CHAPTER-V

SUMMARY AND CONCLUSIONS

Introduction

In agriculture field, greater stress had been given to food grain and cereal crops but flower crops remained neglected in the past years. Therefore, with a view to increase the area under flower crops and raise them scientifically, the Government of Delhi created a separate Department of Horticulture where main emphasis was given to the cultivation of flowers by providing financial and technological assistance to the flower growers.

Agri-horticultural system is a kind of agro forestry system where the flower tree/shrub/herbs is a component under which agricultural crops can be grown. The tree faced farming system is considered as sustainable land use system on account of (i) less labour requirement, (ii) less input requirement, (iii) effective nutrient cycling, (iv) reducing population problem, (v) stability in yield and income and (vi) protection of land and ecosystem. The productivity investment and sustainability in rain-fed agriculture are low. This trend of vicious circle needs to be broken through strong development of horticultural enterprise for better use of land use system with a unit of inputs per unit of time.

Though, the adoption of recommended flower technology gives high income to the flower growers, yet many of them are reluctant to adopt the latest recommended flower technology owing to the problems in adoption of the same.
The South and West district of Delhi state have immense potentialities for growing the large number of flower crops particularly gladiolus, rose and marigold etc.

The present per capita consumption of flowers by our people, however, is much below the adequate level. This is due to the low production and high prices of flower plants. The recommended yield of gladiolus, rose and marigold is approximate in between 1 lakh-1.60 spikes, 12 lakhs to 16 lakhs flowers and 15-20 tonnes per hectare whereas, yield on the farmer field was gladiolus (50000-75000 spikes/hectare), rose (8 lakhs-10 lakhs flowers/hectare) and marigold (10-12 t/hectare) in south and west district of Delhi, respectively. There is a wide gap between potential yields of these crops and yield obtained by the farmers of the state. This situation calls for urgent measure to step up the production of flowers to make flower growing a paying business for the farmers and to increase the supply for the improvement in health and well being of our people. Therefore, the proposed study entitled "study on technological gap and constraints in adoption of flower crops in Delhi" will be undertaken in two districts namely South and West in Delhi state.

Objectives

1. To measure the knowledge level of flower production technology
2. To ascertain the extent of adoption of flower production technology (FPT) by the growers
3. To assess the technological gaps in adoption of scientific flower production technology by the growers
4. To identify the constraints affecting the adoption rate of scientific flower production technology
5. To suggest a suitable strategy to bridge the gap in adoption of scientific flower production
Methods and Procedures

Because South and West districts of Delhi occupy maximum area under flowering crops these were selected purposively to investigate into technological gap among farmers of flower crop cultivation. Two blocks namely Mehrauli, Najafgarh, from South district, and Alipur and Nangloi from West district were selected purposively for the study. Four villages were selected from each block. Thus, a total of eight villages were selected for the study. A list of all the flower crop growers, especially those growing marigold, rose and gladiolus from each of the selected village was prepared. From this list, 20 respondents were randomly selected from each village. In this manner, the total sample comprised 160 farmer respondents for the present study.

Section 4.1
Profile of Flower Crop Growers

An attempt was made to ascertain the profile of the flower crop growers. At the outset, it can be concluded that most of the flower crop growers were middle aged, belonged to other backward castes, and well educated up to high school level. They were living in pucca houses in large nuclear families, with no unemployed persons in the family. Majority of them were all pursuing farming + labour as their livelihood options. Majority of the flower crop growers were found to be moderate on possession of farm power resources, domestic materials, socio-economic status and social participation. However, they were found to be growing flower crops with very good resource base of good loamy soils and good quality of water for irrigation. Thus the flower crop growers were found to be moderate on most of the socio-personal characteristics.
Section 4.2

Level of Knowledge Regarding Improved Flower Crop Production Technology among Farmers

Marigold

(i) From the findings it is evident that more than three-fourths of farmers possessed medium level of knowledge on improved marigold cultivation practices.

(ii) With respect to knowledge gaps in relation to various aspects of improved marigold production practices, the growers appeared to be traditionally growing marigold for long time and possessed full knowledge on sowing time, inter culture and storage.

(iii) There were found to be less than 60 per cent farmers knowing about improved varieties of marigold, seed rate method of sowing and proper plant to plant distance.

