UNIVERSITY COLLEGE MANGALORE
ವಿಶ್ವವಿದ್ಯಾನಿಲಯ ಕಾಲೇಜು ಮಂಗಳೂರು

A Constituent College of Mangalore University

(Reaccredited by NAAC with 'A' Grade and College with Potential for Excellence)

Office of the Principal,
U.P. Malya Road, Hampanakatta
Mangalore 575 001

ಪ್ರಾಂಶುಪಾಲರ ಕಛೇರಿ,
ಯು.ಪಿ. ಮಲ್ಯ ರಸ್ತೆ, ಹಂಪನಕಟ್ಟ
ಮಂಗಳೂರು 575 001

Email: ucmangalore1@gmail.com Phone No: 0824 2424760 website: https://universitycollegemangalore.com

Criteria 7- Institutional Values and Best Practices

Key Indicator- 7.1 Institutional Values and Social Responsibilities.

(Environmental Consciousness and Sustainability)

7.1.6. (Q_nM): Quality audits on environment and energy regularly undertaken by the institution.

List of Supporting Enclosures

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Principal
PRINCIPAL
University College, Mangalore

7.1.6
(1)

GREEN CAMPUS AUDIT REPORT 2020-21

UNIVERSITY COLLEGE MANGALORE
HAMPANAKATTA - 575001

A Constituent College of Mangalore University

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POLICY DOCUMENT ON GREEN AUDIT

The College complies with all environmental legislation. It works to increase awareness of environmental responsibility amongst its fellows, students and staff. It pledges to maintain all buildings and grounds in an environmentally conscious manner for the benefit of all present and future college members and visitors, keeping their health and safety uppermost in mind.

Policy Context

University College Mangalore acknowledges and takes responsibility of the environmental impact of its activities. The college is committed to mitigate the impact of its operations and behaviour on the natural environment.

Objectives of the Policy

- To protect and conserve ecological systems and resources within the campus.
- To ensure judicious use of environmental resources to meet the needs and aspirations of the present and future generations.
- To integrate environmental concerns into policies, plans and programmes for social development and outreach activities.
- To work with all stakeholders and the local community to raise awareness and seek the adoption of environmental good practice and the reduction of any adverse effects on the environment.
- To continuously improve our contribution to climate protection and adaptation to climate change and to the conservation of global resources.

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- To continuously improve the efficient use of all resources, including energy and water, and to reduce consumption and the amount of waste produced, recovering and recycling waste where possible.
- To make the campus plastic free.
- To conduct environmental and energy audits from time to time.
- To minimize the use of paper in administration through having policy for E-governance.

This policy is to be reviewed every five years.

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GREEN AUDIT COMMITTEE

Sl No	Name & Designation	Designation in the Committee
1.	Dr. Anasuya Rai, Principal University College, Mangaluru – 575001	Chairman
2.	Dr. Siddaraju M.N. Asst. Professor of Botany & Dy. Director of Environment Association, University College, Mangaluru – 575001	Convenor (Green campus)
3.	Dr. Suresh Asst. Professor, Department of Economics & IQAC Coordinator, University College, Mangaluru – 575001	Member (Ex-Officio)
4.	Dr. Sudha N Vaidhya, Asso. Professor, Department of Commerce & NAAC Coordinator, University College, Mangaluru – 575001	Member (Ex-Officio)
5.	Dr. Laxmana K., Asso. Professor, & Coordinator Dept of PG Chemistry, University College, Mangaluru – 575001	Member (Waste Management)
6.	Dr. Veerabhadrappa, Asso. Professor & Head, Dept of Computer Science University College, Mangaluru – 575001	Member (Energy)
7.	Dr. Aboobakar Siddiq, Asso. Professor, Department of Commerce & Criterion VII Convenor, University College, Mangaluru – 575001	Member (Carbon Foot print)
8.	Dr. Gayathri, Asst. Professor, Dept of Sociology & NSS Officer, University College, Mangaluru – 575001	Member (Water)
9.	Mrs. Bhagyalakshmi, Office Superintendent University College, Mangaluru – 575001	Member
10.	Mr. Suresh, Electrician, University College, Mangaluru – 575001	Member
11.	Dr. Vinayak Asst. Professor & Head, Dept of Botany Sri Venkataramana College, Bantwal	External Member

Executive Summary

Educational Institutions have a crucial role to play to instil in the minds of youth the importance of a clean and healthy environment and the necessity for them to conserve the resources for the future. There is a dire need for the educational institutions to sensitize the students with regard to the present and possible future environmental and ecological problems that we could encounter if we don't learn from our mistakes. Smart use of the available resources and minimizing levels of waste is the need of the hour.

The first step towards this goal is recognising the need for conducting an environmental and green audit that helps in assessing the environmental performance of our Institution so that we know where we stand and where we need to go and how to get there. The green auditing process has been a part of this effort to understand how to achieve a sustainable development with limited resources. The audit mainly tries to focus on certain parameters like water consumption, energy consumption, waste management, green campus initiatives, and soil and water quality in the campus. It is imperative for the college to assess our own contributions towards a sustainable eco system. Questionnaires were prepared for conducting the survey of the above mentioned parameters and data collected was analysed and tabulated. Report was prepared with appropriate observations and recommendations directed towards management, staff and students so that issues related to the environment can be addressed in a timely and appropriate way.

INTRODUCTION

About the College Environment

The relationship between University College and nature is a long and enduring one, something that students and staff of the college are aware of. The buildings of this educational institution stand in the midst of Mangalore City. Mangalore is sited on the western coast of India and it is surrounded by the Arabian Sea in its west and in its east it is surrounded by the Western Ghats. 12.86713N, 74.84084E. The average elevation possessed by Mangalore is 22 meters above the level of sea. According to the Koppen Climate Classification, tropical monsoon climate is experienced by Mangalore and the city is found to be under the straight influence of the southwest monsoon with its branch in the Arabian Sea. Winters and summers are quite similar in Mangalore and both the seasons are found to be gratifying possessing an average temperature that ranges between 27^{o}C to 34^{o}C. Humidity is a very huge problem in the city and it sometimes reaches the average of 78% and this is something that makes Mangalore Per-Humid Zone. Mangalore can very typically be identified as a monsoonal station because it receives 95% of its yearly rainfall within a span of six months and this is during the months from May to October. From the months of December to March, extremely dry climate is found in the city. Yearly precipitation in Mangalore is around 3479 millimetres and the humidity is quite high during the months of May, June and July. Maximum humidity in July is 93% and minimum is 56% recorded in January.

Programmes offered by the college:

The college offers undergraduate programmes in Commerce Bachelor of Commerce (B.Com.), Bachelor of Science (B.Sc.), Bachelor of Arts (B.A.), Bachelor of Business Administration (BBA) and a post graduate programme in Commerce (M.Com.), Science (M.Sc. Chemistry), MA in History and Archaeology, MA in Hindi, MA in Economics.

Vision: To be the center for knowledge to all sections of the society.

Vision Statement: Perform your duty without fail.

Mission: Activating the dormant spirit deep down in an individual thereby enabling one to lead meaningful and purposeful life.

Total strength of students, teachers and non-teaching staff

	Male	Female	Total
No. of Students	647	1256	1903
No. of Teachers	51	69	120
No. of Non-Teaching staff	12	26	38
Total	**710**	**1351**	**2061**

Physical Structure

The college campus is located in **715 c**ents of Land. The built up area of the college is **13632.13**Sq. Mtrs.

Building	Numbers
Staff Rooms	**17**
Laboratories	**06**
Seminar Hall	**04**
Canteen	**01**
Libraries	**01**

Objectives of Green Campus Audit

The main objectives of this audit are to assess the quality of our college environment and strategies being implemented towards improving it.

Auditing for Green Campus Management

Plants and trees are an essential part of an ecological system and urbanisation has led to trees being cut at an alarming rate. Trees can absorb large amounts of carbon dioxide and emit oxygen into the environment. Trees are good in a campus because of the large number of students that gather in the campus leading to huge quantities of carbon dioxide being released into the environment. Green audit is also an effort to identify and label the trees and their age in the campus.

Green Campus Focus Group:

Sl. No	Name	Designation
1.	Dr. Siddaraju MN, Asst. Professor, Dept of Botany University College, Mangaluru – 575001	Coordinator of the focus group
2.	Ms. Harshitha	Staff volunteer
3.	Ms. Nidhishree	Staff volunteer
4.	Ms. Sahala	Staff volunteer
5.	Chetan M	Student Volunteer
6.	Vedhashini gouda	Student Volunteer
7.	Gurunath.R.Asangikar	Student Volunteer
8.	Pallavi K	Student Volunteer
9.	Malleshwari M	Student Volunteer
10	Sanjana Sandeep	Student Volunteer
11	Hemanth V	Student Volunteer
12	Poojashree	Student Volunteer
13	Lekhan B L	Student Volunteer

GREEN CAMPUS

In terms of community and social value, trees and plants are an important part of every community. Trees increase the quality of human life by bringing natural elements and wildlife habitat into urban settings. Using trees in cities to deflect the sunlight reduces the heat island effect caused by pavements and commercial buildings.

On the Ecological and environmental value front, trees contribute to their environment by providing oxygen, improving air quality, climate amelioration, conserving water, preserving soil and supporting animal and bird life. During the process of photosynthesis trees take in carbon dioxide and produce the oxygen the humans breathe. It is said that one acre of forest absorbs six tons of carbon dioxide and gives out four tons of oxygen. This is enough to meet the annual needs of 18 people. Trees, shrubs and turf also filter air by removing dust and absorbing other pollutants like carbon monoxide, sulphur dioxide and nitrogen dioxide. After trees intercept unhealthy particles, rain washes them to the ground.

Trees control climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Trees also preserve warmth by providing a screen from harsh wind. In addition to influencing wind speed and direction, they shield from the rain, sleet and hail. Trees also lower the air temperature and reduce the heat intensity of the greenhouse effect by maintaining low levels of carbon dioxide.

Planting of native trees and shrubs have their own ecological benefits in the sense that, the native trees are the species that are already adapted to the local environmental conditions and they require far less water, saving money, time and the most valuable natural resource, water. In addition, they provide vital habitat for birds and many species of wildlife.

Campus Vegetation survey was conducted by Nature club and listed all the plants in the campus. The campus green cover was divided to 6 divisions for the purpose of documentation and the plants are listed below.

CAMPUS FLORA- Green areas

List of Plants at College Entrance

Sl no.	Plants Names	Common name	Family	
1	*Calotropis gigantia.*	Crown flower	Apocyanaceae	
2	*Asystasia gangetica*	Chinese violet	Acanthaceae	
3	*Phyllanthus tenellus*	Mascarene Island leaf flower	Phyllanthaceae	
4	*Spathodea campanulata*	African tulip tree	Bignoniaceae	
5	*Alternanthera sessilis.*	Sessile joyweed	Amaranthaceae	
6	*Wisteria sinensis*	Chinese wisteria	Fabaceae	
7	*Trema micrantha*	Jamaican nettle tree	Cannabaceae	
8	*Acalypha wikesiana*	Copper leaf	Euphorbiaceae	
9	*Cyanthillium cinereum*	Little ironweed	Compositae	
10	*Pteris vittata*	Chinese Brake fern	Pteridaceae	
11	*Lonicera xylosteum*	dwarf honeysuckle	Caprifoliaceae	
12	*Commelina erecta*	white mouth dayflower	Commelinaceae	
13	*Cestrum nocturnum*	Night Blooming Jasmine	Solanaceae	
14	*Tectona grandis*	Teak	Lamiaceae	
15	*Caryota mitis*	Fishtail Palm	Arecaceae	
16	*Leucaena leucocephala*	Jumbay	Leguminosae	
17	*Polyalthia longifolia*	Ashoka	Annonaceae	
18	*Colocasia esculenta*	Taro	Arecaceae	
19	*Syzygium jambos*	Roseapple	Myrtaceae	
20	*Mallotus barbatus*	Balek angin	Euphorbiaceae	
21	*Ambrosia trifida*	Crownweed	Compositae	
22	*Macaranga tanarius*	Parasol leaf tree	Euphorbiaceae	
23	*Achyranthus aspera*	Chaff flower	Amaranthaceae	
24	*Setaria pumila*	Yellow Foxtail	Poaceae	
25	*Carica papaya*	Papaya	Caricaceae	
26	*Ipomoea obscura*	Obscure morning glory	Convolvulaceae	

Plants of College Entrance Near Political Science Dept.

1. Common name: Crown Flower
Botanical name: *Calotropis gigantea*
Family: Apocynaceae

This large shrub, which can sometimes grow large enough to look like a small tree, sports clusters of waxy flowers that are either white or lavender in color. Each flower consists of five pointed petals and a small, elegant "crown" rising from the center, which holds the stamens. The plant has oval, light green leaves and milky stem. The flowers last long, and in Thailand they are used in various floral arrangements. In India, the plant is common in the compounds of temples. The fruit is a follicle and when dry, seed dispersal is by wind. This plant plays host to a variety of insects and butterflies.

2. Common name: Ganges Primrose, Chinese violet
Botanical name: *Asystasia gangetica*
Family: Acanthaceae
Asystasia means inconsistency and relates to the fact that the corolla is more or less regular which is unusual in the family Acanthaceae. The word gangetica is derived from the Ganga River in India where it is presumed the species occurs. Ganges primrose is a perennial herb 30-80 cm long; stem branched, 4-angled, climbing. Flowers are borne in a 7-8 flowered lax spike like raceme; axis 5-14 cm long. Flowers are pale yellow or white, tube funnel-shaped, 3-3.2 cm long, velvet-hairy, limb 3.5-4 cm across, lobes 5, rounded. Cultivated plants often have variously pink-tinged flowers. Sepal-cup is divided to the base or nearly so, sepals 5, linear-lance shaped, 6-8 mm long, pointed, densely velvet-hairy on both surface. Leaves are opposite decussate, 3.5-5.5 x 2.5-4.5 cm, ovate triangular, heart-shaped or so at base, pointed or rarely blunt at tip; lateral veins 6-8 pairs Ganges primrose is found in the Indian Subcontinent, Indo-China to Australia.

3. Common name: Long stalked leaf-flower
Family: Phyllanthaceae
Botanical name: *Phyllanthus tenellus*

Long StalkedLeaf-Flower is an erect, many-branched annual or perennial, broad-leaved, hairless herb, growing up to 50 cm tall. Alternately spirally arranged, simple leaves are nearly stalkless with 1–1.5 mm long stalks. Leaf blade 1.4–2.5 cm long (leaves are in one plane), .7–1 cm wide, elliptic or obovate, base rounded or tapering, margins entire with some depressions and protrusions. Flower arise singly or in racemes or in cymes. Flowers are predominantly green or white, with 1.5–5 mm long stalks. Male flowers are shorter than females. Flowers have a 0.5–1.5 mm long sepal cup with 6 sepals. Petals are absent. Stamens are 5 and styles 3. Fruit is a capsule, non-fleshy, 1.2–1.4 mm long, greenish. Long Stalked Leaf-Flower is native to parts of Africa and Asia, naturalized in India.

4. **Common name:** African tulip tree
Botanical name: *Spathodea campanulata*
Family: Bignoniaceae

One of the world's most spectacular flowering trees, African tulip tree is a large upright tree with glossy deep green pinnate leaves and glorious orange scarlet flowers. It may grow to 80 ft on an ideal site, but most specimens are much smaller. The tree has a stout, tapering, somewhat buttressed trunk covered in warty light gray bark. The lateral branches are short and thick. The 1-2 ft long opposite leaves, which emerge a bronzy color, are massed at the ends of the branches. They are composed of 5-19 deeply veined oval leaflets. The horn shaped velvety olive buds appear in upturned whorls at the branch tips. A few at a time, the buds of the lowest tier bend outward and open into big crinkled red orange tuliplike bells with red streaked gold throats, frilly yellow edges, and four brown-anthered stamens in the center. They are followed by 5-10 in green brown fingerlike pods pointing upwards and outwards above the foliage.

5. **Common name:** StalklessJoyweed
Botanical name: *Alternanthera sessilis*
Family: Amaranthaceae

Stalk less Joy weed is a perennial herb, often found in and near ponds, canals and reservoirs. It prefers places with constant or periodically high humidity and so may be found in swamps, shallow ditches, and fallow rice fields. leaves simple, opposite, somewhat fleshy, lanceolate, oblanceolate or linear-oblong, obtuse or sub acute, sometimes obscurely denticulate, glabrous, shortly petiolate; flowers

small, white, in axillary clusters; fruits compressed obcordate utricles, seeds sub orbicular. Stalkless Joy weed is found in the Himalayas, at altitudes of 200-2000 m.

Medicinal uses: Warning: Unverified information Stems and leaves useful in eye trouble. Decoction is taken with little salt drunk tocheck vomiting of blood. Shoot with other ingredients used to restore virility. Poultice used for boils.

6. **Common name:** Chinese wisteria
Botanical name: *Wisteria sinensis*
Family: Fabaceae

The Chinese Wisteria (Wisteria sinensis) is the most vigorous type of the type Wisteria. It belongs to the papilionaceous family (Fabaceae) and is also known as wisteria. As its name suggests, Wisteria sinensis is originally native to China. Wisteria sinensis, commonly called Chinese wisteria, is a deciduous vine that grows vigorously to 25' or more and features 6-12" long racemes of mildly-fragrant, pea-like, blue-violet flowers in May when the foliage is just beginning to expand. Flowers bloom somewhat simultaneously on the racemes.

7. **Common name:** Jamaican nettle tree, capulin
Botanical name: *Trema micrantha*
Family: Cannabaceae

Trema micrantha, the Jamaican nettle tree or capulin, is a plant species native to warmer parts of the Western Hemisphere. Leaves are egg-shaped, up to 9 cm long, green on top but covered with white, woolly pubescence underneath. Flowers are greenish-white. Fruits are yellow to bright reddish-range, up to 4 mm in diameter. Following the recent local extirpation of slow-growing xalama in San Pablito, Mexico due to unsustainable harvesting driven by tourism, the Otomi people now use Trema micrantha bark strips as a raw material for making handmade amate paper.

8. **Common name:** Copper leaf
Botanical name: *Acalypha wikesiana*
Family: Euphorbiaceae

Copperleaf is a remarkable plant which has leaves that are more colorful than many flowers. It grows as a spreading evergreen shrub with upright branches that tend to originate near the base. It can get up to 10 ft tall with a similar spread. Alternately arranged leaves are elliptic to oval, toothed, 5-8 in long and multi-colored. The flowers are small and inconspicuous, in 4-8 in long, somewhat drooping, green racemes often hidden in the foliage. Acalypha wilkesiana 'Marginata' has coppery-green leaves with pink or crimson margins. 'Macrophylla' has larger leaves, variegated with bronze, cream, yellow and red. The leaves of 'Musaica' are mottled with orange and red. 'Godseffiana' has narrow, drooping leaves with cream-colored margins. Copperleaf is native to Fiji and neighboring South Pacific islands, widely cultivated in India.

9. **Common name:** Little ironweed
Botanical name: *Cyanthillium cinereum*
Family: Asteraceae

Little ironweed is an annual or short-lived perennial to 50cm with ovate leaves. The stems branch repeatedly at the top to hold aloft the small cylindrical, purple flower heads. Flowers throughout the year. Originally from Tropical Asia & Africa, now a pan tropical weed, it is sometimes considered native to Western Australia. Found in upland crop areas, waste places and roadsides throughout India.

Medicinal uses: Warning: Unverified information the seeds yield fatty oil and are used as an anthelmintic and alexipharmic; they are said to be quite effective against roundworms and threadworms. They are also given for coughs, flatulence, intestinal colic and dysuria and for leucoderma, psoriasis and other chronic skin-diseases. The seeds are made into a paste with lime juice and used for destroying pediculi.

10. **Common Name:** Chinese Brake fern, Brake fern.
Botanical name: *Pteris vittata*
Family: Pteridaceae

Pterisvittata is often associated with limestone habitats. It may be seen growing on concrete structures and cracks, in buildings in the central business district and suburbs of Sydney, Australia. It is an introduced species in California, Texas, and the Southeastern United States. A remnant population exists in the Italian peninsula, in Sicily, Calabria and Campania. Although it grows readily in the wild, Pteris vittata is sometimes cultivated. It is grown in gardens for its attractive appearance, or used in pollution control schemes: It is known to be a hyper accumulator plant of arsenic used in phytoremediation.

11. **Common name:** dwarf honeysuckle
Botanical name: *Lonicera xylosteum*
Family: Caprifoliaceae

Lonicera xylosteum is a perennial shrub that can reach 8-10 ft. (2.4-3 m) tall. Foliage Leaves are opposite, elliptical, deciduous and 1-2.5 in. (2.5-6.4 cm) long Flowering occurs in May when white flowers develop in pairs in the axils of the leaves. Fruits (when produced) are dark red berries that are eaten and spread by birds. Ecological Threat Lonicera xylosteum is native to Europe and occurs in poor, well-drained soils in full sun

12. **Common name:** white mouth dayflower, slender dayflower.
Botanical name: *Commelina erecta*
Family: Commelinaceae

The soft, jointed stems of this perennial grow upright only if supported by other plants. Usually they lie on the ground and grow up to 3 ft long. The ephemeral flowers, about 1 in. across, have two larger, showy, blue petals and one much smaller white petal. Flowers with 2 large, ear-like, blue petals and one smaller petal bloom in small clusters, in a bract, at the top of several erect branches. They only bloom for a day, but there are several buds on a plant that open 3-4 days apart. The principal leaves are linear to somewhat lance-shaped. This is a highly variable species. The Spanish name means "herb of the (cooked) chicken.

13. **Common name:** Night Blooming Jasmine.

Botanical name: *Cestrum nocturnum*
Family: Solanaceae

Night Blooming Jasmine is a sprawling shrub that has glossy, smooth, simple leaves 4-8 inches long. Vine-like stems reach up to 12 ft in its native habitat, but it seldom reaches more than a 4 ft mound in a single season. It blooms in cycles throughout warm weather. The perfume is distinctly powerful at night – this feature has had its influence on its common name in all languages. The Hindi name translates to queen of the night, while the Manipuri name means moon flower. No fragrant garden is complete without this nocturnal beauty. While night blooming jasmine is a gorgeous plant with charming blooms, the scent also produces severe allergic reactions in some individuals. Night Blooming Jasmine is native to Mexico to Venezuela, widely cultivated in tropical climates.

14. **Common name:** Teak, Sagun, Tega.
Botanical name: *Tectona grandis*
Family: Lamiaceae

A very popular timber tree, teak is native to India and Burma to Java. It is a deciduous tree attaining a very large size. However, in cities it might be seen on the roadside as a medium sized tree with large leaves. Teak is considered a good quality wood for furniture. Leaves of the tree are opposite, 30-60 cm long and 15-30 cm broad. The flowers come in large numbers in lax clusters at the end of branches. They are white and rather small - about 6 mm across. The fruit is about 15 mm across, spongy, enclosed in the persistent calyx. Flowers appear in monsoon, fruit ripens in winter. From November to January, the tree is leafless.

15. **Common name:** Fishtail Palm, Jaggery Palm.
Botanical name: *Caryota mitis*
Family: Arecaceae

Fishtail palm is a fast-growing feather palm that makes a beautiful addition to the landscape. It has a gray trunk (grows to about 30') that is covered by regularly spaced leaf scar rings. Toddy palm has a leaf shape that resembles the lower fin

of a fish. When these palms grow to reach 20', they start producing flowers at the top of the trunk with subsequent flowers produced lower and lower on the trunk. When the lowest flower blooms, the tree dies. Flowers are long plait like bunches hanging down. Toddy palm is an Asian species that grows from India to Burma and on the island country of Sri Lanka.

16. **Common name:** Jumbay, white lead tree
Botanical name: *Leucaena leucocephala*
Family: Leguminosae

Wild Tamarind is a low scrubby tree of tropical and subtropical North America having white flowers tinged with yellow resembling mimosa and long flattened pods. Leaves are like that of tamarind. It is a thorn less shrubby bush or tree often only to 6-8ft but occasionally to 30-60ft. Grows very well in arid tropical climates and can become a pest species in such climates. Grows best under full sun, needs little water or care once established. Very fast grower.Grows in practically any soil type. The tree has a huge wealth of uses, and is an extremely fast-grower, but care should be taken in some regions to control growth as the seeds are easily dispersed by birds and grazing cattle and the tree has the potential to become a pest. It is grown for fodder, but unless severely grazed or controlled, it spreads rampantly throughout adjacent areas.

17. **Common Name:** Ashoka, False Ashoka, Mast tree
Botanical name: *Polyalthia longifolia*
Family: Annonaceae

Ashoka is native to India and Srilanka. Somehow, the name Ashok has stuck in north India, although the "real" Ashok is a different tree. The weeping, branching habit of this 25-foot-tall tree gives it a narrow columnar shape. Glossy green, long, narrow leaves have attractive wavy edges. It is a very popular tree in India. The bark is smooth and dark greyish-brown. Flowers appear during March and April. For a short period — two or three weeks only — the tree is covered with a profusion of delicate, star-like flowers, which, being palest-green in colour, give

the tree a peculiar hazy appearance. They grow in clusters from small protuberances all along the dark branchlets. Each flower, borne on a slim, green stem has a tiny calyx and six long, narrow, wavy petals arranged in two sets of three.

18. **Common name:** Taro, cocoyam, Green taro, aivi.
Botanical name: *Colocasia esculenta*
Family: Araceae

Taro is a tuberous bulb plant growing 3-5 ft tall. The large leaves of the plant resemble elephant ears. It produces heart shaped leaves 2-3 ft long and 1-2 ft across on 3 ft long stalks that all emerge from an upright tuberous rootstock, technically a corm. The inflorescence, which is rarely produced in cultivated plants, is a pale green spathe and spadix, typical of the arum family. The corm is shaped like a top with rough ridges, lumps and spindly roots, and usually weighs around 0.5-1 kg, but occasionally as much as 3.5 kg. The skin is brown and the flesh is white or pink. Certain kinds of taros produce smaller tubers or "cormels" which grow off the sides of the main corm.

19. **Common name:** Roseapple, Malabarplum, Jambo
Botanical name: *Syzygium jambos*
Family: Myrtaceae

Rose Apple is an evergreen tree up to 10 m tall. The terminal inflorescence is showy and usually carries four whitish-green flowers on the outside of the crown. The leaves are lance shaped 2-4 cm broad, 10 cm to 20 cm long, pointed, base wedge-shaped with hardly any leaf-stalk, lively red when growing, but dark, glossy green on attaining full size. The showy flowers are in small clusters at branch-ends, white or greenish white, the long, and numerous stamens giving them a diameter of 5-8 cm. The fruits are whitish-green, rose scented; The edible fruit is shaped like a small pear. In ancient Sanskrit, the land now called India was referred to by the ancient Indians themselves as Jambudvipa, which means Rose-apple-land (jambu = rose apple; dvipa = land). The dry, crisp fresh fruit is used to make jellies. Fruit/seed can be produced following self-pollination. RoseApple is native to India, China and SE Asia.

20. **Common name:** Balek angin
Botanical name: *Mallotus barbatus*
Family: Euphorbiaceae

Shrubs to small trees up to 12 m high, dbh up to 15 cm, monoecious or dioecious. Indumentum densely hairy, very soft-floccose, flocci up to 6 mm long. Stipules linear-triangular, 10–17 by 0.8–1.2 mm. Leaves alternate to apically subopposite; petiole 3–40 by 2–7 mm, blade peltate for 10–80 mm, broadly ovate to ovate, 10.5–58 by 9–45 cm, length/width ratio 1–1.3, base truncate, rounded or obtuse, margin dentate, sometimes 2-lobed at widest part of blade, longest lobes up to 50 mm, basally with 0–4 extrafloral nectaries, marginal nectaries 0–9 per side, lower surface brownish green, palminerved. Inflorescence is terminal, unisexual or bisexual. Staminate inflorescences up to 65 cm long, side branches up to 30 cm long, with 2 or 3 flowers per node, nodes per branch up to 130. Staminate flowers 6–9 mm diam.; pedicels 3–5.5 mm long; sepals 4 or 5, 3–5 by 1.3–3 mm, pale light cream to tan cream; stamens 60–85, pale light green to yellow. Pistillate inflorescences racemes, up to 55 cm long, occasionally with side branches, up to 10 cm long, nodes up to 80. Pistillate flowers 4–6 mm diam.; pedicels 1–45 mm long; calyx (3-) or 4- or 5- or (6-) lobed, connate on the base, 2.5–5 mm long, lobes 2–3 by 1.5–2.5 mm; ovary 3(–5)-locular; style up to 1.5 mm long; stigmas 2–6 mm long, yellow. Fruit 10–21 by 14–20 mm, with strong smell, yellow with reddish touch, spines numerous, straight, thin, less hairy, up to 7 mm long, hairs forming a continuous layer, rubbing off. Seeds ellipsoid, 4.8–5.5 by 3–4.5 by 2–4 mm, surface smooth, black.

21. **Common name:** Crownweed, horseweed
Botanical name: *Ambrosia trifida*
Family: Asteraceae

A. trifida has large leaves (4-15 cm long). They are oppositely arranged, simple and palmately lobed, generally with three lobes (they may also have five lobes or be unlobed). The upper leaves can be alternate. They are borne on a long petiole (3–12 cm). Male and female flowers are separated on the same individual (monoecious plant). The inflorescences are long terminal clusters (30 cm) consisting of florets of male flowers. The female flowers are grouped into florets at the base of the male clusters and sometimes in the axils of the upper leaves. The fruit is a cup-shaped cypsela, tipped with a long central beak surrounded by

a crown of approximately five or more shorter tips. A trifida is characterized by enormous variability in the size and shape of its seeds, which may correspond to an ability to germinate in a variety of conditions.

22. **Common name:** Parasol leaf tree
Botanical name: *Macaranga tanarius*
Family: Euphorbiaceae

It is a shrub or bushy tree, sometimes reaching 12 meters tall and with a stem diameter of 40 cm. The trunk is short and crooked, bark being grey-brown, with bumps and irregularities. The branchlets are smooth, bluish grey with prominent leaf scars.Leaves are alternate, and round with a tip, 8 to 23 cm long, greyish or white on the underside. It has prominent leaf stalks 8 to 20 cm long which connect within the leaf itself. Nine main veins radiate from the leaf stalk, easily noticed on the upper and lower leaf side.Female and male flowers grow on different trees. The fruit is a prickly three-celled yellow capsule, 9 mm in diameter, maturing in January to February (in New South Wales).

