

Role of women in vegetable production in distict Patiala

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■ **ABSTRACT** : The present study was carried out to find role of women in vegetable production area of Patiala. KVK, Patiala develops technical models for poverty alleviation, sustainable and equitable development and raise the income and quality of people by providing them training in various aspects of agriculture to supplement food and income. This study was conducted in five villages *i.e.* Khokh, Birarwal, Saholi, Binaheri and Gunike of district Patiala during 2014. Thirty female respondents each of the selected from four villages were interviewed. The results of the personal characteristics showed that majority of respondents were in age group of 20-40 years, 14 per cent of the total respondents were educated, 87 per cent of the respondents were landless labours. Education and adoption of vegetable growing practices were positively correlated. The results further showed that 95 per cent of the respondents engaged in picking of vegetables and 88 per cent invoved in sowing of vegetables at farmer's fields. Major constraints in vegetable production found in the study were lack of capital, credit availability and lack of marketing facilities.

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The country's urgent requirement is to enhance the production of nutritious food in a sustainable manner and improve the farm family income in order to ensure household food security, nutritional security and economic security. India is basically an agricultural country. Majority of its population lives in rural areas and are engaged in agricultural based activities. Vegetable production is one of the human basic skills. The level of success and productivity of vegetables production depend on the local climate and season and the range of species cultivated. Also, successful vegetable production is very much dependent upon supply of satisfactory seeds. The purpose of vegetable production varies from large-scale farm enterprises to

private home gardening, where vegetables are essential elements to supplement their diets and income. In some communities vegetables are grown as physical recreation or even as pass time hobby. Commercial production of vegetables has extended considerably during the past few decades in many parts of the world as large-scale enterprises to provide for fresh market and export. There are some relatively small-scale producers who aim at self-sufficiency in vegetables for the sale or exchange in village communities. Everywhere in the world, women have been actively involved in farming, food processing and preservation (Damisa *et al.*, 2007 and Damisa and Yohanna, 2007). Rural women are engaged in a wide range of farming activities and are responsible in most

cases for food production, processing, distribution, home consumption and for sale (Rahaman, 2008 and Lawanson, 2008). Women perform such works as hoeing, sowing, weeding, harvesting, processing and several other activities related to agricultural production (Ani *et al.*, 2004). Women contribute significantly to vegetable production and have favourable attitude towards vegetable production in Nigeria (Adeyemi, 1992). In doing so, they contribute to national agricultural output, maintenance of the environment and family food security (Awoyinka *et al.*, 2006). This confirms the findings of Badmus and Yekinni (2011) that vegetables play crucial roles in alleviating hunger and food security and it is considered a very important in diet for many people because of its valuable sources of nutrients. Farm women face difficulties in obtaining credit, which is generally due to the lengthy and time consuming procedure, illegal demands of revenue staff and bank functionaries (Mansoor *et al.*, 2007). They have less access to information, technology, inputs and credit than men (Ifenkwe, 2012). KVK plays an important role in the development of agriculture. The ultimate objective of extension is to promote the spiritual, mental and social growth of farmers and their families. Awareness has been created through the efforts of extension department and NGOs in rural communities. Krishi Vigyan Kendra is a grass root level village institute for transfer of technology conducting various programmes for socio-economic upliftment of farm women i.e. trainings, demonstrations etc. The farm women need to be involved in olericulture sector to push up considerable increase in production level and area under vegetables. Realizing the importance of farm women in vegetable production and to know the extent of training needs of these farm women, the study entitled “participation of farm women in vegetable production” was undertaken with the following objectives:

- To examine the degree of participation of women in vegetable cultivation
- To assess the training needs for farm women engaged in vegetable cultivation
- To identify the constraints faced by women engaged in vegetable cultivation

■ RESEARCH METHODS

Patiala is one of 29 districts of Punjab. There are a total of 9 blocks in district Patiala. The study was

conducted in the working area of KVK in district Patiala during 2014. For the present study five villages *i.e.* Khokh, Birarwal, Saholi, Binaheri and Gunike, were selected. From each village 20 female were selected through equal allocation using purposive sampling technique with the hope of representing the whole area. For this study a well design questionnaire was developed and pre-tested. Primary data was collected with the help of a questionnaire. Eighty female respondents of the selected five villages were interviewed in November and December 2014. The respondents were interviewed in their houses and farm. These places were selected for the convenience of respondents and for creation of suitable situation, where both sides (researcher and respondent) exchanged their views frankly and informally. The questionnaire mostly contained closed end questions. The questionnaire was designed in English but the questions were asked in local language (Punjabi) in order to avoid confusion. During interview every effort was made to explain the questions and its purpose, so that correct and reliable information could be gathered. To verify and support the results of primary data, the secondary information was used which were collected from published and unpublished sources. After collection of data, a tally sheet was prepared which facilitated the enumeration of answer of each question. By using descriptive statistics the data was analyzed by calculating simple percentages.

