

Sandalwood Spike Disease

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In news : Sandalwood trees in India, particularly in Karnataka and Kerala are facing a serious threat with the recent return of the destructive Sandalwood Spike Disease (SSD).

Key highlights

According to a study by scientists Institute of Wood Science & Technology, Bengaluru, the natural population of sandalwood in Marayoor of Kerala and various reserve forests in Karnataka, including Malai Mahadeshwara Hills, are heavily infected with SSD according to IWST, the present rapid spread of the infection is largely due to restrictions on green felling in forests, which has allowed vectors to spread the disease to healthy trees

What is the concern?

- It is very difficult to identify the symptoms of SSD. It can be noticed only when the tree gets completely affected
- As of now there is no cure for the disease.
- Presently, there is no option but to cut down and remove the infected tree to prevent the spread of the disease, caused by phytoplasma bacterial parasites of plant tissues which are transmitted by insect vectors.
- With between 1 and 5% of sandalwood trees lost every year due to the disease, scientists warn that it could wipe out the entire natural population if measures are not taken to prevent its spread.
- Also, they fear that any delay in arresting the trend may result in the disease spreading to cultivated sandalwood trees.

About the disease

- Spike disease caused by phytoplasma is the major disease of sandalwood.
- Spike disease is characterized by extreme reduction in leaf size accompanied by stiffening and reduction of internode length.
- In the advanced stage, the entire shoot gives the appearance of a spike of inflorescence.
- Spiked trees die within 1–2 years after the appearance of visible symptoms

History of the disease in India

- Sandalwood Spike Disease (SSD) has been one of the major causes for the decline in sandalwood production in the country for over a century.
- The disease was first reported in Kodagu in 1899. More than a million sandalwood trees were removed in the Kodagu and Mysuru region between 1903 and 1916, prompting the Maharaja of Mysuru to announce a reward in 1907 for anyone finding a remedy.
- Later 98,734 trees were extracted during 1917-1925 in Salem also due to SSD.
- India has been the traditional leader of sandalwood oil production for perfumery and pharmaceuticals.
- As early as 1792, Tippu Sultan had declared it a 'Royal Tree' of Mysuru. The much-loved and much-valued tree now faces a threat to its existence from SSD
- Due to this disease the growing stock had been reduced to 25% of its initial level between 1980 and 2000.
- The devastating impact in natural habitats resulted in sandalwood being classified as "vulnerable" by the International Union for Conservation of Nature in 1998.

Its impact on Sandalwood production and its Price

- It is significant to note that the price of Indian sandalwood and its oil has risen significantly since 1995 at a rate of 20% annually mainly due to depletion

in production.

- While the production of heartwood has decreased from 4,000 tonnes in 1930s to a mere 300 tonnes now, the prices correspondingly have risen from Rs.12,000 to Rs.29,500 per kg now.

Types of sandalwood

There are two types of sandalwood, they are:

1. White Sandalwood: Scientific name of White Sandalwood is Santalum album.
2. Red Sandalwood: Scientific name of Red Sandalwood is Pterocarpus santalinus. It is a small tree that grows to 5-8 meters in height and has a dark grayish bark and Wood is extremely hard

Where is it found?

- White Sandalwood: It is found in southern India and Southeast Asia, mostly in the states of Karnataka and Tamil Nadu
- Red Sandalwood: It is found in southern parts of the Eastern Ghats in India, mainly in forest tract of Andhra Pradesh

The legal status of Red sandalwood

- CITES: Appendix II
- Its IUCN Red List status is "Near Threatened."

The legal status of White sandalwood

- IUCN status is vulnerable