23. **Common name:** Chaff flower
Botanical name: *Achyranthus aspera*
Family: Amaranthaceae

Prickly Chaff-flower is an erect or prostrate, annual or perennial herb, often with a woody base, which grows as wasteland herb everywhere. Stems 0.4-2 m, pilose or puberulent. Leaf blades elliptic, ovate, or broadly ovate to orbiculate, obovate-orbiculate, or broadly rhombate, 1-20 × 2-6 cm, adpressed-pubescent abaxially and adaxially. Inflorescences to 30 cm; bracts membranous; bracteoles long-aristate, spinose; wings attached at sides and base. Flowers: tepals 4 or 5, length 3-7 mm; pseudostaminodes with margins fimbriate at apex, often with dorsal scale. Prickly Chaff Flower is found in the Tropical and sub-Tropical Africa, Asia, Australia, including the Himalayas, till altitudes of 2300 m.

Medicinal uses: Warning: Unverified information Different parts of the plant are ingredients in many native prescriptions in combination with more active remedies. In Western India the juice is applied to relieve toothache.

24. **Common name:** Yellow Foxtail
Botanical name: *Setaria pumila*
Family: Poaceae
Yellow Foxtail is a clump-forming summer annual with a seedhead that resembles a fox's tail. A weed of many agronomic crops, turf, landscapes, and nurseries. Leaf blades may reach 12 inches in length and 7-12 mm in width, and have long silky hairs at the leaf bases. Auricles are absent and the ligule is a fringe of hairs reaching 2 mm in length. The seedhead is a cylindrical bristly panicle, reaching 6 inches in length and 1/3-2/3 inch in width. Spikelets are approximately 3 mm long, green, and each spikelet has 1-3 bristles that are 5-10 mm long. The bristles turn yellow at maturity, giving the plant it's name.

25. **Common name:** Papaya, Melon tree.
Botanical name: *Carica papaya*
Family: Caricaceae

The papaya plant has an erect branchless trunk 6-20 ft tall and a palm like head of foliage at the top. The trunk remains somewhat succulent and soft wooded, and never develops true bark. It is ringed with prominent scars from previous leaf stems and contains an acrid milky latex sap. The leaves are deeply incised and lobed, up to 24 in across and borne on 24 in petioles. The five-petal flowers are fleshy, waxy and fragrant. Some papaya bear only short stalked female flower or bisexual flowers, while others may bear only male flowers, clustered on panicles 5-6 feet long. Some papaya may have both male and female flowers. The flowers of papaya are usually white and small. Pollination of papaya is done by wind and sometimes by hand when necessary to get a proper fruit. The smooth-skinned fruits are green, yellow, orange or rose colored, and typically weigh about 0.5 kg.

26. **Common name:** Obscure morning glory
Botanical name: *Ipomoea obscura*
Family: Convolvulaceae

Although the flowers on this lovely morning glory are small (about 1" across), the color is so unusual and lovely it really makes it worth adding to your garden. Beautiful pale-yellow flowers with deep purple throats adorn this vigorous vine with small, heart shaped leaves. As with most morning glories, it loves full sun

and average, well-drained soil. It's takes a while for the blooms to start on this lovely vine, which climbs up to 6-10 ft. Beautiful heart-shaped leaves are 3-9 cm long. It is native to Tropical East Africa, Mascarene Islands, tropical Asia, throughout Malaysia to northern Australia and Fiji. Flowering: August-March.


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Plants around NCC unit			
Sl. No	**Botanical name**	**Common name**	**Family**
1	*Tradescantia spathacea*	Oyster plant	Commelinaceae
2	*Sansevieria trifasciata*	Snake plant	Asparagaceae
3	*Bauhinia variegata*	Purple Orchid Tree	Leguminosae
4	*Cordyline fruticosa*	Hawaiian Ti Plant	Asparagaceae
5	*Polyscias fruticosa*	Ming Aralia	Araliaceae
6	*Cordium variegatum*	garden croton	Euphorbiacae
7	*Juniperus chinensis*	Chinese Juniper	Cupressaceae
8	*Ficus racemosa*	Cluster fig	Moraceae
9	*Ocimum teneiflorm*	Tulsi	Lamiaceae
10	*Tabernaemontana divaricate*	Crape jasmine	Apocynaceae
11	*Polyscias scutellaria*	Shield aralia	Araliaceae
12	*Euphorbia miliivar*	Giant Crown of Thorns.	Euphorbiaceae
13	*Dracaena reflexa*	Pleomele	Asparagaceae
14	*Polyscias guilfoylei*	Frosted Aralia	Araliaceae
15	*Dracacena braunii*	Lucky Bamboo	Asparagceeae
16	*Tradescantia pallida*	Purple heart	Commelinaceae
17	*Impatiens walleriana*	Sultan’s Balsam	Balsaminaceae
18	*Dracaena marginata*	dragon tree	Asparagaceae
19	*Persea americana*	Avocado	Lauraceae
20	*Lathyrus niger*	black pea	leguminosae
21	*Alstonia scholaris*	Scholar Tree	Apocyanaceae
22	*Dermodium triflorum*	creeping tick trefoil	Leguminosae
23	*Inga edulis*	Ice cream bean	Leguminosae
24	*Caltropis gigantia*	Giant Indian Milkweed	Apocyanaceae
25	*Citrus lemon.*	Lemon	Rutaceae
26	*Convallaria majalis*	European Lily of the Valley.	Asparagaceae
27	*Ipomoea cairica*	Cairo Morning Glory	Convolvulaceae

Plants near NCC Unit

1. Common name: Oyster plant, Mosses in the Cradle

Botanical name: *Tradescantia spathacea*

Family: Commelinaceae

Purple Heart, a native of Mexico, is named for the striking purple color of the plant in full sun. Pale orchid-pink 1.3-2 cm three-petaled flowers emerge from curving double bracts at the stem tips. Purple heart blooms constantly during warm weather, but the flowers are open only in the morning. The lance shaped leaves will reach 7 inches long by 1 inch wide and are covered with pale hairs. The fleshy stems are first erect, later lying on the ground as a creeping herb, around 16 inches long. They make an attractive basket subject and can be used as an annual groundcover. Purple hearts do best in full sun to light shade. If grown in lower light levels, the plant tends to lose its purple coloring. Purple heart is propagated by cutting or from seed.

2. Common name: Snakeplant, Mother-in-law's tongue.

Botanical name: *Sansevieria trifasciata*

Family: Asparagaceae

Sansevieria trifasciata is commonly called the snake plant, because of the shape of its leaves, or mother-in-law's tongue because of their sharpness. It forms dense stands, spreading by way of its creeping rhizome, which is sometimes above ground, sometimes underground. Its stiff leaves grow vertically from a basal rosette. Mature leaves are dark green with light gray-green cross-banding. Snake Plant is native to Africa. It has stiff sword-shaped leaves to 4 feet long by 2.75 inches wide. Leaves are banded yellow on either side with a deep green, lightly banded center. It is grown for the hemp-like fiber in the leaves, which is called bowstring hemp. The flowers are greenish-white and are on 18-inch spikes in spring. Snake plant will survive in a wide

range of conditions. They tolerate the low light conditions and are very drought tolerant.

3. Common name: Purple Orchid Tree
Botanical name: *Bauhinia purpurea*
Family: Fabaceae

The Purple Orchid Tree is an exotic tropical tree that blooms over a long period of time. The beautiful & fragrant, classic, Orchid-like flowers of Bauhinia purpurea makes this small tree, native to India, a favorite of many plant lovers. In fall, before the leaves drop, Orchid-Tree is festooned with many showy and delightfully fragrant, five-inch-wide blossoms, the narrow purple, pink, and lavender petals arranged to closely resemble an orchid. Curiously, the flower colors vary quite a lot. There are some trees which have white flowers with only some streaks of purple in them. The flowers are followed by 12-inch-long, slender, brown, flat seedpods which usually persist on the tree throughout the winter. The foliage light green and deeply notched at the tip. Bauhinia purpurea can reach up to 20 feet tall and have a 25 foot crown.

4. Common name: Hawaiian Ti Plant
Botanical name: *Cordyline fruticosa*
Family: Asparagaceae

The Hawaiian Ti plant (pronounced as in tea not tie) is a palm like evergreen shrub with a strong, usually unbranched trunk that can get up to 10' tall. However, most of us know it as a smaller foliage house plant, before much of a trunk has developed. The leaves are 12-30" long, 4-6" wide and may be glossy green, reddish purple, or marked with various combinations of purple,

red, yellow or white. The leaves originate in tufts at the top of the woody stems in mature plants, and more or less along the stems in younger house plants. Mature plants produce yellowish or reddish flowers that are sweetly scented, less than a half inch across, and clustered in conspicuous 12" panicles. The fruits are red berries. Ti sometimes grows in clumps by suckering from the enlarged tuber-like rhizomes. A red ti plant cultivar. Many cultivars have been selected for their beautiful foliage.

5. Common name: Ming Aralia

Botanical name: *Polyscias fruticosa*

Family: Araliaceae

Shrubs or treelets, to 3(-5) m tall, andromonoecious. Leaves 3-5-pinnate; petiole (2-)5-15 cm, clasping at base, inconspicuously alate with membranous wings; petiolules 1-5 cm; primary leaf divisions (7-)11-15, each further divided once or twice, sometimes variegated, usually lanceolate, (1-)2-18 × 0.2-5 cm, papery, base narrowly cuneate to attenuate, margin laciniate to spinulose-serrate, teeth 5-10 mm, apex long acuminate. Inflorescence terminal, erect, a panicle of umbels; primary axis 8-30(-60) cm; secondary axes 5-15, scattered or subverticillate, 7-25(-30) cm; tertiary axes 5-15 per secondary axis, mostly grouped in 2-4 verticils, with a terminal umbellule of bisexual flowers and 2-6 lateral umbellules of staminate flowers; pedicels 1.5-5 mm (shorter in staminate flowers). Ovary 2- or 3(or 4)-carpellate; styles free nearly to base, 0.8-1.2 mm at anthesis, recurving, expanding in fruit to 1.5 mm.

6. Common name: garden croton

Botanical name: *Cordium variegatum*

Family: Euphorbiacae

It is a tropical, evergreen, monoecious shrub growing to 3 m (9.8 ft) tall and has large, thick, leathery, shiny evergreen leaves, alternately arranged, 5–30 cm (2.0–11.8 in) long and 0.5–8 cm (0.20–3.15 in) broad. The leaf blades can, for example, be ruler-lanceolate, oblong, elliptic, lanceolate, ovate inverted, ovate spatulate, or violin-shaped and colored green, yellow, or purple in various patterns, depending on the variety. The petiole has a length of 0.2 to 2.5 cm. The inflorescences are long racemes, 8–30 cm (3.1–11.8 in) long, with male and female flowers on separate inflorescences; the male flowers are white with five small petals and 20–30 stamens, pollens are oval approximately 52x32 microns in size. The female flowers yellowish, with no petals. The flowering period is usually in early autumn. The fruit is a capsule 9 mm (0.35 in) in diameter, containing three seeds that are 6 mm (0.24 in) in diameter.

7. Common name: Chinese Juniper

Botanical name: *Juniperus chinensis*

Family: Cupressaceae

It is a dioecious evergreen conifer that is native to China, Japan, Mongolia and the Himalayas. It is often seen in the wild as a conical tree to 50’ tall and 20’ wide, but also appears in much shorter shrubby or spreading forms. Foliage is dark green. Brown bark on mature stems peels in strips. Although species plants are rarely sold in commerce, a large number of cultivated varieties ranging in size from large trees to large/small shrubs to low-growing groundcovers have become popular ornamental landscape plants. Chinese

juniper leaves come in two types: scale-like (adult) and awl/needle-like (juvenile). Cones (pollen and seed-bearing) appear on different plants. Male plants produce catkin-like pollen cones. Female plants produce fleshy, berry-like, whitish-blue seed cones that usually acquire violet-brown tones as they mature over two years.

8. Common name: Cluster fig

Botanical name: *Ficus racemosa*

Family: Moraceae

Goolar is an attractive fig tree with a crooked trunk and a spreading crown. Unlike the banyan, it has no aerial roots. The most distinctive aspect of this tree is the red, furry figs in short clusters, which grow directly out of the trunk of the tree. Those looking for the flower of goolar should know that the fig is actually a compartment carrying hundreds of flowers. The flowers are pollinated by very small wasps that crawl through the opening in search of a suitable place to reproduce (lay eggs) without these pollinator service fig trees cannot reproduce by seed. In turn, the flowers provide a safe haven and nourishment for the next generation of wasps. Goolar is a tree commonly found in cities and towns. It has evergreen leaves, if it is close to a water source. Otherwise it sheds its leaves in January.

9. Common name: Holy basil, Tulsi

Botanical name: *Ocimum tenuliflorum*

Family: Lamiaceae

Tulsi (Ocimum sanctum) is a widely grown, sacred plant of India. Hindus grow Tulsi as a religious plant in their homes, temples and their farms. They use Tulsi leaves in routine worship. The natural habitat of Tulsi varies from sea level to an altitude of 2000 m. It is found growing naturally in moist soil

nearly all over the globe. Tulsi is a branched, fragrant and erect herb having hair all over. It attains a height of about 75 to 90 cm when mature. Its leaves are nearly round and up to 5 cm long with the margin being entire or toothed. These are aromatic because of the presence of a kind of scented oil in them. A variety with green leaves is called ShriTulsi and one with reddish leaves is called Krishna Tulsi. Tulsi flowers are small having purple to reddish color, present in small compact clusters on cylindrical spikes. Stalkless heart-shaped bracts are there at the base of each flower cluster.

10. Common name: Crape jasmine, Moonbeam
Botanical name: *Tabernaemontana divaricate*
Family: Apocyanaceae

Crape jasmine, a shrub very common in India, generally grows to a height of 6 ft. However, it can also grow into a small tree with a thin, crooked stem. Like many members of the Oleander family, stems exude milky latex when broken. The large shiny leaves are deep green and are 6 or more inches in length and about 2 inches in width. Crape jasmine blooms in spring but flowers appear sporatically all year. The waxy blossoms are white five-petaled pinwheels that are borne in small clusters on the stem tips. Flowers are commonly used in pooja in north and south India.

11. Common name: Shield aralia
Botanical name: *Polyscias scutellaria*
Family: Araliaceae

Polysciasscutellaria, the shield aralia, or plum aralia, is a tropical shrub or small tree reaching 2–6 meters in height. A native of the Southwest Pacific islands, it is commonly grown in gardens. The leaves and root can be used as

an antiseptic and deodorant.[citation needed]Ancient native Indonesians have used shield aralia leaf as a bowl substitute due to its bowl-like shape and tear-resistant properties. In modern Indonesian cuisine shield aralia can be used as fancy food packaging. Shredded shield aralia has aromatic properties that can be mixed with meat or fish to conceal the odor.

12. Common name: Giant Crown of Thorns.

Botanical name: *Euphorbia miliivar*

Family: Euphorbiaceae

Giant Crown of Thorns is a larger erect variant of the Crown of Thorns. It has thicker stems to 1 m, larger leaves, and bigger bunches of flowers on longer stems. Red flowers bloom for much of the year. It is a succulent sub shrub or shrub growing to 5 ft tall, with densely spiny stems. The straight, slender spines, up to 3 cm long, cover the stems. The plant produces milky lat

13. Common Name: Pleomele, Song of India.

Botanical name: *Dracaena reflexa*

Family: Asparagaceae

Pleomele is a Tender evergreen shrubs or small tree native to Madagascar and Mauritius. But this is a tropical tree. It may reach a height of 4–5 m, rarely 6 m in ideal, protected locations; D. reflexa is usually much smaller, especially when grown as a houseplant. It is slow-growing and upright in habit, tending to an oval shape with an open crown. This is a full sun tree. In too much shade, plants may grow spindly with the variegated leaves losing their variegation. Plants like high humidity and consistent year-round temperatures. The shiny leaves are narrowly lance-shaped, green in the middle and bordered with pale yellow that frames each leaf. There is greener version. The leaves spiral

upwards from the stems to tip in a wild fashion that creates the Song of India's messy and unpredictable crown.

14. Common name: Frosted Aralia
Botanical name: *Polyscias guilfoylei*
Family: Araliaceae

Polysciasguilfoylei, the geranium aralia or wild coffee, is a species of evergreen shrub native to the paleotropics and neotropics. It is not closely related to the true coffee plants of the genus Coffee. It has erect branches and can grow to a height of up to 24 ft. The leaves are long and 1-pinnate with leaflets which are opposite. The leaf blades are variable, but usually ovate or elliptic and coarsely dentate or lacerate. The leaves are commonly variegated with margins of white or pale yellow, but can also be entirely dark green.

15. Common name: Lucky Bamboo
Botanical name: *Dracacena braunii*
Family: Asparagceeae

Short stemmed, usually unbranched, stoloniferous herb to 10–30 cm high, forming extensive dense carpets, leaves equitant, roots bright orange-red, some plants forming dwarf shrublets to 50 cm high on grey more or less erect stems. Leaves bright to dark green and shiny above concolorous, paler and dull beneath, polymorph, sessile, short and long petiolate leaves even on the same plant, lanceolate, smooth thin coriaceous, lamina to 15 cm long and 4 cm wide, leaf tip descending, gradually tapering into c. 1 cm mucro acuminate to caudate, mucro to 1 cm long, base cuneate. Pseudopetiole green, caniculate when short petiolate, furrowed on the upper side when long petiolate,

gradually extend into a short sheathing base, clasping the stem for distinctly more than its circumference.

16. **Common name:** Purple heart

Botanical name: *Tradescantia pallida*

Family: Commelinaceae

Purple Heart, a native of Mexico, is named for the striking purple color of the plant in full sun. Pale orchid-pink 1.3-2 cm three-petaled flowers emerge from curving double bracts at the stem tips. Purple Heart blooms constantly during warm weather, but the flowers are open only in the morning. The lance shaped leaves will reach 7 inches long by 1 inch wide and are covered with pale hairs. The fleshy stems are first erect, later lying on the ground as a creeping herb, around 16 inches long. They make an attractive basket subject and can be used as an annual groundcover. Purple hearts do best in full sun to light shade. If grown in lower light levels, the plant tends to lose its purple coloring. Purple heart is propagated by cutting or from seed.

17. **Common name:** Sultan's Balsam

Botanical name: *Impatiens walleriana*

Family: Balsaminaceae

Sultan's balsam is native to eastern Africa from Tanzania to Mozambique. It is an herbaceous perennial plant growing to 15-60 cm tall, with broad lanceolate leaves 3-12 cm long and 2-5 cm broad, with toothed margins and a long stalk bearing stalked glands. The flowers are profusely borne, 2-5 cm diameter, with five petals. The numerous garden cultivars, selected for varying flower colours, include: 'Accent Stars', 'Confection', 'Blackberry Ice', 'Eclipse', 'Elfin White', 'Extra Dwarf', 'Lipstick', 'Red Star', 'Super Elfin', 'Tempo Series' and 'Wink and Blink'.

18. **Common name:** dragon tree

Botanical name: *Dracaena marginata*

Family: Asparagaceae

Dragon Tree is a tough, drought-tolerant, slow-growing houseplant in temperate climates. In their native habitat, they can reach 20 feet but can be pruned to 6 feet for in the home setting. Pruned stems will usually grow 2 or more branches. The stems can be trained into different shapes for an Asian or architectural feel. They rarely bloom in the home. Plant in well-draining potting mix and allow the plants to dry between watering but not severely. Bright, indirect light is ideal. They have a low fertilizer equirement, so fertilize in spring, summer, and fall with a controlled-release formula. D. marginata is sensitive to fluoride (like most other Dracenas) which causes discoloration of leaves so use distilled or non-fluorinated water.

19. **Common name:** Avocado

Botanical name: Persea *americana*

Family: Lauraceae

Avocado (Persea *americana*) is a tropical or subtropical fruit native from South America, which has been referred to as the most nutritious of all fruits. It is highly valued not only for its unique texture, exquisite taste and aroma, and nutritional profile, but also for the numerous healthy benefits that it possesses. For all of this, avocado has gained worldwide recognition and its consumption has considerably increased in the last years. This chapter gives an overview about different aspects of the avocado, including, the origin of this tropical fruit, its physiology, biochemistry, chemical composition, sensory characteristics, harvest season and conservation, as well asinformation about its production and industrial applications.

20. **Common name:** black pea

Botanical name: *Lathyrus niger*

Family: leguminosae

Lathyrus niger is a perennial plant with erect, self-supporting stems that grow to 30 to 80 cm (12 to 31 in). The stems are branched and unwinged and nearly hairless. The leaves are alternate with short winged stalks and narrow stipules. The leaf blades are pinnate with four to eight pairs of narrow elliptical leaflets with sharp tips, entire margins and no tendrils. The underside of the leaflets is bluish-green. The inflorescences grow from the axils and are often one-sided. They have long stems with two to ten red flowers, each 10 to 16 mm (0.4 to 0.6 in) long, turning bluer as they age. Each flower has five sepals and five petals and are irregular. The uppermost petal is known as the "standard", the lateral two as the "wings" and the lowest two are joined to form the "keel". There are ten stamens and a single carpel. The fruit is a long black pod containing up to eight seeds. This plant flowers in June and July.

21. **Common name:** Scholar Tree

Botanical name: *Alstonia scholaris*

Family: Apocynaceae

Scholar Tree is an elegant evergreen tree, found in most parts of India. The generic name commemorates the distinguished botanist, Prof. C. Alston of Edinburgh, 1685-1760. In October small, green yet fragrant flowers appear. All parts of the tree can be considered poisonous. It is a tall elegant tree with greyish rough bark. Branches are whorled, and so are the leaves, that is, several of them coming out of the same point.

Medicinal uses: Warning: Unverified information its bark, known as Dita Bark, is used in traditional medicine to treat dysentery and fever. In Ayurveda it is used as a bitter and as an astringent herb for treating skin disorders, malarial fever, urticaria, chronic dysentery, diarrhea, in snake bite and for upper purification process of Panchakarma.

22. **Common name:** creeping tick trefoil

Botanical name: *Desmodium triflorum*

Family: Leguminosae

Desmodium triflorum is a much branched, mat-forming, prostrate, annual to perennial herb, producing stems 8 - 50 cm long from a woody taproot It behaves as perennial under conditions of well-distributed rainfall, and is an annual where the rainfall is seasonal. The stems are strongly branched and frequently root at the nodes. The plant is gathered from the wild for local medicinal use. Cultivation of this species has dropped sharply in recent times, but at one time it was commonly grown as a green manure and cover crop to smother weeds and prevent soil erosion

23. **Common name:** Ice cream bean

Botanical name: *Inga edulis*

Family: Leguminosae

Mature trees of Inga edulis reach 30 m (98 ft) high and 60 cm (2.0 ft) diameter at breast height, usually branching from below 3 m (9.8 ft). The branches form a broad, flat, moderately dense canopy. Inga edulis can be evergreen in tropical regions or deciduous when planted in colder regions. The tree has a pale grey coloured trunk. The stems and young twigs can be sparsely to densely haired. The leaves are alternate, evenly pinnate, 10–30 cm long with

4–6 pairs of opposite, dark-green, membranous, slightly pubescent, oval leaflets. The terminal leaflets can grow up to 18 cm long by 11 cm wide in comparison to the basal ones. Extra floral nectaries are placed on petioles and stipules can be either inconspicuous, absent, or caduceus.

24. Common name: Giant Indian Milkweed
Botanical name: *Caltropis gigantia*
Family: Apocyanaceae

A large shrub, much branched, gregarious, young branches covered with white, cottony hairs, contains milky latex. Stem isErect, branched, cylindrical. Leaves are 100–200 mm (4–8 in) long, decussate, obovate or elliptic-oblong, shortly acute, subsessile, cordate or often amplexical at the base. Inflorescence is Umbellate cymes. Flowers are Large, white, not scented, peduncles arising between the petioles. Flower-buds ovoid, angled, Calyx lobes 5, divided to the base, white, ovate; corolla broadly rotate, valvate, lobes 5, deltoid ovate, reflexed, coronate-appendages broad, obtusely 2-auricled below the rounded apex which is lower than the staminal-column. Stamens 5,anthers short with membranous appendages, inflexed over the depressed apexof the pentagonal stigma. Pollinium one in each cell, pendulous caudicles slender. A pair of follicles with many, hairy seeds. Flowering and Fruiting Time: November-April

25. Common name: Lemon.
Botanical name: *Citrus lemon*
Family: Rutaceae

Lemon is an extremely common fruit in India. The lemon has a white, fragrant flower with five petals. The mildly fragrant flowers may be solitary or there may be 2 or more clustered in the leaf axils. Buds are reddish; the opened

flowers have 4 or 5 petals ¾ in long, white on the upper surface (inside), purplish beneath (outside), and 20-40 more or less united stamens with yellow anthers. The leading acid citrus fruit, because of its very appealing color, odor and flavor. The true lemon tree reaches 10 to 20 ft (3-6 m) in height and usually has sharp thorns on the twigs. The alternate leaves, reddish when young, become dark-green above, light-green below; are oblong, elliptic or long-ovate, 2 ½ to 4 ½ in long, finely toothed, with slender wings on the petioles. The fruit is oval with a nipple-like protuberance at the apex.

26. Common name: European Lily of the Valley.

Botanical name: *Convallaria majalis*

Family: Asparagaceae

European Lily of the Valley is a perennial herb that forms extensive colonies by spreading underground stems called rhizomes. New upright shoots are formed at the ends of stolons in summer; these upright dormant stems are often called pips. These grow in the spring into new leafy shoots that still remain connected to the other shoots underground, often forming extensive colonies. The stems grow to 15-30 cm tall; with one or two leaves 10-25 cm long, flowering stems have two leaves and a raceme of 5-15 flowers on the stem top. The flowers have white tepals, rarely pink, are bell-shaped, 5-10 mm diameter, and sweetly scented. The fruit is a small orange-red berry 5-7 mm diameter that contains a few large whitish to brownish colored seeds that dry to a clear translucent round bead 1-3 mm wide. Plants are self-sterile, and colonies consisting of a single clone do not set seed.

27. Common name: Cairo Morning Glory

Botanical name: *Ipomoea cairica*

Family: Convolvulaceae

One of the commonest yet most useful of the evergreen creepers, refreshing the eve in the hottest weather with its clear, green leaves and delicate, mauve blooms, the Railway Creeper is found in gardens, villages, and on practically every railway station, thus earning for itself its nickname. This morning glory vine is beautiful, climbing on to whatever it finds - the purple flower studded vine wrapped around bending bamboo stems, is a pleasing sight. Its stem is hairless, readily set roots when in touch with the earth. This species can be identified by its leaves which are hairless to 9cm long with 5-7 lobes, middle lobe the largest. Flowers purple, pink or rarely pinkish white, to 8cm across, solitary or in groups of 2-3. Fruit a 4-valved capsule, about 1cm across, each valve with 1 seed. Seed with wispy hairs attached. Spread by wind, water and humans.


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LIST OF PLANTS AT BANASIRI OF THE COLLEGE

S.No.	COMMON NAME	BOTANICAL NAME	FAMILY
1	Burma creeper	***Combretum indicum***	Combretaceae
2	Indian almond	***Terminalia catappa***	Combretaceae
3	Bael	***Aegle marmelos***	Rutaceae
4	Bumpy lemon	***Garcinia madruno***	Clusiaceae
5	Indian mulberry	***Morinda citrifolia***	Rubiaceae
6	Peacock flower	***Caesalpinia pulcherrima***	Fabaceae
7	Crab weed	***Fatoua villosa***	Moraceae
8	Cape jasmine	***Gardenia jasminoides***	Rubiaceae
9	Chamber bitter	***Phyllanthus urinaria***	Phyllanthaceae

10	Curry leaf	***Murraya koenigii***	Rutaceae
11	Allegheny chinquapin	***Castanea pumila***	Fagauceae
12	Custard apple	***Annona reticulata***	Annonaceae
13	Areca palm	***Dypsis lutescens***	Arecaceae
14	Bangkok rose	***Mussaenda philippica***	Rubiaceae
15	Palm grass	***Molineria capitulata***	Hypoxidaceae
16	Devil-pepper	***Rauvolfia tetraphylla***	Apocyanaceae
17	Orange jasmine	***Murraya paniculata***	Rutaceae
18	Roast-beef plant	***Iris foetidissima***	Iridaceae
19	Little iron weed	***Cyanthillium cinereum***	Asteraceae
20	Climbing hempweed	***Mikania scandens***	Asteraceae
21	Jaggery palm	***Caryota mitis***	Arecaceae
22	Mexican oleander	***Cascabela thivetia***	Apocyanaceae
23	Sappan wood	***Biancaea sappan***	Fabaceae
24	Coconut	***Coconut nucifera***	Arecaceae
25	Bamboo	***Bambusa vulgaris***	Poaceae
26	Weeping wattle	***Plectophorum africanum***	Fabaceae
27	Custard apple	***Annona cherimola***	Annonaceae
28	Ashoka	***Polyalthia longifolia***	Annonaceae
29	Blue gum	***Eucalyptus tereticornis***	Myrtaceae
30	Mango	***Mangifera indica***	Anacardiaceae
31	Kachnar	***Bauhinia variegata***	Leguminosae
32	Narrow-Leaf Dragon Tree	***Dracaena angustifolia***	Asparagaceae
33	Chestnut vine	***Tetrastigma voinierianum***	Vitaceae
34	Hairy fig	***Ficus hispida***	Moraceae

35	Jackfruit	***Atrocarpus heterophyllus***	Moraceae
36	Jamaica cherry	***Muntingia calabura***	Muntingiaceae
37	Oleander	***Nerium oleander***	Apocyanaceae
38	Cluster fig	***Ficus racemosa***	Moraceae
39	Joy weed	***Alternanthera sessilis***	Amaranthaceae
40	Three-flowered beggar weed	***Desmodium triflorum***	Fabaceae
41	Lantana	***Lantana camara***	Verbenaceae
42	Morning glory	***Ipomoea obscura***	Convolvulaceae
43	Peepal tree	***Ficus religiosa***	Moraceae
44	Coat buttons	***Tridax procumbens***	Compositae
45	Jungle geranium	***Ixora coccinea***	Rubiaceae
46	Spirea	***Spiraea nipponica***	Rosaceae
47	Star gooseberry	***Phyllanthus acidus***	Phyllanthaceae
48	Giant calotrope	***Calotropis gigantea***	Apocyanaceae
49	Ti plant	***Cordyline fruticosa***	Asparagaceae
50	Black cherry	***Prunus serotina***	Rosaceae
51	Insulin plant	***Costus spiralis***	Costaceae
52	Blushing philodendron	***Philodendron erubescens***	Araceae
53	Lime	***Citrus auranlifolia***	Rutaceae
54	Peace lily	***Spathiphyllum wallisii***	Araceae
55	Roxburgh fig	***Ficus auriculata***	Moracea
56	Garden croton	***Codiaeum variegatum***	Euphorbiaceae


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1. Burma creeper:

Common name: Rangoon Creeper, Burma creeper
Botanical name: *Combretum indicum*
Family: Combretaceae

Rangoon creeper is the most common vine in Delhi. Clusters of fragrant white pendulous trumpets open white then change to pink, red and finally a deep maroon. A vigorous twining climber blooming profusely throughout summer that can reach as much as 70 feet in tropical climates. This plant needs support for growing and is very useful in covering fences, supports, and walls. The fragrant white flowers grow in pendent racemes, quickly changing to pink then red, making a spectacular show. The growth rate is generally fast, and the plant does not make heavy fertilizer demands. Rangoon creeper does like medium to bright light. It has since been cultivated widely in the gardens as an easy to grow plant. **Medicinal uses:** Decoctions of the root, seed or fruit can be used as antihelmintic to expel parasitic worms or for alleviating diarrhea. Fruit decoction can also be used for gargling. Flowers are used to relieve headache.

