

INTRODUCTION TO HORTICULTURE

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Horticulture

- **Word first used in 1600' Comes from two Latin words**
 - **Hortus “Garden” or “Enclosure”**
 - **Cultura “Cultivation”**
- **Horticulture means “cultivated garden” or “culture of garden plants”**

...

Horticulture

- Horticulture is the branch that deals with the art, science, technology, and business of growing plants.
- It includes the cultivation of medicinal plants, fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, flowers, seaweeds and non-food crops such as grass and ornamental trees and plants.
- Horticulturists apply their knowledge, skills, and technologies used to grow intensively produced plants for human food and non-food uses and for personal or social needs.
- Their work involves plant propagation and cultivation with the aim of improving plant growth, yields, quality, nutritional value, and resistance to insects, diseases, and environmental stresses.

Horticulture



The science and practice of growing, processing and marketing fruits, vegetables, and ornamental plants.

Horticulture is modern science is the cultivation, processing and utilization of a number of crops such as fruits, vegetables, plantation crops, spices, medicinal and aromatic plants and mushrooms.

- “It is a science of cultivation of garden plants.”



Branches of Horticulture

- **Olericulture**
 - The growing and study of vegetables.
- **Pomology**
 - The growing and study of fruits and nuts.
- **Viticulture**
 - The growing and study of grapes or vines.
- **Floriculture**
 - The growing and study of flowers.
- **Fruit and vegetable preservation**
 - It deals with the principles of fruit and vegetable preservation.

Branches of Horticulture

- **Sub Branches:**
- **1. Plantation and Medicinal plants.**
- 2. Ornamental Gardening**
- 3. Landscape gardening and**
- 4. Nursery plant production.**

Horticulture

- A Description of Horticulture
- Horticulture is capital and labor intensive. It requires high-value crops to be cultivated, which typically involves the use of labor, technology, and production inputs.
- Horticulture commonly features protected environments for cultivation such as glasshouses and plastic tunnels or redesigns the environment to support the crop, e.g. develop an irrigation system.



Horticulture

- How the crop is used mainly determines which category it falls in. For example, the growing of sweet corn is horticultural while growing grain corn is agronomic. In some parts of the world, the distinction is less clear or the labels are used interchangeably.
- Horticulture uses the following terms to refer to its production units: plantations, nurseries, vineyards, greenhouses, orchards, gardens, and groves.

Horticulture

- **A Description of Horticulture**
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Horticulture

- A special division of horticulture supports the enhancement of the environment and includes home gardening, urban horticulture and landscaping.
- Many of these activities are also used as therapeutic tools in horticultural therapy to help patients.

History of Horticulture

- **“Garden of Eden”**
 - **Romanticized garden of paradise.**
 - **Ultimate goal throughout history.**



History of Horticulture

- Prehistoric people were primarily....
 - Hunters and gatherers.
 - Collected seeds, fruits, and nuts.



History of Horticulture

- Primitive people began to study plants.
 - Is it edible?
 - Does eating it modify well-being?
 - Does it taste good?
 - Can it used to keep me warm? As fuel? As clothing?
 - Is it useful to combat pain? Disease?

History of Horticulture

- **When were plants first cultivated?**
 - **Neolithic Age (7000 – 10000 years ago)**
 - **First farmers were women!!!!**

Scope of Horticulture

- **There is a great scope of Horticulture. Horticulture production is less as compared and hence very high demand in market**
- **Present Status:**
- **Horticultural crops constitute a significant component of total agricultural production of the country. These crops cover nearly 11.6 million ha area with a total production of over 91 million tones.**

Scope of Horticulture

- **1. Increasing Investigation Facilities:**
- **2. Area Under Rain Fed:**
- **3. Transport and Marketing Facilities:**
- **4. Cold Storage Facilities and Preservation:**
- **5. New Techniques for Maximization of Production:**
- **6. Availability of Cheap Labour:**
- **7. Loan Facilities:**

Importance of Horticulture

- 1. Per Unit Area Yield is High:
- 2. High Returns per Unit Area:
- 3. A Free Grower/Labour Remains Engaged for the Whole:
- 4. Best Utilization of Waste Land:
- 5. Raw Material for Industries:
- 7. Use of Undulating Lands:

Export and Import potential of horticultural crops

- India is exporting fresh fruits and vegetables
- Market surveys in world have revealed that there is a good scope for export of fruit.
- The horticultural produce has great export potential for earning valuable foreign exchange.
- The total value of export of these commodities increased from Rs. More than 10,755 crore.

