

Original Research Article

Backyard Home Gardening for Nutritional Security in Rural Areas of Bhadohi District: on Farm Trial

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ABSTRACT

The study was aimed to raise awareness about health benefits of home gardening and conducted at five villages of two blocks in Bhadohi district to evaluate the pre and post impact of backyard home gardening. In the study 100 farm families were selected purposively. To collect information about backyard home gardening, a self-developed, open ended questionnaire with 20 items was prepared and distributed to the farm families. The pre evaluation chart revealed that most of the farm families (40%) did not practicing backyard home gardening, farm families (35%) were growing few vegetables and only 15% of farm families were adopted backyard home gardening. They were encouraged for using organic manure and fertilizer in the home garden. After conducted OFT, the post evaluation was done and 57% of respondents were ready to adopt the technology followed by the farm families (28%) who were already growing few vegetables and 15% farm families did not want to do backyard home gardening. Participants belonging to General caste have maximum big size landholdings (15%) of the total respondent. Where there participants belonging to Other Backward Caste have the maximum small size landholdings (40%). Respondents belonging to Schedule Caste have the maximum of marginal landholdings (15%). The adoption rate of the technology shows the results that farm families belonging to Other Backward caste (30%) are doing maximum practice of backyard home gardening after provided technical know-how. Respondents belonging to Schedule caste (17%) are following traditional farmers practice and farm families belonging to General caste (16%) were not much interested to do adopt backyard home gardening. Big size families (54%) shown more interest in adopting backyard home garden technology followed by the families which has medium family size (30%) and small family size (16%). Pre evaluation study revealed constraints and difficulties faced by farm families in doing home gardening. Unavailability of land (58%) for backyard home gardening was given top most rank for adoption of the technology. Money (44%) was second constraint for doing backyard home gardening. Decision making (41%) was given third rank followed by irrigation (33%), availability of quality seed (28%) and time (25%) were also major constraint to adopt backyard vegetable gardening.

Keywords

Backyard Home Gardening, OFT

Introduction

The district Bhadohi is a part of eastern Uttar Pradesh and is well known as carpet

city. Majority of the people still live in the rural areas and dependent on carpet weaving

for their livelihood. As majority of the people is doing carpet weaving hence they cannot give proper time on agricultural activities. Vegetables and fruits are major source for providing vitamins, minerals, and roughage to human health. Presently, people of this area are not aware about health problem raised due to micronutrient deficiency and they are not consuming additional supplement to fulfil the requirements. Vegetable production requires time and intense labour force so that they overlooked this nutritional practice. Globally, prevalence of anaemia in females is estimated to be due to folic acid deficiency and bio unavailability of iron (Rastogi and Mathers 2002). Iron deficiency increases the risk of maternal mortality by 20 percent and reduces child IQ by 1.73 points (Stoltzfus et al. 2004). Overall, micronutrient deficiencies raise the risk for mortality from diarrhoea, pneumonia and measles (Black *et al.*, 2008). Furthermore, according to the recommendation the required quantity of vegetables and fruits for every person, farm women could not be consumed due its higher cost in the market. A critical component for improving diet quality is availability of nutritious food that provides nutritional security. Home gardens can play a strategic role among the rural people to make easy availability of the vegetable and fruits from their own garden.

Backyard home gardening is bio intensive and participatory approach to fulfil year round demands of fresh vegetables and fruits at household level (Landen –Lane, 2008). Krishi Vigyan Kendra, Bhadohi visited some farmers, farm women's place and organized awareness training programmes regarding health issues, diet quality, micronutrient deficiency and importance of vegetables and fruits. Some farmers and farm women were ready to establish home gardens in the empty and useless area of

their house. Additionally, the families, who has more than six members shown keen interest to grow vegetables in their backyard because they felt difficulty to provide variety of and costly vegetables to the all family members. Therefore, keeping all the issues in view, the present study was conducted in district Bhadohi. It was necessary to raise awareness training program among rural farm women to adopt home gardening to prevent micronutrient deficiency and add quality to their diet. Krishi Vigyan Kendra, Bhadohi provided proper guidance, improved varieties of quality seeds, plants of seasonal vegetables and fruits as well as medicinal plants to the farmers under On Farm Trail programme. The objectives of the study on backyard home garden program are- (i) to make aware about use of empty and open land for production of diversified vegetables and fruits (ii) to produce vegetables and fruits round the year through Home garden (iii) to improve diet quality and nutritional status of farm women, their children and family members through consumption of different kinds of vegetables and fruits and (iv) evaluate the pre and post results of the backyard home gardens.