2. Indian almond

Botanical name: Terminalia catappa
Common name: Indian almond, false kamani
Family: Combrectaceae

The tree has been spread widely by humans, so the native range is uncertain. It has long been naturalized in a broad belt extending from Africa to northern Australia through southeast Asia and Micronesia into the Indian subcontinent since being a rare case tropical deciduous, their fallen leaves would give a "European" flair to the street. This practice is currently abolished, and the "amendoeiras" are being replaced by native, evergreen trees. T. catappa is widely grown in tropical regions of the world as an ornamental tree, grown for the deep shade its large leaves provide. The fruit is edible, tasting slightly acidic. The wood is red and solid, and has high water resistance; it has been used in Polynesia for making canoes. Keeping the leaves in an aquarium may lower the pH and heavy-metal content of the water. It is also believed to help prevent fungus forming on the eggs of the fish.

3. Bael

Common name: Bael
Botanical name: *Aegle marmelos*
Family: Rutaceae

Bael is a fruit-bearing tree which is cultivated throughout India, as well as in Sri Lanka, northern Malaysia, and Java and in the Philippines. The tree grows up to 15 meters tall and bears thorns and fragrant flowers. Leaves are alternate, pale green, trifoliate; terminal leaflet, 5.7 cm long, 2.8 cm broad, having a long petiole; the two lateral leaflets, almost stalk less, 4.1 cm long, 2.2 cm wide, ovate to lance late, leaf-stalk 3.2 cm long. Flowers are greenish white, sweetly scented, bisexual, stalked; stalk 8 mm long; diameter of a fully open flower is 3 cm. Flowers are borne in lateral panicles of about 10 flowers, in leaf axils. The fruit is woody-skinned, 5-15 cm in diameter. It has numerous seeds, which are densely covered with fibrous hairs and are embedded in a thick, gluey, aromatic pulp. The fruit is eaten fresh or dried. The juice is strained and sweetened to make a drink.
Medicinal uses: all parts of the bael plant consist of immense medicinal properties. The herbal medicinal preparations of bael are used to treat chronic diarrhea, dysentery, peptic ulcers, laxative for astringency, and respiratory ailment.

4. Bumpy lemon

Common name*:* Bumpy Lemon
Botanical name: *Garcinia madruno*
Family: Clusiaceae

Bumpy Lemon is native to South America. Bumpy Lemon is an erect, lush, compact, evergreen tree with a pyramidal or nearly rounded, dense crown; it can grow up to 15 m tall. The cylindrical bole is 20-30 cm in diameter. Oppositely arranged leaves are elliptic to oblong, wedge-shaped at the base, rounded or pointed at the tip, 5-20 cm long, 2-7.5 cm wide; dark green above, paler beneath, with numerous veins conspicuous on both surfaces and merging into a thick marginal vein. The fragrant male and female flowers are borne on separate trees in clusters of up to 14 inches the leaf axils; have 4 reflexed, pale-yellow petals; the male flowers have 25-30 light-yellow stamens. The fruit looks like a shriveled droopy lemon, and has a similar rind. The interior is soft white pulp and has a slight citrus taste, like a lemony cotton candy. The fruit is round or ellipsoidal,

sometimes with a prominent nipple at each end; 5-7.5 cm long, with thick, leathery, warty, greenish-yellow rind containing a deep-yellow, resinous latex. The tree is also sometimes cultivated for its fruits, which are commonly sold in local markets in Ecuador.

5. Indian mulberry
Common name: Indian mulberry, GreatMorinda
Botanical name: *Morinda citrifolia*
Family: Rubiaceae

Great morinda is a shrub or small tree that grows well on sandy or rocky shores. Apart from saline conditions, the plant also can withstand drought and grows in secondary soils. It can grow up to 9 m tall, and has large, simple, dark green, shiny and deeply veined leaves. The plant flowers and fruits all year round. The flowers are small and white. The fruit is a multiple fruit that has a pungent odor when ripening, and is hence also known as cheese fruit or even vomit fruit. It is oval and reaches 4-7 cm in size. At first green, the fruit turns yellow then almost white as it ripens. It contains many seeds. It is sometimes called starvation fruit. Despite its strong smell and bitter taste, the fruit is nevertheless eaten as a famine food. Great morinda is native to Tropical & Subtropical Asia, including India. **Medicinal uses:** Scientific studies have investigated noni's effect on the growth of cancerous tissue. One such study found that noni inhibited and reduced growth of the capillary vessels sprouting from human breast tumor explants and, at increased concentrations, the noni caused existing vessels in tumors to rapidly degenerate.

6. Peacock flower
Common name: Peacock Flower
Botanical name: *Caesalpinia pulcherrima*
Family: Fabaceae

This beautiful treelet, whose place of origin is unknown, is sometimes called Dwarf Poinciana due to the resemblence of its flowers and leaves to those of Gulmohar. They are botanically related but Peacock flower plant grows only to a height of about 3 meters, retains its leaves throughout the year, and blooms continuously. Flowers, which appear in clusters on long erect stems, are smaller than those of Gulmohar and have exceptionally long stamens and a prominent pistil which protrudes from the center. The most common color is red-orange, but one variety has pure yellow flowers.

7.Crab weed

Common name: mulberry weed, crab weed
Botanical name: Fatoua villosa
Family: Moraceae

Mulberry weed is an erect, branched summer annual, resembling a mulberry seedling; except stems and leaves are hairy (stems of mulberry saplings are not hairy). Leaves are alternate, and roughly triangular in outline with toothed margins. Flowers are in feathery clusters in the leaf axils. Flower clusters are purple when young, fading to dark brown with age. Plants flower from late spring through early fall, and then die after frost. Seeds are forcefully expelled at least 4 feet. Seedlings may flower and fruit within 12 days of reaching the 2-leaf growth stage. Seeds germinate from early spring through late fall, resulting in many generations per year.

8. Cape jasmine

Common name: Gardenia, Cape jasmine
Botanical name: *Gardenia jasminoides*
Family: Rubiaceae

Gardenias are beautiful, shrubby evergreen houseplants well-loved for their creamy, fragrant blooms. The shrub that can grow 6-8 ft high with almost equal spread. The leaves are elliptic-oblong, glossy and leathery. Mature shrubs usually look round, and have a medium texture. It blooms in mid-spring to early summer over a fairly long season. The flowers are white, turning to creamy yellow as they age, and have a waxy feel. They are double in form, and can grow as large as 10 cm across. They have a powerful, sweet fragrance, and can perfume an entire room. Gardenia is native to Japan, China and Eastern Himalaya. Gardenia is very common in cultivation, but in its wild form it is found in thickets and forests at stream sides, on mountain slopes or hills, or in valleys or fields, from near sea level to 1500 m elevations.

9. Chamber Bitter

Common name: Chamber Bitter
Botanical name: *Phyllanthus urinaria*
Family: Phyllanthaceae

Chamber bitter is a small annual herb growing up to 2 ft tall. Leaves are alternately arranged along the erect, red stem, resembling those of the mimosa tree, disposed in two ranges. However, the leaves are not compound, but simple.

The leaves are oblong or oblong-obovate, 7-18 mm long, 3-7 mm wide, rounded with a sharp point. obliquely rounded at base, nearly stalkless, pale beneath. The leaves are large at the tip and smaller towards the petiole. When touched, the leaves fold in automatically. Flowers are greenish white, minute and appear at axiles of the leaves, as well as the seed capsules

Medicinal uses: It is used against colic and as an effective remedy to eliminate gall - and kidney stones, urinary tract infection, bladder inflammation and for other kidney and liver problems in general such as acute - and chronic hepatitis B, which explains the origin of its species name *urinaria*.

10. Curry leaf

Botanical name: *Murraya koenigii*
Common name: Curry leaf, karipatta
Family: Rutaceae

Curry Leaf tree is a small or medium sized tree, most famous for its aromatic leaves that provide curry spice. Curry leaves are extensively used in Southern India and Sri Lanka (and are absolutely necessary for the authentic flavor), but are also of some importance in Northern India. It is a small tree, growing 4-6 m tall, with a trunk up to 40 cm diameter. The leaves are pinnate, with 11-21 leaflets, each leaflet 2-4 cm long and 1-2 cm broad. They are highly aromatic. The flowers are small white, and fragrant. The small black, shiny berries are edible, but their seeds are poisonous. Together with South Indian immigrants, curry leaves reached Malaysia, South Africa and Réunion Island. When cooking, the leaves are generally used fresh off of the tree. Outside the Indian sphere of influence, they are rarely found. The yellow "curry powder" that is common in Western countries is actually not curry at all, but a mix of spices intended to mimic the true curry flavor. The yellow color comes from turmeric root.

Medicinal uses: Leaves are digestive, tonic, stimulant, rich in vitamin A and calcium. Leaves are also used for diarrhoea, dysentry and checking vomiting. Bark-paste is antiseptic, applied to skin eruptions. Root extract is taken for relief from renal pain.

11. Allegheny chinquapin.

Botanical name: *Castanea pumila*
Common name: Allegheny chinquapin.
Family: Fagauceae

Tree or large, thicket-forming shrub to 30 ft. Single- or multi-trunked with horizontal lower branches, ascending in upper crown. Glossy, dark green, toothed

leaves turn yellowish or purple in fall. Flower is a long, pencil-like, pale yellow spike and the fruit is a nut enclosed in a prickly, bur-like husk.

12. Custard Apple

Common name: Custard Apple
Botanical name: *Annona reticulata*
Family: Annonaceae

Custard Apple is a fruit which is a close cousin of Sugar Apple. The tree that bears these fruits is a small deciduous or semi-evergreen tree sometimes reaching 10 meters tall and a native of Central America. The ill-smelling leaves are deciduous, alternate, oblong or narrow-lance late, 10-20 cm long, 2-5 cm wide, with conspicuous veins. Flowers, in drooping clusters, are fragrant, slender, with 3 outer fleshy, narrow petals 2-3 cm long, light-green externally and pale-yellow with a dark-red or purple spot on the inside at the base. The flowers never fully open. The compound fruit, 8-16 cm in diameter, may be symmetrically heart-shaped, lopsided, or irregular; or nearly round, or oblate, with a deep or shallow depression at the base. The skin, thin but tough, may be yellow or brownish when ripe, with a pink, reddish or brownish-red blush, and faintly, moderately, or distinctly netted.

13. Areca palm

Botanical name*: Dypsis lutescens*
Common name: Golden Cane Palm, Areca Palm.
Family: Arecaceae

Golden Cane Palm is clump-growing with ringed, bamboo-like stems and yellow leaf-ribs. The foliage is evergreen, of fine texture and yellow-green in color. Pinnate, 6 to 8 pale green leaves per stem, 80 to 100 leaflets, to 8 feet long (2.4 m). Yellow if grown with enough light, 2 feet long. Yellow male and female flowers on the same inflorescence. Flower stalk coming from below the leaves. Fruit is yellow to purple, 2 cm, oval in shape. This is one of the most useful Palms of the tropics the world around. Native to Madagascar, Golden Cane Palm is tropical-looking, serves as a super, bamboo-like screening plant and is relatively pest-free.

14. Bangkok Rose

Common name: Bangkok Rose, Queen Sirikit
Botanical name: *Mussaenda philippica*
Family: Rubiaceae

Queen Sirkit Mussaenda is a cultivar of Mussaenda philippica developed by backcrossing the F1 hybrid between M. 'Aurorae' and M. erythrophylla to M. 'Aurorae'. It was named after the Queen of Thailand to commemorate her first visit to the Philipines in the 1970's. It is among the most spectacular of mussaendas, with all five sepals enlarged up to 3.5 inches, in shades of ivory to pale pink. These large flower clusters (panicles) are somewhat fragile. During heavy rain they can become heavy, causing smaller branches to break. They also are prone to break off the plant during high winds. Queen Sirikit is a shrub about 7 m tall with dense hairs on the stems. Leaves are about 15 x 8 cm, oval shaped with a pointed end and sometimes hairy underside. In the Mussaenda, as in Bougainvillea, the bracts (modified leaves) are actually more colorful and showier than the flowers.

15. Palm Grass

Common name: Palm grass
Botanical name: *Molineria capitulata*
Family: Hypoxidaceae
Molineria capitulata is a species of flowering plant known by the common name palm grass. It is native to much of eastern and southern Asia, Indonesia, and northern Australia. It can be found in many other tropical and warmer temperate places, where it is grown as an ornamental plant. This is a bunch-forming herbaceous perennial with long, flat, fibrous leaves and star-shaped yellow flowers. The fibers from the plant have been used for purposes such as making nets, and the fruit is edible.

16. Devil-pepper:

Common name: Be still tree or Devil-pepper
Botanical name: *Rauvolfia tetraphylla*
Family: Apocyanaceae

The plant is native to Mexico, Central America, West Indies, and northern South America. It has been cultivated widely as both an ornamental and for use in traditional medicine. It is now naturalized throughout the tropics including Australasia, Indochina, and India. *Rauvolfia tetraphylla* fruits are called devil-

peppers and hold an important position in the Indian traditional system of medicine. The plant has various significances and it is widely used by South Indian tribes.

17. Orange jasmine

Botanical name: *Murraya paniculata*
Common name: Orange Jasmine, Kamini
Family: Rutaceae

Kamini flowers have an aromatic orange-like fragrance. Native to India, Kamini is a large, multi-trunked shrub, but can grow to become a small tree. It can be pruned and also grown as garden hedge! The evergreen leaflets are dark green and pinnately compound with three to nine leaflets arranged alternately along the spine. The dark green leaves make a dramatic backdrop for the highly fragrant cream-colored flowers. The shrub blooms most of the year. The flowers are followed by small oval red fruits with one or two seeds. The shrub is usually propagated from seed.

18. Roast-beef plant

Common name: The stinking iris, gladdon or Gladwin iris.
Botanical name*: Iris foetidissima*
Family: Iridaceae

It is one of two iris species native to Britain, the other being the yellow iris (*Iris pseudacorus*). It has tufts of dark green leaves. Its flowers are usually of a dull, leaden-blue color, or dull buff-yellow tinged with blue. The petals have delicate veining. It blooms between June and July, but the flowers only last a day or so.The green seed capsules, which remain attached to the plant throughout the winter, are 5–8 cm (2–3 in) long; and the seeds are scarlet. It is known as "stinking" because some people find the smell of its leaves unpleasant when crushed or bruised, an odour that has been described as "beefy".

19. Little iron weed

Botanical name: *Cyanthillium cinereum*
Common name: little iron weed, Purple feabane.

Family: Asteraceae

Little iron weed is an annual or short-lived perennial to 50cm with ovate leaves. The stems branch repeatedly at the top to hold aloft the small cylindrical, purple flower heads. Flowers throughout the year. Originally from Tropical Asia & Africa, now a pan tropical weed, it is sometimes considered native to Western Australia. Found in upland crop areas, waste places and roadsides throughout India.

Medicinal uses: The seeds yield fatty oil and are used as an anthelmintic and alexipharmic; they are said to be quite effective against roundworms and threadworms. They are also given for coughs, flatulence, intestinal colic and dysuria and for leucoderma, psoriasis and other chronic skin-diseases. The seeds are made into a paste with lime juice and used for destroying pediculi.

20. Climbing hempweed

Common name: Climbing hempvine or louse-plaster

Botanical name*: Mikania scandens*

Family: Asteraceae

This species is a perennial herb which grows as a branching vine. The leaves are oppositely arranged at swollen nodes on the stem. They have triangular or heart-shaped, sometimes toothed blades up to 15 centimeters long by 11 wide. The flower heads are clustered in panicles. The flower head is about half a centimeter long and is enclosed in narrow, sometimes purple-tinged phyllaries. The flowers are pinkish, purplish, or white. The fruit is a dark-colored, resinous achene about half a centimeter long, including its pappus of white or purplish bristles.

21. Jaggery palm

Common name: Fishtail Palm, Jaggery Palm.

Botanical name: *Caryota mitis*

Family: Arecaceae

Fishtail palm is a fast growing feather palm that makes a beautiful addition to the landscape. It has a gray trunk (grows to about 30') that is covered by regularly spaced leaf scar rings. Toddy palm has a leaf shape that resembles the lower fin of a fish. When these palms grow to reach 20', they start producing flowers at the top of the trunk with subsequent flowers produced lower and lower on the trunk. When the lowest flower blooms, the tree dies. Flowers are long plait like bunches

hanging down. Toddy palm is an Asian species that grows from India to Burma and on the island country of Sri Lanka.

22. Mexican oleander

Common name: Mexican oleander, Yellow Oleander.
Botanical name: *Cascabela thivetia*
Family: Apocynaceae

Mexican oleander is a large shrub or a small tree, up to 10 to 20 feet tall with Oleander-like leaves mostly in whorls of three, long and narrow up to 10 inches long. Tip of leaves are pointed with a dark green color. Flowers are generally yellow, but there are varieties with white and orange flowers too. Fruit is small, containing two to four flat seeds. If ingested may experience pain in the mouth and lips, may also develop vomiting, cramping, abdominal pain, nausea and bradycardia shortly after ingestion. Mexican oleander is native to tropical America.

23. Sappan wood

Common name: Sappan wood
Botanical name: *Biancaea sappan*
Family: Fabaceae

Biancaea sappan is a species of flowering tree in the legume family, Fabaceae that is native to tropical Asia. Common names in English include sappan wood and Indian redwood. Sappan wood is related to Brazil wood (*Paubrasilia echinata*), and was originally called "brezel wood" in Europe. *Biencaea sappan* can be infected by twig dieback (*Lasiodiplodia theobromae*).

24. Coconut

Common name: Coconut
Botanical name: *Coccus nucifera*
Family: Arecaceae

The Coconut Palm is a member of the palm family. It is the only species in the Genus Cocos, and is a large palm, growing to 30 m tall, with pinnate leaves 4-6 m long, pinnae 60-90 cm long; old leaves break away cleanly leaving the trunk

smooth. The term coconut refers to the fruit of the coconut palm. The flowers of the coconut palm are polygamonoecious, with both male and female flowers in the same inflorescence. Flowering occurs continuously, with female flowers producing seeds. Coconut palms are believed to be largely cross-pollinated, although some dwarf varieties are self-pollinating. The origin of this plant is the subject of controversy with some authorities claiming it is native to southeast Asia, while others claim its origin is in northwestern South America. Fossil records from New Zealand indicate that small, coconut-like plants grew there as far back 15 million years ago. Even older fossils have been uncovered in Rajasthan & Maharashtra, India.

25. Bamboo

Common name: Bamboo
Botanical name: *Bambusa vulgaris*
Family: Poaceae

When the bamboo flowers, famine, death and destruction will soon follow, goes a traditional saying in Mizoram, the tiny hill state in north-east India. Beliefs apart, anyone familiar with bamboo has probably heard that, when bamboo flowers it dies! Bamboos are giant, woody grasses which grow to several full length, full diameter, stems ("stems") each year. A single bamboo clump can grow up to 12 inches (30 cm) in diameter in its lifetime. Bamboo is the most diverse group of plants in the grass family, and the most primitive sub-family. It is distinguished by a woody stem, complex branching and infrequent flowering. It has a tropical and subtropical distribution, reaching elevations as high as 13,123 feet (4,000 meters) in the Himalayas and parts of China.

26. Weeping wattle

Common name: Weeping wattle, African blackwood.
Botanical name: *Plectophorum africanum*
Family: Fabaceae

The Weeping wattle (*Peltophorum africanum*) is a semi-deciduous to deciduous flowering tree growing to about 15 meters tall. It is native to Africa south of the equator. Their yellow flowers bloom on the ends of branches in upright, showy sprays. During spring time it may happen that water drips from the tree's

branches, a phenomenon that is caused by the spittlebug *Ptyelus grossus.* The immature stages of these spittlebugs congregate on the young shoots and derive their nourishment by sucking the tree's sap. While doing so they secrete pure water, which is the cause of the "weeping" effect.

27. Custard apple

Common name: Custard apple
Botanical name: *Annona cherimola*
Family: Annonaceae
Annona cherimola is believed to have originated in the highland Andes valley between Peru and Ecuador and is considered as the best of the Annonaceae fruits. *Annona cherimola* is known as cherimoya (Spanish), cherimolier (French), annona (Mexico), and *Noina ostrelia* (Thailand). This species is commercially grown in Spain, Bolivia, Chile, Peru, and New Zealand. Cherimoya is cultivated mainly in the Mediterranean, and Spain is the world's leading producer. It is a small, erect, spreading deciduous tree (NRC, 1989). Cherimoya is more tolerant to low temperatures than the soursop. Cherimoya fruit is normally conical, oval, or heart-shaped and the skin may be smooth with fingerprint-like markings in some varieties or covered with conical or rounded protuberances. Five botanical forms of cherimoya are seen based on the fruit shape and markings on the skin: finger-printed, smooth-skinned (cherimoya lisa), tuberculate (the most common type with heart-shaped fruit and wartlike tubercles), mammilate, and umbonate (the barbed or the spiny cherimoya). Its fruit has a thick green peel and creamy white flesh with custard-like consistency. Cherimoya fruit is fleshy and sweet and the pulp is white in color. The low-acid flesh has a delicate, rich, aromatic flavor that resembles that of pineapple and banana. The fruit has numerous black seeds. Fully mature fruit is harvested while still firm, and on ripening, the fruit's skin color changes from grayish green to yellow-green.

28. Ashoka

Botanical name: Polyalthia longifolia
Common Name: Ashoka, False Ashoka, Mast tree
Family: Annonacin

False Ashok is native to India and Sri Lanka. The weeping, branching habit of this 25-foot-tall tree gives it a narrow columnar shape. Glossy green, long, narrow

leaves have attractive wavy edges. Ashok is commonly seen as a lofty column, very graceful with its downward-sweeping branchlets and shining, green foliage; but sometimes wide-spreading slender branches issue from the straight trunk and form a compact symmetrical crown. It is a very popular tree in India. The bark is smooth and dark greyish-brown. Flowers appear during March and April. For a short period — two or three weeks only — the tree is covered with a profusion of delicate, star-like flowers, which, being palest-green in colour, give the tree a peculiar hazy appearance. They grow in clusters from small protuberances all along the dark branchlets. Each flower, borne on a slim, green stem has a tiny calyx and six long, narrow, wavy petals arranged in two sets of three.

29. Blue gum

Common name: Forest Red Gum, Bastard Box, Blue Gum.
Botanical name: *Eucalyptus tereticornis*
Family: Myrtaceae

Forest Red Gum is the most common eucalyptus, widely planted in India. It grows to a height of 20-50 m, and a trunk girth of up to 2 m. The trunk is straight, and is usually unbranched for more than half of the total height of the tree. Thereafter, limbs are unusually steeply inclined for a Eucalyptus species. The bark is shed in irregular sheets, resulting in a smooth trunk surface colored in patches of white, gray and blue, corresponding to areas that shed their bark at different times. It has narrow, lance shaped green leaves, from 10-20 cm long, and 1-3 cm wide. Flowers occur in inflorescences of 7-11 flowers. Flowers buds are like long cones, longer than most eucalyptus species. The caps fall off to reveal the flowerswhich are mostly stamens. Fruit is a small woody capsule with protruding teeth.

30. Mango

Botanical name*: Mangifera indica*
Common name: Mango
Family: Anacardiaceae

It is a matter of astonishment to many that the delicious mango, one of the most celebrated of Indian fruits, is a member of the family Anacardiaceae–notorious for embracing a number of highly poisonous plants. The mango tree is erect, 30 to 100 ft high, with a broad, rounded canopy which may, with age, attain 100 to

125 ft in width, or a more upright, oval, relatively slender crown. In deep soil, the taproot descends to a depth of 20 ft, the profuse, wide-spreading, feeder root system also sends down many anchor roots which penetrate for several feet. The tree is long-lived, some specimens being known to be 300 years old and still fruiting. Nearly evergreen, alternate leaves are borne mainly in rosettes at the tips of the branches and numerous twigs from which they droop like ribbons on slender petioles 1 to 4 in long. Hundreds and even as many as 3,000 to 4,000 small, yellowish or reddish flowers, 25% to 98% male, the rest hermaphroditic, are borne in profuse, showy, erect, pyramidal, branched clusters 2 ½ to 15 ½ in high. There is great variation in the form, size, color and quality of the fruits. They may be nearly round, oval, ovoid-oblong, or somewhat kidney-shaped, often with a break at the apex, and are usually more or less lop-sided.

31. Kachnar

Botanical name: *Bauhinia variegata*
Common name: Kachnar, Orchidtree, Varigated bauhinia
Family: Leguminosae

Kachnar is closely related to peacock flower and to the tree many consider the world's most beautiful, the royal Poinciana – and it shows! Orchid tree is staggeringly beautiful when in bloom – and it blooms for several months! Orchid tree grows 20-40 ft tall and 10-20 ft wide with a spreading crown of briefly deciduous leaves which are 4-6 in across and rounded with lobed ends and heart shaped bases. The leaves are shaped a little like a cow's hoof. The flowers are reminiscent of showy orchids, with five irregular, usually slightly overlapping petals in shades of magenta, lavender, purplish blue or even white. The flowers often make their first appearance in late winter while the tree is bare of leaves. The blooming period then lasts until early summer. The flowers are 3-5 in across and carried in clusters at the branch tips. A postal stamp was issued by the Indian Postal Department to commemorate this tree.

32. Narrow-Leaf Dragon Tree

Common name: Narrow-Leaf Dragon Tree.
Botanical name: *Dracaena angustifolia*
Family: Asparagaceae

Narrow-Leaf Dragon Tree is an evergreen shrubby plant with a rhizome, producing stems 1-3 m tall with no or few branches. The stems are around 4 cm in diameter. Leaves are 15-25 long, 2-3 cm wide. The yellowish flowers are about

2 cm long. They are borne at branch-ends, in branched cluster 30-50 cm. Flowers are in clusters of 2 or 3; flower-stalk about 7-8 mm, jointed distally or near tip, perianth greenish white, about 1.9-2.3 cm; tube about 7-8 mm, tepals 1.1-1.6 cm; filaments thread-like; anthers about 2-3 mm; style 5-8 times as long as ovary. Berry is about 0.8-1.2 cm in diameter, orange, spherical. Very young leaves are cooked and eaten as a side dish with rice. The leaves can be pounded then mixed with water to give a green juice that is used for coloring an Indian pastry made of glutinous rice. Narrow-Leaf Dragon Tree is native to East Himalaya, China, SE Asia and Australia. **Flowering:** March-May.

Medicinal uses: The juice squeezed from the boiled leaves is drunk as a remedy for asthma and shortness of breath. A decoction of the leaves is given to people suffering weight loss and poor appetite.

33. Chestnut vine

Common name: Chestnut vine or Lizard plant
Botanical name: *Tetrastigma voinierianum*
Family: Vitaceae

Tetrastigma voinierianum, called chestnut vine and lizard plant, is a species of flowering plant in the genus Tetrastigma, native to Laos and Vietnam, and introduced in Hawaii. It has gained the Royal Horticultural Society's Award of Garden Merit as a hothouse ornamental.

34. Hairy fig

Botanical name: *Ficus hispida*
Common name: Hairy Fig, devil fig
Family: Moraceae

Hairy Fig is a coarsely hairy shrub or small tree. Ovate-lance shaped stipules are usually 4, and are visible on leafless fruiting branchlets. Oppositely arranged leaves, on 1-4 cm long stalks, are ovate, oblong, or obovate-oblong, 10-25 cm long, 5-10 cm wide, thickly papery, covered with coarse hairs. Leaf base is rounded to wedge-shaped; margin is entire or bluntly toothed, tip is pointed. Figs appear in leaf axil on normal leafy shoots, sometimes on leafless branchlets, solitary or paired, yellow or red when mature, top-shaped, 1.2-3 cm in diameter. Figs are covered with short hairs. **Flowering:** June-July.

35. Jackfruit

Common name: Jackfruit
Botanical name: *Artocarpus heterophyllus*
Family: Morceau

Jackfruit is a tree which is unique in the fact that it produced huge fruits directly from its stem. Jackfruit is most probably native of the rain-forests of the Western Ghats. In fact, the name Jackfruit is derived from the Malayalam name chakka. The tree is handsome and stately, 30-70 ft tall, with evergreen, alternate, glossy, somewhat leathery leaves to 9 in long, oval on mature trees, sometimes oblong or deeply lobed on young shoots. All parts contain a sticky, white latex. Short, stout flowering twigs emerge from the trunk and large branches, or even from thesoil-covered base of very old trees. Tiny male flowers are borne in oblong clusters2-4 in in length; the female flower clusters are elliptic or rounded. Largest of all tree-borne fruits, the jackfruit may be 8-to 3 ft long and 6-20 in wide, and the weight ranges from 10-50 kg. The "rind' or exterior of the compound or aggregatefruit is green or yellow when ripe and composed of numerous hard, cone-like points attached to a thick and rubbery, pale yellow or whitish wall. The interior consists of large "bulbs" of yellow, banana-flavored flesh, massed among narrowribbons of thin, tough undeveloped perianths, and a central, pithy core. Each bulbencloses a smooth, oval, light-brown "seed" covered by a thin white membrane. There may be 100 or up to 500 seeds in a single fruit. When fully ripe, the unopened jackfruit emits a strong disagreeable odor, resembling that of decayed onions, while the pulp of the opened fruit smells of pineapple and banana.

