

FROM CRADLE TO CREMATION: CHANDAN (SANDAL)

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INTRODUCTION

Sandal (*Santalum album* Linn.) is widely known as Chandanam, Srigandham in South India and Chandan in North, belongs to family Santalaceae. It is also known as white sandalwood. Another Species of Chandan which is red in colour botanically known as *Pterocarpus santalinus* belongs to family Fabaceae. *Santalum album* is the state tree of Karnataka and is also called “Royal Tree”. It is one of the most important commercial tree species of India which is valued for its fragrant heartwood. Hindus use its wood for pooja and religious purpose. Being one of the finest woods for carving, it is considered next only to ivory for intricate workmanship. Sandal wood on steam distillation yields an essential oil known as East Indian sandalwood oil which is highly preferred in perfumery.



HISTORY

Sandal is probably native of the arc of island in south-eastern Indonesia. Some people consider it native of southern India, but it is usually believed that it was introduced here over 2,000 years ago. Sandal is currently naturalised and distributed in South India, Sri Lanka, the Malay Archipelago. Northern Australia, China and Taiwan. In India, it is found in the drier parts of the country mainly in deciduous forests of the Western Ghats and Deccan Plateau. It has also become naturalised in other parts of India. Knowing economic and cultural importance of sandal, people in the past made some attempts to introduce sandal in northern India. The existence of sandal at Jwalamukhi and Bilaspur of Himachal Pradesh is the result of such an introduction. In 1792, the Sultan of Mysore decreed sandal as “Royal Tree”.

General Description

It is an evergreen tree attaining a height of 12-13 m and girth of 1-2 m with slender as well as erect branching. Leaves are opposite, decussate and sometimes, show whorled arrangement. Bark is reddish dark gray or nearly black, rough with deep vertical cracks. Flowers are purplish brown, unscented and are axillary panicle cymes. The tree starts flowering at an early age of 2-3 years. Generally, tree flowers and fruits twice in a year from March to May and September to December. Seed germination is epigynous, radical emerging out by

breaking the false seed coat after 20-30 days. Seeds collected during September October and sown in the months of April. It is a semi-root parasite species and can parasitize over 300 species from grass to another sandal plant. *Cajanus Cajan* was found to be its best host in nursery stage and *Casuarina equisetifolia* is found to be its best host during plantation stage.



USES

- The wood is bitter, antipyretic, aphrodisiac, and useful in diseases like heart burning, sensation, cold, bronchitis, vaginal discharges and small pox. The wood is considered as heart and brain tonic.
- The wood is also used for fine carvings. Paste of wood made after rubbing with water is applied in inflammation, headache, fevers, and skin diseases and to allay heat. It has antiseptic properties.
- In Madagascar, the wood is mixed with salt and applied to wounds. The sandal is known as a remedy for indigestion and palpitations.
- The heartwood is coolant and is reported to be diuretic, disinfectant, antiseptic, cardiac and sedative tonic.
- It is a curative medicine for bronchitis, thirst, cystitis, dysentery, gonorrhoea, ulcers and genitor-urinary tract problems and in the preparation of Ashokaristam, Chandanadi choornam, Chandanasavam, Anutailam and Dhanvantaram kashayam etc.
- The heartwood and roots contains scented sandal wood oil, which is highly valued in medicine, cosmetics, perfumery and industries. Sandalwood oil is the base of high quality perfumes. In medicine, it is used as antiseptic and antipyretic.

IMPORTANCE AND ECONOMIC VALUE

Sandal is economically as well as culturally very important to the people of our country. Heartwood is used by human beings from cradle to cremation. Mostly sandal is valued for its fragrant heartwood which is sold in market at the rate of rupees 6000 per kg. A sandal tree having a girth of 80 cm at breast height can yield about 75-80 kg of heartwood. Being closely grained, the wood is considered the best for carving purpose. Its wood on steam distillation yields an essential oil known as East Indian sandalwood oil or Liquid Gold”. The oil contains 90 per cent santalol, 2.5-5.0 per cent santalyle acetate and 1.5-3.0 per cent santalenes. Sandal wood oil is used in making high grade perfumes, cosmetics and medicines.

