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Research Note

Discriminatory Analysis of Adopters and Non adopters of Kitchen Gardening in Punjab

Simrat Pal[1]* and Ravinder Kaur[2]

ABSTRACT

Kitchen gardening provides fresh and organic vegetables and fruits which are more nutritious and have presence of higher amounts of antioxidants. These antioxidants neutralize free radicals present in the body system and minimize the chances of occurrence of degenerative diseases like cancer, arthritis, memory loss, paralysis etc. Social benefits of home gardens include enhancing food and nutritional security in many socio-economic and political situations, improving family health and human capacity, empowering women and preserving indigenous knowledge and culture**.** The present study was conducted with the objective to study the discriminatory analysis of adopters and non-adopters of kitchen gardening. This study selected the two villages and comprised of households as respondents who were adopting or not adopting the kitchen gardening. Thus, a total of 145 respondents from both the villages comprised the sample of the study. The data were collected through personal interview method with the help of a structured schedule. Results showed a significantly difference between adopters and non-adopters at 5 per cent level of significance. Adopters were less young than the non-adopters. Adopters were more educated than the non-adopters. Adopters had bigger family size than non-adopters. Results also showed that adopters had higher mass media exposure than non-adopters. Special motivational programmes about kitchen gardening should be organised for the involvement of women; so that more women should get attracted towards kitchen gardening and demonstration plots of kitchen gardening should be maximised to attract the community. The sale centres should be maximised for the easier access of the community at village level.

Keywords: Adopters, Analysis, Discriminatory, Kitchen gardening, Non adopters

INTRODUCTION

Importance of agriculture in Indian economy is clear from the fact that agriculture and allied sectors contributed approximately 17 per cent of Gross Domestic Product (GDP) and employed 49 per cent of the workforce in 2016 (Anonymous, 2017a). Cereals are the main constituents of human diet in India which is one of the highest in the world. Continuous dependency on cereal based diet and unsatisfactory consumption of the protective foods results in malnutrition as most of the cereals are deficient in micronutrients such as vitamins and minerals. Food requirement of astronomically growing population can be met only by increasing the area under cultivation of food crops (Arshad and Shafqat, 2012). In Punjab, the vegetables are grown on 2.30 lac hectares of land which produces 4.54 million tonnes of vegetable crops (Thind and Sidhu, 2016). Vegetables, fruits and pulses should be included in everyday diet as they are the major sources of all types of vitamins, minerals and proteins which are protective dietary elements. An average adult requires

[1]M.Sc. Student, Department of Extension Education, Punjab Agricultural University, Ludhiana, Punjab
[2]Director Students' Welfare, Punjab Agricultural University, Ludhiana, Punjab
*Corresponding author email id: simrat-ee@pau.edu

280-300 g vegetables, 30-50 g fruits and 85 g pulses for maintaining good health. But it was found that the actual consumption of pulses in rural areas is around 40 grams, that of vegetables is 180 g and the quantity of fruits in their diet is insignificant (Shaheb *et al.,* 2014). Majority of the farmers of Punjab buy vegetables, fruits and pulses from the market at exorbitant prices for their own family needs. Thus, the farmers who have the land and resources are inadequately nourished and exploited economically by the vegetable sellers (Singh and Kaur, 2014). Home gardens also provide a number of ecosystem services such as habitats for animals and other beneficial organisms, nutrient recycling, reduced soil erosion, and enhanced pollination (Cameron and Wright, 2014). Nutrient cycling is another ecological benefit of home gardens. The abundance of plant, animal litter and continuous recycling of organic soil matter contributes to a highly efficient nutrient cycling system. Another potential benefit of home gardens is the reduction of soil erosion and land conservation (Galhena *et al.,* 2013). People should be encouraged to develop kitchen gardens for getting fresh produce, better health and to prevent malnutrition. A kitchen garden does not have mere vegetables; it also has medicinal plants, herbs, fruits and flowers. It provides fresh and convenient ingredients to the kitchen. The French have been combining flowers with herbs, fruits and vegetables in their gardens and their kitchen gardens were originally called Potager. The French kitchen garden was usually near the kitchen, so that fresh vegetables and fruits could be made easily available. Increasing environmental awareness and desire for healthy food has popularised the kitchen garden to a great extent (Agarwal *et al.,* 2011). Kitchen gardening provides fresh and organic vegetables and fruits which are more nutritious and have presence of higher amounts of antioxidants. These antioxidants neutralizes free radicals present in the body system and minimize the chances of occurrence of degenerative diseases like cancer, arthritis, memory loss, paralysis etc. (Dhaliwal, 2017). Social benefits of home gardens include enhancing food and nutritional security in many socio-economic and political situations, improving family health and human capacity, empowering women and preserving indigenous knowledge and culture**.** This can be done effectively by transferring technology, supplying inputs on subsidized rates and soil and water conservation works. Keeping this in view, the present study was undertaken will the following objective: to study the discriminatory analysis of adopters and non-adopters of kitchen gardening.