36. Jamaica Cherry

Common name: Jamaica Cherry
Botanical name: *Muntenian calabura*
Family: Muntingiaceae

Jamaica Cherry is a very fast-growing tree of slender proportions, reaching 25 to 40 ft in height, with spreading, nearly horizontal branches. The leaves are evergreen, alternate, lanceolate or ovate, long-pointed at the apex, oblique at the base. The flowers with 5 green sepals and 5 white petals and many prominent yellow stamens last only one day, the petals falling in the afternoon. Flowers resemble strawberry bloom, hence the common name, Strawberry tree. The abundant fruits are round, 1-1.25 cm wide, with red or sometimes yellow, smooth, thin, tender skin and light-brown, soft, juicy pulp, with very sweet, musky, somewhat fig-like flavor, filled with exceedingly minute, yellowish seeds, too

fine to be noticed in eating. The tree has the reputation of thriving with no care in poor soils. It is drought-resistant but not salt-tolerant. Wherever it grows, fruits are borne nearly all year. The leaf infusion is drunk as a tea-like beverage. Fruits contain hundreds of tiny seeds.

Medicinal uses: The flowers are said to possess antiseptic properties. An infusion of the flowers is valued as an antispasmodic. It is taken to relieve headache and the first symptoms of a cold.

37. Oleander

Common name: Oleander
Botanical name: *Nerium oleander*
Family: Apocyanaceae

Beautiful blossoms, of fragrant pink flowers in bunch, at the tip of branchlets rendering an eye-catching sight that is 'Oleander'. A native of India and China, it is now widely grown in tropical and subtropical gardens, parks, avenues, and is popular for its hue and fragrance. It rises up to 3 meters erect with its short branches and dark dusty green leathery narrow leaves, which grow in whorls. They are narrow lancelike, 5-21 cm long and 1-3.5 cm broad, with an entire margin. The flowers grow in clusters at the end of each branch; they are white, pink or yellow, 2.5-5 cm diameter, with 5 petals fringed at the base. They are often, but not always, sweetly scented. The fruit is a long narrow capsule 5-23 cm long, which splits open at maturity to release numerous downy seeds. The plants are almost free from pests and diseases and untouched by cattle and goats, due to their toxicity. In India they are thus the most favoured plants for the road dividers, where a plant has to withstand heat and dust, and little water. There are single and double forms in white, pink and red. Several other cultivars have been developed - once example is a popular variety called 'Petit Salmon' which is a dwarf that grows to only 4 ft (1.2 m).

38. Cluster fig

Common name: Cluster fig
Botanical name: *Ficus racemosa*
Family: Moraceae

Goolar is an attractive fig tree with a crooked trunk and a spreading crown. Unlike the banyan, it has no aerial roots. The most distinctive aspect of this tree is the red, furry figs in short clusters, which grow directly out of the trunk of the tree.

Those looking for the flower of goolar should know that the fig is actually a compartment carrying hundreds of flowers. One might wonder how these flowers enclosed in a ball are pollinated. The flowers are pollinated by very small wasps that crawl through the opening in search of a suitable place to reproduce (lay eggs) without these pollinator service fig trees cannot reproduce by seed. In turn,the flowers provide a safe haven and nourishment for the next generation of wasps. Goolar is a tree commonly found in cities and towns. It has evergreen leaves, if it is close to a water source. Otherwise it sheds its leaves in January. Figs have been traditionally used by children to play. Thin sticks can be joined by inserting them in goolar figs to make interesting shapes.

39. Joy weed

Common name: Stalkless Joyweed
Botanical name: *Alternanthera sessilis*
Family: Amaranthaceae

Stalkless Joy weed is a perennial herb, often found in and near ponds, canals and reservoirs. It prefers places with constant or periodically high humidity and so may be found in swamps, shallow ditches, and fallow rice fields. A much-branched prostrate herb, branches often purplish, frequently rooting at the lower nodes; leaves simple, opposite, somewhat fleshy, lanceolate, oblanceolate or linear-oblong, obtuse or sub-acute, sometimes obscurely denticulate, glabrous, shortly petiolate; flowers small, white, in axillary clusters; fruits compressed obcordate utricles, seeds sub orbicular. In Manipur, tender shoots and leaves are eaten cooked with rice along with fermented soyabean. Stalkless Joy weed is found in the Himalayas, at altitudes of 200-2000 m.
Medicinal uses: Stems and leaves useful in eye trouble. Decoction is taken with little salt drunk to check vomiting of blood. Shoot with other ingredients used to restore virility. Poultice used for boils.

40. Three-flowered beggar weed

Common name: Creeping Tick Trefoil, three-flower beggar weed.
Botanical name: *Desmodium triflorum*
Family: Fabaceae

Creeping Tick Trefoil is a much branched, mat-forming creeping herb, with clover-like leaves. Leaves are divided into 3 leaflets, the lower leaves sometimes

undivided. Leaflets are inverted-egg shaped, to inverted-heart shaped, rounded and notched at the tip. They are mostly less than 1 cm long, up to 9 mm wide, sometimes with 2 white marks. Flowers arise few in fascicles, opposite the leaves, on stalks 3-8 mm long, lengthening in fruit to just over 1 cm. Flowers are reddish-violet or pale pink, standard petal obovate, 4-5 mm long. Pods are up to 1.7 cm long, about 2.3 mm broad, 3-7-jointed. Creeping Tick Trefoil is a pan tropical herb. It is also found in the Himalayas, up to altitudes of 2300 m.

41. Lantana

Botanical name: *Lantana camara*
Common name: Lantana, Kasootihoo
Family: Verbenaceae

Common lantana is a rugged evergreen shrub from the tropics. The species will grow to 6 ft high and may spread to 8 ft in width with some varieties able to clamber vinelike up supports to greater heights with the help of support. The leaves are 2-5 in long by 1-2 in wide with rounded tooth edges and a textured surface. Stems and leaves are covered with rough hairs and emit an unpleasant aroma when crushed. The small flowers are held in clusters (called umbels) that are typically 1-2 in across. Flower color ranges from white to yellow, orange to red, pink to rose in unlimited combinations, in addition the flowers usually change in color as they age. A lantana may look orange from a distance but the flower head is examined at close range it consists of individual white, yellow andred flowers that blend when viewed from afar. Numerous garden cultivars have been developed with flower-heads completely white, yellow and many other colors.

42. Morning glory

Common name: Obscure morning glory
Botanical name: *Ipomoea obscura*
Family: Convolvulaceae

Although the flowers on this lovely morning glory are small (about 1" across), the color is so unusual and lovely it really makes it worth adding to your garden. Beautiful pale yellow flowers with deep purple throats adorn this vigorous vine with small, heart shaped leaves. As with most morning glories, it loves full sun and average, well-drained soil. It's takes a while for the blooms to start on this lovely vine, which climbs up to 6-10 ft. beautiful heart-shaped leaves are 3-9 cm

long. It is native to Tropical East Africa, Mascarene Islands, tropical Asia, throughout Malaysia to northern Australia and Fiji. **Flowering:** August-March.

43. Papal Tree

Common name: Sacred fig or Peepal tree or Ashvattha tree
Botanical name: *Ficus religiosa*
Family: Moraceae

Ficus religiosa or sacred fig is a species of fig native to the Indian subcontinent and Indochina that belongs to Moraceae, the fig or mulberry family. It is also known as the bodhi tree, pippala tree, peepul tree, peepal tree, pipal tree, or ashvattha tree (in India and Nepal).The sacred fig is considered to have a religious significance in three major religions that originated on the Indian subcontinent, Hinduism, Buddhism and Jainism. Hindu and Jain ascetics consider the species to be sacred and often meditate under it. This is the tree under which Gautama Buddha is believed to have attained enlightenment. The sacred fig is the state tree of the Indian states of Odisha and Haryana. It is a large dry season-deciduous or semi-evergreen tree up to 30 metres (98 ft) tall and with a trunk diameter of up to 3 metres (9.8 ft). The leaves are cordate in shape with a distinctive extended drip tip; they are 10–17 centimetres (3.9–6.7 in) long and 8–12 centimetres (3.1–4.7 in) broad, with a 6–10 centimetres (2.4–3.9 in) petiole. The fruits are small figs 1–1.5 centimetres (0.39–0.59 in) in diameter, green ripening to purple. F. religiosa has a very long lifespan, ranging on average between 900 and 1,500 years. In some of its native habitats, it has been reportedly found living for over 3,000 years. Some trees have been reported to be more than 2,000 years old, like the Jaya Sri Maha Bodhi, a peepal tree in the ancient city of Anuradhapura in Sri Lanka which is estimated to be more than 2,250 years old and is regarded as the "Oldest historical tree in the world with religious importance".
Ficus religiosa is used in traditional medicine for about fifty types of disorders including asthma, diabetes, diarrhea, epilepsy, gastric problems, inflammatory disorders, infectious and sexual disorders.

44. Coat Buttons

Botanical name: *Tridax procumbens*
Common name: Tridax Daisy, Coat buttons, Mexican daisy
Family: Compositae

This pretty daisy-like flower is very common all over the plains of northern India. Tridax daisy stands about 30-60 cm high and has slightly hairy stems. The leaves are ovate or lanceolate with toothed edges. The small creamy or white flower has five petals which are notched on the outer edges. The centre of the flower is yellow. This plant has flowers all the year around, but from May to December is the time that it is fully in bloom. It is found along paths, roadsides and in the crevices of walls and rocks. It is a great favorite with low flying butterflies. In the areas where there is a great concentration of these flowers one will find plenty of butterflies too. Its fruit is a hard achene covered with stiff hairs and having a feathery, plume like white pappus at one end. Calyx is represented by scales or reduced to pappus. Tridax daisy is native to Mexico to Tropical America, but has naturalized in Eastern Himalaya, India, Africa and Australia.

45. Jungle geranium

Common name: Red ixia
Botanical name: *Ixora coccinea*
Family: Rubiaceae

Ixora is native to Asia and its name derives from the word 'Isvara' or Ishwara, a name variously meaning God, Supreme Being, Supreme Soul, lord, in India. It is a branched shrub, up to 1 m tall; branches hairless. Leaves are mostly stalkless, opposite decussate, 4-8 x 1.5-6.5 cm, entire, apiculate, blunt or with a short sharp point, 8-15 pairs at lateral nerves, hairless; stipules triangular, cuspidate or awned. Flowers are borne at branch-ends, in dense corymb-like cymes, flower-cluster-stalk very short or absent; bracts about 8 mm long. Flowers are stalkless, bright scarlet, hypanthium 1-1.5 mm long, becoming hairless, teeth, about 0.5 mm long. Flower-tube is prominently long, 2.5-4.0 cm long, 1.5 mm wide, hairless, petals 8-10 x 4-5 mm, twisted in bud, throat hairless. Stamens are 4, inserted on the throat of flower-tube, filaments very short. Style protruding; stigma 1.5 mm long. Fruit is spherical, red when ripe, crowned with the sepal-cup teeth. It is a very common garden plant.
Medicinal uses: Roots are stomachic, sedative, astringent, febri fuse and acrid. Leaf extract is given in dysentery. Bark powder is applied to sores, burns and injuries. Flowers are sweet, carminative, digestive and constipating. Flower extract is used as an eye lotion.

46. Spirea

Common name: Spirea
Botanical name: *Spiraea nipponica*
Family: Rosaceae

Spiraea nipponica is a species of flowering plant in the family Rosaceae, native to the island of Shikoku, Japan.Growing to 1.2–2.5 m (4–8 ft) tall and broad, it is a deciduous shrub with clusters of small, bowl-shaped white flowers in midsummer.

47. Star gooseberry

Common name: Star Gooseberry
Botanical name: *Phyllanthus acidus*
Family: Phyllanthaceae

Star Gooseberry is a small deciduous tree reaching about 25-30 ft in height. Leaves are compound, 14-25 inches long, crowded at the ends of the branches leaflets 2-3.5 inches long by 1-1.5 inches wide, alternately arranged along the rachis, ovate or obliquely ovate, acute or somewhat acuminate, base rounded or somewhat wedge-shaped. The genus name *Phyllanthus* is derived from Greek words meaning leaf-flower, an allusion to the apparent bearing of flowers on the leaves. The species name *acidus* is on account of the acidity of the fruit. Flowers are very minute, in short dense spike-like clusters arising from nodules along the branches, like mulberries. Fruit is pendulous, in small clusters from the branches, round or slightly flattened at the poles, with shallow or deep ribs (usually 5) 0.75 inches across. The tree usually flowers and produces fruit twice a year. Fruits appear simultaneously with the flowers. So, the tree usually has fruits hanging from it, at any time of the year. The fruit is used chiefly for pickling and for the preparation of preserves. It makes an excellent jam. Star Gooseberry is native of Malay Islands and Madagascar and frequently grown in India for its acid fruit.

48. Giant calotrope

Common name: Crown Flower
Botanical name: *Calotropis gigantea*
Family: Apocynaceae

This large shrub, which can sometimes grow large enough to look like a small tree, sports clusters of waxy flowers that are either white or lavender in color. Each flower consists of five pointed petals and a small, elegant "crown" rising from the center, which holds the stamens. The plant has oval, light green leaves and milky stem. The flowers last long, and in Thailand they are used in various floral arrangements. They were also supposed to be popular with the Hawaii queen Liliuokalani, who considered them as symbol of royalty and wore them strung into leis. In India, the plant is common in the compounds of temples. The

fruit is a follicle and when dry, seed dispersal is by wind. The seeds with a parachute of hairs are a delight for small children, who like to blow it and watch it float in the air. This plant plays host to a variety of insects and butterflies.

49. Ti plant

Common name: Ti Plant
Botanical name: *Cordyline fruticosa*
Family: Asparagaceae

The Ti plant (pronounced as in tea not tie) is a palm like evergreen shrub with a strong, usually unbranched trunk that can get up to 10' tall. However, most of us know it as a smaller foliage house plant, before much of a trunk has developed. The leaves are 12-30" long, 4-6" wide and may be glossy green, reddish purple, or marked with various combinations of purple, red, yellow or white. The leaves originate in tufts at the top of the woody stems in mature plants, and more or less along the stems in younger house plants. Mature plants produce yellowish or reddish flowers that are sweetly scented, less than a half inch across, and clustered in conspicuous 12" panicles. The fruits are red berries. Ti sometimes grows in clumps by suckering from the enlarged tuber-like rhizomes. A red ti plant cultivar. Many cultivars have been selected for their beautiful foliage.

50. Black cherry

Common name: black cherry, wild black cherry, rum cherry, or mountain black cherry
Botanical name: *Prunus serotina*
Family: Rosaceae

Mountain black cherry, is a deciduous tree or shrub of the genus Prunus. The species is widespread and common in North America and South America. *Prunus serotina* is a medium-sized, fast-growing forest tree growing to a height of 50–80 ft (15–24 m). Leaves are 2–5 in (5–13 cm) long, ovate-lanceolate in shape, with finely toothed margins. Fall leaf color is yellow to red. Flowers are small, white and 5-petalled, in racemes 4–6 in (10–15 cm) long which contain several dozen flowers. The flowers give rise to reddish-black "berries" (drupes) fed on

by birds, 5–10 mm (1⁄4–3⁄8 in) in diameter. For about its first decade the bark of a black cherry tree is thin, smooth, and banded, resembling a birch. A mature tree has very broken, dark grey to black bark. The leaves are long and shiny, resembling a sourwood's. An almond-like odor is released when a young twig is scratched and held close to the nose, revealing minute amounts of cyanide compounds produced and stored by the plant as a defense mechanism against herbivores.

Known as capolcuahuitl in Nahuatl (the source of the capuli epithet), it was an important food in pre-Columbian Mexico. Native Americans ate the fruit. Edible raw, the fruit is also made into jelly, and the juice can be used as a drink mixer, hence the common name 'rum cherry'.

51. Insulin plant

Botanical name: *Cestus spiralis*
Common name: Insulin plant
Family: Costaceae

Costus spiralis, a plant used in traditional Brazilian medicine for the treatment of complications in diabetes, was investigated. Assay of hexane, ethyl acetate, methanol, and aqueous fractions obtained by partition of a crude methanol extract of dried leaves of C. spiralis revealed that AGI activity was confined to the ethyl acetate fraction. Purification of this fraction yielded schaftoside and isoschaftoside. The AGI activities of the two flavones were lower than, but comparable with, that of the anti-diabetic drug acarbose. In contrast, the IC50 value of the ethyl acetate fraction was 1.95-, 2.34-, and 2.22-fold higher than those of acarbose, schaftoside, and isoschaftoside, respectively. The results demonstrate for the first time that schaftoside and isoschaftoside are responsible, in part, for the AGI activity of C. spiralis. Our study suggests that further investigations into C. spiralis may lead to the discovery of additional compounds with antihyperglycemic activity.

52. Blushing Philodendron

Common name: The Blushing Philodendron or Red-leaf Philodendron
Botanical name: *Philodendron erubescens*
Family: Araceae

Philodendron erubescens, the blushing philodendron, is a species of flowering plant in the family Araceae, native to Colombia.It is robust evergreen climber growing to 3–6 m (10–20 ft), with red stems and heart-shaped leaves up to 40 cm (16 in) in length. The flowers are deep red, fragrant spathes up to 15 cm (6 in) long, in summer and autumn.

With a minimum temperature of 15 °C (59 °F), in temperate regions it must be grown under glass or as a houseplant. The species and the cultivar 'Burgundy ‘has gained the Royal Horticultural Society's Award of Garden Merit**.**

53. Lime

Botanical name: *Citrus aurantifolia*
Common name: Lime, Common lime, sour lime.
Family: Rutaceae

Lime fruit is similar to lemon, but has a thinner skin, which turns yellow on ripening. Lime is a shrubby tree, to 5 m, with many thorns. Dwarf varieties are popular with home growers. The trunk rarely grows straight, with many branches that often originate quite far down on the trunk. The leaves are ovate 1–3.5 in long, resembling orange leaves (the scientific name aurantifolia refers to this resemblance to the leaves of the orange, C. aurantium). The flowers are 1 in diameter, are yellowish white with a light purple tinge on the margins. Flowers and fruit appear throughout the year but are most abundant from May to September. Lime has an odour similar to lemon, but fresher. The juice is as sour as lemon juice, but more aromatic. The English name lime originated from Arabic limun and Persian limou.

54. Peace lily

Botanical name: *Spathiphyllum wallisii*
Common name: Peace lily, Cobra plant
Family: Araceae

Peace Lily is a very popular indoor houseplant. It is a clump-growing herbaceous perennial which produces white flowers which look like the hood of a cobra. Leaves are shiny and glossy, attractive even with no spathes. Peace lilies are sturdy plants with glossy, dark green oval leaves that narrow to a point. The leaves rise directly from the soil. The long-lasting flowers start out pale green and slowly

turn creamy white as they open. Keep the leaves clean with water washes to remove dust and dirt. Peace Lily can attract mites, scales and mealy bugs so cleaning will help keep these pests away.

55. Roxburgh Fig

Botanical name: *Ficus auriculata*

Common name: Elephant Ear Fig, Roxburgh Fig

Family: Moraceae

Elephant Ear Fig a fig tree with very large leaves, reminding one of elephant ears. The young leaves start intensely red, and turn more and more green when reaching their ultimate size of up to 50 cm length. It is a tree 5-10 m tall, with crown wide, and a bole diameter of 10-15 cm. Bark is gray, smooth. Branchlets are sparsely pubescent. Stipules, falling off soon, are ovate-lanceolate, 1-1.5 cm.Leaves are alternately arranged, carried on 4-6 cm long stalks. They are obovate-elliptic to elliptic, 12-25 × 6-23 cm, papery, densely small tuberculate on the underside, hairless above, base shallowly heart-shaped to broadly wedge-shaped, margin irregularly toothed. Figs are clustered on short branchlets of old stems, sometimes even on the roots of the tree. They are dark red when mature, pear- shaped to spherical, with 4-6 longitudinal ridges and small tubercles. They are large for figs, 2-3.5 cm in diameter, covered with soft hairs. Figs are edible and sweet. In Meghalaya, fruits are eaten raw; leaves are lopped for highly palatable fodder. Elephant Ear Fig is found in the Himalayas, from Nepal to NE India, Burma, S. China, Indo-China and Malaysia, at altitudes of 1000-2100 m.

56. Garden croton

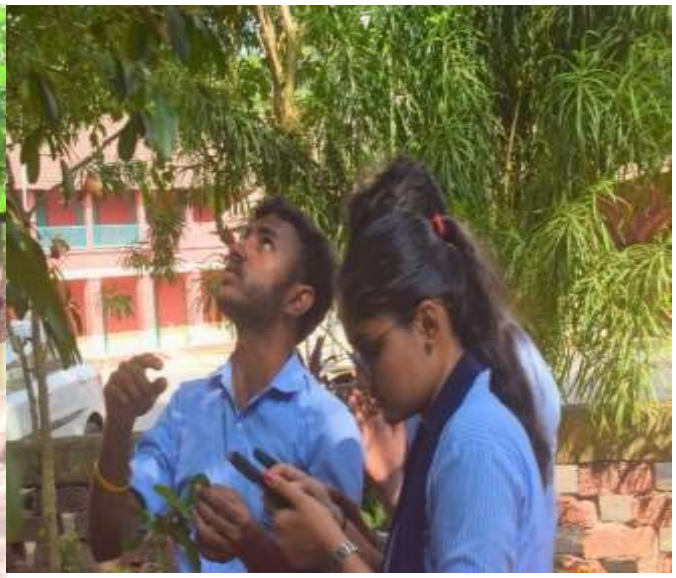
Botanical name: *Codiaeum variegatum*

Common name: Croton, Garden Croton, Puding, Joseph's Coat, Variegated Croton, Variegated Laurel.

Family: Euphorbiaceae

Crotons with their colorful, glossy foliage and variation of leaf types are popular plants. It is a native of the tropics from Java to Australia and the South Sea Islands. In the wild, garden croton is an evergreen shrub that grows to 10 ft tall and has large, leathery, shiny leaves. The cultivated garden crotons are usually smaller and come in an amazing diversity of leaf shapes and colors. What they do have in common are rather thick evergreen alternate leaves, tiny inconspicuous star-shaped yellow flowers that hang down in long racemes and a milky sap that bleeds from cut stems. Depending on the cultivar, the leaves may be ovate to

linear, entire to deeply lobed, and variegated with green, white, purple, orange, yellow, red or pink. The colors may follow the veins, the margins or they may be in blotches on the leaf.



LIST OF PLANTS AT COLLEGE GARDEN (OPPOSITE PRINCIPAL CHAMBER)

S. No.	Common name	Botanical name	Family
1	Geranium aralia	*Polyscias guilfoylei*	Araliaceae
2	Ti plant	*Cordyline fruticosa*	Asparagaceae
3	Kadam	*Neolamarckia cadamba*	Rubiaceae
4	Peepal	*Ficus religiosa*	Moraceae
5	Monkey fruit	*Garcinia intermedia*	Clusiaceae
6	Copperpod	*Peltophorum pterocarpum*	Caesalpiniaceae
7	Copper leaf	*Acalypha wilkesiana*	Euphorbiaceae
8	Adam's needle	*Yucca flaccida*	Asparagacea
9	Mexican oleander	*Cascabela thevetia*	Apocynaceae
10	Croton	*Codiaeum veriegatum*	Euphorbiaceae
11	Indian almond	*Terminalia catappa*	Combretaceae
12	Goolar	*Ficus racemosa*	Moraceae
13	Pepper Hibiscus	*Malvaviscus penduliflorus*	Malvaceae
14	Scholar tree	*Alstonia scholaris*	Apocynaceae
15	Chinese fan palm	*Livastona chinensis*	Arecaceae
16	Stalkless joy weed	*Alternanthera sessilis*	Amaranthaceae
17	Tail flower	*Anthurium andraeanum*	Araceae
18	Fishtail palm	*Carytota mitis*	Arecaceae
19	Jungle geranium	*Ixora coccinea*	Rubiaceae
20	Mango	*Mangifera indica*	Anacardiaceae
21	Peace lilly	*Spathiphyllum wallisii*	Araceae
22	Chinese hibiscus	*Hibiscus rosa-sinensis*	Malvaceae
23	Bluebell barleria	*Barleria cristata*	Acanthaceae
24	Tulsi	*Ocimum teniflorum*	Lamiaceae
25	Bag flower	*Clerodendrum Thomsoniae*	Verbenaceae
26	Golden trumpet vine	*Allamanda catharitica*	Apocynaceae
27	Chinese rose	*Rosa chinensis*	Rosaceae
28	Jamun	*Syzigium cumini*	Myrtaceae
29	Lantana	*Lantana camara*	Verbenaceae
30	Areca palm	*Dypsis lutescens*	Arecaceae
31	Crape jasmine	*Tabernaemontana divaricata*	Apocynaceae
32	Garden balsam	*Impatiens balsamina*	Balsaminaceae
33	Coleus	*Plectranthus scutellarioides*	Lamiaceae
34	Sulphur cosmos	*Cosmos sulphureus*	Asteraceae
35	Bush clock vine	*Thunbergia erecta*	Acanthaceae
36	Indian mulberry	*Morinda citrifolia*	Rubiaceae

37	Ashoka tree	*Polyalthia longifolia*	Annonaceae
38	Long stalked leaf flower	*Phyllanthus tenellus*	Phyllanthaceae
39	Sago palm	*Cycas revoluta*	Cycadaceae
40	Indian shot	*Canna indica*	Cannaceae
41	Queen sago	*Cycas cercinalis*	Cycadaceae
42	Vinca	*Catharanthus roseus*	Apocynaceae
43	Jackfruit	*Artocarpus heterophyllus*	Moraceae
44	Chinese thuja	*Platycladus orientalis*	Cupressaceae
45	Common juniper	*Juniperus communis*	Cupressaceae
46	Indian gooseberry	*Phyllanthus emlbica*	Phyllanthaceae
47	Christmas tree	*Araucaria columnaris*	Araucariaceae
48	Neem	*Azadirachta indica*	Meliaceae
49	Elephant ear	*Alocasia longiloba*	Araceae
50	Star glory	*Ipomoea quamoclit*	Convolvulaceae
51	Blue lilly	*Agapanthus praecox*	Amaryllidaceae
52	Parijat	*Nyctanthes arbor-tristis*	Oliaceae
53	Lucky bamboo	*Dracaena braunii*	Asparagaceae
54	Giant philodendron	*Philodendron giganteum*	Araceae
55	Blushing philodendron	*Philodendron erubescens*	Araceae
56	Gardenia	*Gardenia jasminoides*	Rubiaceae
57	Busy Lizzy	*Impatiens walleriana*	Balsaminaceae
58	Whorled wood aster	*Oclemena acuminata*	Asteraceae
59	Lemon grass	*Cymbopogon citratus*	Poaceae
60	Cinderella	*Synedrella nodiflora*	Asteraceae
61	Paper flower	*Bougain villea*	Nyctaginaceae
62	Sword fern	*Nephrolepis exaltata*	Polypodiineae
63	Umbrella Dracaena	*Dianella ensifolia*	Asphodelaceae
64	Heliconia stricta Bucky	*Heliconia stricta*	Heliconiaceae
65	French tamarisk	*Tamarix gallica*	Tamaricaceae
66	Chinese banyan	*Ficus microcarpa*	Moraceae
67	European ash	*Fraxinus excelsior*	Oleaceae
68	Flaming Katy	*Kalanchoe blossfeldiana*	Crassulaceae
69	Crepe-ginger	*Costus speciosus*	Costaceae
70	False heather	*Cuphea hyssopifolia*	Lythraceae

Description of Plants in Garden

1. Geranium aralia

Common name: Geranium aralia ,wild coffee
Botanical name: *Polyscias guilfoylei*
Family: Araliaceae
Polyscias guilfoylei, the geranium aralia or wild coffee, is a species of evergreen shrub native to the paleotropics and neotropics. It has erect branches and can grow to a height of up to 24 ft (7.3 m). The leaves are long and 1-pinnate with leaflets which are opposite. The leaf blades are variable, but usually ovate or elliptic and coarsely dentate or lacerate. The leaves are commonly variegated with margins of white or pale yellow, but can also be entirely dark green.

2. Ti plant

Common name: Hawaiian Ti Plant, Good Luck Plant
Botanical name: *Cordyline fruticosa*
Family: Asparagaceae
This evergreen is a flowering tropical plant commonly grown as a houseplant in temperate climates. It has stunning foliage with shades of pale pink, green, purple or deep red depending on the cultivar. It does require bright light to maintain its foliage colours. The fruits are red berries. Ti sometimes grows in clumps by suckering from the enlarged tuber-like rhizomes.

3.Kadam
Common name: Kadam, Kadamb
Botanical name: *Neolamarckia cadamba*
Family: Rubiaceae
Tree up to 45 m tall, without branches for more than 25 m. The crown is umbrellashaped and the branches are characteristically arranged in tiers. Leaves simple, 13-32 cm long. Flowers orange, small, in dense, globose heads. They appear like solid, hairy orange balls. The fruits are small capsules, packed closely together to form a fleshy, yellow or orange coloured infructescence containing approx. 8,000 seeds. It is believed to have medicinal value in curing astringent, ulcer, digestive, nrrhoea, expectorant, fever, vomiting.

4.Peepal
Common name: Peepal, Holy fig tree
Botanical name: *Ficus religiosa*
Family: Moraceae
It is a large deciduous tree with a pale stem often appearing fluted on account of the numerous roots which have fused with the stem. Leaves leathery 4-8 inches long by 3-5 inches wide, somewhat egg-shaped or rounded, tailed at the tip and heart-shaped at the base, or sometimes rounded. The young leaves are frequently pink, change to copper and finally to green.

5. Monkey fruit
Common name: Lemon drop mangosteen, Monkey fruit
Botanical name: *Garcinia intermedia*
Family: Clusiaceae
Lemon drop mangosteen is a fruit, it may reach heights of up to 30 m (98 ft) in native forests, though under garden conditions is more typically 5 to 10 m (16 to 33 ft) tall with a straight, slim trunk supporting a densely branched pyramidal

crown. The bark is dark brown, smooth, and when wounded, exudes a sticky, yellowish sap. The pulp, although scant, is refreshing, aromatic and flavoursome, with a slightly sourish taste.

