

## ***Madhuca longifolia* var. *latifolia* : An Important Medicinal Plant used by tribes of North – East part of Chhattisgarh**

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### **Abstract**

This article discussed various health benefits of *Madhuca longifolia* (Mahua) belongs to the family of Sapotaceae. It is widely known as 'Butter nut tree' is a large size tree. It is both wild and cultivated. Mahua flower are used as a food as well as used as an exchanger in tribal and rural areas. *Mahua* seeds are rich in edible fats so they have economic importance. Mahua fruits are used as vegetable and widely consumed by the tribes of western Odisha. *Madhuca longifolia* is also considered as medicinal herbs and is useful for external application in treating skin diseases, rheumatism, headache, chronic constipation, and piles. sometimes used as an emetic and galactagogue. Mahua oil is used for manufacturer of laundry soaps and detergent, and also used as cooking oil in various tribal region of India. *Madhuca longifolia* is reported by various scientist that it contain sapogenins, triterpenoids, steroids, saponins, flavonoids and glycosides. The tree is considered a boon by the tribal's who are forest dwellers and keenly conserve this tree. The tribes consider the mahua tree and the mahua drink as part of their cultural heritage. So it is very much necessary to create awareness among the people to conserve the wild forest.

**KEYWORDS:-** *Mahua*, Sapotaceae, Traditional healthcare, tribes, Chhattisgarh.

### **Introduction**

Chhattisgarh is situated in central eastern part of the country. The north and south parts of the state are hilly, while the central part is a fertile plain. Forests cover roughly forty-four percent of the state. The northern part of the state lies on the edge of the great Indo-Genetic plain: The Rihand River, a tributary of the Ganges, drains this area. The eastern end of the Satpura Range and the western edge of the Chota Nagpur Plateau form an east-west belt of hills that divide the Mahanadi River basin from the Indo-Gangetic plain. There is two districts have covered first- Jashpur and Second Surguja distreict. Jashpur District lies in the north-eastern corner of the state of Chhattisgarh. The north-south length of this district is about 150 km, and its east-west breadth is about 85 km. Its total area is 6,205 km<sup>2</sup>. It is between 22° 17' and 23° 15' North latitude and 83° 30' and 84° 24' East longitude. According to the 2011 census Jashpur district has a population of 852,043. Surguja District is a district in the northern part of the state of Chhattisgarh. It lies between 23°37'25" to 24°6'17" north latitude and 81°34'40" to 84°4'40" east longitude. According to the 2011 census Surguja district has a population of 2,361,329, Major population comprises tribal population.

*Madhuca longifolia* is the botanical name of *Madhuca* tree which belongs to family-Sapotaceae. Medium to large sized deciduous tree, spreading branches and a large rounded crown. Leaves are clustered at the end of branches, elliptic, obovate. Flowers are small; cream- coloured and produced in clusters at end of branches. Fruit a green egg- shaped fleshy berry. Seeds are either double convex or flattened on one or two sides. The Honey tree (English name) has many medicinal uses. Almost all parts of this tree are medicinally very important. Tribals in Central India worship this tree for its medicinal values and also for its relevance in their rituals. *Mahua* is a large deciduous tree growing widely under dry tropical and sub tropical climatic conditions. *Madhuca longifolia* distributed in Andhra Pradesh, Gujarat, Madhya Pradesh, Odisha, Chhatisghadh, Jharkhand, Bihar, Uttar Ppradesh. It is an important tree for poor, greatly valued for its flowers and its seeds known as tora. The tree has religious and aesthetic value in the tribal culture. The trees with best girth in forest are often *Mahua* trees as it is protected and cared by forest dwellers. *Mahua* tree can be found in forests, revenue, and private land. The early settlers had rights to specific *Mahua* trees occurring near the village in private, revenue and forestlands. Some trees may even be located at long distance from the village but are recognized as being associated to a family. These rights are only for harvesting flowers but not for fruits and have been practiced. These rights have passed from generation to generation. When father divides the property among his sons, he also divides *Mahua* tree between them but keeps some for himself till the end, as it becomes an easy source of income. In absence of sons, harvesting rights are given to daughters when they get married. Sometimes villagers of one region, in dearth of *Mahua*, visit relatives who have trees in abundance. (Mishra Sunita & Padhan Sarojini 2013) In most agricultural communities people rely on seasonal crop production. For many rural people, and especially for the poor, these cycles entail periods of food shortage. It is at these critical periods that the importance of forest foods is greatest. Of course, forests and fallow lands provide food resources in most seasons, in the form of edible leaves, fruits, wild vegetables, roots and tubers.