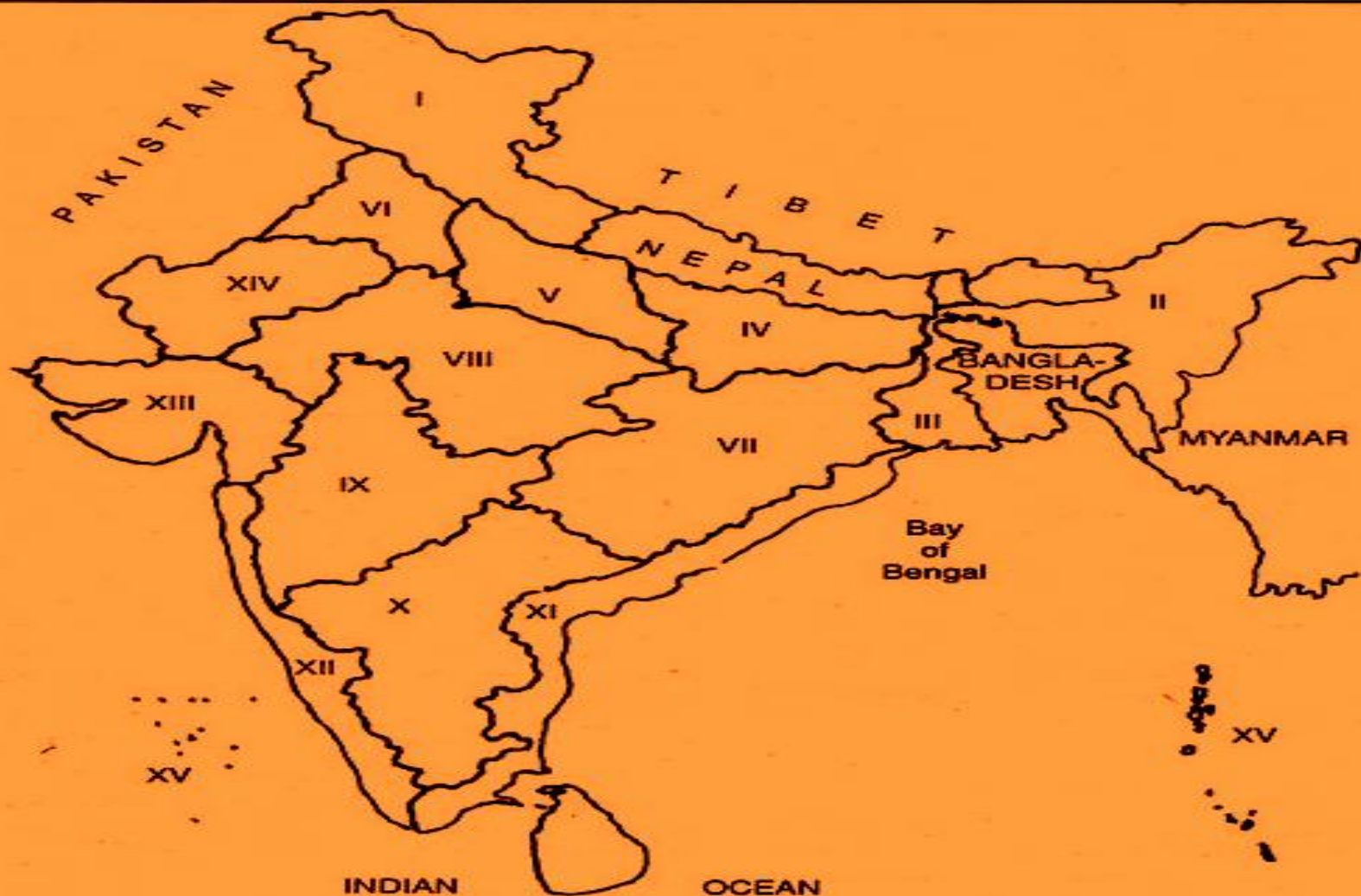
Horticultural zones of India and Maharashtra

- ❑ India is bestowed with various agro-climatic regions and therefore the country is growing a variety of horticultural products in different pockets. When it comes to the vegetables, Maharashtra, Gujarat, Uttar Pradesh, Karnataka, Orissa, Bihar, Punjab, Haryana and Rajasthan are major onion-producing states.
- ❑ Among fruits, India is largest banana producing country and major banana-growing states are, Andhra Pradesh, Assam, Bihar, Gujarat, Kerala, Karnataka, Maharashtra, Madhya Pradesh, Orissa, and Tamil Nadu. Besides these states, seven states of North-East India is also a major banana-producing belt. Uttar Pradesh and Andhra Pradesh are famous mango-producing belts in India.

Horticultural zones of India and Maharashtra

- Vidarbha region of Maharashtra is famous for Mandarin oranges. Mandarin is also grown in some pockets of Madhya Pradesh.
- Major grape-producing regions in India are Maharashtra, Karnataka, Andhra Pradesh, Punjab, Haryana, Uttar Pradesh and Kinnaur district of Himachal Pradesh.
- Black Pepper Ginger, Turmeric, Cardamom and Other Major Spices: Kerala, the land of spices is a major producer, supplier and exporter of spices in India. Coastal Karnataka is also a major spice-producing region in India.

