

Introduction to Horticulture

OBJECTIVES

After studying this chapter, students will be able to:

- Learn about the inception of horticulture and its distinguishing features
- Know about the various branches of Horticulture

INTRODUCTION

Horticultural Science is an exciting discipline with a variety of study areas and possible careers. Not sure what horticulture is? Did you eat any fruits or vegetables today? Enjoy beautiful landscaping in a park? Play golf at a well-managed course?

Horticulture affects everyone. It plays a very important role in society influencing our lifestyle and general health in many ways. This includes the production of fruit and vegetables which form a vital ingredient of our daily diet and the development of pleasant surroundings for living and working, which create positive effects for emotional health. In this chapter, we will discuss about horticulture, its distinguishing features and branches based on the crops dealt.

WHAT IS HORTICULTURE?

According to Liberty Hyde Bailey, one of the most famous American scholars of horticulture, "Horticulture is the growing of flowers, fruits and vegetables, and of plants for ornament and fancy."

Horticulture is defined by Webster's dictionary as "the science and art of growing fruits, vegetables, and flowers." It is the intensive commercial production of high-value and high-yielding plants. But it also includes the cultivation of garden crops and landscape ornamentals and the interaction of

The term Horticulture is derived from two Latin words i.e. *Hortus* meaning garden or enclosure and *Colere* meaning to grow or to cultivate. Garden in itself is a broad term. Garden is originated from the latin term *Gyrdan* meaning 'to enclose'.

science and art. Horticulture contributes to the economy, provides good nutrition, and is a valuable spiritual and psychological therapy. Horticulture beautifies and enhances the environment.

The term Agriculture refers broadly to the technology of raising plants and animals. On the other hand, Horticulture which is a part of agriculture is concerned with the raising of garden crops.. Horticulture can also be defined as the branch of agriculture concerned with intensively cultivated plants directly used by man for food, medicinal or aesthetic purposes.

In olden days, food crops like Paddy, Maize, and Wheat etc. were grown in open fields on a large scale, while some crops of special interest like fruits, vegetables, flowers etc. were grown in the back yard of houses in an enclosure. In cases where fruits, vegetables and flowers were grown in areas other than backyards, they are protected by erecting walls, by raising live fences, non-live fences etc. i.e. they are enclosed. As such, the term Horticulture in the original sense referred to the cultivation of crops within the protected enclosure, which is often called as a garden (Crops grown in a protected enclosure). So, the culture of crops in gardens is referred as Horticulture.

When fruits are grown in a definite area then that part is called as an Orchard

At present, fruits, vegetables, flowers etc. are grown not only within the back yards, but also in large areas in open fields on a commercial scale. Traditionally garden crops include fruits, vegetables and flowers. But today's horticulture deals not only with the fruits, vegetables and flowers but also with other important crops like spices, condiments, plantation crops, medicinal and aromatic plants etc.,. Besides cultivation of these crops, present day horticulture also deals with the utilization and improvement of these crops. Hence, modern horticulture may be defined as a part of agricultural science, which deals with the production, utilization, and improvement of fruits, vegetables, flowers, ornamentals, plantation crops, medicinal and aromatic plants etc.

MAIN DISTINGUISHING FEATURES OF HORTICULTURE

- i. Horticulture crops are used in a living state while others like grains etc. are not used in a living state.
- ii. Horticulture crops are comparatively more intensively cultivated than field crops.
- iii. Horticulture crops have high water content.

DIVISIONS OF HORTICULTURE

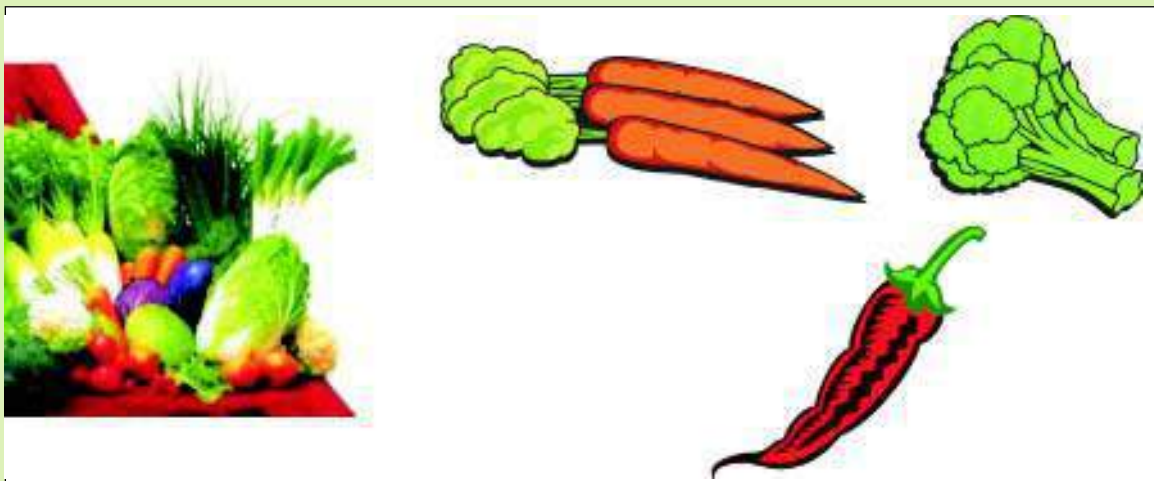
Horticulture is divided into the following divisions for convenience based upon the crops dealt and also their purpose and utilization