6. Copperpod

Common name: Copperpod, Rusty shield-bearer
Botanical name: *Peltophorum pterocarpum*
Family: Caesalpiniaceae
Copperpod is sometime also called yellow flame tree, because of the resemblance of its fern-like leaves. It is a very handsome tree with its spreading crown of many branches consisting of feathery mimosa like leaves and abundance of bright yellow blooms. When the copper-red seedpods cover the tree in profusion it is a wonderful sight.It is easily propagated by seeds and the timber is used for cabinet work.

7. Copper leaf

Common name: Copperleaf, Fire-dragon
Botanical name: *Acalypha wilkesiana*
Family: Euphorbiaceae
It grows as a spreading evergreen shrub with upright branches that tend to originate near the base. It can get up to 10 ft tall with a similar spread. Alternately arranged leaves are elliptic to oval, toothed, 5-8 in long and multi-coloured. The flowers are small and inconspicuous, in 4-8 in long, somewhat drooping, green racemes often hidden in the foliage. Many cultivars are available with different leaf forms. Medicinal uses: Acalypha wilkesiana ointment is used to treat fungal skin diseases.

8. Adam's needle

Common name: Adam's needle, Weak -leaf yucca
Botanical name: *Yucca flaccida*
Family: Asparagaceae
Yucca flaccida, commonly called Adam's needle or weak-leaf yucca, is a species of flowering plant in the asparagus family. It is a stemless evergreen shrub growing to 55 cm (22 in) tall by 150 cm (59 in) broad. It has a basal rosette of sharply pointed, swordlike leaves up to 55 cm (22 in) long. In summer, 150 cm (59 in) long panicles of bell-shaped creamy white flowers are held above the foliage.

9. Mexican oleander

Common name: Mexican oleander, Yellow Oleander

Botanical name: *Cascabela thevetia*

Family: Apocynaceae

Mexican oleander is a large shrub or a small tree, up to 10 to 20 feet tall with Oleander-like leaves mostly in whorls of three. Tip of leafs are pointed with a dark green colour. Flowers are generally yellow, but there are varieties with white and orange flowers too. Fruit is small, containing two to four flat seeds. If ingested may experience pain in the mouth and lips, may also develop vomiting,cramping, abdominal pain, nausea and bradycardia shortly after ingestion.

10. Croton

Common name: Croton

Botanical name: *Codiaeum variegatum*

Family: Euphorbiaceae

Crotons with their colorful, glossy foliage and variation of leaf types. In the wild, garden croton is an evergreen shrub that grows to 10 ft tall and has large, leathery, shiny leaves. The cultivated garden crotons are usually smaller and come in an amazing diversity of leaf shapes and colors. They have thick evergreen alternate leaves, tiny inconspicuous star-shaped yellow flowers that hang down in long racemes, and a milky sap that bleeds from cut stems.

11. Indian almond

Common name: Indian Almond, Jangli badam

Botanical name: *Terminalia catappa*

Family: Combretaceae

Indian almonds are spreading trees with large, leathery, oval leaves. The tree has a distinctive shape, its horizontal branches growing in wide spreading circles at different levels on the trunk. The greenish – white female – and male flowers are on the same tree; these flowers are inconspicuous and not very showy. The pale green fruit is the size and shape of an almond in its shell. Some varieties become reddish-purple when ripe. The nuts are edible, taste like almonds and are eaten. A highly ornamental tree. Flowering: February-May.

12. Goolar

Common name: Cluster fig, Goolar

Botanical name: *Ficus racemosa*

Family: Moraceae

Goolar is an attractive fig tree with a crooked trunk and a spreading crown. The most distinctive aspect of this tree is the red, furry figs in short clusters, which grow directly out of the trunk of the tree. Those looking for the flower of goolar should know that the fig is actually a compartment carrying hundreds of flowers. It has evergreen leaves, if it is close to a water source.

13. Pepper Hibiscus

Common name: Pendulous Sleeping Hibiscus, Pepper Hibiscus
Botanical name: *Malvaviscus penduliflorus*
Family: Malvaceae
Pendulous Sleeping Hibiscus is a shrubs, up to 2 m tall. Branchlets are hairy to hairless. Stipules are threadlike, about 4 mm, falling off. Leaf-stalks are 1-2 cm, hairy. Leaves are lanceshaped to narrowly ovate, both surfaces nearly hairless or hairy, base broadly wedge-shaped to nearly rounded, margin toothed. Flowers occur singly, hanging from leaf axils, on stalks. Flowers are red, tubular, about 5 cm long. False sepals are about 8, spoon-shaped, margins ciliate.

14. Scholar tree

Common name: Scholar Tree, Dita bark, Devil tree
Botanical name: *Alstonia scholaris*
Family: Apocynaceae
Scholar Tree is an elegant evergreen tree. It is a tall elegant tree with greyish rough bark. Branches are whorled, and so are the leaves, that is, several of them coming out of the same point. The tree is really elegant whether it is flowering or not. And a very regular branching gives the tree a beautiful shape. The wood is too soft. Its bark is used in traditional medicine to treat dysentery and fever. The Milky juice of the tree is applied to ulcers.

15. Chinese Fan Palm

Common name: Chinese Fan Palm, Fountain Palm
Botanical name: *Livistona chinensis*
Family: Arecaceae
Chinese Fan Palm is able to reach 50 feet in height but usually seen at 30 feet , it has a single straight trunk and large, six-foot-long leaves which have drooping tips. The divided leaves have long, tapering, ribbon-like segments which gracefully sway beneath the leaves, creating an overall fountain-like effect. The long leaf-stalks may be armed with sharp spines. The inconspicuous flowers are hidden among the leaves.

16. Stalkless Joy weed

Common name: Stalkless Joy weed, Sessile Joy weed

Botanical name: *Alternanthera sessilis*

Family: Amaranthaceae

Stalkless Joy weed is a perennial herb, often found in and near ponds, canals and reservoirs. A much branched prostrate herb, branches often purplish, frequently rooting at the lower nodes; leaves simple, opposite, somewhat fleshy, lanceolate, oblanceolate or linear-oblong, obtuse or subacute, shortly petiolate; flowerssmall, white, in axillary clusters; fruits compressed obcordate utricles, seeds suborbicular. Stems and leaves useful in eye trouble.

17. Tail flower

Common name: Flamingo flower, Tail flower

Botanical name: *Anthurium andraeanum*

Family: Araceae

Anthurium, it's unmistakable glossy heart-shaped bright red flower bract surrounds the true flowers, which are in the form of a spike (or spathe) at the centre. Anthuriums come in shades of reds, pinks, white, lilac, green and chocolate brown. A tropical perennial herb growing up to 20" tall; it has dark green heart-shaped leathery leaves and a green stem. The seeds are small subglobose berries. The flower bracts have a puckered appearance and shine as though they were varnished.

18. Fishtail palm

Common name: Fishtail palm

Botanical name: *Caryota mitis*

Family: Arecaceae

Solitary or clustered, unbranched stems; leaves large, long-stalked, arching, bi-pinnately divided into leaflets which are widest above the middle and irregularly toothed at apex; fruit a fleshy berry. Leaves are bipinnate. Pinnules resemble fish tails: asymmetrical, incised. Large subtropical to 40', upright with arching branches. Prefers medium light and low-med relative humidity.

19. Jungle germanium

Common name: Jungle geranium

Botanical name: *Ixora coccinea*

Family: Rubiaceae

Ixora coccinea is a dense, multi-branched evergreen shrub, commonly 4–6 ft in height, but capable of reaching up to 12 ft high. It has a rounded form, with a spread that may exceed its height. The glossy, leathery, oblong leaves are about 4 in long, with entire margins, and are carried in opposite pairs or whorled on the stems. Small tubular, scarlet flowers in dense rounded clusters.

20. Mango

Common name: Mango, Aam
Botanical name: *Mangifera indica*
Family: Anacardiaceae
The mango tree is erect, 30 to 100 ft high, with a broad, rounded canopy , more upright, oval, relatively slender crown. In deep soil, the taproot descends to a depth of 20 ft, the profuse, wide-spreading, feeder root system also sends down many anchor roots which penetrate for several feet. Nearly evergreen, alternate leaves are borne mainly in rosettes at the tips of the branches and numerous twigs from which they droop like ribbons on slender petioles 1 to 4 in long.

21. Peace lily

Common name: Peace lily, Cobra plant
Botanical name: *Spathiphyllum wallisii*
Family: Araceae
Peace Lily, is a very popular indoor houseplant. It is a clump-growing herbaceous perennial which produces white flowers which look like the hood of a cobra. Leaves are shiny and glossy, attractive even with no spathes. Peace lilies are sturdy plants with glossy, dark green oval leaves that narrow to a point. The leaves rise directly from the soil. The long-lasting flowers start out pale green and slowly turn creamy white as they open.

22. Chinese hibiscus

Common name: Chinese hibiscus, Dasavala
Botanical name: *Hibiscus rosa-sinensis*
Family: Malvaceae
This large shrub or small tree grows to 15 feet high. The toothed leaves are arranged alternately and vary a lot, but tend to be large, dark green, and shiny. This plant has a coarse texture and may be upright or broad and spreading. It is often many-stemmed. Flowers are glorious and huge at their best – up to 6” in diameter – and occur in many colours. They have a long central tube with stamens and pistils at the tip.

23. Bluebell barleria

Common name: Philippine Violet, bluebell barleria

Botanical name: *Barleria cristata*

Family: Acanthaceae

Philippine Violet is native to India and southeast Asia. It grows as a shrub 60-100 cm tall. The leaves are dark green on the upper surface and pale green on the lower surface. They are elliptic to narrowly ovate. The flowers are about 5 cm long, funnel-shaped in violet or pink color. The fruits are about 1.5 cm long ellipsoid capsules.This plant is used in Thailand as a traditional herbal remedy. It allegedly acts as a tonic, diuretic and blood purifier.

24. Tulsi

Common name: Holy basil, Tulsi

Botanical name: *Ocimum tenuiflorum*

Family: Lamiaceae

It is found growing naturally in moist soil nearly all over the globe. Tulsi is a branched, fragrant and erect herb having hair all over. It attains a height of about 75 to 90 cm when mature. Its leaves are nearly round and up to 5 cm long with the margin being entire or toothed. Tulsi flowers are small having purple to reddish colour. Because of its medicinal virtues, Tulsi is used in Ayurvedic preparations for treating various ailments.

25. Bag Flower

Common name: Heart Vine, Bag Flower

Botanical name: *Clerodendrum thomsoniae*

Family: Verbenaceaed

The white calyx's and scarlet flowers would make even the most drab tree glorious. It holds itself by wrapping around any support it can reach, so once started, further training is not needed. It is often grown in pots as a standalone plant. It will be damaged when temperatures drop into twenties. It prefers good soil and drainage and seems to do its best with morning light. Clerodendrum thomsoniae can withstand pretty dry growing conditions.

26. Golden Trumpet Vine

Common name: Golden Trumpet Vine, Allamanda Vine

Botanical name: *Allamanda cathartica*

Family: Apocynaceae

A tropical twining vine, native to Brazil, with deeply veined, whorled leaves and large, trumpet shaped bright yellow flowers. Prickly seed pods follow the flowers with winged seeds that fly about when the pod dries and breaks open. It flowers almost all year. The plant has milky sap and is considered poisonous; all parts are highly cathartic (hence the botanical name) Texture is coarse and leaves are bright to light green; the plant is often pruned and used as a shrub.

27. China rose

Common name: China rose, Bengal rose

Botanical name: *Rosa chinensis*

Family: Rosaceae

It is a shrub that reaches 1–2 m and grows in hedges or forms thickets. The leaves are pinnate, have 3–5 leaflets. In the wild species, the flowers have five pink to red petals. The strong, stalk-round branches have an almost bare, purplish-brown bark and there may be many to no curved, stocky, flat spines. The alternately arranged leaves are divided into petiole and leaf blade and a total of 5 to 11 inches long.

28. Jamun

Common name: Java plum, Jamun

Botanical name: *Syzygium cumini*

Family: Myrtaceae

An evergreen tropical tree, 50 to 100 ft. tall, with oblong opposite leaves that are smooth, glossy and having a terpentine smell. Jamun has fragrant white flowers in branched clusters at stem tips and purplish-black oval edible berries. The leaves are antibacterial, and are used for strengthning the teeth and gums. The fruit and seeds are sweet, acrid, sour, tonic, and cooling, and are used in diabities, diarrhoea and ringworm. The bark is astringent.

29. Lantana

Common name: Lantana, Kaadu jola

Botanical name: *Lantana camara*

Family: Verbenaceae

The species will grow to 6 ft high and may spread to 8 ft in width .The leaves are 2-5 in long by 1-2 in wide with rounded tooth edges and a textured surface. Stems and leaves are covered with rough hairs and emit an unpleasant aroma when crushed. The small flowers are held in clusters that are typically 1-2 in across.

Flower color ranges from white to yellow, orange to red, pink to rose in unlimited combinations, in addition the flowers usually change in color as they age.

30. Areca Palm

Common name: Golden Cane Palm, Areca Palm
Botanical name: *Dypsis lutescens*
Family: Arecaceae
Golden Cane Palm is clump-growing with ringed, bamboo-like stems and yellow leaf-ribs. The foliage is evergreen, of fine texture and yellow-green in color. Pinnate, 6 to 8 pale green leaves per stem, 80 to 100 leaflets, to 8 feet long (2.4 m). Yellow if grown with enough light, 2 feet long. Flower stalk coming from below the leaves. Fruit is yellow to purple, 2 cm, oval in shape.

31. Crape jasmine

Common name: Crape jasmine, Moonbeam, Nandi battalu
Botanical name: *Tabernaemontana divaricata*
Family: Apocynaceae
Crape jasmine, a shrub very common in India, generally grows to a height of 6 ft. However, it can also grow into a small tree with a thin, crooked stem. Stems exude a milky latex when broken. The large shiny leaves are deep green and are 6 or more inches in length and about 2 inches in width. Crape jasmine blooms inspring but flowers appear sporatically all year. The waxy blossoms are white five-petaled pinwheels that are borne in small clusters on the stem tips.

32. Garden Balsam

Common name: Garden Balsam, Rose balsam
Botanical name: *Impatiens balsamina*
Family: Balsaminaceae
Garden Balsam is most common Balsam grown as a garden plant in India. It is an annual plant growing up to 20-75 cm tall, with a thick, but soft stem. The leaves are spirally-arranged, 2.5-9 cm long and 1-2.5 cm broad, with a deeply toothed margin. The flowers are pink, red, mauve, lilac, or white, and 2.5-5 cm diameter. Flower-stalks are up to 1-5 cm long. Lateral sepals are about ovate, sparsely ciliate, lower sepal conical, spur 1-2 cm long, curved inwards.

33. Coleus

Common name: Coleus
Botanical name: *Plectranthus scutellarioides*

Family: Lamiaceae

Plectranthus scutellarioides is an aromatic, evergreen perennial plant with erect to ascending stems that can become more or less woody near the base; it can grow 50 - 150cm tall. It does not form root tubers. It is often grown as an ornamental in gardens and as a pot plant in cooler climates; there is a wide range of cultivated forms, valued especially for their wide range of variegated leaves.

34. Sulphur Cosmos

Common name: Sulphur Cosmos, Orange cosmos

Botanical name: *Cosmos sulphureus*

Family: Asteraceae

Sulphur Cosmos is considered an annual herb, although plants may re-appear via self-sowing for several years. Its leaves are opposite and pinnately divided. The plant height varies from 1-7 feet. Flowers of the original and its cultivars appear in shades of yellow, orange, and red. Sulphur Cosmos is native to Mexico.

35. Bush Clock Vine

Common name: Bush Clock Vine, King's Mantle

Botanical name: *Thunbergia erecta*

Family: Acanthaceae

King's Mantle is an upright shrub growing up to 4 ft. The shoots are quadrangular and each angle bears a narrow wing. Leaves are ovate-elliptic, and oppositely arranged. Leaf margin is entire or wavy or occasionally with a broad triangular tooth above the middle. Flowers occur in leaf axils, either singly or in pairs, sitting on peduncles up to 1.5 inches long. Sepals cup is short, bowl shaped. Flower tube is slightly conical at the base, swelling above, and distinctly curved.

36. Indian Mulberry

Common name: Indian Mulberry, Great morinda

Botanical name: *Morinda citrifolia*

Family: Rubiaceae

Great morinda is a shrub or small tree that grows well on sandy or rocky shores. It can grow up to 9 m tall, and has large, simple, dark green, shiny and deeply veined leaves. The plant flowers and fruits all year round. The flowers are small and white. It is oval and reaches 4-7 cm in size. It contains many seeds. Noni's

effect on the growth of cancerous tissue. It inhibited and reduced growth of the capillary vessels sprouting from human breast tumour explants.

37. Ashoka tree

Common name: Asoka tree, Cemetery tree, False Ashok
Botanical name: *Polyalthia longifolia*
Family: Annonaceae
Polyalthia species are trees or shrubs, erect or rarely scandent, dioecious. Leaves simple, alternate, glabrous or softly pubescent. Flowers bisexual, solitary or few, leaf opposed, axillary, supra-axillary, pubescent, pedicellate and bracteate. Sepals 3, usually valvate, Petals 6 in 2 series, valvate, free, subequal, variously shaped, flat, spreading. Fruits apocarpous, monocarps many, globose or ellipsoid, fleshly, stalked or rarely subsessile, Seeds usually 1, sometimes up to 5, grooved.

38. Long Stalked Leaf-Flower

Common name: Long Stalked Leaf-Flower,
Botanical name: *Phyllanthus tenellus*
Family: Phyllanthaceae
Long Stalked Leaf-Flower is an erect, many-branched annual or perennial, broad-leaved, hairless herb, growing up to 50 cm tall. Alternately spirally arranged, simple leaves are nearly stalkless with 1–1.5 mm long stalks. Leaf blade elliptic or obovate, base rounded or tapering, margins entire with some depressions and protrusions. Flowers are predominantly green or white, with long stalks.

39. Sago palm

Common name: Sago palm, Sago Cycad
Botanical name: *Cycas revoluta*
Family: Cycadaceae
Sago palm is a cycad. Cycads are a group of plants that are very primitive in their origins. Sago Palms have erect, sturdy trunks that are typically about one to two feet in diameter, sometimes wider and can grow into very old specimens with twenty feet of trunk. The leaves are a dark olive green and about three to four feet long when the plants are of a reproductive age. Sago palms are very slow growing plants.

40. Indian shot

Common name: Indian shot, wild canna
Botanical name: *Canna indica*

Family: Cannaceae

One of the most commonly used beads in natural seed jewelry comes from a beautiful wildflower of the Caribbean region and tropical America. It is commonly called “Indian shot”. The spherical black seeds of Indian shot are so hard and perfectly round that they resemble oversized buckshot from a shotgun shell. In fact, they are so dense that they readily sink in water.

41. Queen Sago

Common name: Queen Sago, false sago, fern palm

Botanical name: *Cycas circinalis*

Family: Cycadaceae

The queen sago’s solitary trunk can grow up to 20 ft tall in height, more than twice that of the sago palm. In older specimens stem may branch. The dark green pinnate leaves grow up to 8 ft long, with narrow foot long leaflets that curve gracefully downward. New leaves are light green and contrast dramatically with the older foliage. Male and female flowers are borne on separate plants. The female plants produce large orange seeds in a conelike structure.

42. Vinca

Common name: Periwinkle, Vinca, Sadaapushpa

Botanical name: *Catharanthus roseus*

Family: Apocynaceae

It is an evergreen subshrub or herbaceous plant growing 1 m tall. The leaves are oval to oblong, 2.5–9 cm long and 1–3.5 cm broad, glossy green, hairless, with a pale midrib and a short leaf-stalk 1–1.8 cm long; they are arranged in opposite pairs. The flowers are white to dark pink with a darker red centre, with five petal-like lobes. The fruit is a pair of follicles 2–4 cm long and 3 mm broad. In Ayurveda the extracts of its roots and shoots is used against several diseases.

43. Jackfruit

Common name: Jackfruit, Halasina hannu

Botanical name: *Artocarpus heterophyllus*

Family: Moraceae

Jackfruit is a tree which is unique in the fact that it produced huge fruits directly from its stem. The tree is 30-70 ft tall, with evergreen, alternate, glossy, somewhat leathery leaves to 9 in long, oval on mature trees. All parts contain a sticky, white latex. Short, stout flowering twigs emerge from the trunk and large branches. Fruit is green or yellow when ripe and composed of numerous hard, cone-like

points attached to a thick and rubbery, pale yellow or whitish wall. The interior consists of large bulbs.

4. Chinese thuja

Common name: Chinese thuja, Oriental thuja
Botanical name: *Platycladus orientalis*
Family:
A monoecious tree, it is small, slow-growing, 15–20 m tall. The foliage forms in flat sprays with scale-like leaves, which are bright green in colour but may turn brownish or coppery orange in winter. The cones are green ripening brown in about eight months from pollination, and have thick scales arranged in opposite pairs. The seeds are with no wing.

45. Common juniper

Common name: Common juniper
Botanical name: Juniperus communis
Family: Cupressaceae
Common Juniper is a coniferous shrub or tree, very variable and often a low spreading shrub. It has needle-like leaves in whorls of three. The leaves are green, with a single white stomatal band on the inner surface. It is dioecious, with male and female cones on separate plants. The seed cones are berry-like, they are spherical, and usually have three fused scales, each scale with a single seed.

46. Indian gooseberry

Common name: Amla, Indian gooseberry
Botanical name: *Phyllanthus emblica*
Family: Phyllanthaceae
Amla is a small to medium sized deciduous tree, reaching 8 to 18 m in height.The tree has crooked trunk and spreading branches. The leaves are simple, nearly stalkless and closely set along slender branchlets. The leaves are often mistaken for leaflets of pinnate leaves. Amla flowers are small, greenish-yellow or pinkish. The fruit is nearly spherical, light greenish yellow, quite smooth and hard on appearance, with 6 vertical stripes or furrows. The taste of Amla is sour, bitter and astringent, and is quite fibrous.

47. Christmas Tree

Common name: Christmas Tree, Cook-pine
Botanical name: *Araucaria columnaris*

Family: Araucariaceae

Christmas Tree can reach a height of 60 m. They are relatively short, mostly horizontal branches are in whorls around the slender, upright to slightly leaning trunk. The branches are lined with cord-like, horizontal branchlets. The branchlets are covered with small, green, incurved, point-tipped, spirally arranged, overlapping leaves. The young leaves are needle-like, while the adult leaves are triangular and scale-like. The trees have a slender, spire-like crown.

48. Neem

Common name: Neem

Botanical name: *Azadirachta indica*

Family: Meliaceae

Neem is a fast growing tree that can reach a height of 15-20 m. The branches are wide spread. The trunk is relatively short, straight and may reach a diameter of 1.2 m. The bark is hard, fissured or scaly, and whitish-grey to reddish-brown. The root system consists of a strong taproot and well developed lateral roots. The alternate, pinnate leaves are 20-40 cm long. The flowers are arranged axillary. The fruit is a glabrous olive-like drupe.

49. Elephant ear

Common name: Elephant ear, Alocasia

Botanical name: *Alocasia longiloba*

Family: Araceae

Alocasia longiloba is a tropical, tuberous perennial plant that is a decorative foliage plant.. It has huge arrow shaped leaves of a bluish green colour, with silver margins and veining. The leaf revereses are a contrasting purple. It can grow in full sun, but does best in part to full shade. It is not frost tolerant. This plant species will grow in temperate, subtropical, tropical.

50. Star Glory

Common name: Cypress Vine, Star Glory

Botanical name: *Ipomoea quamoclit*

Family: Convolvulaceae

Cypress Vine, with its tiny red flowers and delicate fern-like leaves. The leaves are 3-4 in long and feather-like, finely divided pinnately into threadlike segments. The scarlet red (rarely white) flowers are tubular, about 1.5 in long, and flare out at the mouth into a five-pointed star. This annual plant produces hundreds of

flowers—and thousands of seeds—usually insuring its presence from year to year. Particularly in warm locations, Cypress Vine can become invasive.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LIST OF PLANTS AT COLLEGE SPORTS GROUND

S. No.	Common Name	*Botanical name*	Family
1.	Bristly Foxtail	*Setaria verticillata*	Poaceae
2.	Scarlet morning glory	*Ipomoea hederifolia*	Convolvulaceae
3.	Mulberryweed	*Fatoua villosa*	Moraceae
4.	Long stalked leaf flower	*Phyllanthus tenellus*	Phyllanthaceae
5.	Cinderella Weed	*Synedrella nodiflora*	Compositae
6.	Stalkless joyweed	*Alternanthera sessilis*	Amaranthaceae
7.	Touch me not	*Mimosa pudica*	Leguminosae
8.	Alyce Clover	*Alysicarpus vaginalis*	Leguminosae
9.	Jackal Jujube	*Ziziphus oenopolia*	Rhamnaceae
10.	Crown Flower	*Calotropis gigantea*	Apocyanaceae
11.	Black honey shrub	*Phyllanthus reticulata*	Phyllanthaceae
12.	Obscure morning Glory	*Ipomoea obscura*	Convolvulaceae
13.	Mango	*Mangifera indica*	Anacardiaceae
14.	Chamber Bitter	*Phyllanthus urinaria*	Phyllanthaceae
15.	Ashok	*Polyanthia longifolia*	Annonaceae
16.	Fishtail Palm	*Caryota mitis*	Arecaceae
17.	Burn mouth vine	*Rhyncosia minima*	Fabaceae
18.	Showy Balloon vine	*Cordiospermum grandiflorum*	Sapindaceae
19.	Parasol leaf tree	*Macaranga tanarius*	Euphorbaceae
20.	Indian almond	*Terminalia catappa*	Combrataceae
21.	Wild snake Root	*Rauvolfia tetraphylla*	Apocyanaceae
22.	Taro	*Colocasia esculenta*	Araceae
23.	Malabar chestnut	*Pachira aquatica*	Malvaceae
24.	Cluster fig	*Ficus racemosa*	Moraceae
25.	Blue morning glory	*Ipomoea nil*	Convolvulaceae

26.	Teak	*Tectona grandis*	Verbenaceae
27.	Birdweed	*Polygonum aviculare*	Polygonaceae
28.	Siam Weed	*Chromalaena odorata*	Asteraceae
29.	Castor bean	*Ricinus communis*	Euphorbaceae
30.	Crepe Ginger	*cheilocostus speciosus*	Costaceae
31.	Drumstick Tree	*Moring oleifera*	Moringaceae
32.	Golden Bamboo	*Bambusa vulgaris*	Poaceae
33.	Hairy fig	*Ficus hispida*	Moraceae
34.	Scholar Tree	*Alstonia scholaris*	Apocyanaceae
35.	Lantana	*Lantana viburnoides*	Verbenaceae
36.	Asthma weed	*Euphorbia hirta*	Euphorbiaceae
37.	Saba Nut	*Pachira glabra*	Malvaceae
38.	Creeping oxalis	*Oxalis corniculata*	Oxalidaceae
39.	Croton	*Cordiaeum variegatum*	Euphorbiaceae
40.	Pineapple	*Ananasa comosus*	Bromaliaceae
41.	Lantana	*Lantana camara*	Verbenaceae
42.	Rose Apple	*Syzygium jambose*	Myrtaceae
43.	Peacock Flower	*Caesalpinia fulcherrima*	Fabaceae
44.	Black berried honeysuckle	*Lonicera nigra*	Caprifoliaceae
45.	Tulsi	*Ocimum teniflorum*	Lamiaceae
46.	Peepal tree	*Ficus religiosa*	Moraceae
47.	Bush clock vine	*Thunbergia erecta*	Acanthaceae
48.	China Rose	*Hibiscus rosasinensis*	Malvaceae
49.	Tender fountain grass	*Pennisetum setaceum*	Poaceae
50.	Pomegranate	*Punica grantum*	Lythraceae
51.	False Indigo Bush	*Amorpha fruiticosa*	Leguminosae
52.	Worm Bush	*Spigetia anthelmia*	Lythraceae
53.	Wild lettuce	*Lactuca virosa*	Compositae
54.	Common wireweed	*Sidaacuta burm*	Malvaceae
55.	Mini Rose	*Rosa chinensis*	Rosaceae

56.	Tridax Daisy	*Tridax procumbens*	compositae
57.	Brinjal	*Solanum melongena*	Solanaceae
58.	Chasteberry	*Vitex agnus-castus*	Lamiaceae
59.	Macho ferns	*Nephrolepis biserrata*	Nephrolepidaceae
60.	Star Fruit	*Averrhoe carambola*	Oxalidaceae

Description of Plants in Sports ground

1. Bristly Foxtail

Botanical name: *Setaria verticillat*a
Common name: Bristly Foxtail , bur bristle grass.
Family: Poaceae

Bristly foxtail is an annual grass with stems prostrate and rising up, 10-100 cm long. Leaf-blades are 5-30 cm long, 4-16 mm wide, flaccid. Leaf-blade surface is hairless, or hairy. Inflorescence is a spike-like panicle, linear, continuous, or interrupted, 2-15 cm long. Primary panicle branches are accrescent to a central axis, with evident branchlets on axis. Bristly foxtail is widesread in Africa, Asia, Europe and Australia. It has also becomes naturalized in Americas, parts of Europe and Korea. Flowering: July-October.

2. Scarlet Morning Glory

Botanical name: *Ipomoea hederifolia*
Common name: Scarlet Morning Glory.
Family: Convolvulaceae

Scarlet morning glory is a twining, smooth to hairy annual vine. The leaf shape is extremely variable. The leaves are generally ovate in shape with pointed tips and heart-shaped bases and are commonly deeply 3-lobed. The Latin word hederifolia means having leaves like Ivy. The flower stalks are usually as long as, or longer than, the subtending leaf. Each flower stalk may bear a simple flower or may have several flowers. The sepals are oblong and 1.5-3 mm long, excluding the sharp pointed tip. The tip may be as long as, or longer than, the broader portion below.

3. Mulberryweed

Botanical name: *Fatoua villosa*
Common Name : Mulberryweed
Family : Moraceae

Mulberryweed, in the Moraceae family, is an erect, branched summer annual, resembling a mulberry seedling, except stems and leaves are hairy (stems of mulberry saplings are not hairy). Leaves are alternate, and roughly triangular in outline with toothed margins. Flowers are in feathery clusters in the leaf axils. Flower clusters are purple when young, fading to dark brown with age. Plants flower from late spring through early fall, then die after frost. Seeds are forcefully expelled at least 4 feet. Seedlings may flower and fruit within 12 days of reaching the 2-leaf growth stage. Seeds germinate from early spring through late fall, resulting in many generations per year.