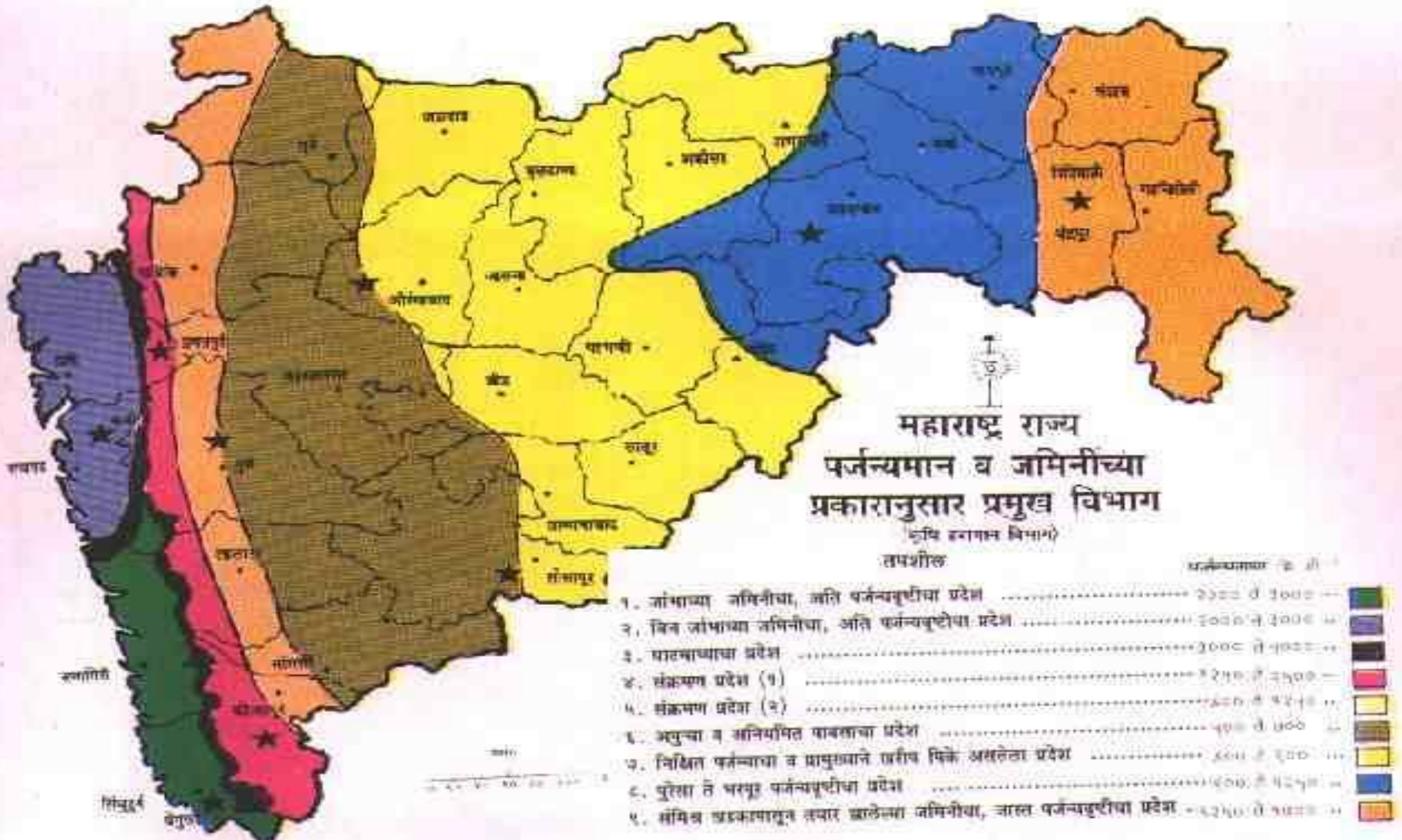
Horticultural zones of India



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Maharashtra



Maharashtra zone

- 1) SOUTH KOKAN COASTAL ZONE
- 2) NORTH KOKAN COASTAL ZONE
- 3) WESTERN GHAT ZONE
- 4) TRANSITION ZONE - 1
- 5) TRANSITION ZONE - 2
- 6) SCARCITY ZONE
- 7) ASSURED RAINFALL ZONE
- 8) MODERATE RAINFALL ZONE
- 9) EASTERN VIDARBHA ZONE

Global and national scenario of horticulture

Global fruit production in 2013 was estimated at 676.9 million tonnes as against an estimated 656.9 million tonnes in 2012.

The global fruit industry consists of the production and trade of bananas, semi-tropical fruits, citrus fruit, soft fruit, pommies and stone fruits.

Global and national scenario of horticulture

- Global vegetable production, including the production of melons, was estimated at 879.2 million tonnes in 2013.
- China and India were amongst the highest producing countries for the year.
- Among all vegetables, potato was the most popular; other widespread vegetables were sweet potato, tomato, onions and cabbage.

Global and national scenario of horticulture

- The leading fruit producing countries in the world in 2013 were China, India, Brazil, the United States of America (USA) and Indonesia.
- China and India also made it to the top-10 vegetable producing countries of the world in the same year.

Thank you