1. **Pomology:** It is derived from two words i.e. *Pomum* meaning fruit and *Logos* meaning discourse or study. Therefore, pomology is study or cultivation of fruit crops such as Mango,

Litchi, Citrus, Sapota, Guava, Grape, Banana, Pineapple, Apple, Pear, Peach, Plum and Cherry etc.



2. **Olericulture:** It is derived from two words i.e. Oleris meaning Potherb and Cultra meaning cultivation. Therefore, olericulture literally means potherb cultivation of Brinjal, Okra, Tomato, Capsicum, Peas, Beans, Cucurbits etc.



3. **Floriculture:** It is derived from two words i.e. Florus meaning flower and Cultra meaning cultivation. Therefore, floriculture means study of flower crops such as Rose, Jasmine, Carnation, Aster, Marigold, Dahlia, Zinnia, Cosmos, Hibiscus, Balsam, Poinsettia, Hollyhock, Gerbera, and Gaillardia etc.



4. **Landscape gardening:** It deals with the planning and execution of ornamental gardens, parks, landscape gardens etc.



5. **Post harvest technology:** It deals with the processing and preservation of produce of horticulture crops.



6. **Plantation crops:** These crops are cultivated in an extensive scale in large contiguous areas, owned and managed by an individual or a company and whose produce is utilized only after processing. Coffee, Tea, Rubber, Coconut, Cocoa etc. are some of the important plantation crops.



7. **Spices and condiments:** This branch deals with the cultivation of crops whose produce is used mainly for seasoning and flavouring dishes.

Spices: These are those plants the products of which are made use of as food adjuncts to add aroma and flavour. For example, Pepper, Cardamom, Clove, Cinnamon, etc.

Condiments: These are those plants the products of which are made use of as food adjuncts to add taste only. For example, Turmeric, Ginger, Red chillies, Onion, Garlic etc.



8. **Medicinal and aromatic plants:** It deals with the cultivation of medicinal plants, which provide drugs and aromatic crops which yields aromatic (essential) oils.

Medicinal plants: These plants are rich in secondary metabolites and are potential sources of drugs. The secondary metabolites include alkaloids, glycosides, coumarins, flavonoides and steroids etc. Important medicinal plants are Periwinkle, Opium, Menthi, Cinchona, Dioscorea Yam, Belladonna, Senna, Sarpagandha, Aswagandha, Tulasi etc.

Aromatic plants: These plants possess essential oils in them. The essential oils are the odoriferous steam volatile constituents of aromatic plants. Lemon grass, Citronella, Palmarosa, Vetiver, Geranium, Davanam, Lavender etc. are some of the aromatic plants



ACTIVITY/EXERCISE

Visit an orchard, vegetable farm, landscape garden and a processing unit. Observe and write the differences in the respective specialized vocations being dealt. Further make your

observations on the use of spices and condiments in Indian foods._____

CHECK YOUR PROGRESS

- 1) Define horticulture? Write the distinguishing features of horticulture crops.
- 2) Enlist the various divisions of horticulture. Differentiate between pomology and olericulture.
- 3) How do fruit crops differ from plantation crops?

FILL IN THE BLANKS

1. The word 'Horticulture' consists of two parts namelyand
2. Garden is originated from the latin term *Gyrdan* meaning
3. A branch of horticulture which deals with the planning and execution of ornamental gardens, parks, landscape gardens etc. is referred to as
4. Medicinal plants are rich source of
5. Aromatic plants possess.....in them.

SUGGESTED FURTHER READINGS

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Singh, J. (2012). Basic Horticulture. Kalyani publishers, Ludhiana, India.,

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