However, only 12 per cent of marigold growers found to know about proper seed treatment practices.

Rose

(i) Data on the knowledge scores of rose growers revealed that more than half of them were possessing medium level of knowledge on improved rose cultivation practices.

Another important finding is that nearly one-thirds of rose growers possessed very high level of knowledge on improved rose production practices.

(ii) In relation to knowledge gap on various aspects of improved rose production practices, the rose growers appeared to be traditionally growing rose for long time and possessed full knowledge on method of...
sowing or propagation, plant to plant distance, irrigation, inter culture, plucking, storage and marketing practices.

(iii) Another significant finding is that most of the farmers found to possess adequate knowledge of sowing time, and plant protection measures and moderate level of knowledge of improved rose varieties, fertilizer application, seed rate and seed treatment.

Gladiolus

(i) The findings regarding to knowledge level of gladiolus growers on various aspects of improved cultivation practices revealed that more than three fourths of them were possessing medium level of knowledge.

(ii) The findings on knowledge gaps in adoption of improved gladiolus cultivation practices, growers appeared to be growing this flower crop for relatively less time and did not possess adequate knowledge.

Other important findings are that the most of the farmers were found to possess adequate knowledge of method of sowing, sowing time, inter culture and irrigation, plucking and marketing. Most of the farmers were found to possess moderate knowledge of plant-to-plant distance.

(iii) Since most of them were new to this flower crop. They possessed low level of knowledge of improved varieties of gladiolus, seed rate, fertilizer application and storage practices.
Section 4.3

Extent of Adoption of Improved Flower Crop Production Technology among Farmers

Marigold

(i) With respect to extent of adoption of improved marigold crop production technology, it was found that more than three-fourths of them were adopting improved practices at moderate level.

(ii) In relation to adoption gaps on various improved production practices, the growers appeared to be traditional growers for long time and were found to adopt a few practices in full: sowing time, irrigation, interculture, plucking, storage and marketing.

Most of the farmers were found to adopt such practices as improved varieties, methods of sowing, plant-to-plant distance, seed rate, fertilizer application and use of plant protection measures partially.

(iii) One significant finding is that about 36 per cent of marigold growers were not at all adopting any seed treatment techniques.

In all it can be seen that majority of farmers were adopting most of the improved marigold production practices either in full or partially.

Rose

(i) It was found that more than three-fourths of rose growers were adopting improved rose cultivation practices at moderate level.

(ii) The findings on adoption gaps on various aspects of improved rose production practices revealed that rose growers who are basically traditional growers and adopted a few practices in full: sowing time, irrigation, interculture, plucking and marketing.
Most of the farmers were found to adopt such practices as improved varieties, method of sowing, plant-to-plant distance, fertilizer application and use of plant protection measures partially.

(iii) One significant feature found was that about 34 per cent of rose growers were not at all adopting any seed rate/plants per unit area.

Thus, in all the majority of farmers were adopting most of the improved rose production practices either in full or partially.

Gladiolus

(i) From the findings it is evident that more than two-thirds of gladiolus growers were adopting improved gladiolus cultivation practices at moderate level.

(ii) In relation to adoption gaps on various aspects of improved cultivation practices, the findings revealed that gladiolus growers appeared to be quite new to this crop and hence were found to adopt a few practices in full: inter culture, irrigation, fertilizers and plant to plant distance.

Most of the farmers were found to adopt such practices as improved varieties, method of sowing, fertilizer application and plucking and storage practices partially.

(iii) Another significant finding is that about 76 per cent of gladiolus growers were not at all adopting any seed treatment, and 56 per cent farmers did not use plant protection measures.
Section 4.4
Constraints Affecting the Adoption Rate of Scientific Flower Production Technology

1. From the findings it was found that uncertain market prices as the top most constraint in adoption of scientific production technology as felt by 70.6 per cent of the respondents.

2. The other major constraints faced by flower growers in adoption of improved production practices are:
   - Lack of marketing at local place
   - Perishable nature of flowers
   - Lack of government support price
   - High risk of flower failure

   These above constraints are perceived as major constraints by majority of the farmers.

3. Other constraints which was as a barriers to the adoption of improved cultivation practices are:
   - Lack of storage and processing facility
   - Lack of guidance by extension staff about modern technology
   - Lack of knowledge of scientific flower production technology.