



FACULTY OF AGRICULTURAL SCIENCES & ALLIED INDUSTRIES

- India is the seventh largest country in the world with a total geographical area of 328.73 m ha. and has second largest population 121 crores (2011) after China.
- The total arable land available is 144 m.ha.
- Around 55-60 per cent of population depends on agriculture and allied activities.
- Horticulture crops constitute a significant component of total agricultural production in the country.
- The term horticulture is derived from latin words: “hortus” meaning “garden” and “cultura” meaning “cultivation”. In ancient days the gardens were protected enclosures with high walls or similar structures surrounding the houses.
- The enclosed places were used to grow fruit, vegetables, flowers and ornamental plants. Therefore, in original sense “*Horticulture refers to cultivation of garden plants within protected enclosures*”.
- Present days the horticulture may be defined as the science and technique of production, processing and merchandizing of fruits, vegetables, flowers, spices, plantations and medicinal and aromatic plants.

Branches of Horticulture

Horticulture is a wide field and includes a great variety and diversity of crops. The science of horticulture can be divided into several branches depending upon the crops it deals with. The following are the branches.

1. **Pomology**: refers to cultivation of fruit crops.
2. **Olericulture**: refers to cultivation of vegetables.
3. **Floriculture**: refers to cultivation of flower crops.
4. **Plantation Crops**: refers to cultivation of crops like coconut, arecanut, rubber, coffee etc.
5. **Spices Crops**: refers to cultivation of crops like, cardamom, pepper, nutmeg etc.
6. **Medicinal and Aromatic Crops**: deals with cultivation of medicinal and aromatic crops.
7. **Post Harvest Technology**: deals with post harvest handling, grading, packaging, storage, processing, value addition, marketing etc. of horticulture crops.
8. **Plant Propagation**: deals with propagation of plants.

Fruit crops

- India is the second largest producer of fruit after Brazil. A large variety of fruit crops are grown in India. Of these, mango, banana, citrus, papaya, guava, pineapple, sapota, jackfruit, litchi, grapes, apple, pear, peach, plum, walnut etc. are important ones.
- India accounts for 10 per cent of the total world production of fruits. It leads the world in production of mango, banana, sapota and acid lime besides recording highest productivity in grape. The leading fruit growing states are Maharashtra, Karnataka, Andhra Pradesh, Bihar and Uttar Pradesh.

Vegetable crops

- More than 40 vegetables belonging to Solanaceae, cucurbitaceae, leguminous, cruciferous, root crops and leafy vegetables are grown in Indian tropical, sub-tropical and temperate region.
- Important vegetables grown in India are onion, tomato, potato, brinjal, peas, beans, okra, chilli, cabbage, cauliflower, bottle gourd, cucumber, watermelon, carrot, radish etc.
- India is second in vegetable production next to China in area and production contributing 13.38 percent to the total world production. India occupies first position in cauliflower, second in Onion, third in cabbage in the world.
- West Bengal, Orissa, U.P, Bihar, Maharashtra, Karnataka are the important states for Horticultural crop production.

Flower Crops

- Flower cultivation is being practiced in India. Since ages it is an important/integral part of socio-cultural and religious life of Indian people. It has taken a shape of industry in recent years.
- India is known for growing traditional flowers such as jasmine, marigold, chrysanthemum, tuberose, crossandra, aster, etc. Commercial cultivation of cut flowers like, rose, orchids, gladiolus, carnation, anthurium, gerbera etc.
- The important flower growing states are Tamil Nadu, Karnataka, AP, Maharashtra, West Bengal, Sikkim, J&K, Meghalaya etc.

Plantation crops

- This is one of the important sector contributing about 7500 crores to export earning. The major plantation crops include coconut, arecanut, oilpalm, Cashew, tea coffee, rubber cocoa, betel vine, vanilla etc. The leading states are Karnataka, Kerala, Tamil Nadu, A.P., Maharashtra, Goa, Assam etc.

Spices

- They constitute an important group of horticulture crops and are defined as vegetable products or mixture thereof, free from extraneous matter used for flavouring, seasoning and imparting aroma in foods.
- India is known as home of spices producing a wide variety of spices like black pepper, cardamom, ginger, turmeric, chilli, Coriander etc.
- Major spice producing states are Kerala, A.P., Gujarat, Rajasthan, Maharashtra, Karnataka, Orissa, T.N. etc.

Medicinal and Aromatic plants

- India has diverse collection of medicinal and aromatic plants species distributed throughout the country.
- It has more than 9500 species with medicinal properties. Demand for these crop is increasing progressively in both domestic and export market.
- Important medicinal plants are Isabgol, Periwinkle, coleus, ashwagandha, etc. and aromatic plants are mint, grasses, davana, patchouli etc.

Features of Horticulture

1. Horticultural produces are mostly utilized in the fresh state and are highly perishable.
2. Horticultural crops need intensive cultivation requiring a large input of capital, labour and technology per unit area.
3. Cultural operations like propagation, training, pruning and harvesting are skilled and specific to horticultural crops.
4. Horticultural produce are rich source of vitamins and minerals and alkaloids.
5. Aesthetic gratification is an exclusive phenomenon to horticultural science.