4. Long Stalked Leaf-Flower

Botanical name: *Phyllanthus tenellus*
Common name: Long Stalked Leaf-Flower
Family: Phyllanthaceae

Long Stalked Leaf-Flower is an erect, many-branched annual or perennial, broad-leaved, hairless herb, growing up to 50 cm tall. Alternately spirally arranged, simple leaves are nearly stalkless with 1–1.5 mm long stalks. Leaf blade 1.4–2.5 cm long (leaves are in one plane), .7–1 cm wide, elliptic or obovate, base rounded or tapering, margins entire with some depressions and protrusions. Flower arise singly or in racemes or in cymes. Flowers are predominantly green or white, with 1.5–5 mm long stalks. Male flowers are shorter than females. Flowers have a 0.5–1.5 mm long sepal cup with 6 sepals.

5. Cinderella Weed

Botanical name: *Synedrella nodiflora*
Common name: Cinderella Weed
Family: Asteraceae

Cinderella Weed is an annual herb with erect stems growing up to 90 cm tall. Oppositely arranged short-petioled, elliptic or ovate leaves have crenate-serrate margins. Upper leaves are short, 3-4 cm. Lower leaves longer, 5-15 X 2-6 cm. Stalkless yellow flower-heads occur in leaf axils. Both ray and disk florets are yellow. It is propagated by seeds. Cinderella Weed is native to tropical America, but is now a common weed in corn fields and various other crop fields.

6. Stalkless joyweed

Botanical name: *Alternanthera sessilis*
Common name: Stalkless Joyweed
Family: Amaranthaceae

Stalkless Joyweed is a perennial herb, often found in and near ponds, canals and reservoirs. It prefers places with constant or periodically high humidity and so may be found in swamps, shallow ditches, and fallow rice fields. A much branched prostrate herb, branches often purplish, frequently rooting at the lower nodes; leaves simple, opposite, somewhat fleshy, lanceolate, oblanceolate or linear-oblong, obtuse or subacute, sometimes obscurely denticulate, glabrous, shortly petiolate; flowers small, white, in axillary clusters; fruits compressed obcordate utricles, seeds suborbicular. In Manipur, tender shoots and leaves are eaten cooked with rice along with fermented soyabean. Stalkless Joyweed is found in the Himalayas, at altitudes of 200-2000 m.

7. Touch-me-not

Botanical name: *Mimosa pudica*
Common name: Sensitive Plant, Touch-me-not.
Family: Mimosaceae

Touch Me Not is a wonderful and curious plant which is found growing wild throughout the tropical world. Its fern-like leaves close up and droop when touched, usually re-opening within minutes. It has prickly stems and small, fluffy, ball shaped pink flowers in summer. The stem is erect, slender and branching. The leaves are bipinnate, fern like and pale green- closing when disturbed. Stalked pale pink or purple flower-heads arise from the leaf axils. On close examination, it is seen that the floret petals are red in their upper part and the filaments are pink to lavender. The fruit consists of clusters of 2-8 pods from 1-2 cm long each, these prickly on the margins. The pods break into 2-5 segments and contain pale brown seeds some 2.5 mm long.

8. Alyce Clover

Botanical name: *Alysicarpus vaginalis*
Common name: Alyce Clover
Family: Fabaceae

Alyce Clover is a more or less prostrate, somewhat hairy branching herb, commonly found in lawns, by roadside ditches, and in waste ground exposed to the sun. Leaves are of two types, closely spaced elliptic, and narrower, lanceolate once spaced farther apart. Leaves are about 3-10 mm long, rounded at tips, obtuse, or truncate at base, with short stalks, about 1-5 mm long. Flowers are reddish purple, in racemes up to 13 cm long, at the end of branches. Flower are 6 mm long.

9. Jackal Jujube

Botanical name: *Ziziphus oenopolia*
Common name: Jackal Jujube, Small-Fruited Jujube.
Family: Rhamnaceae

Jackal Jujube is a very thorny straggling shrub with rusty-velvety young branches with paired thorns. Thorns are one straight and the other recurved. Alternately arranged simple leaves are ovate to ovate-lancelike, often oblique, with three prominent nerves and numerous transverse nervules. Tiny green flowers are borne in nearly stalkless velvety cymes in leaf axils. Fruits are spherical or obovoid drupes, black, shining, seeds woody.
Medicinal uses: Warning: Unverified information The roots are astringent bitter, anthelmintic, digestive and antiseptic. They are useful in hyperacidity, ascaris infection, stomachalgia and healing of wounds.

10. Crown Flower

Botanical name: *Calotropis gigantea*
Common name: Crown Flower
Family: Apocynaceae

This large shrub, which can sometimes grow large enough to look like a small tree, sports clusters of waxy flowers that are either white or lavender in color. Each flower consists of five pointed petals and a small, elegant "crown" rising from the center, which holds the stamens. The plant has oval, light green leaves and milky stem. In India, the plant is common in the compounds of temples. The fruit is a follicle and when dry, seed dispersal is by wind. The seeds with a parachute of hairs, is a delight for small children, who like to blow it and watch it float in the air. This plant plays host to a variety of insects and butterflies.

11. Black-Honey Shrub

Botanical name: *Phyllanthus reticulatus*
Common name: Black-Honey Shrub
Family: Phyllanthaceae

Black-Honey Shrub is usually a much-branched somewhat climbing shrub, rarely a small tree. Leaves are ovate-oblong to elliptic, 1-5 cm long, 0.7-3 cm wide, produced on short lateral branchlets, looking like leaflets of a compound leaf. Flowers are borne in clusters on short axillary branchlets, small, yellowish, sexes separate on the same plant, flowering before or with the new leaves. Theflowering shoots and pedicels are covered in short, velvety hairs. Fruit is berry- like, 4-6 mm across, blackish when ripe. Flowering: March-July.

12. Obscure Morning Glory

Botanical name: *Ipomoea obscura*
Common name: Obscure Morning Glory.
Family: Convolvulaceae

Although the flowers on this lovely morning glory are small (about 1" across), the color is so unusual and lovely it really makes it worth adding to your garden. Beautiful pale yellow flowers with deep purple throats adorn this vigorous vine with small, heart shaped leaves. As with most morning glories, it loves full sun and average, well drained soil. It's takes a while for the blooms to start on this lovely vine, which climbs upto 6-10 ft. Beautiful heart-shaped leaves are 3-9 cm long. It is native to Tropical East Africa, Mascarene Islands, tropical Asia, throughout Malaysia to northern Australia and Fiji. Flowering: August-March.

13. Mango

Botanical name: *Mangifera indica*
Common name: Mango
Family: Anacardiaceae

The mango tree is erect, 30 to 100 ft high, with a broad, rounded canopy which may, with age, attain 100 to 125 ft in width, or a more upright, oval, relatively slender crown. In deep soil, the taproot descends to a depth of 20 ft, the profuse, wide-spreading, feeder root system also sends down many anchor roots which penetrate for several feet. The tree is long-lived, some specimens being known to be 300 years old and still fruiting. Nearly evergreen, alternate leaves are borne mainly in rosettes at the tips of the branches and numerous twigs from which they droop like ribbons on slender petioles 1 to 4 in long. There is great variation in the form, size, color and quality of the fruits. They may be nearly round, oval, ovoid-oblong.

14. Chamber Bitter

Botanical name: *Phyllanthus urina**ria***
Common name: Chamber Bitter
Family: Phyllanthaceae

Chamber bitter is a small annual herb growing up to 2 ft tall. Leaves are alternately arranged along the erect, red stem, resembling those of the mimosa tree, disposed in two ranges. The leaves are oblong or oblong-obovate, 7-18 mm long, 3-7 mm wide, rounded with a sharp point., obliquely rounded at base, nearly stalkless, pale beneath. The leaves are large at the tip and smaller towards the

petiole.Flowers are greenish white, minute and appear at axiles of the leaves, as well
as the seed capsules. Numerous small green-red fruits, round and smooth, are found along the underside of the stems.

15. Ashok

Botanical name: *Polyalthia longifolia*
Common name: Ashok.
Family: Annonaceae

The weeping, branching habit of this 25-foot tall tree gives it a narrow columnar shape. Glossy green, long, narrow leaves have attractive wavy edges. Ashok is commonly seen as a lofty column, very graceful with its downward-sweeping branchlets and shining, green foliage ; but sometimes wide-spreading slender branches issue from the straight trunk and form a compact symmetrical crown. It is a very popular tree in India. The bark is smooth and dark greyish-brown. Flowers appear during March and April. For a short period — two or three weeks only — the tree is covered with a profusion of delicate, star-like flowers, which, being palest-green in colour, give the tree a peculiar hazy appearance. They grow in clusters from small protuberances all along the dark branchlets. Each flower, borne on a slim, green stem has a tiny calyx and six long, narrow, wavy petals arranged in two sets of three.

16. fishtail palm

Botanical name : *Caryota mitis*
Common name: Fishtail Palm
Family: Arecaceae

Fishtail palm is a fast growing feather palm that makes a beautiful addition to the landscape. It has a gray trunk that is covered by regularly spaced leaf scar rings. Toddy palm has a leaf shape that resembles the lower fin of a fish. When these palms grow to reach 20', they start producing flowers at the top of the trunk with subsequent flowers produced lower and lower on the trunk. When the lowest flower blooms, the tree dies.

17. Burn-Mouth Vine

Botanical name: *Rhynchosia minima*
Common name: Burn-Mouth Vine, jumby-bean.
Family: Fabaceae

Burn-Mouth Vine is a climbing or prostrate herb, emerging from a woody rootstock. Stems are 1 to several ft long, smooth or velvety. Leaves are trifolitae, with 3 rhombic, ovate, or nearly circular leaflets. The lateral leaflets are oblique. Leaflets are 1-6 cm long, 0.8-5 cm wide. Flowers are borne in loose racemes, 2-15 cm long, in leaf axils. Flowers are brownish outside, and yellow inside. The standard petal is often tinged reddish, 5-10 mm long. Pods are oblong-curved, flattened and slightly constricted between the widely spaced seeds, 0.6-3.5 cm long, 0.3-0.5 cm wide.

18. Showy Balloon Vine

Botanical name : *Cardiospermum grandiflorum*
Common name:Balloon vine
Family: Sapindaceae

The species can grow over 10 m (33 ft) long and it has small white flowers. It is a herbaceous, evergreen, fast-growing liana with a tough stem that clings to the support with antennae. Leaves are compound, consisting of leaves with large teeth.The flowers are small, slightly fragrant, with creamy white petals. The fruit is a capsule, cracking into three parts when ripe. Seeds are black, hard,

with a membranous wing. In warm climates, it reproduces by self seeding, as well as vegetatively, such as by root pieces.

19. Parasol leaf tree

Botanical name: *Macaranga tanarius*
Common names :parasol leaf tree,blush macaranga.
Family:Euphorbiaceae

It is a shrub or bushy tree, sometimes reaching 12 metres tall and with a stem diameter of 40 cm. The trunk is short and crooked, bark being grey-brown, with bumps and irregularities. The branchlets are smooth, bluish grey with prominent leaf scars.Leaves are alternate, and round with a tip, 8 to 23 cm long, greyish or white on the underside. It has prominent leaf stalks 8 to 20 cm long which connect within the leaf itself. Nine main veins radiate from the leaf stalk, easily noticed on the upper and lower leaf side.
Yellow-green flowers form on panicles in the months of October to January.

20. Indian Almond

Botanical name: *Terminalia catappa*
Common name: Indian Almond
Family: Combretaceae

Indian almonds are spreading trees with large, leathery, oval leaves which turn red before they fall. The tree has a distinctive shape, its horizontal branches growing in wide spreading circles at different levels on the trunk. The greenish - white female - and male flowers are on the same tree; these flowers are inconspicuous and not very showy. The pale green fruit is the size and shape of an almond in its shell. Some varieties become reddish-purple when ripe. The nuts are edible, taste like almonds and are eaten. A highly ornamental tree, much planted in avenues and gardens. Flowering: February-May.

21. Wild Snake Root

Botanical name: *Rauvolfia tetraphylla*
Common name: Wild Snake Root, Devil Pepper.
Family: Apocynaceae

Native to tropical America, Wild Snake Root is a small tree or shrub that will reach 6 ft in height. Leaves are whorled, medium to dark drop green in color, and occur in groups of 4 unequally-sized leaves at each node. In late summer to early fall the very small, white flowers appear. Flowers to 5 mm long, tube 3.7 mm long. Bright red berries form that turn black as they ripen, and look like large pepper corns.
Medicinal uses: Warning: Unverified information The roots yield the drug deserpidine, which is an antihypertensive and tranquilizer.

22. Taro

Botanical name: *Colocasia esculenta*
Common name: Taro, cocoyam, Green taro.
Family: Araceae

Taro is a tuberous bulb plant growing 3-5 ft tall. The large leaves of the plant resemble elephant ears. It produces heart shaped leaves 2-3 ft long and 1-2 ft across on 3 ft long stalks that all emerge from an upright tuberous rootstock, technically a corm. The inflorescence, which is rarely produced in cultivated plants, is a pale green spathe and spadix, typical of the arum family. The corm is shaped like a top with rough ridges, lumps and spindly roots, and usually weighs around 0.5-1 kg, but occasionally as much as 3.5 kg. The skin is brown and the

flesh is white or pink. Certain kinds of taros produce smaller tubers or "cormels" which grow off the sides of the main corm.

23. Malabar Chestnut

Botanical name: *Pachira aquatica*
Common name: Malabar Chestnut, Guiana chestnut.
Family: Malvaceae

Malabar Chestnut is a tropical wetland tree which can grow up to 18 m (60 ft) in height in the wild. It has shiny green digitate leaves with lance shaped leaflets and smooth green bark. Its showy flowers have long, narrow petals that open likea banana peel to reveal hairlike yellowish orange stamens. The tree is cultivated for its edible nuts, which grow in a large, woody pod. The nuts are light brown, striped with white. They are said to taste like peanuts, and can be eaten raw, cooked, or ground into flour to make bread. The leaves and flowers are also edible.The tree grows well as a tropical ornamental in moist, frost-free areas, and can be started from seed or cutting.

24. Cluster fig

Common name: Cluster fig
Botanical name: *Ficus racemosa*
Family: Moraceae

Goolar is an attractive fig tree witha crooked trunk and a spreading crown. Unlike the banyan, it has no aerial roots. The most distinctive aspect of this tree is the red, furry figs in short clusters, which grow directly out of the trunk of the tree. Those looking for the flower of goolar should know that the fig is actually a compartment carrying hundreds of flowers. Goolar is a tree commonly found in cities and towns. It has evergreen leaves, if it is close to a water source. Otherwise it sheds its leaves in january. Figs have been traditionally used by children to play. Thin sticks can be joined by inserting them in goolar figs to make interesting shapes.

25. Blue Morning Glory

Botanical name: *Ipomoea nil*
Common name: Blue Morning Glory
Family: Convolvulaceae

Annual or sometimes short-lived perennial, with twining to decumbent-creeping, slender, somewhat angular stems 2-5 m long. Leaves are broadly ovate or nearly circular, 4-15 x 4.5-14 cm, base heart-shaped, margin entire or 3-lobed. Inflorescences axillary, 1- to few flowered. Petals pale to bright blue with whitish tube, fading to pinkish in age, funnelform, 5-6 cm. Seeds black, ovoid-trigonous, 5-6 mm. Capsules ovoid to depressed-spherical, 7-8 mm high, 8-12 mm thick, 3-6-seeded. Seeds 4.5-6 mm long, black or brown. The black seeds have led to many of its common names.

26. Teak

Botanical name: *Tectona grandis*
Common name: Teak
Family: Verbenaceae

A very popular timber tree, teak is native to India and Burma to Java. It is a deciduous tree attaining a very large size. However, in cities it might be seen on the roadside as a medium sized tree with large leaves. Teak is considered a good quality wood for furniture. Leaves of the tree are opposite, 30-60 cm long and 15-30 cm broad. The flowers come in large numbers in lax clusters at the end of branches. They are white and rather small - about 6 mm across. The fruit is about 15 mm across, spongy, enclosed in the persistent calyx. Flowers appear in monsoon, fruit ripens in winter. From November to January, the tree is leafless.

27. Birdweed

Botanical name: *Polygonum aviculare*
Common name: Common Knotgrass, Birdweed.
Family: Polygonaceae

Common Knotgrass is an erect, ascending or prostrate hairless annual weed, branched mostly from base. Leaves are of two types - lower larger on main branches, smaller on the lateral and upper branches, 0.8-2.5 x 0.25-1.0 cm, elliptic, lanceshaped or ovate, pointed, entire, dotted. Ochrea 0.75-1.25 cm long, bifid, silvery, membranous lacerate. Inflorescence occur solitary or in 3-5 clusters in leaf axils. Flowers are 0.5-0.75 mm across, on stalks 0.5-0.75 mm. Tepals are 5, 1.5-2.0 x 0.5-1 mm, elliptic-lanceshaped or ovate, blunt to pointed, entire. Stamens are 5, filaments short, equal; anthers dorsifixed. Ovary is 0.25-0.5 mm, ovate - circular, trigonous with 3 very short styles and capitate stigmas. Nuts are 2-2.5 x 1.0-1.5 mm, ovate, trigonous, black, shining, striate.

28. Siam Weed

Botanical name: *Chromolaena odorata*
Common name: Siam Weed, Bitter bush
Family: Asteraceae

Siam Weed is a big bushy herb or subshrub with long rambling (but not twining branches. In open areas it spreads into tangled, dense thickets up to 2 m tall, and higher when climbing up vegetation. Many paired branches grow off the main stem. The base of the plant becomes hard and woody while the branch tips are soft and green. The leaves are arrowhead-shaped, 5–12 cm long and 3–7 cm wide, with three characteristic veins in a 'pitchfork' pattern. . The seeds are dark coloured, 4–5 mm long, narrow and oblong, with a parachute of white hairs which turn brown as the seed dries.

29. Castor bean

Botanical name: *Ricinus communis*
Common name: Castor bean, Castor oil plant.
Family: Euphorbiaceae

The castor bean plant, an erect, tropical shrub or small tree, grows up to 30 feet tall. As an annual in the cooler zones, it grows up to 15' tall. It is a very fast growing plant. The joints of the hollow stem, stalks and leaves are reddish to purple. The 6 - 11 lobed, palmate leaves with uneven serrated edge, are also red or colored and often have a blue-gray bloom. There is also a green variety. The flat seeds are in a seedpod that explodes when ripen. All the top of the stem and stalks are the inflorescence with the male - and female flowers. The female flowers are the fuzzy red structures at the top of the flower spike with the male flowers positioned on the lower half, and have conspicuous yellow anthers The oblong fruit turns brown when ripe. In each seed pod (a capsule) there are three seeds.

30. Crepe Ginger

Botanical name: *Costus speciosa*
Common name: Crepe Ginger, cane-reed.
Family: Costaceae

Despite its common name, crepe ginger is only a distant relative of the edible ginger family. It is a tall and dramatic landscape plant with large dark green leaves arranged on the stalk in a spiral. This Costus can grow to 10 ft tall in frost-free areas, but is typically small as a potted plant. The flowers appear in late summer or early fall, and are quite unusual looking. They form on red 4 in cone-shaped

bracts, with several 2 in pure white crinkled flowers protruding from each cone. The flowers look like crepe paper - thus the common name of crepe ginger.

31. Drumstick Tree

Botanical name: *Moringa oleifera*
Common name: Drumstick Tree
Family: Moringaceae

Drumstick tree is a small, deciduous tree, of the family Moringaceae, native to tropical Asia but also naturalized in Africa and tropical America. Drumstick trees can reach a height of about 9 m (30 feet); they have corky gray bark, branching and fernlike leaves. Highly scented white flowers and long bean like seed pods. Seed pods are used as a vegetable, especially in south Indian cuisine, e.g. drumstick sambar. An excellent oil is derived from the seeds, which is used for cooking and lubrication of delicate mechanisms. The leaves are extensively used as a vegetable in many parts of the world, and the root can be made into a condiment similar to horseradish.
Medicinal uses: Warning: Unverified information The bark, sap, roots, leaves, seeds and flowers are used in traditional medicine. Research has examined how it might affect blood lipid profiles, although it is not effective at diagnosing, treating, or preventing any human diseases

32. Golden Bamboo

Botanical name: *Bambusa vulgaris*
Common name: Golden Bamboo
Family: Poaceae

Golden Bamboo is a of mutations of Common Bamboo (Bambusa vulgaris), and has golden colored stems. There are narrow green stripes on the stems. Leaves are narrowly lanceshaped, 10-30 cm long, 1.3-2.5 cm broad, both surfaces hairless. It is a typical bamboo for ornamental plantation in the world at prese**nt.**

33. Hairy Fig

Botanical name: *Ficus hispida*
Common name: Hairy Fig
Family: Moraceae

Hairy Fig is a coarsely hairy shrub or small tree. Ovate-lanceshaped stipules are usually 4, and are visible on leafless fruiting branchlets. Oppositely arranged leaves, on 1-4 cm long stalks, are ovate, oblong, or obovate-oblong, 10-25 cm

long, 5-10 cm wide, thickly papery, covered with coarse hairs. Leaf base is rounded to wedge shaped, margin is entire or bluntly toothed, tip is pointed. Figs appear in leaf axil on normal leafy shoots, sometimes on leafless branchlets, solitary or paired, yellow or red when mature, top-shaped, 1.2-3 cm in diameter. Figs are covered with short hairs.Flowering: June-July.

34. Scholar Tree

Botanical name: *Alstonia scholaris*
Common name: Scholar Tree
Family: Apocynaceae

Scholar Tree found in most parts of India. The generic name commemorates the distinguished botanist, Prof. C. Alston of Edinburgh, 1685-1760. The species name scholaris refers to the fact that the timber of this tree has traditionally been used to make wooden slates for school children. In October small, green yet fragrant flowers appear. All parts of the tree can be considered poisonous. Branches are whorled, and so are the leaves, that is, several of them coming out of the same point. The tree is really elegant whether it is flowering or not. The slightly rounded, leathery, dark green leaves form whorls of 4-7. And a very regular branching gives the tree a beautiful shape.

35. Lantana

Botanical name : *Montana*
Common name:Lantana
Family :Verbenaceae

Aromatic straggling subshrub or woody herb to about 3 ft high.
Peduncles long, usually exceeding the leaves.
Flowers relatively large, white.
Leaves almost always opposite, but occasionally in whorls of 3, ovate to ovate-lanceolate, elliptic-oblong or elliptic-lanceolate, 1.5–2.5(–12) cm. long, 0.7–4(–7) cm. wide, acute to obtuse at the apex, rounded then attenuate-cuneate into the petiole at the base, regularly coarsely to finely somewhat rounded crenate, not to distinctly discolorous, pubescent with ± tubercle-based hairs above and somewhat scabrid, pubescent to velvety or tomentose beneath; petiole up to 1.5 cm. long.

36. Asthma Weed

Botanical name: *Euphorbia hirta*

Common name: Asthma Weed, Dove milk.
Family: Euphorbiaceae

Asthma Weed is a slender-stemmed, annual hairy plant with many branches, growing up to 40 cms tall, reddish or purplish in color. Leaves are opposite, elliptic-oblong to oblong-lancelike, 1-2.5 cm long, blotched with purple in the middle, toothed at the edge. Flowers, purplish to greenish in color, dense, axillary, short-stalked clusters or crowded cymes, about 1 mm in length. Capsules are broadly ovoid, hairy, three-angled, about 1.5 cm.
Medicinal uses: Unverified information Asthma weed has traditionally been used in Asia to treat bronchitic asthma .

37. Saba Nut

Botanical name: *Pachira glabra*
Common name: Saba Nut, American Chestnut.
Family: Malvaceae

Saba Nut is an evergreen tree growing up to 9-15 m tall, and its leaves are digitately compound with a fan of 5 to 9 leaflets. It has smooth greenish-gray bark and the trunks are often swollen at the base, even at a young age. Its large, white, fragrant flowers bloom on a long, at branch-ends flower-cluster-stalk, opening at night and dropping by the middle of the following day. Its 10-20 cm long smooth green fruit split open naturally to reveal 10 to 25 irregularly rounded brown seeds that are roughly 2.5 cm in diameter. In Brazil the Saba nut is a fruit tree, cultivated as an ornamental elsewhere

38. Creeping Oxalis

Botanical name: *Oxalis corniculata*
Common name: Creeping Wood Sorrel, Creeping Oxalis.
Family: Oxalidaceae

Creeping wood sorrel is a world-wide weed which is almost impossible to get rid of. So, one might as well enjoy it - it has beautiful yellow flowers. Creeping woodsorrel is of uncertain origin just because it became so wide spread so long ago. Branching from the base and often rooted at the nodes, the upper portion is ascending or weakly erect, smooth or hairy. The leaves are arranged alternately along the stems. A single long stalk arises from the axils of the leaf, from which extend three flower stalks, each with a single flower. The flowers are 7-11 mm wide and have 5 yellow petals. The fruit is a capsule, 1-1.5 cm long, cylindric, pointed apically, and 5-ridged in cross section. .

39. Croton

Botanical name*: Codiaeum variegatum*
Common name: Croton
Family: Euphorbiaceae

Crotons with their colorful, glossy foliage and variation of leaf types are popular plants. It is a native of the tropics from Java to Australia and the South Sea Islands. In the wild, garden croton is an evergreen shrub that grows to 10 ft tall and has large, leathery, shiny leaves. The cultivated garden crotons are usually smaller and come in an amazing diversity of leaf shapes and colors. What they do have in common are rather thick evergreen alternate leaves, tiny inconspicuous star-shaped yellow flowers that hang down in long racemes, and a milky sap that bleeds from cut stems. Depending on the cultivar, the leaves may be ovate to linear, entire to deeply lobed, and variegated with green, white, purple, orange, yellow, red or pink. The colors may follow the veins, the margins or they may bein blotches on the leaf.

40. Pineapple

Botanical name: *Ananas comosus*
Common name: Pineapple
Family: Bromeliaceae

The pineapple is a tropical plant and fruit, native to Uruguay, Brazil, Puerto Rico, or Paraguay. It is a medium tall (1–1.5 m) herbaceous perennial plant with 30 or more trough-shaped and pointed leaves 30–100 cm long, surrounding a thick stem. The pineapple is an example of a multiple fruit: multiple, spirally-arranged flowers along the axis each produce a fleshy fruit that becomes pressed against the fruits of adjacent flowers, forming what appears to be a single fleshy fruit. Pineapples are the only bromeliad fruit in widely cultivation.

41. Lantana

Botanical name: *Lantana camara*
Common name: Lantana
Family: Verbenaceae

Common lantana is a rugged evergreen shrub from the tropics. The species will grow to 6 ft high and may spread to 8 ft in width with some varieties able to clamber vine like up supports to greater heights with the help of support. The leaves are 2-5 in long by 1-2 in wide with rounded tooth edges and a textured surface. Stems and leaves are covered with rough hairs and emit an unpleasant aroma when crushed. The small flowers are held in clusters (called umbels) that

are typically 1-2 in across. Flower color ranges from white to yellow, orange to red, pink to rose in unlimited combinations, in addition the flowers usually change in color as they age.

42. Rose Apple

Botanical name: *Syzygium jambos*
Common name: Rose Apple, Malabar plum.
Family: Myrtaceae

Rose Apple is an evergreen tree up to 10 m tall. The terminal inflorescence is showy and usually carries four whitish-green flowers on the outside of the crown. The leaves are lanceshaped, 2-4 cm broad, 10 cm to 20 cm long, pointed, base wedge-shaped with hardly any leaf-stalk, lively red when growing, but dark, glossy green on attaining full size. The showy flowers are in small clusters at branch-ends, white or greenish white, the long, numerous stamens giving them a diameter of 5-8 cm. The fruits are whitish-green, rose scented, about 5 cm long and ripen over an extended period. The flesh is a bit softer than that of an apple.

43. Peacock Flower

Botanical name: *Caesalpinia pulcherrima*
Common name: Peacock Flower
Family: Caesalpiniaceae

This beautiful treelet, whose place of origin is unknown, is sometimes called Dwarf Poinciana due to the resemblence of its flowers and leaves to those of Gulmohar. They are botanically related but Peacock flower plant grows only to a height of about 3 meters, retains its leaves throughout the year, and blooms continuously. Flowers, which appear in clusters on long erect stems, are smaller than those of Gulmohar and have exceptionally long stamens and a prominent pistil which protrudes from the center. The most common color is red-orange, but one variety has pure yellow flowers.

44. black-berried honeysuckle

Botanical name: *Lonicera nigra*
Common name :black-berried honeysuckle.
Family:Caprifoliaceae

The shrubs reach heights of 50 to 150 centimetres.
Lonicera nigra is deciduous. The middle-green, simple leaves are opposite. They are elliptic, entire and petiolate.

Lonicera nigra produces capituli of white funnel-shaped flowers from April to June. The plants are hermaphroditic, pollination takes place by allogamy through animals.
The shrubs produce black berries in autumn.

45. Tulsi

Botanical name: *Ocimum tenuiflorum*
Common name: Holy basil , Tulsi.
Family: Lamiaceae

Tulsi, grown as a pot plant, is found in almost every traditional Hindu house. It is found growing naturally in moist soil nearly all over the globe. Tulsi is a branched, fragrant and erect herb having hair all over. Its leaves are nearly round and up to 5 cm long with the margin being entire or toothed. These are aromatic because of the presence of a kind of scented oil in them. A variety with green leaves is called Shri Tulsi and one with reddish leaves is called Krishna Tulsi. Tulsi flowers are small having purple to reddish color, present in small compact clusters on cylindrical spikes.
Medicinal uses: Warning: Unverified information Because of its medicinal virtues, Tulsi is used in Ayurvedic preparations for treating various ailments.

46. Peepal tree

Botanical name: *Ficus religiosa*
Common name: Peepal, holy fig tree.
Family: Moraceae

Peepal is unrivalled for its antiquity and religious significance.A grand peepal tree is a perfect shade tree, and village meetings are often conducted under a peepal tree. It is a large deciduous tree with a pale stem often appearing fluted on account of the numerous roots which have fused with the stem. Leaves leathery 4-8 inches long by 3-5 inches wide, somewhat egg-shaped or rounded, tailed at the tip and heart-shaped at the base, or sometimes rounded. The young leaves are frequently pink, change to copper and finally to green. Flowers minute within the receptacle.

