

1. INTRODUCTION

India has to deal with more population, less land, less water and disillusioned farming community. Indian population which was only 36.1 crores in 1951 has now zoomed to about 106 crores and expected to raise further in the years ahead. This poses a great challenge in supply of adequate and nutrition food to all.

The one serious problem India facing is the uneconomical land holding which do not facilitate efficiency since 60% of households own less than one ha. Only 28% of the rural families own more than one ha. Since 60% of irrigation in India is from groundnut water, the irregular supply of electricity is causing great stress of the farmers. Diversification of Agriculture through fruits and vegetable in this context offer a visible economic & sustainable alternative.

However, cultivation of vegetables and fruit is not becoming a viable commercial proposition. With the introduction of liberal trade policies, prospects for export for fruit and vegetables have improved. India is known to the second largest producer of vegetables in the world next to China, with on an average estimated production of 50 million tones (Chadhā and Kalloo, 1993) but the per capita consumption of vegetable is still low. The present rate of consumption of vegetables is 130 g/day against recommended requirement of 300 g/day. Hence there is a need of increase in the production and productivity of vegetables to meet the demand of growing population to ensure better nutrition.

State of Punjab is a major contributor to the food bowl of India with predominantly rice-wheat cropping system. Present thrust in the state for agricultural development should be to adopt technologies for increasing productivity, improving quality of produce, increasing profitability and sustainability in Agricultural Production System. Efficient utilisation of inputs and conservation of natural resources, agro-ecosystem and improving the quality of life in rural areas should be major thrust areas.

With increasing population, urbanisation, fragmentation of land holdings, per capita land availability in the state is declining and unemployment is another serious problem in the state. Keeping in view of present agricultural scenario in the state, there is a need to divert areas to a variety of crops like vegetable, floriculture & horticultural crops for more income & sustainable agricultural production system.

Muskmelon is commonly known as Kharbooza. It is for its musky flavour and is highly relished. Though cooked as vegetable in its green stage, it is mainly a dessert fruit and is a good source of Vitamins A, B and C. It is an important vegetable in North India especially in Uttar Pradesh and Punjab. Being an important cash crop of Punjab, it is grown on commercial scale in many districts of the state. It is also a major crop of various riverbed areas in India covering about 80 percent of the area under muskmelon in Punjab. Muskmelon is also grown in riverbed area by the migrant labourers from Uttar Pradesh and Bihar. These labourers have been growing the crop for the last three decades in different riverbed

areas of Punjab, using their own traditional cultivation practices, because till date no scientific package of practices have been developed by the research institutions or universities for riverbed muskmelon cultivation.

Climate of Punjab is suitable for cultivation of muskmelon. During the year 98-99 area under muskmelon crop was 6173 hectares, but during the year 2000-2001 the area under the crop reduced to 998 hectare. The average yield of the crop is low (83 q/ha) as compared to its production potential (State Department of Horticulture, Punjab, 2000-2001). The probable reason for low yield and disease in area under muskmelon may be that the farmers are not adopting improved technology as such due to lack of scientific knowledge about muskmelon cultivation, non-availability of quality seeds (varieties / hybrids), non availability of inputs, susceptibility to disease and insect pests, low remunerative price, exploitation by commission agent, poor shelf life, lack of storage, packaging and transportation facilities. Adoption of crop production technology is affected by many factors.

Valand (1997) concluded that the vast majority of trained (98.75 per cent) and unirrigated paddy growers (100.00 per cent) had medium to high and low to medium extent of adoption of IPM strategy in kharif paddy, respectively.

Desai et.al. (2000) indicated that the rain fed cotton growers had mostly adopted the low cost technology. However, they used the critical inputs like manures and fertilizers.

Patel (2001) studied that the farmers had adopted no cost and low cost technologies as compared to technologies that involved more cost and complex in nature. It was also indicated that 77.50 per cent of the cotton growers had medium level of adoption. Whereas 12.50 per cent and 11.00 percent of them, who had high and low level of adoption, respectively.

Verma and Munshi (2000) reported that majority of the respondents (68.35 percent) possessed medium level of adoption of ground nut cultivation technologies followed by high (16.02 per cent) and low (15.63 percent), adoption of respective technology. However, on an average the recommended groundnut cultivation technologies were 64.14 per cent.

Joshi (2004) revealed that 45.46 per cent of the cotton growers had medium level of adoption, followed by 28.18 per cent and 26.36 percent had low and high level with regard to recommended modern practices of cotton cultivation, respectively.

Bhoite and Dusane, 1990 observed that non-availability of seed, lack of knowledge about seed treatment, adulteration in seed, high cost of seed were major constraints in the adoption of sunflower technology.

Sikka and Saraswat 1991, Indicated that the cultivation of dwarf apple varieties is more remunerative than that of conventional apples. The investment per unit of land is also more profitable for dwarf varieties.

Similarly to increase the production and productivity muskmelon we need to study the barriers in adoption of recommended package of practices.

Keeping in mind, the present study entitled "Adoption of recommended practices for muskmelon cultivation and problems faced by the muskmelon growers of Punjab" has been undertaken with the following specific objectives.

1. To study the profile of muskmelon growers.
2. To know the cultivation practices followed by the muskmelon growers in river bed areas.
3. To know the knowledge of muskmelon growers regarding recommended practices of muskmelon cultivation.
4. To study the practices, being followed by the muskmelon growers and find out the deviation, if any, in the adoption of recommended practices for cultivation of muskmelon by the muskmelon growers.
5. To study the procedure of seed replacement and procurement by the muskmelon growers.
6. To know the constraints experienced by the muskmelon growers in production and marketing.

Significance of the study

The findings of the study will help to know the knowledge and level of adoption of muskmelon cultivation practices being followed by the farmers. Deviation in adoption from the recommended agriculture technology for muskmelon will help the extension workers to given specific

need based advice to muskmelon cultivation. It will also enable the scientists of Punjab Agricultural University (PAU), Ludhiana to know about the cultivation practices being followed by the riverbed muskmelon growers which will form a basis from developing a package of practices for riverbed muskmelon growers. Which will form a basis for developing. *a Package of practices for riverbed Muskmelongo growers.*

Information generated from this study will provide a feed this study will provide a feedback to the scientists, policy makers, agricultural administrators in developing appropriate technologies, planning effective policies and strategies for promoting the cultivation of muskmelon in the state of Punjab.

Limitations of the study

1. The findings of study are based on expressed opinions of the farmers. There can be some error on account of farmers ability to recall/ recollect the muskmelon cultivation practices adapted by them. There might be some discrepancies between the actual information and expressed responses.
2. The findings are based on the data pertaining to muskmelon cultivation for the year 2002-03 only.
3. The study was limited to only six blocks due to the constraints of time and finance.