers were selected from each village by simple random sampling method. Thus the total numbers of 96 vegetables growers were selected.

A well-structured and pre tested schedule was used to collect information from the vegetables growers after having through consultation with experts. The interview schedule used under this study was having 20 statements regarding different constraints of vegetables production technology. The responses obtained towards these statements were recorded. The statement 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 vegetables production technology.

Technological constraints of vegetable production technology

Table 1 reveals that the lack of knowledge of IPM technologies (91.66%) is the first technological constraint. The second and third constraints were lack of knowledge about improved varieties, seed rate and sowing time (85.42%) and non- availability of facilities of soil testing (81.25%). The other technological constraints were lack of training of scientific vegetable production technology (69.79%) and lack of publication (64.58%).

These finding were found to partially supported by the reports of earlier investigators

Resource constraints of vegetable production technology

Table 2 reveals that the lack of irrigation facilities (94.79%) and high costs of pesticides (90.62%) were the most important resource constraints mentioned by the vegetable growers. The other resource constraints were lack of cold storage (88.54%), unavailability of improved seeds of vegetables (86.45%) and scattered and small size land holding (85.41%).

Market constraints of vegetables production technology

Table 3 indicates that non-remunerative price was found to be the first market constraint expressed by 95.83 per cent of the vegetable growers. The second market constraint which was expressed by vegetable growers was Poor marketing facilities resulting high risk (87.50%). Markets are distantly locate (78.12%) was third constraint. The fourth and fifth constraints expressed by vegetable growers were lack of transportation facilities and high charges (75.00%) and approach roads not in good conditions (70.83%).

Miscellaneous constraints of vegetables production technology

As far as the miscellaneous constraints are concerned, Table 4 shows that the first

miscellaneous constraint expressed by 91.66 per cent of the vegetables grower was lack of subsidy followed by High risk of natural hazards (85.41%), lack of information sources of vegetables production technology at village level (83.33%), poor extension contact (75.00%), non-availability of labour during peak season and high wages (36.66%).

Table.1 Technological constraints of vegetable production

S. No.	Technological Constraints	Freq-uency	% age	Rank
1.	Lack of knowledge about improved varieties, seed rate and sowing time	82	85.42	II
2.	Lack of knowledge about IPM technologies	88	91.66	I
3.	Lack of training of scientific vegetable production technology	67	69.79	IV
4.	Non-availability of facilities of soil testing	78	81.25	III
5.	Lack of publication	62	64.58	V

Table.2 Resource constraints of vegetable production technology

Sr. No.	Resource Constraints	Frequency	% age	Rank
1.	Unavailability of improved seeds of vegetables	83	86.45	IV
2.	High costs of pesticides	87	90.62	II
3.	Lack of irrigation facilities	91	94.79	I
4.	Scattered and small size land holding	82	85.41	V
5.	Lack of cold storage	85	88.54	III

Table.3 Market constraints of vegetables production technology

Sr. No.	Market Constraints	Frequency	% Age	Rank
1.	Poor marketing Facilities resulting high Risk	84	87.50	II
2.	Markets are distantly located	75	78.12	III
3.	Approach roads not in good Conditions	68	70.83	V
4.	Non-Remunerative Price	92	95.83	I
5.	Lack of Transportation facilities and high charges	72	75.00	IV

Table.4 Miscellaneous constraints of vegetables production technology

Sr. No.	Miscellaneous constraints	Frequency	% age	Rank
1.	High risk of natural hazards	82	85.41	II
2.	Lack of subsidy	88	91.66	I
3.	Non-availability of labour during peak season and high wages	67	69.79	V
4.	Poor extension contact	72	75.00	IV
5.	Lack of information sources of vegetables production technology at village level	80	83.33	III

Table. 5 Suggestion for adoption of improved vegetables production technology

Sr. No	Suggestion for adoption of improved vegetables production technology	Frequency	% age	Rank
1.	Input should be provided timely	82	85.41	VII
2.	Demonstration should be conducted on their field	84	87.50	VI
3.	Technical knowledge of IPM technologies should be provided	88	91.66	III
4.	Financial assistance	91	94.80	I
5.	Irrigation facilities	90	93.75	II
6.	Marketing facilities	85	88.54	V
7.	Transportation facilities	75	78.12	IX
8.	Conducted training programme of vegetable production technology	80	83.33	VIII
9.	Frequent visit of extension workers	86	89.58	IV

Suggestion for adoption of improved vegetables production technology

The suggestions for increased adoption of vegetables production technologies are presented in Table 5. Most of vegetable grower suggested for financial assistance, irrigation facilities, technical knowledge of IPM technologies should be provided, frequent visit to extension workers, marketing facilities, demonstration should be conducted on their fields, input should be provided timely, conducted training programme of vegetable production technology and Transportation facilities. These were the major problems faced by the vegetables growers for adoption of scientific technologies.

It is concluded that Non-remunerative prices, Lack of irrigation facilities, lack of knowledge about IPM technologies and lack of subsidy were determined as major constraints in adoption of vegetable

production technology in Nellore District of Andhra Pradesh.

Most of the farmers suggested that financial assistance, Irrigation facilities and Technical knowledge on IPM in vegetable production technology to enhance the productivity.

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