47. Bush Clock Vine

Botanical name: *Thunbergia erecta*
Common name: Bush Clock Vine, King's Mantle

Family: Acanthaceae

King's Mantle is an upright shrub growing up to 4 ft. The shoots are quadrangular and each angle bears a narrow wing. Leaves are ovate-elliptic, and oppositely arranged. Leaf margin is entire or wavy or occasionally with a broad triangular tooth above the middle. Flowers occur in leaf axils, either singly or in pairs, sitting on peduncles up to 1.5 inches long. Sepals cup is short, bowl shaped. Flower tube is 1.5-2.5 inches long, slightly conical at the base, swelling above, and distinctly curved. The flower tube flares open into five dark purple, roundish petals, yellowish-white at the base. It can be grown as a bush with weeping branches or it can be trained like a vine. The flowers are absolutely wonderful and it flowers in the colder season.

48. China Rose

Botanical name: *Hibiscus rosa-sinensis*
Common name: China Rose, Chinese hibiscus.
Family: Malvaceae

Nobody knows whether the hibiscus really is a native of China as its latin name, Hibiscus rosa-sinensis, suggests or not. Many believe, it comes from India. This large shrub or small tree grows to 15 feet high. The toothed leaves are arranged alternately and vary a lot, but tend to be large, dark green, and shiny. This plant has a coarse texture and may be upright or broad and spreading. It is often many-stemmed. Flowers are glorious and huge at their best -- up to 6" in diameter -- and occur in many colors. Most are flared and have a bell shape and may be singleor double, smooth or scalloped. They have a long central tube with stamens and pistils at the tip.

49. Tender fountain grass

Botanical name: *Pennisetum setaceum*
Common name: African fountain grass, Tender fountain grass.
Family: Poaceae

Fountain grass is a very showy ornamental grass with graceful, arching leaves, and erect or nodding rose-colored flower spikes up to 12 in long. Fountain grass grows in dense, symmetrical clumps that can get 3-4 ft tall and 2-3 ft across with a fountain of feathery plumes flowing out of the foliage. 'Cupreum' has reddish stems and leaves, and copper-colored plumes. 'Rubrum' and 'Purpureum' are larger, to 5 ft tall, with dark purple leaves and burgundy-red, nodding plumes to 15 in long. 'Eaton Canyon' is a miniature, to 30 in high, with burgundy-red foliage and plumes. These cultivars generally do not set seed, and therefore are good

choices for tropical and subtropical climates where the species could become invasive.

50. Pomegranate

Botanical name: *Punica granatum*
Common name: Pomegranate
Family: Lythraceae

The pomegranate is a shrub, usually with multiple stems, that commonly grows 6-15 ft tall. The slender branches start out upright, then droop gracefully. Pomegranates have beautiful orange-red trumpet shaped flowers with ruffled petals. From one to several flowers may be borne on a twig, one being terminal, the others lateral and solitary. The odorless but colorful flowers are large, 1 1/2 to 3 inches in length, campanulate or cylindrical, and generally reddish but sometimes yellow to white. There are five or more petals, some of which may be doubled. The stamens are numerous, erect to slightly curved at the apex, and red - the anthers are yellow.

51. False Indigo Bush

Botanical name: *Amorpha fruticosa*
Family : Fabaceae
Common name: desert false indigo, false indigo-bush.

False indigo-bush is a 6-10 ft., loose, airy shrub which often forms dense thickets. Plants develop a leggy character with the majority of their pinnately compound, fine-textured foliage on the upper third of the plant. Leaflets velvety on the lower surface, margins frequently almost parallel, often abruptly rounded at both ends and with a notch at the tip. Flowers small, purple to dark blue with yellow stamens extending beyond the single petal, crowded in narrow, 3-6 in., spike like clusters at or near the ends of the branchlets, appearing from April to June. Fruit small, up to 3/8 inch long and with blister like glands visible under a 10x hand lens.

52. Wormbush

Botanical name: *Spigelia anthelmia*
Common name: Wormbush, Wormgrass.
Family: Loganiaceae

Wormbush is an anual weed with stem erect, hollow, hairless. Leaves are opposite, with an apical pseudo-whorl of 2 decussate pairs, simple and entire, stipules united, broad-triangular, stalk up to 1 cm long. Leaves are ovate-oblong to ovate-

lanceolate, 4-18 cm x 1-6 cm, base obtuse to cuneate, tip long-pointed. Inflorescence is a terminal or axillary spike up to 15 cm long, many-flowered; peduncle very short; bracts sepal-like. Flowers are bisexual, regular, 5-merous, sessile; sepals free, slightly unequal, 2-6 mm long, pale green. Flowers are 8-17 mm long, tube 6-15 mm long, lobes equal, triangular, 2-2.5 mm long, lilac to white, or tube white and lobes pale pink, with or without 5 pairs of reddish lines inside.

53. wild lettuce

Botanical name: *Lactuca virosa*
Common name : wild lettuce, bitter lettuce.
Family : Asteraceae

Lactuca virosa is biennial, similar to prickly lettuce Lactuca serriola but taller – it can grow to 200 cm (80 inches or almost 7 feet). It is also stouter, the stem and leaves are more purple flushed,and the leaves are less divided, but more spreading, similarly to Mycelis muralis but showing more than 5 florets.
The achene is purple black, without bristles at the tip. The pappus is the same as Lactuca serriola.
In the northern hemisphere, it flowers from July until September.

54. Common Wireweed

Botanical name: *Sida acuta*
Common name: Common Wireweed, Morning mallow.
Family: Malvaceae

This is a much branched shrubby plant growing to a height of a feet or a little more. Its leaves are simple lanceolate, and can vary in size. Some plants have leaves that are quite small, while others grow leaves that can be quite long. The leaves are prominently toothed and have an acute base (hence acuta) with stipules being present. The flowers grow from leaf axils, are yellow in colour, solitary or occasionally in pairs. The flowers are buttercup like in shape, with overlapping petals. Common Wireweed is a pantropical weed. It is found in Eastern Himalays, at altitudes of 250-2700 m, and also in the Western Ghats.

55. Mini Rose

Botanical name: *Rosa chinensis var. minima*
Common name: Mini Rose, Miniature rose.

Family: Rosaceae

Mini rose is the smallest of all roses. It is generally believed to be the common ancestor of the major Miniature rose varieties. The plant is 25-50 cm high. Flowers are about 3 cm across. This small, frail rose with slender stems produces small, double flowers of a pale pink color. It has been known only from cultivation, and is believed to originate from China. In NE India it is a popular houseplant. Flowering starts in June and continues till winter.

56. Tridax Daisy

Botanical name: *Tridax procumbens*
Common name: Tridax Saturday
Family: Asteraceae

This pretty daisy-like flower is very common all over the plains of northern India. Tridax daisy stands about 30-60 cm high and has slightly hairy stems. The leaves are ovate orlanceolate with toothed edges. The small creamy or white flower has five petals which are notched on the outer edges. The centre of the flower is yellow. This plant has flowers all the year around, but from May to December is the time that it is fully in bloom. It is found along paths, roadsides and in the crevices of walls and rocks. It is a great favourite with low flying butterflies. In the areas where there is a great concentration of these flowers one will find plenty of butterflies too.

57. Brinjal

Botanical name: *Solanum melongena*
Common name: Brinjal
Family: Solanaceae

Brinjal is a species of Solanum, native to southern India and Sri Lanka. It is an annual plant growing 16 in - 57 in tall, often spiny, with large, coarsely lobed leaves 10-20 cm long and 5-10 cm broad. The leaves are sometimes spiny. The flowers are white to purple, with a five-lobed corolla and yellow stamens. The fruit is a fleshy berry, 3 cm diameter on wild plants (much larger in cultivated forms), containing numerous small, soft seeds. Brinjal is an important food crop grown for its large pendulous purple or white fruit.

58. Chasteberry

Botanical name: *Vitex agnus-castus*
Common name: Chasteberry, Lilac chastetree.

Family: Verbenaceae

Chasteberry is a deciduous shrub, 1-5 m tall. Leaves are digitately compound, with leaflets 5-7, aromatic, narrowly-lanceshaped, stalked, hairless above and white-woolly beneath with tomentum obscuring the whole lower surface. Flowers are borne at branch-ends, in spike-like clusters, comprised of many-flowered cymes in narrow panicles, usually with additional spike-like inflorescences from the axils of the upper leaves. Flowers are small, pale violet, fragrant, 4 mm across. Sepal-cup is 3 mm long, 2 mm broad, bell-shaped, flat, triangulate to obscurely toothed, persistent. Flowers are 7-10 mm long, exceeding the sepal-cup; lower lobes hairless to slightly velvet-hairy at the base. Chasteberry fruit is spherical, 2-2.5 mm in diameter, protruding half-way above the slightly enlarged and expanded, persistent sepal-cup, hairless.

59. macho ferns

Botanical name : *Nephrolepis biserrata*
Common name: macho fern
Family: Nephrolepidaceae

The fronds of Nephrolepis biserrata reach 2.5 m tall. The petioles are sparse to moderate with reddish to light brown hair-like scales. The rachis has moderately spaced scales of one color. The pinnae reach 23 cm long, 2 cm wide, attached to 3.5 cm apart. The margins are finely double-toothed and densely pubescent below. The apices are long and pointed; the central vein has dense erect hairs, short matted hairs, or is rarely glabrous on the upper surface.

60. Star fruit

Botanical name: *Averrhoa carambola*
Common name: Carambola, Star fruit.
Family: Oxalidaceae

A slow growing small tropical tree, no more than 25 feet tall, originally from Southeast Asia (Indonesia) The green leaflets are sensitive to light and fold inward at night. It has small, pink colored flowers with a dark-red heart. The carambola plant will flower and fruit four times yearly. This tropical fruit, fleshy five lobbed, ovate to elliptoid, is attractive yellow-orange and pleasantly aromatic! The tree flowers and bears fruit almost year-round. When sliced in cross section a perfect star is formed. Carambola is eaten fresh or in fruit salads. The carambola tree seems to be used for bonsai.

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LIST OF PLANTS AT SCIENCE BLOCK PREMISES

S.NO	COMMON NAME	BOTANICAL NAME	FAMILY
1.	Cuban oregano	*Plectranthus amboinicus*	Compositae
2.	Cotton lavender	*Santolina africana*	Lamiaceae
3.	Snake plamt	*Sansevieria stuckyl*	Asparagaceae
4.	Bulbophyllum nutans	*Bulbophyllum nutans*	Orchidaceae
5.	Flaming sword	*Vriesea splendens*	Bromeliaceae
6.	Kraus's spikemoss	*Selagnella kraussiana*	Selaginellaceae
7.	Brake fern	*Pteris vittata*	Pteridaceae
8.	Rattle snake plant	*Calanthea lancifolia*	Marantaceae
9.	Veldt Grape	*Cissus quadrangularis*	Vitaceae
10.	Tail flower	*Anthurium andraeanum*	Araceae
11.	Deer-foot fern	*Davallia canariensis*	Davalliaceae
12.	Dumb cane	*Dieffenbachia seguine*	Araceae
13.	Money plant	*Epipremnum aureum*	Araceae
14.	Indian Laurel fig	*Ficus retusa*	Moraceae
15.	Kris plant	*Alocasia sanderiana*	Araceae
16.	Golden Cane palm	*Dypsis lutescens*	Arecaceae
17.	Water cabbage	*Pistia stratiotes*	Araceae
18.	Sea spurge	*Euphorbia paralias*	Euphorbiaceae
19.	Horse tail	*Equisetum hyemale*	Equisetaceae
20.	Wax flower	*Hoya carnosa*	Apocyanaceae
21.	Ribbon plant	*Dracaena braunii*	Asparagaceae
22.	Desert rose	*Adenium obesum*	Apocyanaceae
23.	Bengal arum	*Typhonium blumei*	Araceae
24.	Song of India	*Dacaena reflexa*	Asparagaceae
25.	Golden Trumpet Vine	*Allamanda catharhica*	Apocyanaceae
26.	Mini rose	*Rosa chinensis*	Rosaceae
27.	Railway creeper	*Ipomoea cairhiea*	Convolvulaceae
28.	Papaya	*Carica papaya*	Cariaceae
29.	Chinese evergreen	*Aglaonema commutatum*	Araceae
30.	Asiatic dayflower	*Camelina cammunis*	Camelinaceae

31.	Weeping fig	*Ficus benjamine*	Moraceae
32.	Stalkless Joyweed	*Alternanthera sessilis*	Amaranthaceae
33.	Peepal	*Ficus religiosa*	Moraceae
34.	Hawaiian Ti Plant	*Codyline fruticosa*	Asparagaceae
35.	Lemon	*Citum lemon*	Rutaceae
36.	Passion fruit	*Passiflora edvlis*	Passifloraceae
37.	Malabar Chestnut	*Pachira aquatica*	Malvaceae
38.	Cluster Fig	*Ficus racemosa*	Moraceae
39.	Arabian Jasmine	*Jasminum sambac*	Oleaceae
40.	Indian almond	*Terminalia catappa*	Combretaceae
41.	Smooth agave	*Agave desmittiana*	Asparagaceae
42.	China rose	*Hibiscus rosa-sinensis*	Malvaceae
43.	Sandpaper Fig	*Ficus coronata*	Moraceae
44.	Obscure morning glory	*Ipomoea obscurus*	Convolvulaceae
45.	Scholar tree	*Alstonia scholaris*	Apocyanaceae
46.	Trumpet creeper	*Campsis radicam*	Bignoniceae
47.	Fringed Spider Flower	*Cleoma rutidosperma*	Cleomaceae
48.	Sitaphal	*Annona squamosa*	Annonaceae
49.	Male fern	*Dryopteris filix*	Dryopteridaceae
50.	Star flower	*Pentas lanceolata*	Rubiaceae
51.	Coral Vine	*Antigonam leptopus*	Polygonaceae
52.	Lantana	*Lantana camara*	Verbenaceae
53.	Rubber tree	*Ficus elastica*	Moraceae
54.	Taro	*Colocasea erculenta*	Araceae
55.	Great Bougainvillea	*Bougainvillea spectabils*	Nyctaginaceae
56.	Ashoka	*Polyalthia longifolia*	Annonaceae
57.	Casuarina	*Casuarina equisetifolia*	Casuarinaceae
58.	Lakshman Phal	*Annona muricata*	Annonaceae
59.	Calloused fig	*Ficus callosa*	Moraceae
60.	Drumstic tree	*Moringa oleifera*	Moringaceae
61.	Golden Trumpet Vine	*Allamanda cathartica*	Apocyanaceae
62.	Soap Aloe	*Aloe maculata*	Xanthorrhoeaceae
63.	Periwinkle	*Catharanthus roseus*	Apocyanaceae

64.	Belladonna Lily	*Amaryllis belladonna*	Amaryllidaceae
65.	Tulsi	*Ocimum tenuiflorum*	Lamiaceae
66.	Bougainvillea	*Bougainvillea glabra*	Nictaginaceae
67.	Summer damask rose	*Rosa gallica*	Rosaceae
68.	Bush clockvine	*Thunbergia erecta*	Acanthaceae
69.	Showy Island snapdragon	*Gambelia speciosa*	Plantaginaceae
70.	Capsicum	*Capsicum annum*	Solanaceae
71.	Peacock flower	*Caesalpinia conyzoides*	Leguminosae
72.	Curry leaf	*Murraya koenigii*	Rutaceae

Description of Plants at Science Block Premises

1. Cuban Oregano

Botanical name : *Plectranthus amboinicus*

Common Name: Cuban Oregano, Indian borage, Indian mint,

Family : Lamiaceae

Cuban Oregano is a sprawling and somewhat succulent herb, growing to 1 m tall. The plant is sometimes prostrate at base, with the branchlets rising up, densely hairy. Leaves have stalks 1-4.5 cm long, densely velvety, like most mint family plants. Flowers are pale blue or mauve to pink.The leaves are strongly flavoured and make an excellent addition to stuffings for meat and poultry.

2. Cotton lavender

Botanical name *: Santolina Africana*

Common name : Cotton lavender

Family : Asteraceae

They are small evergreen shrubs growing 10–60 cm tall. The leaves are simple and minute in some species, or pinnate, finely divided in other species, often densely silvery hairy, and usually aromatic. The composite flowerheads are yellow or white.

3. Snake plant

Botanical name : *Sansevieria stuckyi*
Common name : Snake plant
Family : Asparagaceae
Sansevieria Stuckyi is a perennial succulent with an interesting foliage. It is sometimes mistaken for Sansevieria Fischeri. But there are slight differences in leaf structure and flowering behaviours of these two species.S. Stuckyi can be toxic for cats and dogs. After ingestion, it can cause mild symptoms of poisoning. The symptoms include diarrhea, vomiting, drooling, nausea and mouth irritation. All parts of this plant are mildly toxic for humans as well.One of the most well known benefits of this plant is its ability to absorb pollutants from air.Although most of the plants absorb carbon dioxide and release oxygen during photosynthesis, they can only do that during the daytime.Another great benefit of snake plants is decreasing the impact of airborne allergens. Snake plants release oxygen, absorb carbon dioxide and other harmful toxins.

4.Bulbophyllum nutans

Botanical name *: Bulbophyllum nutans*
Family : Orchidaceae
Bulbophyllum nutans is a species of epiphytic orchid native to Madagascar and the Mascarene Islands in the family of Orchidaceae. They form into a cluster, creating a group of green-like bulb appearance that form pseudo bulbs with cotyledon-like leaves on top that usually has two leaves. The orchids form an inflorescence of white-golden like flowers that shoot out from beneath theorchid's pseudo bulbs.

5.Flaming sword

Botanical name: *Vriesea splendens*
Common name: Flaming sword
Family: Bromeliaceae
Great looking bromeliad – to a casual observer, this looks like it could be a desert plant. Green foliage with prominent dark bands across them, and stunning flowers in the later summer. Distinctive is the long flower spike, which emerges from the um-like centre of the plant when it is several years old. The basic Flaming sword's flower head is a flattened "sword" of tightly knit red bracts from which yellow flowers emerge. Other varieties have flower heads which are branched and/or have bracts in lighter shades of red and orange.

6.Kraus's spikemoss

Botanical name: *Selaginella kraussiana*
Common name: Kraus’s spikemoss
Family: Selaginellaceae
Selaginella kraussiana is a species of vascular plant in the family Selaginellaceae. It is referred to by the common names Kraus'sspikemoss, Krauss's clubmoss, or African clubmoss, and is found naturally in the Azores and parts of mainland Africa. It belongs to the very ancient lineage of plants known as the clubmosses.Selaginella kraussiana is cultivated for ornamental purposes. It requires a minimum temperature of 5 °C (41 °F), and in temperate regions is grown under glass as a houseplant. The species and the cultivar ‘Brownii’ have both gained the Royal Horticultural Society's Award of Garden Merit. Other cultivars include ‘Aurea’ and ‘Gold Tips’. They prefer a sheltered spot in full or partial shade, in moist, well-drained acid or neutral soil. 'Frosty Fern' is sold as a house plant.

7.Brake fern
Botanical name : *Pteris vittata*
Common Name : Chinese Brake fern, Brake fern, Chinese ladder fern
Family: Pteridaceae
Pteris vittata is often associated with limestone habitats. It may be seen growing on concrete structures and cracks, in buildings in the central business district and suburbs of Sydney, Australia. It is an introduced species in California, Texas, and the Southeastern United States. A remnant population exists in the Italian peninsula, in Sicily, Calabria and Campania. Although it grows readily in the wild, Pteris vittata is sometimes cultivated. It is grown in gardens for its attractive appearance, or used in pollution control schemes: It is known to be a hyper accumulator plant of arsenic used in phytoremediation

8.Rattlesnake plant
Botanical name*: Calathea lancifolia*
Common name: Rattlesnake plant
Family: Marantaceae
Goeppertia insignis (syn. Calathea lancifolia), the rattlesnake plant, is a species of flowering plant in the Marantaceae family, native to Rio de Janeiro state in Brazil. It is an evergreen perennial, growing to 60–75 cm (24–30 in), with slender pale green leaves to 45 cm (18 in), heavily marked above with dark blotches, purple below.The bottom side of the leaves are purple,with the adaxial surface having what look like dark green alternating large and small leaflets overlaid on

the light green leaf.This plant is grown for its attractive foliage. Houseplant for bright areas with no direct sun. Popular landscape plant in Hawaii.

9. Veldt Grape

Botanical name : *Cissus quadrangularis*

Common name: Veldt Grape, Devil's Backbone.

Family: Vitaceae

Veldt Grape is a perennial shrub reaching a height of 1.5 m and has quadrangular-sectioned branches with internodes 8 to 10 cm long and 1.2 to 1.5 cm wide. It is probably native to India or Sri Lanka, but is also found in Africa, Arabia, and Southeast Asia.

Medicinal uses: Warning: Unverified information Veldt Grape has been used as a medicinal plant since antiquity. In siddha medicine it is considered a tonic and analgesic, and is believed to help heal broken bones, thus its name asthisamharaka (that which prevents the destruction of bones). It is said to have antibacterial, antifungal, antioxidant, anthelmintic, antihemorrhoidal and analgesic activities. It is one of the most commonly used medicinal plants in Thailand.

10. Tail flower

Botanical name: *Anthurium andraeanum*

Common name: Flamingo flower, Tail flower

Family: Araceae

Anthurium, pronounced an-THOO-ree-um, is once-seen, never-forgotten flowers. Their unmistakable glossy heart-shaped bright red flower bract (which gives them their popular name of painter's palette) surrounds the true flowers, which are in the form of a spike (or spathe) at the centre.The seeds are small subglobose berries. The flower bracts have a puckered appearance and shine as though they were varnished. Anthuriums will bloom more or less continuously, each plant having four to six flowers during the year. Each flower will last about six weeks on the plant or several weeks when cut and placed in a vase of water.

11. Deer -foot fern

Botanical name *: Davallia canariensis*

Common name: Deer-foot fern, Hare-foot fern, Canary Fern.

Family: Davalliaceae

The Davallia genus of ferns includes about three dozen species of ferns that all share a quirky and kind of delightful trait: they all grow from creeping rhizomes that are fuzzy and covered with a fine, fur-like mat of hairs. This fuzzy rhizome

has earned the Davallia species their common names: deer's foot ferns, squirrel's foot ferns, and rabbit's foot fern, among others.In their native habitat, these ferns are often epiphytic, which explains their creeping rhizomes. In indoor cultivation, they are frequently grown as hanging plants or long-term potted plants.

12. Dumb cane

Botanical name : *Dieffenbachia seguine*

Common name: Dumb Cane.

Family: Araceae

Diesffenbachias are easy houseplants that tolerate a wide range of conditions. The name Dumb Cane reflects the fact that the acrid sap will burn the mouth and numb the throat to the extent that it may even paralyze the vocal cords. Some people may get a skin rash from the plant's sap. This plant can be toxic if eaten. Plants may reach up to 6 feet tall bearing dark green leaves with irregular zones of creamy white along the primary lateral veins. Leaves will reach 47 cm long by about half as wide. Petioles are 30 cm long and winged along about half of their length. They make a tough and durable houseplant that will withstand low light conditions. Plants may flower at any time of the year if conditions are favorable.

13. Money plant

Botanical name : *Epipremnum aureum*

Common name : Money plant,Golden pothos,Ceylon creeper.

Family : Araceae

Money Plant is an extremely popular houseplant in India. It is an evergreen vine growing up to 20 m tall, with stems up to 4 cm in diameter, climbing by means of aerial roots which adhere to surfaces. However, the plant can be grown virtually anywhere, even in water without soil, or completely away from light. The leaves are alternate, heart-shaped, entire on juvenile plants, but irregularly pinnately cut on large mature plants, up to 100 cm long and 45 cm broad. Money Plant is native to Moorea Islands in the Pacific Ocean, widely cultivated in India.

14. Indian Laurel fig

Botanical name : *Ficus retusa*

Common name: Indian Laurel fig

Family: Moraceae

Ficus retusa is a species of evergreen woody plant in the fig genus, native to the Malay Archipelago and Malaysia floristic region. The species name has been widely mis-applied to Ficus microcarpa. The tree has glabrous obovate leaves,

usually longer than 10 centimeters (3.9 in) and spirally arranged. It has a gray to reddish bark dotted with small, horizontal flecks, called lenticels that are used by woody plant species for supplementary gas exchange through the bark. The name is commonly used to refer to ornamental indoor plants (for example bonsai) widely cultivated in temperate regions, but such plants generally belong to another species, Ficus macrocarpa.

15. Kris plant

Botanical name : *Alocasia sanderiana*

Common name : Kris Plant

Family: Araceae

Kris plant is a tropical perennial with upright shiny, V-shaped and deeply lobed leaves. It is native to Philippines, and grown as an ornamental plant in tropical countries. The plant can be up to 6 ft tall and large in its native tropical habitat, but is much smaller in culture. Leaves are evergreen, pelted, V-shaped, deeply lobed, glossy deep-green with large silvery white veins. This plant has creamy-white inflorescences that are about 6 in (15 cm) long, and that are made of a green and white spathe that covers the tiny flowers. Female flowers are grouped at the lower part of the inflorescence, whereas the male flowers are at the top.

16. Golden Cane Palm

Botanical name *: Dypsis lutescens*

Common name: Golden Cane Palm, Areca Palm.

Family: Arecaceae

Golden Cane Palm is clump-growing with ringed, bamboo-like stems and yellow leaf-ribs. The foliage is evergreen, of fine texture and yellow-green in color. Pinnate, 6 to 8 pale green leaves per stem, 80 to 100 leaflets, to 8 feet long (2.4 m). Yellow if grown with enough light, 2 feet long. Yellow male and female flowers on the same inflorescence. Flower stalk coming from below the leaves. Fruit is yellow to purple, 2 cm, oval in shape. This is one of the most useful Palms of the tropics the world around. Native to Madagascar, Golden Cane Palm is tropical-looking, serves as a super, bamboo-like screening plant and is relatively pest-free.

17. Water cabbage

Botanical name: *Pistia stratiotes*

Common name : Water Cabbage, Tropical duckweed, Water lettuce

Family :Araceae

Water Cabbage is an aquatic herb which floats on the surface of the water. Its roots hang inside water beneath floating leaves. The thick, soft leaves form a rosette. The leaves can be up to 14 cm long and have no stem. They are light green, with parallel veins, wavy margins and are covered in short hairs which form basket-like structures which trap air bubbles, increasing the plant's buoyancy. The flowers are small, hidden in the middle of the plant amongst the leaves. Male and female flowers are on different plants. Small green berries form after successful fertilization. The plant can also undergo asexual reproduction. Mother and daughter plants are connected by a short stolon, forming dense mats. Due to its growth habit, the plant spreads easily can be invasive.

18. Sea spurge

Botanical name : *Euphorbia paralias*

Common Names: Sea spurge.

Family: Euphorbiaceae

The Euphorbiaceae, the spurge family, are a large family of flowering plants. In common English, they are sometimes called euphorbias,[which is also the name of a genus in the family. Most spurges such as Euphorbia paralias are herbs, but some, especially in the tropics, are shrubs or trees, such as Hevea brasiliensis. Some, such as Euphorbia canariensis,[are succulent and resemble cacti because of convergent evolution.

19. Horsetail

Botanical name *: Equisetum hyemale*

Common name: Scouring-rush Horsetail, Horsetail, Scouring Rush, and Canuela.

Family:Equisetaceae

Common scouring rush is a spreading, reed-like perennial to 3 ft (0.9 m) tall. The evergreen stems are cylindrical, about 1/3 in (0.8 cm) in diameter, jointed, hollow, usually unbranched, and have rough longitudinal ridges. The tiny leaves are joined together around the stem, forming a narrow black-green band or sheath at each joint. Like other Pteridophytes (ferns and their relatives), scouring rush does not produce flowers or seeds.

20. Wax flower

Botanical name : *Hoya carnosa*

Common name: Wax Flower

Family: Apocynaceae

Wax flower is a slow-growing, woody, evergreen vine which has thick, fleshy, two to four-inch-long, green or variegated leaves. The flower-cluster is made up of numerous flowers, hanging or more upright. The flowers are typically light pink, but may vary from near-white to dark pink; they are star-shaped, and are borne in clusters that look like tiny wax miniatures. The surface of the flowers is covered in tiny hairs giving them a fuzzy sheen. They are heavily scented and may produce excess nectar that drips from the flowers. The flower crown has a diameter of 1.5 to 2 cm and is whitish to slightly pink colored.

21. Ribbon plant

Botanical name : *Dracaena braunii*

Common name : LuckyBamboo,Green dragon, Ribbon plant.

Family : Asparagaceae

Dracaena braunii is a species of flowering plant in the family Asparagaceae. It was named after the German collector Braun, Johannes M. (1859-1893). Most plants named Dracaena braunii in cultivation are Dracaena sanderiana, a plant with flowers five times longer than those of D. braunii, while the leaf base is not congested as in D. braunii

PLANTS NEAR CHEMISTRY DEPARTMENT

22. Desert rose

Botanical name: *Adenium obesum*

Common name: Desert rose

Family: Apocyanaceae

A member of the same botanical family as Frangipani, Adenium is sometimes also called Japanese Frangipani. A small tree let, mostly grown in pots, Adenium can reach the height of about 1 meter. The Desert Rose is a native of East Africa. It has fleshy leaves and beautiful 2-inch pink open-trumpet shaped flowers. It is a succulent, and forms more of a bush than a tree. It will be an indoor bonsai in all but the warmest climates. Needs little water during winter, especially when kept cool.

23. Bengal arum

Botanical name: *Typhonium blumei*

Common name: Bengal arum

Family: Araceae

Typhoni umblumei Nicolson &Sivadasan (formerly known as Typhoniumdivaricatum (L.) Decne) is a **traditional Chinese medicinal herb** endowing with detumescence, detoxification, anti-inflammation, antivirus, and anticancer bioactivities. However, its bioactivities have seldom been investigated.

24. Song of India

Botanical name : *Dracaena reflexa*

Common Name: Pleomele, Song of India.

Family: Asparagaceae

Pleomele is a Tender evergreen shrubs or small tree native to Madagascar and Mauritius. But this is a tropical tree. It may reach a height of 4–5 m, rarely 6 m in ideal, protected locations; D. reflexa is usually much smaller, especially when grown as a houseplant. It is slow-growing and upright in habit, tending to an oval shape with an open crown. This is a full sun tree. In too much shade, plants may grow spindly with the variegated leaves losing their variegation. Plants like high humidity and consistent year-round temperatures. The shiny leaves are narrowly lance-shaped, green in the middle and bordered with pale yellow that frames each leaf. There is greener version. The leaves spiral upwards from the stems to tip in a wild fashion that creates the Song of India's messy and unpredictable crown.