■ RESEARCH FINDINGS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Socio-economic profile of women engaged in vegetable cultivation :

Age of respondents play an important role in adoption or rejection of a practice. The data collected in the survey (Table 1) indicates that 18 per cent of the respondents were below 20 years of age, while 74 per cent were in the age group of 20-40 years and 8 per cent above 40 years of age group. During field survey it was observed that women between the ages of 20-40 were mature and involved in agricultural activities side by side with their males. As a result, they may not have sufficient strength and capacity to cultivate large hectares of vegetable farmlands. Family composition showed number of males, females and children in the study. In

the survey 30 per cent of the family members were females, 20 per cent males, while 50 per cent were children. Adult females were more than adult males. Adult females of the study area were involved in vegetable production for financial support of household and economic stability of their family. Education is one of the most important factors in acceptance, rejection, adoption and dissemination of useful information to other fellows for their benefits.

Table 1 : Socio-economic profile of the respondents in vegetable cultivation	
Particulars	Percentage respondents (%)
Age of the respondents (Years)	
Less than 20	18%
Between 20 – 40	74%
More than 40	8%
Family composition	
Female	30%
Male	20%
Children	50%
Educational level	
Illiterate	86%
Primary level	6%
Middle level	5%
Matric	3%
Secondary and above	1%
Types of land holding	
Land	13%
Landless	87%
Types of training	
Vegetable growing	56
Vegetable nursery raising	25
Mushroom cultivation	19

According to Williams (1994) women played an important role on the farm by tending to the vegetable garden, as well as the keeping of cows, while the men were often absent from the farm. Farmer's wives should thus be included in the extension programmes. Extension staff should contact the husband and wife jointly, paying the necessary respects to the husband but ensuring that the wife is involved and fully understands the advice and encouragement, which is given. This will enable the wives make better decisions when the husband is not present. The data in Table 1 indicates that 86 per cent of the respondents in the study area were illiterate, while 14 per cent were literate. Out of the literate, 6 per

cent were educated upto primary level, 5 per cent middle level, 3 Matric and 1 per cent secondary level and above. This implies that majority of the women vegetable farmers are non –literate, so they have to be properly trained to comprehend technical information since they lack basic education. Similar findings of high percentage of illiteracy and non formal education had been reported by Oladejo *et al.* (2011) in a study of women participation in agriculture production in Nigeria. Majority of the respondents (13%) had land, while 87 per cent were landless (Table 1). Islam *et al.* (1996) concluded that age and family size had no significant relationships with women income generating activities (vegetable production, livestock and fish culture) but education, mass media exposure, contact with extension agent, women respondent attitude and their husbands attitude were found to be significantly associated with women participation in women income generating activities.

Awareness and adoption of improved agricultural practices :

Recommended agricultural techniques include the knowledge of sowing techniques, row to row distance, plant to plant distance, irrigation, chemical fertilizer, fertilizes doses, pesticide, pesticides doses, picking, grading, storage and pest and degasses. Table 2 shows that about 88 per cent of the respondents were aware of sowing techniques, 62 per cent of row to row distance, 59 per cent of plan to plant distance, 63 per cent of irrigation, 20 per cent of chemical fertilizer, 11 per cent of fertilizer doses, 8 per cent of pesticides, 2 per cent of

Table 2 : Awareness and adoption of improved agricultural practices	
Recommended practice	Respondents (%)
Sowing tech.	88
Row to row distance	62
Plant to plant distance	59
Irrigation	63
Chemical fertilizer	20
Fertilizer doses	11
Pesticides	8
Pesticides doses	2
Picking	95
Grading	86
Storage grading	90
Pest and disease	18

pesticides doses, 95 per cent of picking, 86 per cent of grading, 90 per cent of storage and 8 per cent of pest and diseases. The reason of high participation of farm women in storage and grading might be because these activities are considered a part of household work. Ahmed and Philip (1999) evaluated four types of training programme : kitchen gardening, mushroom cultivation, layer farming and freshwater sericulture. Before and after experimental design was followed for measuring knowledge gain, skill acquisition and symbolic adoption. About 50 per cent of the trainees gained a medium level of knowledge and acquired a medium skill level in all the training programmes. Overall 35 per cent of trainees and a medium level of symbolic adoption and 31 per cent a high level of symbolic adoption.

