Backyard nutritional garden for improving health status of farm families

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Abstract

Madhya Pradesh is one of the vulnerable states with only 122.52 gm vegetables and 153.15 gm fruits available per person per day. A large population is dependent on agriculture, who works on their farms as cultivators or labourers. As the shift of agriculture is changing to market driven economy and our farm families too need to purchase a range of cereals, pulses, vegetables and fruits from the market as their daily needs are not met from their farm. It was; therefore, felt that the farm women should be made aware about the importance of nutritional garden to fulfill their daily demand of vegetables. KVKs under RVSKVV, Gwalior demonstrated 82 demonstrations during the year 2010-11, 154 demonstrations during the year 2011-12 and 107 demonstrations during the year 2012-13. The main purpose of these FLDs was to plan a layout of backyard nutritional garden to obtain a continuous supply of nutritionally rich vegetables within the available space. The improved variety vegetable seeds and seedlings were provided with emphasis on integrated pest management. The results showed that earlier the beneficiaries were growing only 2-3 vegetables in unorganized way but after intervention of KVKs they started growing more than five vegetables in an organized way. Also with small affordable investment in backyard nutritional garden they are able to get seasonal vegetables throughout the year with an approximate reduction of 47% in malnutrition and 26.45 to 58.38% increase in yield over local check within these three years. The B: C ratio ranged between 2.34 to 3.70 within these three years. The results also revealed that the average family saving is around Rs 1650 per year from the vegetables. This monetary saving can further be diverted to improve economic status of the farm families, in turn, improving their health status.

Key words: KVKs, RVSKVV, FLDs, demonstrations, B: C ratio

Introduction

Food is very essential in the human's life. It provides energy, protein, vitamins, minerals fats, fibers and essential amino acids. There are seven main food groups. Among them vegetables are richest source of vitamins and mineral as well as contains good amount of fibers. 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 its palatability. For a balanced diet, an adult should have an intake of 85 g of fruits and 300 g of vegetables per day as per the dietary recommendation of nutrition specialists. But the present level of production of vegetables in our country can permit a per capita consumption of only 120 g of vegetables per day.

It is surprisingly quite true that in rural area consumption of vegetable in daily diet is very negligible amount or it can be said that once in a week. Hence, the maximum symptoms and deficiencies related to vitamins are observed in rural area. The adverse effect could be observed more in women and children- malnutrition, eye deficiencies, anemia, under weight, weakness, constipation problem and so on problem related to vitamins and minerals which are due to the lack of vegetables in daily diet. The farm women are mostly engaged with farm work which is available in particular crop season. Majority of farm women have lack of knowledge about health & nutrition, dietetic blueprint of pregnant & lactating women and complementary feeding for children. Due to poor economic condition, they are unable to purchase fruits & vegetables from market for their daily dietary need. This has resulted in poor health and imbalance nutritional status of farmers, farm women and children.

As per the Aparana Sharma (2010) farm women should develops the nutritional garden which was not only the source to empower the individual but also households to take ultimate responsibilities over the quality of their diet through their own production of nutrient rich foods and informed consumption choices.

Nutritional garden is helps in dual way; first it provides fresh vegetables for round the year and can be a source of entrepreneurship among the rural youth and farm women which can be sustainable for life long. Nutritional Park slowly removes the malnutrition problem and also increases the health status of the farm women and children.

Cultivation of organic vegetables in the nutritional garden can be an excellent and qualitative source of income generation as these days' maximum health problems and diseases arise due to the abundant use of harmful pesticides on vegetables. Organic vegetables can be sold in higher price and it can provide a good economic stand to the cultivator.

Materials and Methods

Considering the above facts, strong need was felt to motivate the farm women for cultivating the nutritional garden at house hold level and plan to produce their own vegetable requirements in their backyards using the available fresh water as well as the kitchen and bathroom wastewater. This will not only facilitate prevention of stagnant unused water which will be hazardous to their health through environmental pollution, but can be useful for successful production of their own requirement of vegetables cultivation in a small area. It was seen that the farm women were growing one or two vegetable crops of local variety in their backyard in traditional way. Hence, to motivate the farm women towards growing improved varieties of different vegetables to accomplish their nutritional requirement, it was decided to conduct Front Line Demonstrations on Nutritional Garden by the KVKs under RVSKVV, Gwalior with major objective of planning a layout of backyard nutritional garden to obtain a continuous supply of

nutritionally rich vegetables within the available space, thus, improving the health & nutritional status of Farm families; in turn increasing the income of farm families. Before conducting the FLDs a list of farm women was prepared from group meeting and specific skill training was imparted to the selected beneficiaries regarding different aspects of cultivation etc. were followed as suggested by Chaudhary (1999). KVKs under RVSKVV, Gwalior demonstrated 82 demonstrations during the year 2010-11, 154 demonstrations during the year 2011-12 and 107 demonstrations during the year 2012-13. The improved variety vegetable seeds and seedlings were provided with emphasis on integrated pest management.

Results and Discussion

The results showed that earlier the beneficiaries were growing only 2-3 vegetables in unorganized way but after intervention of KVKs they started growing more than five vegetables in an organized way. Also with small affordable investment in backyard nutritional garden they are able to get seasonal vegetables throughout the year with an approximate reduction of 47% in malnutrition and 26.45 to 58.38% increase in yield over local check within these three years. The B: C ratio ranged between 2.34 to 3.70 within these three years (Table 1). The results also revealed that the average family saving is around Rs 1650 per year from the vegetables. Farmwomen feed their families first and then sell, barter or give away surplus. This monetary saving can further be diverted to improve economic status of the farm families, in turn, improving their health status. In rural area it can become good source of income generation for farm women. In spite of these entire facts, still backyard nutritional gardening is not a very successful venture in most of the rural families. The predominant reasons for the poor adoption may due to lack of technical guidance, lack awareness





Year	No. of Demo	Area (ha)	Average Yield (q/ha)		Increase in yield (%)	Average Net Return		B:C Ratio
			Demo	Local Check	•	Demo	Local Check	
2010-11	82	6.06	135.59	107.22	26.45	72076	47769	2.81
2011-12	154	5.68	172.53	114.85	50.22	57605	32172	3.70
2012-13	107	3.29	223.16	140.90	58.38	58575	41055	2.34

Table 1: Performance of Front Line Demonstrations (FLDs) on Nutritional Kitchen Garden

and knowledge factors such as seed, water, protection, measures, storage, processing and so on.

The study indicated that KVKs should try to work on measures to eradicate the constraints in adoption of backyard nutritional garden so that the rural women get a regular supply of fresh vegetables throughout the year in turn, improving their health status.

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