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(A Government Girls PG College, Affiliated to M. S. Brij University, Bharatpur, Raj.)

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<https://hte.rajasthan.gov.in/college/ggcbharatpur>

## **TREES OF COLLEGE CAMPUS**

**VOL. 1, 2021**



### **ECO-CLUB**

**Principal:**

**Dr. M. M. Trigunayat**

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**Front cover: Banyan tree at Rameshwari Devi Girls College, Bharatpur (Rajasthan)**



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### **FOREWORD**

It gives me great pleasure in presenting “**Trees of College Campus**” Vol.1, by the sincere efforts of Eco-Club. This Club was established in year 2008 and has been active since then for bringing awareness and expressing concern on burning environmental issues. The efforts of the Club for inculcating interest among student masses on wild flora and fauna, natural resources, conservation and mitigation of environmental problems were appreciated by the NAAC peer team during 2<sup>nd</sup> cycle of accreditation as “Viable Eco-Club”. The single use plastics like polythene bags, plastic cups were banned in the campus and it became a best practice of the college.

Bringing of this Volume on fourteen Common Trees found in campus, is commendable. Other similar Volumes on Herbs and Shrubs can also be planned. The Club can assign QR Code for individual tree and it can further popularize the plant wealth of the campus.

I congratulate Dr. Anju Pathak, Coordinator, Eco-Club and her team for their fascinating gestures on plant wealth. I wish Eco-Club every success.

  
**(Dr.M.M.Trigunayat)**  
**Principal**



## CONTENTS

1. Banyan Tree	.....	3
2. Eucalyptus Tree	.....	4
3. Kadam Tree	.....	5
4. Black Plum Tree	.....	6
5. White Mulberry Tree	.....	7
6. Cluster Fig Tree	.....	8
7. Bael Tree	.....	9
8. Ashoka Tree	.....	10
9. Shisham Tree	.....	11
10. Neem Tree	.....	12
11. Peepal Tree	.....	13
12. Karanj Tree	.....	14
13. Indian Elm Tree	.....	15
14. Cassia Tree	.....	16

# **BANYAN TREE**

*Ficus benghalensis*

Botanical Name – *Ficus benghalensis*  
English Name – Banyan fig  
Hindi Name – Bargad

## **Systematic Position**

Order – Rosales  
Family – Moraceae  
Genus – *Ficus*  
Species – *benghalensis*



## **Introduction:**

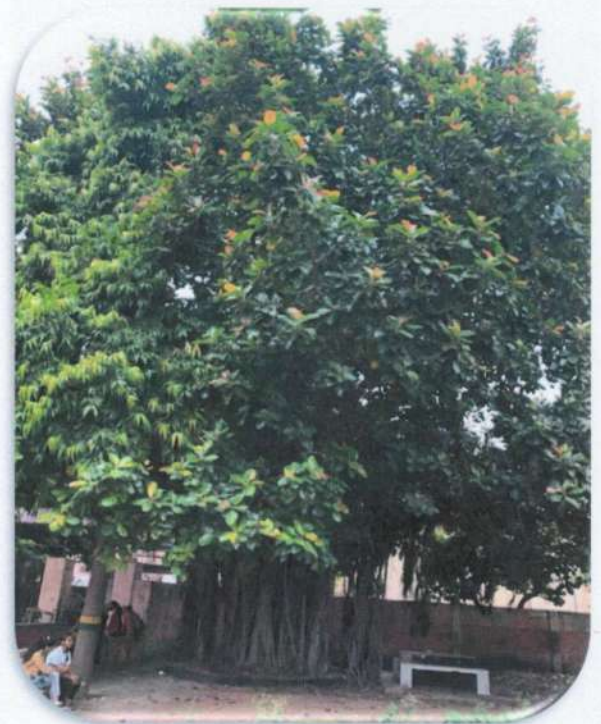
It is native to the Indian subcontinent. The banyan reaches a height up to 30m and spreads laterally indefinitely. Aerial roots that develop from its branches descend and take root in the soil to become new trunk. The banyan tree is the national tree of India.

