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National Academy of Agricultural Science (NAAS)
Rating : 3. 03

Perceived Constraints in Adoption of Nutritional Garden in Tripura

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Abstract: *The study was conducted in the operational area of KVK, West Tripura with randomly selected 120 beneficiaries to find out the constraints in adoption of Nutritional garden in Tripura. Majority of the respondents perceived poor irrigation facility (74.17%) under constraints related to input. A technical constraint, viz., lack of knowledge about seed treatment (91.67%) was the major hindrance in successful adoption of nutritional garden. Amongst post harvest constraints, a major constraint was lack of knowledge on preservation and processing of surplus produce (82.50%). High rainfall damages garden during rainy season (65.00%), less priority is given to nutritional garden than other farm activities (50.83%) and high soil $_pH$ (46.67%) were general constraints as perceived by the respondents.*

Keywords: *Nutritional garden, Constraints, Tripura.*

INTRODUCTION

Vegetables occupy an important place in our daily life particularly for vegetarians. Vegetables are the only source to increase not only the nutritive values of foods but also their palatability. For a balanced diet, an adult should have an intake of 85 g of fruits and 300 g of vegetables per day according to the dietary recommendation of nutrition specialists. At present, the per capita availability of vegetable in India is about 135 g which is quite less as compared to 300 g as prescribed by the dieticians. (Sharma *et. al.*, 2011). With increase in population of our country and improvement in dietary habits, the consumption of vegetable has improved. People have realized the importance of vegetable in their diet as vegetable have high nutritive values which are vital for the body. In the present scenario, the cultivable land is decreasing day by day due to rapid urbanization, industrialization and shrinking land holding. The dietary requirement of vegetable can be easily fulfilled through the concept of nutritional garden as vegetable can be easily raised in small piece of land. Although urban people are quite aware about the benefits of nutritional garden, still there are few takers of this concept amongst the rural folk. The predominant reasons for the poor adoption amongst rural people may be due to lack of technical know-how, lack of awareness and knowledge regarding vital inputs like seed, water and FYM, plant protection measures, storage and processing etc. Realizing the importance of constraints, an effort was made to identify the major bottlenecks in adoption of nutritional garden.

METHODOLOGY

The study was conducted in the operational area of KVK, West Tripura. A random selection of 120 nos. of beneficiary farmers was made from the undivided West Tripura district of Tripura where demonstration on nutritional garden was conducted during 2014-15 and 2015-16. In the present study, constraint was conceptualized as irresistible force that acts as hindrance in adoption of recommended nutrition gardening techniques. A list of major constraints was prepared in consultation with extension scientist, available literature, field functionaries and progressive vegetable growers. Further, the major constraints were categorized into

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suitable sub-heads *viz.* input, technical, post-harvest and general constraints. The socio personal characteristics of the respondents, *viz.*, age, educational level, mass media exposure, marital status, social participation of were also studied. Data collection was done with the help of interview schedule. After collection of data, frequency and percentage was calculated and ranking was done based on percentage.

RESULTS AND DISCUSSION

The socio personal characteristics of the respondents are presented in Table 1. The data presented in the table reveals that 62.50 per cent of the respondents belonged to 35 years of age and above, whereas the educational qualification of 58.33 per cent respondents was up to class X. The mass media exposure of majority of the respondents was found low (65.83%) and majority of the respondents were married (90.83%). The Table also reveals that majority of the respondents (63.33%) were member of one organization.

The perceived constraint in adoption of nutritional garden is presented in Table 2. Data presented in Table reveals that majority of the respondents perceived poor irrigation facility (74.17%) under constraints related to Input followed by less availability of fertilizer and other chemicals (63.33%), unavailability of quality seed and planting material of HYVs (45.83%). Unavailability or less availability of inputs may be due to the remoteness of the state Tripura. Tripura the land locked state of North-Eastern Region of India has a total geographical area of 10,491.69 km^2 (i.e. 0.32% of the total geographical area of the country) with altitude 780m (north-eastern part) to 15m in the (western part) above mean sea level ((Dutta *et al,* 2009).

The Table also reveals that under technical constraints lack of knowledge about seed treatment (91.67%) was the major hindrance in successful adoption of nutrition garden. This is may be due to the progrmmes organized by KVK or line department on seed treatment is very less.

The other technical constraints, *viz.*, lack of knowledge on major pest & disease identification and their management (91.67%); lack of technical knowledge about improved varieties, seed rate and sowing time (66.67%); lack of knowledge about

Table 1
Distribution of the respondents according to their socio-personal characteristics (N = 120)

Characteristics	*Categories*	*Frequency*	*Percentage*
1. Age	25- 29 years	16	13.33
	30- 34 years	29	24.17
	35 years and above	75	62.50
2. Educational level	Illiterate	0	0
	Up to primary school	35	29.17
	Up to class X	70	58.33
	Up to class XII	15	12.50
	Up to degree level or above	0	0
3. Mass media exposure	Low	79	65.83
	Medium	41	34.17
	High	0	0
4. Marital status	Single	11	9.17
	Married	109	90.83
5. Social participation	No membership	23	19.17
	Member of one organization	76	63.33
	Member of more than one organization	2	1.67
	Office bearers (secretary/president etc.)	19	15.83