Materials and Methods

To conduct On farm trials on backyard home gardening, a self-developed, open ended questionnaire with 20 items was prepared and distributed to the farmers to collect information about practices and constraints of backyard home gardening. Five villages- Garauli, Meghipur, Bhainshatta from Aurai block and Dattipur, Bisapur from Bhadohi block and 100 farm families of different backgrounds were selected purposively. Each family was provided questionnaire and data was recorded accordingly. To know the constraints, preferential ranking technique

was used to identify the problems faced by the farm families in doing backyard home gardening. The technical know-how and improved technologies were selected for OFT given in the table below:

The improved varieties of vegetables were provided to the farm families. The average production of vegetables in the home garden (OFT field) as well as of the farmers practice was recorded. The data on yield were recorded and analysed to interpret the results. The economic parameters (gross return, net return and B: C ratio) were calculated on the basis of usual market prices of inputs and outputs. Adoption rate of the technology was assessed on the basis of caste, family size and landholdings.

Results and Discussion

In this study to measure the pre and post adoption rate of the technology, pre and post data was recorded. In the table 2, in the pre evaluation chart, most of the farm families (40%) did not practicing backyard home

gardening. Some farm families around (35%) were growing few vegetables and only 15% of farm families were adopted backyard home gardening.

After organized many awareness training programs, the post evaluation was done and 57% of respondents were ready to adopt the technology followed by the farm families (28%) who were already growing s few vegetables and 15% farm families did not want to do backyard home gardening.

In the table 3, caste wise landholdings are represented. Participants belonging to General caste have maximum big size landholdings (15%) of the total respondent. Where there participants belonging to Other Backward Caste have the maximum small size landholdings (40%). Respondents belonging to Schedule Caste have the maximum of marginal landholdings (15%).

Table.1 Practices followed by farm families in On Farm Trial program and farmers practice

S. No.	Critical Input	On Farm Trial	Farmer's Practice
1.	Technical know how	Imparted skill trainings	Untrained
2.	Seeds/ seedlings	Improved variety of Vegetables	Local
3.	Fertilizer	Organic	-
4.	Pesticides	Neem Oil	Chemical