#### **MAHUA PLANT USED BY TRIBALS OF NORTH- EAST CHHATTISGARH**

1. **Use of Mahua flower** – (a) Sundried *mahua* flower is boiled with seed of Imli (*Tamarindus indicus* L.) and sal seeds (*Shorea robusta*) taken as substitute for grain staples. Stored quantity of *Mahua* flowers depends on the need of the family. The poorer the family more is the storage. The storage products are consumed by the tribes in off season. Usually the tribals do not store these products for long, as they generate earnings to them especially during lean periods secondly *Mahua* flowers being hygroscopic, absorb atmospheric moisture and get spoiled.
  - (b) Famous for alcoholic beverages - The flowers of *Mahua* tree are fermented to produce an alcoholic drink called Mahua. (Ekka, A. 2013). *Mahua* drink as part of their cultural heritage. Tribal men and women both consume this drink and is an Obligatory item during celebrations and evening activities. They consumed this liquor in all type of celebrations.
  - (c) Powder of dried flower is used as food like - halua (Breakfast) and made different kinds of local sweets using Sal (*Shorea robusta* L.) leaf as cover

and steam for cooking.

(d) Flowers are used in the treatment of eye diseases, flowers mixed with milk are useful in impotency and general debility. (Acharya and Shrivastava, 2008).

(e) The flowers are used as tonic, analgesic and diuretic, traditionally used as cooling agent, tonic, aphrodisiac, astringent, demulcent and for the treatment of helminths, acute and chronic tonsillitis, pharyngitis as well as bronchitis

(F) Some Believes and rituals are: If unmarried boys and girls dancing around the *mahua* tree with *Mahua* flower (putting in hair ), their marriage will be soon.

(g) Juice of flower is use as treatment of skin disease (Srirangam. Prashanth *et. al.* 2010)

(h) Juice of Flower has taken as Tonic due to their high protein source (Mishra & Padhan 2013)

**(2) Use of Mahua fruits –** (a)- The outer part of the fruit is eaten raw or cooked and inner part is made into flour for cakes.

(b) The seed kernel yields 5.1% of fatty oil which constitutes *Mahua* oil or butter of commerce. The oil is used in cooking, for burning in lamps, in the manufacture of margarine and soap and many other minor uses.

(c) The oil is used as hair oil.

(c) The oil cake is used as a fertilizer, fish poison and as a cheap substitute for shikakai for washing hair.

(d) Seed powder is used as fish stupefying (Tirkey, 2006)

(e) Fruits are astringent and largely employed as a lotion in chronic ulcer, in acute and chronic tonsillitis.

(f) The seeds fat has emulscent property, used in skin disease, rheumatism, and headache.

**(3) Use of Mahua Stem bark –**

a) Bark decoction is proven to be effective for cure of diabetes.

b) A decoction is prepared by boiling bark in water and taken internally to get relief from rheumatism.

c) 4 ml of the liquid extract obtained from bark is mixed with 300 ml of water is used as a gargle to get relief from spongy and bleeding gums.

d) Paste of stem bark is used as medicine for scorpion sting.

e) Bandage of stem bark is tagged for 10 to 12 days in the case of bone fracture.

f) Bark is used for Rheumatism, ulcer and tonsillitis (Srirangam Prashanth *et al* 2010 )

#### (4) Common uses of Mahua

- a) Fodder: Leaves, flowers and fruits are lopped for goats and sheep. Seed cake is also fed to cattle.
- b) Timber: The heartwood is reddish brown, strong, hard and durable; very heavy (929 kg/cu. m), takes a fine finish. It is used for house construction, naves and felloes of cartwheels, door and window frames.
- c) Erosion control: *Mahua* has a large spreading superficial root system that holds soil together.
- d) Shade or shelter: The wide spreading crown provides shade for animals.  
Reclamation: *Mahua* is planted on wasteland with hard lateritic soils in India.
- e) Nitrogen fixing: Vesicular-arbuscular mycorrhizal associations and root colonization have been observed in mahua.
- f) Soil improver: The seed cake has been used as fertilizer
- g) Ornamental: *Mahua* is occasionally planted as an avenue tree.
- h) Boundary or barrier or support: It is planted along the boundaries of fields.
- i) Intercropping: *M. latifolia* can be raised with agricultural crops.

#### Material and Method

Before starting the field work on medicinal uses of *mahua* plant and the study area, general information about that area was collected from the local people. A preliminary survey was done along with a local person. In north-east Chhattisgarh two district has covered, Questionnaire ( Jain et.al.1999) were filled by the help of local vaidyas. About 25 different sites were visited in each district and indigenous medicinal plants that are being used in that area specially indigenous uses of *mahua* plants to treat different diseases as well as food and energy purpose were collected. About 58 local informants were interviewed including 25 Vaidyas ( Hakims) also, who provided the exact use of this plant. Plant collected from area were identified and finally deposited in the herbarium of the Department of Life Sciences, Pt. RaviShankar Shukla Univewrsity Raipur (Chhatisgarh).

#### Results

The present research work is based on the indigenous knowledge of most commonly used of mahua plant of North-east Chhattisgarh. Leaves are used as food, drinks, folk believes and medicinal value , Fruits/ seeds are used as cooking, fish poisoning, oil and medicinal purposes , stem bark used as medicine in different ailments and so many common uses were listed during field work. . Research work was focused on the traditional uses of different part of mahua plant. About 58 local informants were interviewed including 25 Vaidyas ( Hakims). Ethnomedicinal uses and data about treatment of various ailments based on the information gathered from local people by using questionnaires are given subsequently.

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