## **Phenology:**

Fast growing evergreen among the largest in the world by canopy coverage. The flowers are enclosed within a fleshy receptacle. Fruits are globose - ellipsoid, achene, dark brown. Flowering and fruiting throughout the year.

## **Economic Importance:**

It treats diarrhea, prevents tooth decay & gum diseases, boost immunity, Prevents inflammation & depression, vaginal infection, and lowers cholesterol. It has also antibacterial and antifungal properties. The milky latex is used to treat toothache, rheumatic joints and lumbago. (Pain in the muscles and joints of the lower back).





# EUCALYPTUS TREE

*Eucalyptus obliqua*

Botanical Name	– <i>Eucalyptus obliqua</i>
English Name	– Eucalyptus
Hindi Name	– Nilgiri tree

## Systematic Position

Order	– Myrtales
Family	– Myrtaceae
Genus	– <i>Eucalyptus</i>
Species	– <i>obliqua</i>



## Introduction:

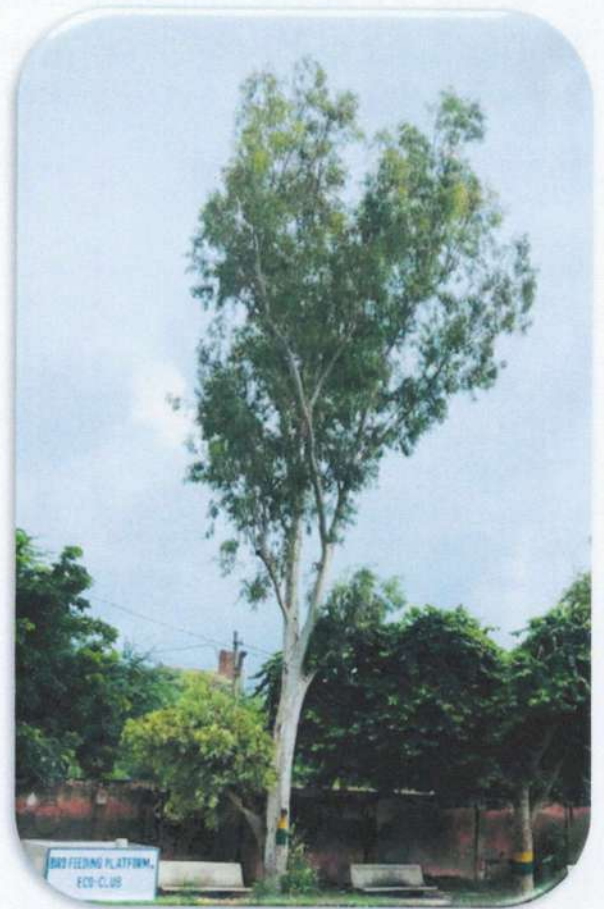
Most species of *Eucalyptus* are native to Australia, but it has been grown in many other countries due to their speedy growth and valuable timber, honey production etc.

## Phenology:

Tall evergreen tree with smooth & grayish bark. It exhibited a flexible growth rate and tolerance to moisture limitation which enables it to maintain its growth rate as water availability changes, on the North coast of NSW these shortages commonly occur from late winter to spring. Species that flower reliably include *Eucalyptus robusta*. Flower buds are in groups of seven to fifteen white flowers and has cup shaped or barrel shaped fruit.

## Economic Importance:

It is mostly used for pulp wood, production of honey or essential oils or gums and for construction and manufacturing, especially in house building.





# **KADAM TREE**

*Mitragyna parvifolia*

Botanical Name – *Mitragyna parvifolia*  
English Name – Burflower tree  
Hindi Name – Kadam

## **Systematic Position**

Order – Gentianales  
Family – Rubiaceae  
Genus – *Mitragyna*  
Species – *parvifolia*



## **Introduction:**

It is an evergreen tropical tree, native to South and South East Asia. The genus name honours French naturalist Jean Baptiste Lamarck. A fully mature tree can reach up to 45m in height. It is a large tree with a broad crown and straight cylindrical bole.

## **Phenology:**

The tree is leafless in the hot season flowers appear from May to July. Flowers are sweetly fragrance red to orange in color in dense globular head. Flowering begins when the tree is 4to5 year old. The fruits ripen from August to October.