Aspects of vegetable cultivation:

Women need a more effective and better-targeted agricultural extension service. It was found that generally male and female community both were involved in agricultural practices and female were specifically involved in vegetable production (Table 3). It is advantageous for female as vegetable fields were nearer to their houses and that was the reason for their

Table 3 : Aspects of vegetable cultivation		
Particulars	Years	Respondents (%)
Vegetable farming experience		
	1- 2 Years	18%
	3-4 Years	21%
	5-6 Years	42%
	7-8 Years	10%
	> 8 years	9%
Purpose of vegetable cultivation		
	Daily wages	88%
	Saving	8%
	Pass time	4%
Category of vegetable growers		
	Women themselves	3%
	Labour	90%
	Family members	7%
Site and type of vegetable		
	Indoor	5%
	Outdoor	89%
	Both in/out	6%
Types of vegetables		
	Summer	82%
	Winter	86%

involvement in vegetable production, besides their household activities. The respondents of study area were involved in growing vegetable for quite some time. About 21 per cent of the respondents were growing vegetable for the last 3-4 years, 42 per cent for 5-6 years, 10 per cent for 7-8 years and 9 per cent for the last 8 years. The results further showed that for 88 per cent respondents the purpose of vegetable production was daily wages, for 8 per cent as saving, and for 4 per cent to pass time. As regarding to who grow vegetables, 3 per cent were growing vegetables by themselves, 90 per cent engaged labour and 4 per cent involved other family member for vegetable growing. The results in Table 3 also depicts that 5 per cent of the respondents grew vegetable indoor, 89 per cent outdoor while 6 per cent practiced mixed vegetable growing (both indoor and outdoor). Regarding types of vegetable production, 82 per cent of the respondents grew vegetables in summer and 86 per cent in winter. The reason for growing less summer vegetables as compared to winter was that severe hot damage the crop. Karim and Wee (1996) reported that women in small land holdings have the highest involvement in agriculture. Besides most household vegetable gardens that supplement the family food consumption become the women's responsibility. They reported that one-third to one half of vegetables spices and fruits grown in the homestead were sold to supplement the family income.

Constraints in vegetable cultivation:

Market plays a dual role *i.e.* demands and supply of inputs and farmers surplus produces. There was no formal proper market available in the study area that would enable the farmers to sell their products in time. Lack of transportation was the main hurdle in marketing. Availability of input supply, seedlings, pesticides, fertilizers was greatly affected due to the distance from market. Lack of irrigation water and dependency on irrigation water was a big constraint in raising

Table 4 : Constraints in vegetable production	
Constraints	Respondents (%)
Time constraints problems	11
Capital problem	88
Marketing problems	77
Credit availability	77.5
Distance from market	33.75
Water deficiency	68

vegetables. Cultural and social barriers also restricted female community from farm activities. According to Ozkan *et al.* (2000) women farmers provided the majority of labor, input in planting, hoeing and harvesting activities. Women are faced with serious constraints in carrying out vegetable production activities. They have less access to information, technology, inputs and credit than men. The results in Table 4 shows the problems faced by the respondents of the study area in vegetable production, where 11 per cent had time constraints problem, 88 per cent capital, 77 per cent marketing, 77.5 per cent credit availability, 12.5 per cent of restriction, 68 per cent water deficiency. As the respondents were also involved in household activities so they have time constraints for the fieldwork. In rural areas poverty is also a major problem due to the lack of capital. Farmers face difficulties in obtaining credit, which is generally due to the lengthy and time-consuming procedure, illegal demands of revenue staff and bank functionaries.

Conclusion :

It is evident from the study that participation of farm women in different operations of vegetable production was medium. The study has confirmed high training need in some areas of vegetable production by farm women. Women can do a better job of vegetable production if they are provided with proper training, suitable technological package and with proper inputs. Thus, there is a need to organize training programmes to stimulate higher participation of farm women in vegetable production so that women become more economically independent. This will enable them to increase their efficiency in vegetable production and income and will thus alleviate poverty. Moreover, it will improve nutritional status of the family. Based on these training needs, government and non government organizations may organize educational and training programmes.

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