Table 2
Perceived Constraints in adoption of Nutritional Garden (N = 120)

S. No.	Constraints	F	%	Rank
(A)	Input			
1.	Unavailability of quality seed and planting material of HYVs	55	45.83	III
2.	Poor irrigation facility	89	74.17	I
3.	Less availability of FYM	45	37.50	IV
4.	Less availability of fertilizer and other chemicals	76	63.33	II
	Overall		55.21	
(B)	Technical			
1.	Lack of technical knowledge about improved varieties, seed rate and sowing time	80	66.67	III
2.	Lack of knowledge about seed treatment	110	91.67	I
3.	Lack of knowledge on major pest and disease identification and their management	91	75.83	II
4.	Lack of knowledge about recommended fertilizer application	54	45.00	IV
5.	Lack of knowledge about critical stages of irrigation	39	32.50	V
	Overall		62.33	
(C)	Post Harvest			
1.	Difficulty in selling small amount of surplus produce	34	28.33	III
2.	Lack of storage system for surplus produce	90	75.00	II
3.	Lack of marketing at village level	31	25.83	IV
4.	Lack of knowledge on preservation and processing of surplus produce	99	82.50	I
	Overall		52.91	
(D)	General			
1	High soil $_{p}$H	56	46.67	III
2	Less priority to nutritional garden than other farm activities	61	50.83	II
3	High rainfall damages garden during rainy season	78	65.00	I
	Overall		54.16	

recommended fertilizer application (45.00%) and lack of knowledge about critical stages of irrigation (32.50%) were ranked as 2nd, 3rd, 4th and 5th.

Amongst post harvest constraints, major constraints was lack of knowledge on preservation and processing of surplus produce (82.50%) followed by lack of storage system for surplus produce (75.00%), difficulty in selling small amount of surplus produce (28.33%), lack of marketing at village level (25.83%) with 2nd, 3rd and 4th rank respectively.

The data further revealed that high rainfall damages garden during rainy season (65.00%), less priority is given to nutritional garden than other farm activities (50.83%) and high soil $_{p}$H (46.67%) were general constraints ranked as 1st, 2nd and 3rd respectively. Results of the present study were in conformity with those of Kanbid and Sharma (1994).

CONCLUSION

This study concluded that technical constraint was most serious constraint followed by input constraints, general constraints and post harvest constraints in adoption of nutrition gardening. While analyzing overall constraints as perceived by the farmers, the study highlighted that poor

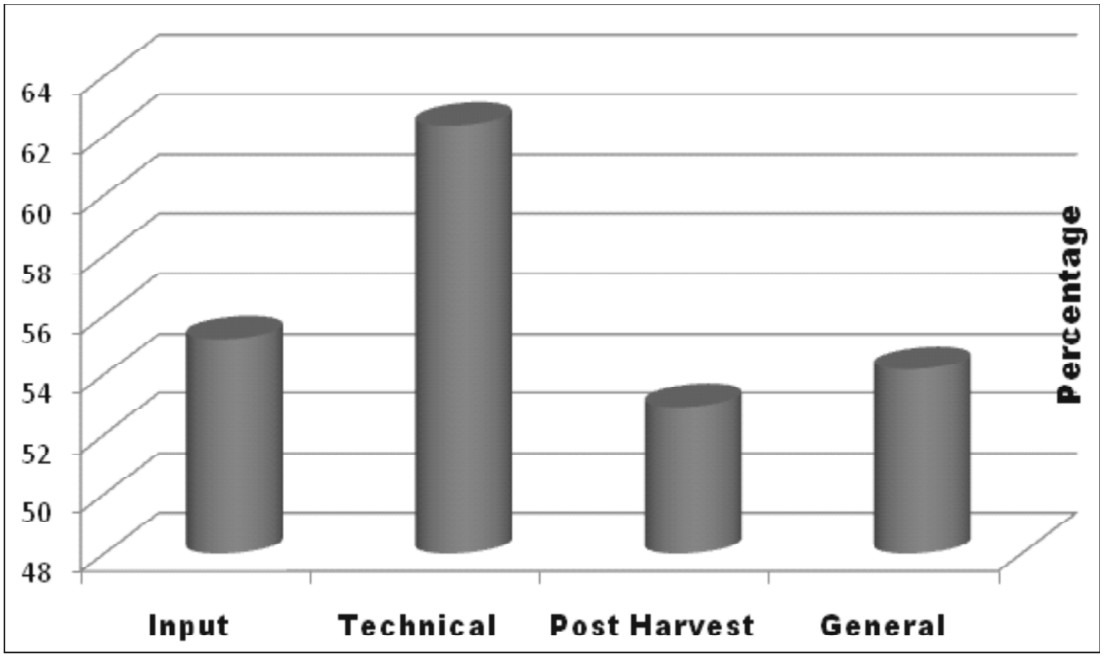

Figure 1: Distribution of respondents based on category wise constraints

irrigation facility, less availability of fertilizer and other chemicals, lack of knowledge about seed treatment, lack of knowledge on major pest and disease identification and their management, lack of knowledge on preservation and processing of surplus produce, lack of storage system for surplus produce, high rainfall damages garden during rainy season and less priority to nutritional garden than other farm activities were reported major bottlenecks in successful adoption of nutrition gardening.

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