## **Economic Importance:**

Fruits and inflorescence edible by humans. A yellow dye is obtained from the root bark. Perfumes are made of its flowers the plant is used in timber and paper making.





# **BLACK PLUM TREE**

*Syzygium cumini*

Botanical Name	– <i>Syzygium cumini</i>
English Name	– Black Plum, Java Plum
Hindi Name	– Jamun

## **Systematic Position**

Order	– Myrtales
Family	– Myrtales
Genus	– <i>Syzygium</i>
Species	– <i>cumini</i>



## **Introduction:**

It is native to the Indian sub-continent adjoining regions of Southeast Asia including Myanmar, Sri Lanka and the Andaman Islands. It is evergreen tropical tree in the flowering plant. The plant reaches height up to 30 m and can live more than 100 yrs.

## **Phenology:**

The tree start flowering from March to April. The fruits develop by May or June.

## **Economic Importance:**

The plant may help to manage diabetes, boost stomach health, boost immunity, improve hemoglobin and astringent property.





# WHITE MULBERRY TREE

*Morus alba*

Botanical Name	– <i>Morus alba</i>
English Name	– White mulberry
Hindi Name	– Shahtut

## Systematic Position

Order	– Rosales
Family	– Moraceae
Genus	– <i>Morus</i>
Species	– <i>alba</i>

## Introduction:

*Morus alba* is a multi purpose tree widely planted in tropical & subtropical and mild temperate regions of the world for fodder and silkworm rearing and for fruit. The species is native to northern China and India and is widely cultivated and naturalized elsewhere as Mexico, Australia, and Argentina etc. It is an evergreen tree which grows to 10-20 m. It is generally a short lived tree with a life span comparable to that of humans.

## Phenology:

Small winter deciduous fast growing tree. Earlier flowering in March and late flowering into June. The flowers are single sex catkin. Male and female flowers are usually on separate tree or they may occur on the same tree.

## Economic Importance:

The white mulberry is widely cultivated to feed the silk worm employed in the commercial production of silk. Edible when ripe the leaves are used as tea in Korea. The fruits are also eaten often dried or used for making wine. Planted as ornamental tree. Popularly, fruits, roots and leaves of white mulberry are used for the treatment of dizziness, insomnia, premature aging, liver and kidney disorders.





# CLUSTER FIG TREE

*Ficus racemosa*

Botanical Name – *Ficus racemosa*  
English Name – Cluster fig  
Hindi Name – Gular

## Systematic Position

Order – Rosales  
Family – Moraceae  
Genus – *Ficus*  
Species – *racemosa*

## Introduction:

This plant is native to Australia, Malaysia, Indochina and the Indian subcontinent. It is unusual in that way- its figs grow on or close to the tree trunk termed cauliflory. *Ficus racemosa* is an evergreen, fast growing, moderate to large sized spreading, lactiferous, deciduous tree of 15-18 m height without prominent aerial roots.

## Phenology:

Flowering occurs twice in a year. In mid dry season (December-March) and mid rainy season (July to September).

## Economic Importance:

It has antibiotic, antipyretic, anti-inflammatory, commonly used in the treatment of biliary disorder. The fruits are a favorite staple at the common Indian macaque.





# **BAEL TREE**

*Aegle marmelos*

Botanical Name – *Aegle marmelos*  
English Name – Stone Apple or Wood Apple  
Hindi Name – Bael

## **Systematic Position**

Order – Sapindales  
Family – Rutaceae  
Genus – *Aegle*  
Species – *marmelos*

## **Introduction:**

This tree is native to Indian subcontinent and South East Asia. It is present in India, Sri Lanka, Thailand and Malaysia. The tree is considered to be sacred by Hindus. Tree 12-13m tall, deciduous, branched, cylindrical, sometimes slightly angled, glabrous, pine axillary, solitary or paired. Straight stout and sharp with slender drooping branches and rather shabby crown.

## **Phenology:**

Flowers are pale green or yellowish bisexual, and need a dry period to give fruit.

## **Economic Importance:**

The leaves, root, fruits and seeds are used by Indians in various diseases, as it is antidiarrhoeal, antimicrobial, antiviral, radio protective, anti-cancerous, chemo preventive etc.