METHODOLOGY

The study was conducted in Ferozepur district of Punjab and the villages were classified into two categories near the city and far off the city. The distance of near the city category was 18-20 km and far off the city was 45-50 km. One village from each set was selected randomly. This study comprised of the whole households of the two villages as respondents. One respondent from each household was selected. Thus, a total of 70 respondents from far the city category and 75 from near the city category comprised the sample of the study. Discriminatory analysis is a multivariate statistical technique used for only two groups. This technique measures the differences between the two groups. It was measured to know about the socio economic characteristics of the respondents. It was applied on the means of socio economic characteristics.

RESULTS AND DISCUSSION

It was found that 28.00 per cent of the adopters form category of far off the city had kitchen garden area from 27-176 sq. m followed by 14.67 and 6.68 per cent had area in category of more than 176 sq. m and less than 27 sq. m respectively. In category of near the city, nearly half of the adopters (47.14%) and 10.00 per cent had kitchen garden area in category of 27-176 sq. m and more than 176 sq. m. Very less i.e. 2.86 per cent of the adopters had less than 27 sq. m. area of kitchen garden. An equal percentage of the adopters and non-adopters from far off the city category had milch and small size up to five. In category of near the city, less than half of the adopters (44.29%) and 38.57 per cent of the non-adopters had milch size up to five and 15.71 per cent of the adopters and 1.43 per cent of the non-adopters had milch size more than five respectively. A little less than sixty per cent of the adopters and 40.00 per cent of the non-adopters had small herd size up to five and very less i.e. 1.43 per

cent had small animal more than five. In category of far off the city, less than half of the adopters (42.67%) and 24.00 per cent of non adopters had medium extension contacts (9-15). Only four per cent of the adopters and very less i..e 2.67 per cent had high extension contacts (more than 15) and low extension contacts (less than 9) whereas nearly one fourth of the non-adopters (26.67%) had low extension contacts respectively. In case of near the city category, more than half of the adopters (54.29%) had medium extension contacts (9-15) whereas 25.71 per cent of the non-adopters belonged to this category. Nearly and an equal percentage of the adopters had high (more than 15) and low (less than 9) extesnion contacts. More than one third of the adopters (36.00%) and 42.67 per cent of the non-adopters from far off the city category had medium mass media exposure. Only 12.00 per cent of the adopters had high mass media exposure whereas 5.33 per cent of the non-adopters belonged to this category. A very less and equal percentage of the adopters and no-adopters had low mass media exposure. In category of near the city, less than half of the adopters (44.29%) and 32.85 per cent of the non-adopters had medium mass media exposure (13-21). Only 15.71 per cent of adopters had high mass media exposure (more than 21) respectively and very few i.e. 4.29 and 2.86 per cent of non-adopters had low (less than 13) and high mass media exposure (more than 21). Little less than one third of the adopters (30.67%) and 44.00 per cent of the non-adopters from far off the city category possessed medium extension activities. Forty five per cent of the adopters and 37.14 per cent of the non-adopters possessed medium extension activities in near the city category. Less than one fifth of the adopters and non-adopters from both the locations possessed high extension activities and 4.00 and 1.33 per cent of the adopters and non-adopters from far off the city category possessed high extension activities and low extension activities. Very less i.e. 1.43 per cent of adopters were associated with PAU *kisan* club, farmer's club and youth club in near the city category. Similar study was conducted by Singh *et al.* (2017) and Gill *et al.* (2018).

Data placed in Table 1 represents that age, education, family size of the adopters was non-significant with that of the non-adopters whereas, annual income, operational land holding, herd size, extension contacts, mass media exposure and extension activities were significantly different. Adopters were less young than the non-adopters because much of the adopters were engaged in kitchen gardening as they get motivation and learned by their parents from early years of life and older age adoption had more work culture.

CONCLUSION

It can be concluded that majority of the adopters in near the city and half of the adopters in far off the city adopt the kitchen gardening. Almost all the adopters

Table 2: Discriminatory analysis between adopters and non-adopters of Two locations

S.No.	Category	Adopters (n_1=79) Mean	Non adopters (n_2=66) Mean	z-value
1.	Age	44.73	41.16	1.78 (NS)
2.	Educational level	8.31	7.04	1.46 (NS)
3.	Family size	6.13	5.63	1.27 (NS)
4.	Annual income	981168.8	397874.2	3.88**
5.	Operational land holding	12.15	4.48	4.15**
7.	Herd size (Milch)	2.75	1.04	5.17**
	(Small animal)	1.75	0.53	5.67**
8.	Extension contacts	13.53	9.69	9.28**
9.	Mass Media exposure	18.16	16.12	3.02**
10.	Participation in Extension activities	14.35	12.96	3.50**

**significant at 0.05 level, NS- Non significant

had area of kitchen garden in category of 27-176 sq. meters. Socio-economic characteristics such as annual income, operational land holding, herd size, extension contacts, participation in extension activities and mass media exposure was significantly showed a difference between adopters and non-adopters.

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