Fig.1 Pre and Post Evaluation chart of adoption rate of the technology

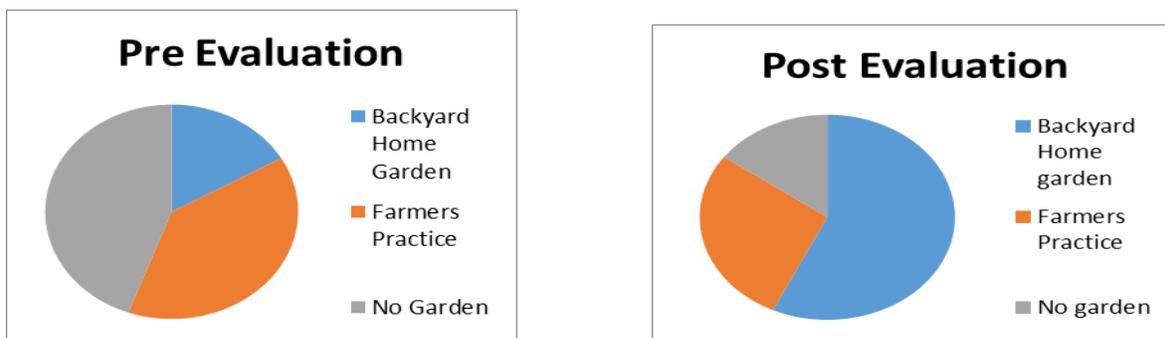


Fig.2 Graphical representation of caste wise landholdings

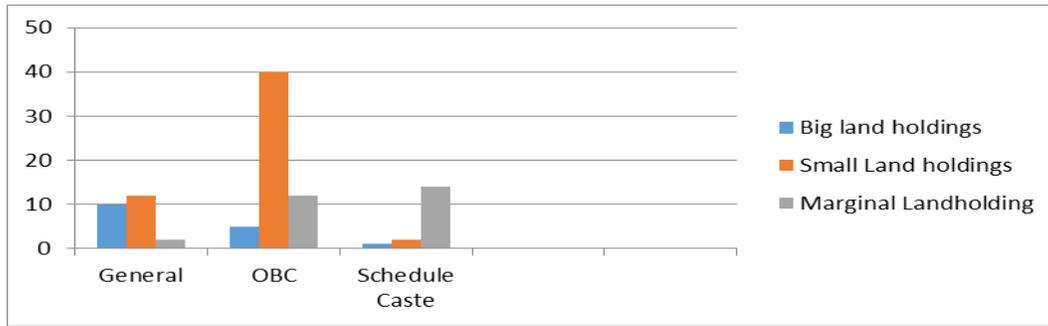


Fig.3 Graphical representation of caste wise adoption of the technology

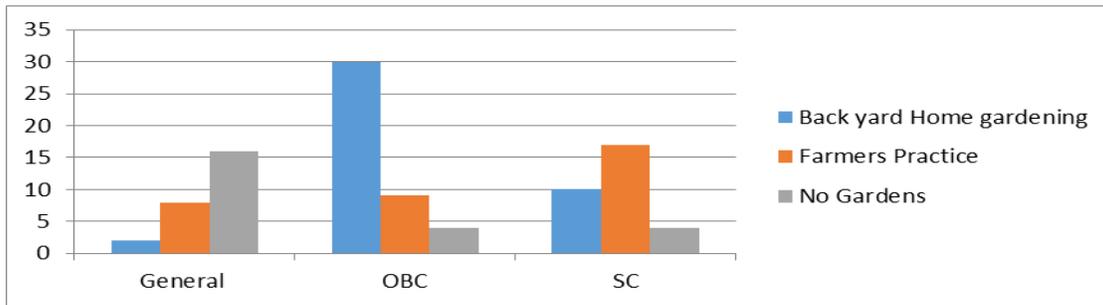


Fig.4 Family size wise adoption of the technology

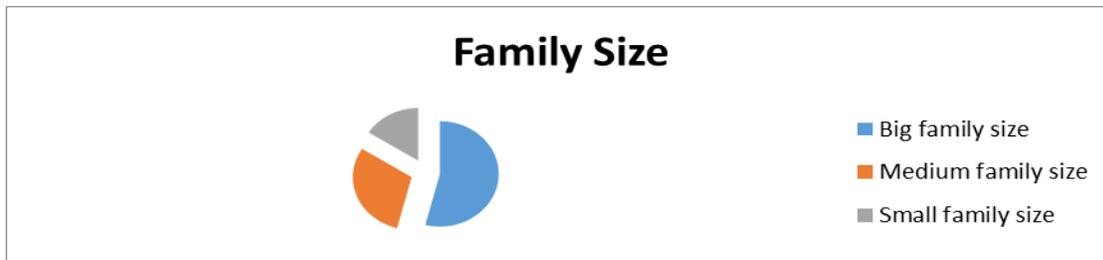


Table.2 Ranking of constraints faced by farm families to adopt backyard home gardening

Constraints	Difficulty (%)	Rank
Unavailability of land	58	I
Money	44	II
Decision making	41	III
Irrigation	33	IV
Availability of quality seed	28	V
Time	25	VI

The table 4 represents farm families belonging to Other Backward caste (30%) are doing maximum practice of backyard home gardening after provided technical know-how. Respondents belonging to Schedule caste (17%) are following traditional farmers practice and farm families belonging to General caste (16%) were not much interested to do adopt backyard home gardening technology.

In the above table, big size families (54%) shown much interest in adopting backyard home garden technology followed by the families which has medium family size (30%) and small family size (16%). It represents that big size family give more importance to the technology.

Above table (6) indicated that unavailability of land (58%) for backyard home gardening was given top most rank for adoption of the technology. Money (44%) was second constraint for doing backyard home gardening. Decision making (41%) was given third rank followed by irrigation (33%), availability of quality seed (28%) and time (25%) were also major constraint to adopt backyard vegetable gardening.

Thus, the present study was conducted the farmer were showed their overall positive attitude towards adoption of the technology and analysed existing practices of the technology. The pre evaluation data revealed the farm families did not aware about health and economic benefits of the home gardening. After conducted awareness training programs, farm families changed their attitude and shown positive response towards establishing backyard home gardening. As in off season the cost of the vegetables increases. Hence, fulfilling the required quantity of vegetables to all family members is difficult. Developing home

garden in backyard is participatory approach and it to saves money in respect of consuming or selling extra production. Constraints felt by farm families should be removed properly so that more farm families will adopt this practice. Fresh and chemical free vegetables are in demand and farm women can grow organic vegetables in the garden. Overall it can be concluded that backyard home gardening can be a profitable nutritional practice. Farm families can earn more from growing these cash crops. These practices should be promoted in rural areas for better health, diet quality and nutritional security.

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