# ASHOKA TREE

*Polyalthia longifolia*

Botanical Name	– <i>Polyalthia longifolia</i>
English Name	– Ashoka
Hindi Name	– False Ashoka

## Systematic Position

Order	– Mangnoliales
Family	– Annonaceae
Genus	– <i>Polyalthia</i>
Species	– <i>longifolia</i>

## Introduction:

It is native to southern India and Sri Lanka but also found in tropical Asia and Africa. An evergreen tree with a straight trunk, conical crown and slender drooping branches, about 10-15m tall. Bark dark grayish brown.

## Phenology:

In spring the tree is covered with flowers and flower last 2-3 weeks.

## Economic Importance:

Bark and leaves of this plant has antimicrobial activity. Cytotoxic function, antiulcer activity, hypoglycemic activity. The oil of the seed has antioxidant and antimicrobial properties. Planted for checking noise pollution. The leaves are used for ornamental purposes.





# SHISHAM TREE

*Dalbergia sissoo*

Botanical Name – *Dalbergia sissoo*  
Hindi Name – Shisham  
English Name – Indian rose wood tree

## Systematic Position

Order – Fabales  
Family – Fabaceae  
Genus – *Dalbergia*  
Species – *sissoo*

## Introduction:

It is native to the Indian subcontinent and southern Iran. It is fast growing hardy deciduous tree. It is a large crooked tree with long leathery leaves and whitish or pink flowers and grows up to 25 m in height.

## Phenology:

It begins to produce flowers after nine months. April, May in north America March to June in India. Plant become leafless for a very short time i.e. November to January. New leaves appearing shorter after February.

## Economic Importance:

Remedy for gonorrhoea and skin ailments, Leaf juice for eye ailments, Woody bark paste as anthelmintic, antipyretic and analgesic, wood is also used in India for boils, leprosy and nausea.

Shisham is the best known economic timber species sold internationally. It is also used as a shade tree. Many musical instruments are made by its wood. It is also used as fuel due to high calorific value.





# NEEM TREE

*Azadirachta indica*

Botanical Name	– <i>Azadirachta indica</i>
English Name	– Indian lilac
Hindi Name	– Neem

## Systematic Position

Order	– Sapindales
Family	– Meliaceae
Genus	– <i>Azadirachta</i>
Species	– <i>indica</i>



## Introduction:

The tree is native to Indian subcontinent, Neem tree also grow in islands located in the southern part of Iran. Neem is a versatile multipurpose tree native of dry forest areas of India, Pakistan, Sri Lanka, Malaysia, Indonesia, Thailand, Myanmar and Africa. It is a sturdy tree and can adapt a wide range of climatic, edaphic and topographical conditions. It is a fast growing tree and reaches up to height of 15 to 20 m.

## Phenology:

Neem is an evergreen tree, but in dry locations, it sheds its leaf during February to March and again leaves appear during March to April. Flowering varies with climate of the locality. Flower from January to March and Fruit ripen from June to August. The white and fragrant flowers have inflorescence of axillary panicles and its inflorescence bears 250 to 300 flowers.

## Economic Importance:

Neem tree is considered a boon for the mankind in nature. Neem has multiple uses i.e. the wood is used as timber for construction, furniture, carts, axles, yokes, boats etc. and also as a fuel wood, leaves are good fodder for sheeps and camel with protein of 12-18%, Seeds yield 20-30% oil content used in Pharmaceuticals/medicine preparations, its oil has azadirachtin which is used as insect repellent. Bark of neem yield 12-14% tannin, Neem cake used as excellent organic fertilizer.





# PEEPALTREE

*Ficus religiosa*

Botanical Name – *Ficus religiosa*  
English Name – Sacred fig  
Hindi Name – Peepal

## Systematic Position

Order – Rosales  
Family – Moraceae  
Genus – *Ficus*  
Species – *religiosa*



## Introduction:

Peepal is a species of fig, native to the Indian subcontinent and Indo-china. Peepal tree is grown throughout India. It is deciduous tree with height of 25m with grey bark. The tree is also known as Bodhi tree as this is the tree under which Gautam Buddha is believed to have attained enlightenment. The tree has a very long life span up to 1500 years

## Phenology :

Flowering season from August to February. Fruiting season from January to June.



