



Madhuca longifolia – An Economically Important Tree

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Madhuca longifolia commonly called as madhuca is such a kind of tree involved in day to day activity of tribal people. It belongs to the family Sapotaceae. It is growing throughout India due its economic importance. It is medium sized to large deciduous tree, usually with a short bole and a large rounded crown. The various parts of the tree are used for the medicinal purpose. The oil extracted from the madhuca seed is used as a bio-diesel. This study gives about the importance of the parts of madhuca tree and its common uses.

Introduction

Madhuca longifolia is an Indian tropical tree found largely in the central and north Indian plains and forests. It is commonly known as mahua, mahwa or Iluppai. It is a fast-growing tree that grows up to approximately 20 meters in height, possesses evergreen or semi-evergreen foliage, and belongs to the family Sapotaceae. It is adapted to arid environments, being a prominent tree in tropical mixed deciduous forests in various states of India. It is cultivated in warm and humid regions for its oleaginous seeds (producing between 20 and 200 kg of seeds annually per tree, depending on maturity), flowers and wood. In English, it is called as butter tree or honey tree. It is considered holy by many tribal communities because of its usefulness. The tree is considered a boon by the tribal's who are forest dwellers and keenly conserve this tree. However, conservation of this tree has been marginalized, as it is not favoured by nontribals.

Madhuca leaves

The leaves of *Madhuca* are fed on by the moth *Antheraea paphia*, which produces tassar silk which gives economic importance to India. The leaves are expectorant and also used for chronic bronchitis, verminosis, gastropathy, dipsia, bronchitis, dermatopathy, rheumatism, cephalgia and hemorrhoids. Madhuca leaves are boiled and used for relief from orchitis. Madhuca leaves are effective in treatment of eczema. The leaves coated with sesame oil is heated over fire and applied on the affected area to get relief from eczema.

Madhuca flowers

The flower of *M. longifolia* can be used, as it is very sweet. Excessive use of this flower will result in imbalance of thinking and may even lead to lunacy. The *mahuwa* flower is edible and is a food item for tribals. They are used to make syrup for medicinal purposes. The liquor produced from the flowers is largely colourless, with a whitish tinge and not very strong. The taste is reminiscent of Sake with a distinctive smell of mahua flowers. It is inexpensive and the production is largely done in home stills. Mahua flowers are also used to manufacture jam. The flowers are used as tonic,

analgesic and diuretic, traditionally used as cooling agent, tonic, astringent, demulcent and for the treatment of helminths, acute and chronic tonsillitis, pharyngitis as well as bronchitis. Madhuca flowers are used to increase the milk production in feeding mothers.

Madhuca seeds

The seeds fat has emulsulent property, used in skin disease, rheumatism, headache, laxative, piles and sometimes as galactagogue. The alkaloids in the press cake of Madhuca seeds are reportedly used in killing fishes in aquaculture ponds in some parts of India. The cake serves to fertilize the pond, which can be drained, sun dried, refilled with water and restocked with fish fingerlings.

Oil

The oil refractive index: 1.452. The oil contains palmitic, stearic, oleic and linoleic (fatty acids. Mahuwa oil has emollient properties and is used in skin disease, rheumatism and headache. It is also a laxative and considered useful in habitual constipation, piles and haemorrhoids and as an emetic. Tribals also used it as an illuminant and hair fixer. It has also been used as biodiesel. Oil extracted from seeds have laxative properties, which helps cure chronic constipation and piles.

Madhuca Bark

The bark is used for rheumatism, chronic bronchitis, diabetes mellitus, decoction for rheumatism, bleeding and spongy gums. It is a good remedy for itch, swelling, fractures and snake- bite poisoning, internally employed in diabetes mellitus, fruits are astringent and largely employed as a lotion in chronic ulcer, in acute and chronic tonsillitis and pharyngitis. Bark decoction is proven to be effective for cure of diabetes.

Common uses of Madhuca

1. Fodder: Leaves, flowers and fruits are lopped for goats and sheep. Seed cake is also fed to cattle.
2. Timber: It is used for house construction, naves and felloes of cartwheels, door and window frames
3. Erosion control: It has a large spreading superficial root system that holds soil together
4. Shade or shelter: The wide spreading crown provides shade for animals.
5. Reclamation: Mahuais planted on wasteland with hard lateritic soils in India.
6. Nitrogen fixing: Vesicular - arbuscular mycorrhizal associations and root colonization have been observed in mahua.
7. Soil improver: The seed cake has been used as fertilizer
8. Ornamental: Mahua is occasionally planted as an avenue tree.
9. Boundary or barrier or support: It is planted along the boundaries of fields.
10. Intercropping: It can be raised with agricultural crops

Summary

Madhuca is such as an extraordinary and most economically important tree. The various parts of the tree is used for the medicinal purpose and used as a bio-diesel. It is adapted to arid environments, being a prominent tree in various states. It is used for intercropping, nitrogen fixing, shade purpose and soil reclamation.