

# Horticulture in India: Problems & Prospect

<sup>[1]</sup>Fatma<sup>[1]</sup>Department of Commerce, Jai Prakash University, Chapra (Bihar)

**Abstract:** - Horticulture is that branch of plant agriculture giving focus on garden crops, fruits, vegetables and ornamental plants. It is art and science of handling fruits, Nuts, herbs, Vegetables, foliage plants, woody ornamentals, turf and flowers. This sector faces several problems in India inspite of broader prospects.

**Key Words:** Aesthetic, Crops, Problems, Production, Prospect.

## INTRODUCTION

Horticulture is a science, as well as, an art of production, utilisation and improvement of horticultural crops, like as fruits and vegetables, spices and condiments, ornamental, plantation, medicinal and aromatic plants. Horticultural crops require intense care in planting, carrying out intercultural operations, manipulation of growth, harvesting, packaging, marketing, storage and processing. India is the second largest producer of fruits and vegetables in the world after China. In India, about 55–60 per cent of the total population depends on agriculture and allied activities. Horticultural crops constitute a significant portion of the total agricultural produce in India. They cover a wide cultivation area and contribute about 28 per cent of the Gross Domestic Product (GDP). These crops account for 37 per cent of the total exports of agricultural commodities from India.

"Horticulture involves five areas of study. These areas are floriculture (includes production and marketing of floral crops), landscape horticulture (includes production, marketing and maintenance of landscape plants), floriculture (includes production and marketing of vegetables), pomology (includes production and marketing of fruits), and postharvest physiology which involves maintaining quality and preventing spoilage of horticultural.

### Features

Horticulture crops perform a vital role in the Indian economy by generating employment, providing raw material to various food processing industries, and higher farm profitability due to higher production and export earnings from foreign exchange. Horticulture crops are a source of variability in farm produce and diets. They are a source of nutrients, vitamins, minerals, flavour, aroma, dietary fibres, etc. They contain health benefiting compounds and medicines. These crops have aesthetic value and protect the environment. The crops are useful for cultivation in

wasteland or poor quality soil. Such crops are of high value, labour intensive and generate employment throughout the year. Horticultural produce serves as raw material for various industries, such as processing, pharmaceutical, perfumery and cosmetics, chemical, confectionery, oils and paints, etc.

### Status of horticulture in India

According to the data provided by the Government of India for 2017–18, horticulture crops in India are being cultivated in 28 million hectares, which is about 8 per cent of India's total cropped area. The annual horticultural produce is estimated around 315 million tonnes, which includes vegetables and fruits.

Horticulture is perhaps the most important branch of agriculture. It is further divided into four different branches as

### Pomology

The term is taken from Latin words poma and logus. Poma means 'fruit' and logus means 'study, knowledge or discourse'. It can be defined as a branch of horticulture, which deals with the scientific study of fruit crops.

### Olericulture

It is derived from Latin words olerus meaning 'vegetables' and cultura meaning 'cultivation'. It can be defined as a branch of horticulture, which deals with the scientific study of vegetable crops.

### Floriculture

Floriculture is derived from Latin words florus and cultura. Florus means 'flower' and cultura means 'cultivation'. It can be defined as a branch of horticulture, which deals with the scientific study of flowering and ornamental crops. Landscaping is the art of beautifying a piece of land using garden designs, methods and plant material. Professionals who do landscaping are called 'landscape architects'.

### Post-harvest technology

This is a branch of horticulture, which deals with the

principles and practices of handling, packaging and processing of harvested crops to increase their storage life and availability. Vegetable crops are different from fruit crops.

#### **Employment opportunities in horticulture**

The horticultural industry offers a variety of jobs, both directly and indirectly. Many jobs require knowledge and training in horticulture. The level of training could be vocational or at the college level. The nature of work may be indoor or outdoor. Intense manual labour or paperwork in office may be involved. The following are the identified categories of jobs that require varying degrees of familiarity with horticulture:

- **Nursery operation**

- (a) Nursery manager (coordinates the entire nursery operations)
- (b) Propagator (develops quality planting material)
- (c) Field supervisor (supervises and plans fieldwork)
- (d) Plant technician (advises and provides guidance on plant care)
- (e) Salesperson (works on the promotion and sale of plant material)

- **Turf grass operation**

- (a) Landscape technician (establishes and maintains landscape)
- (b) Golf course architect (designs a golf course)
- (c) Golf course superintendent (supervises the construction and maintenance of the golf course)

- **Crop production**

- (a) Farm manager (manages the horticulture farm)
- (b) Crop grower (produces vegetables, fruits and flowers)

#### **Problems of Horticulture**

Horticulture and the closely associated horticulture science are critical elements of modern society in most developed countries and in many developing countries around the world. The contributions of horticulture crops, and their related industries, to society at large and very considerable, generally taken for granted but often poorly understood.

These include:

- The ongoing provision of safe, healthy and nutritious food, generally to a very high quality and in abundant quantities in many countries.
- The provision of many essential vitamins and

minerals, assisting consumers to achieve a balanced diet.

- The contribution to economies through export-related activities and the sophistication associated with all element of the supply chain. This is becoming increasingly important in developing countries who are contributing more frequently to food supply to developed countries, especially in Europe and North America.
- The viability of rural communities directly through employment and the sustainability of service provision-so retaining population that justify the delivery of services such as health and education.
- Overall wealth generation through the activities of those involved with production, processing, marketing, servicing, and related sectors.

Horticulture products are highly perishable in Character, there may be a glut of fruits and vegetables in the market during the peak harvest season. These crops undergo a rapid transformation between the harvest and consumption which results spoilage and reduces market value. The spoilage has been estimated to be nearly 35-40 per cent in most of the produce which account for more than 27,000 crores of rupees every year. This is not only a loss to the growers but a net loss of huge human nutrition and wastage of inputs involved. These losses can be minimized to a considerable surplus with timely and safe management of post-harvest produce. The postharvest management of fruits and vegetables includes pre and post-harvest practices, their harvesting, handling, packaging, storage, distribution, marketing, etc. Since fruits and vegetables contain a very high percentage of their fresh weight as water. Consequently, fruit exhibit relatively high metabolic activity when compared to other plant derived foods such as seeds. This metabolic activity continues post-harvest and thus makes most fruits highly perishable commodities. The perishability, with its inherent short shelf life, that presents the greatest problem to the successful transformation and marketing of fresh fruits and vegetables. Hence, enhancement of their shelf life would be of great help in reducing postharvest losses, avoiding gluts in the peak season and avoiding distress sale. This would also help in ensuring more availability of fruits and vegetables without bringing additional land into production and fetching higher economics returns to the farmers.

#### **Prospects of horticulture in India**

Diverse agro-climatic conditions in India ensure the production of all types of fresh fruits, vegetables and medicinal plants in different parts of the country. Health consciousness among people is increasing. Major portion of the population in India is vegetarian. As a result, the demand

of fruits and vegetables is also high. The production of horticultural commodities is far less as compared to the existing demand in the country. So, there is a vast scope to produce more horticultural crops. Major areas in the country are suitable only for horticultural crops, like mango, tea, coconut and arecanut, as they are non-arable, rocky, stony, marshy, undulated and sloppy. There has been an increase in irrigation facilities but there are crops, which even with little watering, can survive. One only needs to ensure adequate water management. Some dry land horticultural crops, like jamun, ber, tamarind, wood apple, custard apple, ramphal, etc., can be grown on rainfed land also. Compared to other countries, agricultural labour and other agricultural inputs are far cheaper.

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