## Economic Importance:

Unlike other trees, it releases oxygen even at night, this tree can cure as many as 50 disorders as diarrhoea, epilepsy and gastric troubles.



# KARANJ TREE

*Pongamia pinnata*

Scientific Name – *Pongamia pinnata*  
English Name – Pogame oil tree or Indian beech  
Hindi Name – Karanj

## Systematic Position

Order – Fabales  
Family – Fabaceae  
Genus – *Pongamia*  
Species – *pinnata*



## Introduction:

It is a species of tree in the pea family. Native to eastern and tropical Asia, Australia. The tree grows to about 15-25m in height with a large canopy which spreads equally wide. It may be deciduous for short periods. The imparipinnate leaves of the tree alternate and short stalked.

## Phenology :

Flowering generally starts after 3-4 years with small clusters of white purple and pink flowers throughout the year.

## Economic Importance:

Flowers are used as compost, Bark yield black gum used to treat wounds, oil made from the seeds known as the pongamia oil is an important asset of this tree and has been used as lamp oil, soap, lubricant. Seeds also yield biodiesel.





# INDIAN ELM TREE

*Holoptelea integrifolia*

Botanical Name – *Holoptelea integrifolia*  
English Name – Indian Elm Tree  
Hindi Name – Papri or Chilbil

## Systematic Position

Order – Rosales  
Family – Ulmaceae  
Genus – *Holoptelea*  
Species – *integrifolia*



## Introduction:

The Indian Elm or Papri is a large deciduous tree, about 20–25 m tall (rarely over 30 m), with a broad crown featuring several ascending branches. It is native to most of Indian subcontinent, Indo-China and Myanmar. It is found mostly on plains but also in mountains on elevations up to 1100 m.

## Phenology:

It has grey bark, covered with blisters, peeling in corky scales on old trees. Alternately arranged leaves are elliptic-ovate, 8-13 cm long and 3.2-6.3 cm wide, smooth, with entire margins, and a pointed tip. Leaf base is rounded or heart-shaped. Stipules are lance-shaped. Flowers are small, greenish-yellow to brownish, pubescent, borne in short racemes or fascicles at the scars of fallen leaves. Sepals are velvety, often. Fruit is a circular samara, 2.5 cm in diameter, with membranous, net-veined wings, and flat seed. Flowering and fruiting are seen during the months of February-March.



## Economic Importance:

The bark of Indian Elm is used in rheumatism. Seed and paste of stem bark is used in treating ringworm. Bark and leaves are used for treating edema, diabetes, leprosy and other skin diseases, intestinal disorders and piles.



# KASSOD TREE

*Cassia siamea*

Botanical Name – *Cassia siamea*  
English Name – Cassia Tree  
Hindi Name – Kassod Tree or Cassia Tree

## Systematic Position

Order – Fabales  
Family – Fabaceae  
Subfamily – Caesalpinioideae  
Genus – *Cassia*  
Species – *siamea*

## Introduction:

Cassia is a small to medium sized tree, up to 15-20 m tall, with a short bole and low branching high crown. Leaves pinnately compound, alternate, rachis 25-30 cm long, with a marked furrow, 8-13 pairs of leaflets of different size. Leaflets oblong, rounded at the base and at the apex, slightly retuse. Upper side dark green and shining, underside dull-green, shortly haired. Flowers yellow, up to 3.5 cm long, in dense racemes at the end of the shoots, and in their axils. It is native to South and Southeast Asia.

## Phenology:

It starts flowering and fruiting at the age of 2-3 years. Once established, it flowers precociously and abundantly throughout the year. Young plants are subjected to browsing damage by domestic animals. It has a spreading root system, and competes strongly with other species. It prefers full sun to Partial shade. It prefers acidic to neutral Ph.

## Economic Importance:

It is an ornamental tree. It is grown to provide shade along roads. All parts of the plant can be used for tanning. It is used for the treatment of typhoid fever, jaundice, abdominal pain, menstrual pain, to reduce blood sugar and cure for digestive system.





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