

## LECTURE 20

### **Area, production, productivity and importance of medicinal and aromatic crops in India and Tamil Nadu**

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India has been considered as treasure house of valuable medicinal and aromatic plant species. Ministry of Environment and Forests have identified and documented over 9500 plant species considering their importance in the pharmaceutical industry. In the present context of 'back to nature' in health care, it is relevant that these valuable plant species are not only preserved but also their cultivation developed in order to meet the entire demand of the domestic industries as also to exploit the bright prospect for export. Shift from collection to cultivation of medicinal & aromatic plants will also ensure purity, authenticity and sustainable supply of raw materials required for herbal drugs, including polyherbals.

Our foreign exchange earning potential from this group of plants is estimated to be over 3000 million US dollars per annum. Agro-techniques have been developed for large number of medicinal plants by the State Agricultural Universities. Due to unorganised marketing arrangements this sector has not exploited the full potential. A Medicinal Plants Board has been constituted in the Department of Indian Systems of Medicines & Homeopathy to address all the issues.

#### **Importance**

The diverse Agro-climatic situations in the Region offer excellent scope for growing different horticultural crops like fruits, vegetables, spices, plantation crops, medicinal and aromatic plants. Medicinal and aromatic plants constitute a major segment of the flora, which provides raw materials for use in the pharmaceuticals, cosmetics and drug industries. The indigenous systems of medicines, developed in India for centuries, make use of many medicinal herbs. These systems include Ayurveda, Siddha, Unani and many other indigenous practices.

More than 9,000 native plants have established and recorded curative properties and about 1500 species are known for their aroma and flavour. Even in many of the modern medicines, the basic composition is derived from medicinal plants and these have become acceptable medicines for many reasons that include easy availability, least side effects, low prices, environmental friendliness and lasting curative property.

India and China are the two major producing countries, having 40 per cent of the global biodiversity and availability of rare species. These are well known as the home of medicinal and aromatic crops that constitute a segment of the flora, and provide raw materials to the pharmaceutical, cosmetic, fragrance, flavour etc. industries.

India has one of the richest ethnobotanical traditions in the world with more than 7000 species of plants found in different agro-ecosystems and used by various indigenous systems of medicine and industries. Over 95% of the plants used by the herbal or pharmaceutical industry is collected from wild sources. Given the alarming rate of loss of biodiversity due to other well-known factors alongside the indiscriminate collection of wild medicinal plants, there is a real danger of extinction of many of our medicinal plant species. In the face of serious threat to biodiversity, it is extremely important to take urgent steps to conserve and develop medicinal plant genetic resources alongside their cultural roots in all our diverse agro-ecosystems.

The aromatic and medicinal plants such as Patchauli, Stivia, Citronella, Cinnamon are also being grown in mild tropical areas i.e. plain and foot hills of the State. Temperate and alpine zones accommodate cultivation of geranium, texus, ginseng, saffron etc. Mizoram is well known for its exotic orchids and medicinal and aromatic plants.

#### **Area, Production and productivity of medicinal plants in Tamil Nadu (2007-08)**

<b>Area in lakh ha.</b>	<b>Production in Lakh MT</b>	<b>Productivity (MT/ha)</b>
0.09	0.17	2.01

#### **Status in India**

The age old Indian systems of medicine have been neglected mainly because of the rapid expansion of the allelopathic system of medical treatment. This is despite the fact that our country has a long history of local health traditions, which are backed by thousands of scriptures left behind by practitioners of these systems of medicine. One of the earliest treatises of Indian medicine, the chakara samhita (1000 BC), mentions the use of 2000 vegetable herbs for medicinal use. Over 7000 different species of plants found in different ecosystems are said to be used for medicinal purposes in our country.

India has been a traditional exporter of medicinal plants for the past several decades and ranks as one of the foremost supplier of medicinal plants in the world.

#### **Multiple choice questions**

1. Area under medicinal plants in Tamil Nadu \_\_\_\_\_ lakh ha.

- a. 0.11                      b. 0.05                      **c. 0.09**
2. Production of medicinal plants in Tamil Nadu \_\_\_\_\_ lakh MT.  
a. 0.15                      b. 0.25                      **c. 0.17**
3. Productivity of medicinal plants in Tamil Nadu \_\_\_\_\_ MT/ha  
a. 4                              b. 5                              **c. 2**
4. Major medicinal & aromatic crop producing countries are \_\_\_\_\_  
**a. China & Africa**      b. India & America      **c. India & China**
5. Foremost supplier of medicinal plants in the world is \_\_\_\_\_  
**a. India**                      b. China                      c. Australia