25. Golden Trumpet Vine

Botanical name: *Allamanda cathartica*

Common name: Golden Trumpet Vine

Family: Apocynaceae

A tropical twining vine, native to Brazil, with deeply veined, whorled leaves and large, trumpet shaped bright yellow flowers. Prickly seed pods follow the flowers with winged seeds that fly about when the pod dries and breaks open. The Allamanda vine is a fast growing rampant vine that always looks better with training and pruning. It flowers almost all year. The plant has milky sap and is considered poisonous; all parts are highly cathartic (hence the botanical name) Texture is coarse and leaves are bright to light green; the plant is often pruned and used as a shrub.

26. Mini rose

Botanical name: *Rosa chinensis*

Common name: Mini rose,Miniaturerose,Dwarf Bengal rose

Family: Rosaceae

Mini rose is the smallest of all roses. It is generally believed to be the common ancestor of the major Miniature rose varieties. The plant is 25-50 cm high. Flowers are about 3 cm across. This small, frail rose with slender stems produces small, double flowers of a pale pink color. It has been known only from cultivation, and is believed to originate from China. In NE India it is a popular houseplant. Flowering starts in June and continues till winter.

27. Railway creeper

Botanical name : *Ipomoea cairica*

Common name: Railway creeper

Family: Convolvulaceae

One of the commonest yet most useful of the evergreen creepers, refreshing the eve in the hottest weather with its clear, green leaves and delicate, mauve blooms, the Railway Creeper is found in gardens, villages, and on practically every railway station, thus earning for itself its nickname. This morning glory vine is beautiful, climbing on to whatever it finds - the purple flower studded vine wrapped around bending bamboo stems, is a pleasing sight. Its stem is hairless, readily set roots when in touch with the earth.

28. Papaya

Botanical name : *Carica papaya*

Common name: Papaya, Melon tree.

Family: Caricaceae

The papaya plant has an erect branchless trunk 6-20 ft tall and a palm like head of foliage at the top. The trunk remains somewhat succulent and soft wooded, and never develops true bark. Some papaya may have both male and female flowers. The flowers of papaya are usually white and small. Pollination of papaya is done by wind and sometimes by hand when necessary to get a proper fruit. The smooth-skinned fruits are green, yellow, orange or rose colored, and typically weigh about 0.5 kg. They hang on short stalks in clusters directly from the trunk beneath the umbrella of giant leaves. Papayas flower and fruit simultaneously throughout the year.

29. Chinese evergreen

Botanical name: *Aglaonema commutatum*

Common name: Chinese evergreen

Family: Araceae

Aglaonema commutatum, commonly called Chinese evergreen, is an evergreen perennial that generally resembles dieffenbachia (dumb cane) in appearance. It

typically grows to 20” tall. Thick, elliptic to lance-shaped, dark green leaves (to 4-8” long and 2-3” wide) with attractive silver-gray blotches on erect, sometimes branched stems. As a houseplant, it rarely flowers. Each axillary flower (typical arum family) features a small creamy white spadix enclosed by a pale green spathe, usually in late summer to early fall. Clusters of red berries follow the flowers.

30. Asiatic dayflower

Botanical name: *Commelina communis*

Common name: Asiatic dayflower

Family: Commelinaceae

Commelina communis, commonly known as the Asiatic dayflower, is an herbaceous annual plant in the dayflower family. It gets its name because the blooms last for only one day. It is native throughout much of East Asia and northern parts of Southeast Asia. In China, the plant is known as yazhicao. It has also been introduced to parts of central and southeastern Europe and much of eastern North America, where it has spread to become a noxious weed. It is common in disturbed sites and in moist soil. The flowers emerge from summer through fall and are distinctive with two relatively large blue petals and one very reduced white petal.

31. Weeping Fig

Botanical name : Ficus benjamina

Common name: Weeping Fig

Family: Moraceae

The Weeping Fig is an evergreen tree, native to south and Southeast Asia. It is the official tree of Bangkok, Thailand. It is a tree reaching 30 m tall in natural conditions, with gracefully drooping branchlets and glossy leaves 6-13 cm long, oval with a pointed tip. It is a very popular house plant, due to its elegant growth and tolerance of poor growing conditions; it does best under bright, sunny conditions but will also tolerate considerable shade. The plant is sensitive to cold and should be protected from strong drafts. When grown indoors, it can grow too large for its situation, and may need drastic pruning or replacing. The leaves are very sensitive to small changes in light. When it is re-located it reacts by dropping many of its leaves and replacing them with new leaves adapted to the new light intensity.

32. Stalkless Joyweed

Botanical name: *Alternanthera sessilis*
Common name: Stalkless Joyweed
Family: Amaranthaceae
Stalk less Joy weed is a perennial herb, often found in and near ponds, canals and reservoirs. It prefers places with constant or periodically high humidity and so may be found in swamps, shallow ditches, and fallow rice fields.
Medicinal uses: Warning: Unverified information Stems and leaves useful in eye trouble. Decoction is taken with little salt drunk to check vomiting of blood. Shoot with other ingredients used to restore virility. Poultice used for boils.

33. Peepal

Botanical name : *Ficus religiosa*
Common name : Peepal ,holy fig tee,peepul,sacred fig tree
Family : Moraceae
Peepal is unrivalled for its antiquity and religious significance. No other tree is claimed to have such long life - one in Sri Lanka, said to have been planted in the year 288 B.C., still lives and flourishes. A grand peepal tree is a perfect shade tree, and village meetings are often conducted under a peepal tree. It is a large deciduous tree with a pale stem often appearing fluted on account of the numerous roots which have fused with the stem. Leaves leathery 4-8 inches long by 3-5 inches wide, somewhat egg-shaped or rounded, tailed at the tip and heart-shaped at the base, or sometimes rounded. The young leaves are frequently pink, change to copper and finally to green. Flowers minute within the receptacle. Fruit is a fig.

34. Hawaiian Ti Plant

Botanical name : *Cordyline fruticose*
Common name: Hawaiian Ti Plant.
Family: Asparagaceae
The Hawaiian Ti plant (pronounced as in tea not tie) is a palm like evergreen shrub with a strong, usually unbranched trunk that can get up to 10' tall. However, most of us know it as a smaller foliage house plant, before much of a trunk has developed.The leaves originate in tufts at the top of the woody stems in mature plants, and more or less along the stems in younger house plants. The fruits are red berries. Ti sometimes grows in clumps by suckering from the enlarged tuber-like rhizomes. Many cultivars have been selected for their beautiful foliage.

35. Lemon

Botanical name : *Citrus lemon*

Common name: Lemon.
Family: Rutaceae
Lemon is an extremely common fruit in India. The lemon has a white, fragrant flower with five petals. The mildly fragrant flowers may be solitary or there may be 2 or more clustered in the leaf axils. Buds are reddish; the opened flowers have 4 or 5 petals ¾ in long, white on the upper surface (inside), purplish beneath (outside), and 20-40 more or less united stamens with yellow anthers. The leading acid citrus fruit, because of its very appealing color, odor and flavor. The true lemon tree reaches 10 to 20 ft (3-6 m) in height and usually has sharp thorns on the twigs. The fruit is oval with a nipple-like protuberance at the apex.

36. Passion fruit

Botanical name : Passiflora edulis
Common name: Passion fruit
Family: Passifloraceae
The passion fruit is a vigorous, climbing vine that clings by tendrils to almost any support. It can grow 15 to 20 ft. per year once established and must have strong support. It is generally short-lived (5 to 7 years). The evergreen leaves of passion fruit are alternate, deeply 3-lobed when mature and finely toothed. They are 3 to 8 inches long.The fruit can be grown to eat or for its juice, which is often added to other fruit juices to enhance aroma. Passion fruit is cultivated commercially for its fruit in northwestern South America, India, the Caribbean, Brazil, southern Florida, Hawaii, Australia, East Africa, Israel and South Africa.

37. Malabar Chestnut

Botanical name : *Pachira aquatica*
Common name : Malabar chestnut,Guiana chestnut,provision tree,saba nut,money tree
Family : Malvaceae
Malabar Chestnut is a tropical wetland tree which can grow up to 18 m (60 ft) in height in the wild. It has shiny green digitate leaves with lanceshaped leaflets and smooth green bark.The tree is cultivated for its edible nuts, which grow in a large, woody pod. The nuts are light brown, striped with white. They are said to taste like peanuts, and can be eaten raw, cooked, or ground into flour to make bread. The leaves and flowers are also edible. The tree grows well as a tropical ornamental in moist, frost-free areas, and can be started from seed or cutting. It is a durable plant and adapts well to different conditions. Malabar Chestnut is native to the American continents.

38. Cluster fig

Botanical name : *Ficus racemosa*

Common name: Cluster fig

Family: Moraceae

Goolar is an attractive fig tree with a crooked trunk and a spreading crown. Unlike the banyan, it has no aerial roots. The most distinctive aspect of this tree is the red, furry figs in short clusters, which grow directly out of the trunk of the tree. The flowers are pollinated by very small wasps that crawl through the opening in search of a suitable place to reproduce (lay eggs) without these pollinator service fig trees cannot reproduce by seed. Goolar is a tree commonly found in cities and towns. It has evergreen leaves, if it is close to a water source. Figs have been traditionally used by children to play.

39. Arabian Jasmine

Botanical name : Jasminum sambac

Common name: Arabian Jasmine 'maid of Orleans'

Family: Oleaceae

Arabian Jasmine is an evergreen shrub that often reaches 5 ft in height in pots. The flowers are used in making perfumes and as a flavoring in tea. Arabian jasmine is native to India. This woody shrub features green oval shaped leaves. The most attractive aspect of this plant is its small, white, star-shaped flowers, which are fragrant and have a wonderfully sweet scent. This ever blooming Jasmine has bushy growth and does particularly well on windowsills. It is well known in Asia for its use in teas and religious observances. Also known as the "Arabian Tea Jasmine," it is the National Flower of the Philippines, where it is known as 'Sampaguita.'

40. Indian almond

Botanical name: Terminalia catappa

Common name: Indian almond, false kamani

Family: Combrectaceae

The tree has been spread widely by humans, so the native range is uncertain. T. catappa is widely grown in tropical regions of the world as an ornamental tree, grown for the deep shade its large leaves provide. The fruit is edible, tasting slightly acidic. The wood is red and solid, and has high water resistance; it has been used in Polynesia for making canoes. Keeping the leaves in an aquarium may lower the pH and heavy-metal content of the water. It has been used in this

way by fish breeders for many years, and is active against some parasites and bacterial pathogens. It is also believed to help prevent fungus forming on the eggs of the fish.

41. Smooth agave

Botanical name: Agave desmettian
Common name: Smooth agave
Family: Agavaceae
Smooth agave is one of the 'soft' and 'people-friendly' agaves. It is a moderate grower ranging in height from 3 to 5 feet with equal spread. It produces densely produces basal off shoots (short-stemmed rhizomes) and is monocarpic (individual rosettes die after flowering) like most other agaves in this genus. Leaves are formed in regular rosette patterns, strap-shaped, succulent, deep green to 4 feet long. Leaves are usually recurved or reflexed and the margins are typically smooth but occasionally have tiny spines.

42. Ashoka

Botanical name : Polyalthia longifolia
Common Name : Ashoka, False Ashoka, Mast tree
Family: Annonaceae
Ashok is native to India and Srilanka. Somehow, the name Ashok has stuck in north India, although the "real" Ashok is what is also called Sita Ashok. The weeping, branching habit of this 25-foot tall tree gives it a narrow columnar shape. Glossy green, long, narrow leaves have attractive wavy edges. Ashok is commonly seen as a lofty column, very graceful with its downward-sweeping branchlets and shining, green foliage; but sometimes wide-spreading slender branches issue from the straight trunk and form a compact symmetrical crown. It is a very popular tree in India. The bark is smooth and dark greyish-brown. Flowers appear during March and April. They grow in clusters from small protuberances all along the dark branchlets. Each flower, borne on a slim, green stem has a tiny calyx and six long, narrow, wavy petals arranged in two sets of three.

43. China rose

Botanical name : *Hibiscus rosa-sinesis*
Common name: China rose
Family: Malvaceae

Nobody knows whether the hibiscus really is a native of China as its Latin name, Hibiscus rosa-sinensis, suggests or not. Many believe, it comes from India. This large shrub or small tree grows to 15 feet high. The toothed leaves are arranged alternately and vary a lot, but tend to be large, dark green, and shiny. It is often many-stemmed. Flowers are occur in many colors. Most are flared and have a bell shape and may be single or double, smooth or scalloped. They have a long central tube with stamens and pistils at the tip.

44. Sandpaper fig

Botanical name : *Ficus coronata*

Common name: Sandpaper fig or creek fig

Family: Moraceae

Ficus coronata is generally a rather hardy species, tolerating colder climates, poor soils, and poor light conditions.This species will tolerate a heavy pruning, and so can readily be shaped or hedged. Cut material does weep a milky latex material, however, that can cause irritation. Be aware that the aggressive root system characteristic of *Ficus* species can cause issues with plumbing, concrete paths and structural foundations, and thus should be planted well away from houses and buried facilities. Larger backyards or more rural environments wouldbe most recommended for in-ground planting.

45. Obscure morning glory

Botanical name : Ipomoea obscura

Common name: Obscure morning glory

Family: Convolvulaceae

Although the flowers on this lovely morning glory are small ,the color is so unusual and lovely it really makes it worth adding to your garden. Beautiful pale yellow flowers with deep purple throats adorn this vigorous vine with small, heart shaped leaves. As with most morning glories, it loves full sun and average, well drained soil. It's takes a while for the blooms to start on this lovely vine, which climbs up to 6-10 ft. Beautiful heart-shaped leaves are 3-9 cm long. Flowering: August-March.

46. Scholar Tree

Botanical name : *Alstonia scholaris*

Common name : Scholar Tree

Family : Apocynaceae

Scholar Tree is an elegant evergreen tree, found in most parts of India. The generic name commemorates the distinguished botanist, Prof. C. Alston of Edinburgh, 1685-1760. The species name scholaris refers to the fact that the timber of this tree has traditionally been used to make wooden slates for school children. In October small, green yet fragrant flowers appear. All parts of the tree can be considered poisonous. It is a tall elegant tree with greyish rough bark. Branches are whorled, and so are the leaves, that is, several of them coming out of the same point. The tree is really elegant whether it is flowering or not. The slightly rounded, leathery, dark green leaves form whorls of 4-7. And a very regular branching gives the tree a beautiful shape. The wood is too soft for making anything - so it is usually used in making packing boxes, blackboards etc.

47. Trumpet Creeper

Botanical name: Campsis radicans

Common name: Trumpet Creeper

Family: Bignoniaceae

The trumpet creeper is a popular, fast growing, high climbing deciduous woody vine that will grow to heights up to 40 ft. The vine's aerial roots that occur along the stems that attach tightly to surfaces. Once the vine climbs to a certain height it grows horizontal branches that reach away from the support in a quest for light and space. Trumpet creeper produces pinnate compound leaves 4-12 in long that cover the vine in a dense cloak of bright green foliage. They are composed of 7-15 oval leaflets that have serrated edges and are 1-4 in long and 0.5-1.5 in wide. Showy clusters of yellow orange to red trumpet-shaped flowers first appear in summer and are produced continuously until early autumn. The tubular flower buds are 3 – 4 in long and are followed by seed capsule 4-8 in long that often hangs on the vine through the winter.

48. Fringed Spider Flower

Botanical name : *Cleome rutidosperma*

Common name: Fringed Spider Flower

Family: Cleomaceae

Fringed Spider Flower is an erect, branched, annual herb, growing up to 15-100 cm tall. The plant has angular stems and trifoliolate leaves on stalks 1.5-5 cm long. The leaflets are ovate to lance like, 2-5 cm long, 0.5-2.5 cm wide. Flowers blue or pink occur singly in leaf axils. Sepals and petals are 4 in number. Petals are about a cm long. Fruit is a 2-valved, beaked capsule, 5-7 cm long, 4-5 mm wide. Fringed Spider Flower is native to Tropical Africa, naturalized in India and elsewhere. Flowering: May.

49. Sitaphal

Botanical name: *Annona squamosa*

Common name: Sitaphal

Family: Annonaceae

A small tropical tree, indigenous to the Amazon rainforest, growing up to 20' tall. The leaves are thin, oblong while the flowers are greenish - yellow. Flowers are oblong. The fruit is juicy and creamy - white; it may contain up to 40 black seeds. These seeds are poisonous. From delicious fruits of Sitaphal, jelly, jam, conserves, sharbets, syrup, tart and fermented drinks are prepared. The peelings and pulps contain oil that is useful in flavouring.

Medicinal uses: The bark and leaves contain annonaine, an alkaloid. In tropical America, a decoction of the leaves is used as a cold remedy and to clarify urine. A bark decoction is used to stop diarrhea, while the root is used in the treatment of dysentery.

50. Male Fern

Botanical name : Dryopteris filix-mas

Common name: wood fern, male fern.

Family: Dryopteridaceae

Dryopteris filix-mas, the male fern, are a common fern of the temperate Northern Hemisphere, native to much of Europe, Asia, and North America. It favours damp shaded areas in the understory of woodlands, but also shady places on hedge-banks, rocks, and screes. Near the northern limit of its distribution it prefers sunny, well-drained sites. It is much less abundant in North America than in Europe. The plant is sometimes referred to in ancient literature as worm fern, reflecting its former use against tapeworm.

51. Star flower

Botanical name : Pentas lanceolata

Common name : Pentas,Star flower,Star cluster

Family : Rubiaceae

Dark green, lance-shaped, somewhat furry and deeply veined leaves provide a lush backdrop for prolific clusters of never-ending, five-petaled flowers. These may be red, white, lavender, purple, or shades of pink. Some are two-toned. All are extremely attractive to butterflies, and the red and dark pink varieties delight hummingbirds. The flowers are held in terminal clusters and self-deadhead. In warm weather the plant grows fast and stays in bloom constantly. Where winters

are not too severe, pentas are perennial. They may always be treated as an annual and replanted after danger of frost for long-lasting summer color. Africa is probably the original home of pentas.

52. Coral vine

Botanical name: *Antigonon leptopus*
Common name: Coral vine
Family: Polygonaceae
Coral Vine is a native of Mexico. It is a fast growing, evergreen vine, climbing with tendrils that will reach 40 feet. Leaves are dark green heart-shaped to arrowhead-shaped to 5 inches long. Probably the heart shaped leaves and the delicate pink flowers led to its Mexican name cadena de amor or "chain of love". It produces edible tubers. The actual flowers are tiny but the sepals are larger and provide the brilliant colors that range from white to rose-pink to deep coral flowered varieties.

53. Lantana

Botanical name: *Lantana camara*
Common name: Lantana , Kasooti hoo
Family: Verbenaceae
Common lantana is a rugged evergreen shrub from the tropics. The species will grow to 6 ft high and may spread to 8 ft in width with some varieties able to clamber vinelike up supports to greater heights with the help of support. Flower color ranges from white to yellow, orange to red, pink to rose in unlimited combinations, in addition the flowers usually change in color as they age. A lantana may look orange from a distance but the flower head is examined at close range it consists of individual white, yellow and red flowers that blend when viewed from afar. Numerous garden cultivars have been developed with flower-heads completely white, yellow and many other colors.

54. Rubber Tree

Botanical name : *Ficus elastica*
Common name: Rubber tree, Indian Rubber tree, Rubber bush
Family: Moraceae
Rubber Tree is popular because it is very easy to grow and care for. They can get big pretty quickly, as they are vigorous growers and don’t ask for much attention. It grows up to 30-40 m tall, but is usually seen as a smaller garden tree. It has broad shiny oval leaves 10-35 cm long and 5-15 cm broad. The leaves develop

inside a reddish sheath at the tip of branches, which looks very attractive. It grows larger as the new leaf develops. When it is mature, it unfurls and the sheath drops off the plant. Inside the new leaf, another immature leaf is waiting to develop.The tree can yield milky white latex, which has been used to make rubber.

55. Taro

Botanical name : *Colocasia esculenta*

Common name: Taro, cocoyam, Green taro, aivi.

Family: Araceae

Taro is a tuberous bulb plant growing 3-5 ft tall. The large leaves of the plant resemble elephant ears. It produces heart shaped leaves 2-3 ft long and 1-2 ft across on 3 ft long stalks that all emerge from an upright tuberous rootstock, technically a corm. The inflorescence, which is rarely produced in cultivated plants, is a pale green spathe and spadix, typical of the arum family. The corm is shaped like a top with rough ridges, lumps and spindly roots, and usually weighs around 0.5-1 kg, but occasionally as much as 3.5 kg. The skin is brown and the flesh is white or pink. Certain kinds of taros produce smaller tubers or "cormels" which grow off the sides of the main corm.

56. Great Bougainvillea

Botanical name: *Bougainvillea spectabilis*

Common name: Great Bougainvillea

Family: Nyctaginaceae

Shrub, reaching 15 to 40 feet (4.6 to 12.2 m)[4][5] with heart-shaped leaves and thorny, pubescent stems.[5] The flowers are generally small, white, and inconspicuous, highlighted by several brightly colored modified leaves called bracts. The bracts can vary in color, ranging from white, red, mauve, purple-red, or orange. Its fruit is a small, inconspicuous, dry, elongated achene.

57. Casuarina

Botanical name : *Casuarina equisetifolia*

Common name: Whistling Pine, Casuarina.

Family: Casuarinaceae

Whistling Pine is a common tropical seashore tree and is often planted as a windbreak. Whistling Pine has a conifer-like appearance which is increased by hanging green branchlets and cone-like fruits. The species name equisetifolia refers to the resemblance of the leaves to a horse's tail. It cracks and splits easily

and so is more suitable for beams or posts than planks, but does not last long underground. The chief use is as fuel for which a tree may be cut when 10 to 12 years old, although it is better left until about 20.

PLANTS BEHIND MICROBIOLOGY BLOCK

58. Lakshman Phal

Botanical name: *Annona muricata*
Common name: Lakshman Phal
Family: Annonaceae
Soursop is a shrub or small tree 3-10 meters in height. It is adapted to warm, humid tropical climate, and can tolerate both drought conditions and partial shade. It grows up to 25-30 ft. Young branchlets are rusty-hairy.The flowers, borne singly, may emerge anywhere on the trunk, branches or twigs.
Medicinal uses:The seeds, fruit, and leaves have been used traditionally for stomach complaints and fever, and as a sedative. Clinical trials are lacking to support these uses. The most widely used preparation in traditional medicine is the decoction of bark, root, seed or leaf and applications are varied.

59. Calloused Fig

Botanical name : *Ficus callosa*
Common name: Calloused Fig
Family: Moraceae
Calloused Fig is a buttressed tree, up to 25 m tall. Bark is grey, smooth, warty, blaze yellowish. Branchlets are stout, round, warty, hairless. Latex white, profuse. Leaves are simple, alternate, spiral, stipules up to 3 cm long, lance shaped, falling off leaving annular scar. Leaves are sometimes ovate, tip pointed to blunt or slightly long-pointed, base narrow to rounded or somewhat heart-shaped, margin entire and curled, leathery, hairless above, rough and slightly velvety beneath, drying greyish green.Inflorescence is a fig in leaf axils, borne solitary, nearly spherical to obovoid, up to 3 cm across, round, carried on stalk up to 1.5 cm long.

60. Drumstic tree

Botanical name : *Moringa oleifera*
Common name: Drumstick tree
Family: Moringaceae
Drumstick tree is a small, deciduous tree. Drumstick trees can reach a height of about 9 m (30 feet); they have corky gray bark, branching and fernlike leaves. Highly scented white flowers and long bean like seed pods. Seed pods are used

as a vegetable, especially in south Indian cuisine, e.g. drumstick sambar. Excellent oil is derived from the seeds, which is used for cooking and lubrication of delicate mechanisms.

Medicinal uses: The bark, sap, roots, leaves, seeds and flowers are used in traditional medicine. Research has examined how it might affect blood lipid profiles, although it is not effective at diagnosing, treating, or preventing any human diseases

61. Golden Trumpet Vine

Botanical name: *Allamanda cathartica*
Common name: Golden Trumpet Vine
Family: Apocynaceae
A tropical twining vine, native to Brazil, with deeply veined, whorled leaves and large, trumpet shaped bright yellow flowers.The Allamanda vine is a fast growing rampant vine that always looks better with training and pruning. It flowers almost all year. The plant has milky sap and is considered poisonous; all parts are highly cathartic .Texture is coarse and leaves are bright to light green; the plant is often pruned and used as a shrub.

62. Soap Aloe

Botanical name: *Aloe maculata*
Common name: Soap Aloe
Family: Asphodelaceae
Soap aloe is a succulent plant native to Africa. It is grown as a pot plant in India. It grows in a stem less rosette, and produces little offset rosettes around its margin. The main rosette gets up to about 1.5 ft tall and just as wide. The ovate leaves are thick and succulent, pale green with white speckles, and 10-12 in long. The leaf margins are armed with sharp, dark brown teeth. Throughout much of thesummer, soap aloe sends up a purplish branched stalk about 2 ft tall, bearing showy tubular yellow, orange or red flowers.

63. Periwinkle

Botanical name *: Catharanthus roseus*
Common name : Periwinkle ,Nityapushpa
Family : Apocyanaceae
Periwinkle is a happy-go-lucky small subshrub. It grows in adverse conditions, rain, heat, dust. It can be quite often seen growing out of cervices of walls. It is

an evergreen subshrub or herbaceous plant growing 1 m tall. The flowers are white to dark pink with a darker red centre.

Medicinal uses: In Ayurveda the extracts of its roots and shoots, though poisonous, is used against several diseases. In traditional Chinese medicine, extracts from it have been used against numerous diseases, including diabetes, malaria, and Hodgkin's lymphoma. Many of the vinca alkaloids were first isolated from Catharanthus roseus.

64. Belladonna lily

Botanical name: *Amaryllis belladonna*

Common name: Belladonna lily

Family: Amaryllidaceae

The bulb is typically large, brown and rounded and has a moderate growth rate. The large clusters of scented, trumpet-shaped pink or white flowers are carried on a long purplish-red and green stem appearing 50cm above the soil. Up to twelve flowers are produced from the flowering stem.

Uses: Amaryllis belladonna in its natural habitat is found in small dense groups among rocks. Therefore the best place to plant them would be in a rock garden. In a created landscape, Amaryllis can be used mixed in between blue Agapanthus as a good combination.

65. Tulsi

Botanical name : *Ocimum tenuliflorum*

Common name: Holy basil, Tulsi

Family: Lamiaceae

Tulsi (Ocimum sanctum) is a widely grown, sacred plant of India. Hindus grow Tulsi as a religious plant in their homes, temples and their farms. They use Tulsi leaves in routine worship. Tulsi, grown as a pot plant, is found in almost every traditional Hindu house. The natural habitat of Tulsi varies from sea level to an altitude of 2000 m. It is found growing naturally in moist soil nearly all over the globe. Stalkless heart-shaped bracts are there at the base of each flower cluster. Sepal cup is not hairy within.

Medicinal uses: Because of its medicinal virtues, Tulsi is used in Ayurvedic preparations for treating various ailments.

66. Bougainvillea

Botanical name : *Bougainvillea glabra*

Common name : Bougainvillea
Family : Nyctaginaceae
Named after Louis de Bougainvillea, a French navigator who came across it in Brazil during the 18th century, Bougainvillea has gained popularity all over the world, due to its versatility, richness and suitability to thrive in degrading environmental conditions. It is a semi-climber and can be grown as a hedge, a shrub, a climber over a sunny wall and also in pots. With its sharp thick thorns it is avoided by cattle, goats, monkeys and even birds.

67. Summer damask rose
Botanical name : *Rosa gallica*
Common name : Summer damark rose
Family: Rosaceae
Damask roses are used in cooking as a flavouring ingredient or spice. They are an ingredient in the Moroccan spice mixture denominated "raselhanout". Rose water and powdered roses are used in Middle Eastern & Indian cuisine. Rose water is often sprinkled on meat dishes, while rose powder is added to sauces. The fragrance of the rose has been captured and preserved in the form of rose water by a method that can be traced to ancient times in the Middle East and later to the Indian subcontinent. It was most commonly used in desserts, and still is a flavour in traditional desserts such as marzipan or turrón. It has seen some revival in television cooking in the twenty-first century.

68. Bush clockvine
Botanical name : *Thunbergia erecta*
Common Name: Bush clockvine, King’smantle, Potato bush
Family: Acanthaceae
King's Mantle is an upright shrub growing up to 4 ft. The shoots are quadrangular and each angle bears a narrow wing. Leaves are ovate-elliptic, and oppositely arranged. Leaf margin is entire or wavy or occasionally with a broad triangular tooth above the middle. The flower tube flares open into five dark purple, roundish petals, yellowish-white at the base. It can be grown as a bush with weeping branches or it can be trained like a vine. It is not always easy to come by in the nursery. The flowers are absolutely wonderful and it flowers in the colder season. King's Mantle is native to West Africa, but commonly cultivated in India.

69. Showy Island snapdragon
Botanical name : *Gambelia speciosa*

Common name: Showy Island snapdragon
Family: Plantaginaceae
It is a perennial plant, which is endemic to California chaparral and woodlands habitats on the Channel Islands in Southern California, and on Guadalupe Island west of the Baja California Peninsula in Baja California, MexicoIt is listed as an endangered species on the California Native Plant Society Inventory of Rare and Endangered Plants of California.

70. Capsicum

Botanical name: *Capsicum annuum*
Common name: Capsicum, Bell pepper
Family: Solanaceae
Capsicum is very variable, normally annual herb or sub shrub, 0.5-1.5 m tall, erect, much branched, grown as an annual. Stem is irregularly angular to round, up to 1 cm in diameter, much branched, often woolly near branching, green to brown-green, often with purplish spots near nodes. Leaves are alternate, very variable, leaf-stalk up to 10 cm long. Flowers are bell-shaped to pinwheel shaped, with 5-7 petals, 0.8-1.5 cm in diameter, usually white; five to seven stamens with pale blue to purplish anthers; style thread-like, white or purplish, stigma capitate. Fruit is a non-pulpy berry, very variable in size, shape, colour and degree of pungency, usually more or less conical, up to 30 cm long, green, yellow, cream or purplish when immature, red, orange, yellow, brown when mature. Seed round, flattened, 3-4.5 mm in diameter, approximately 1 mm thick, pale yellow. Capsicum is widely cultivated world over.

71. Peacock flower

Botanical name : *Caesalpinia conyzoides*
Common name : Peacock flower
Family: Fabaceae
Caesalpinia is a genus of flowering plants in the legume family, Fabaceae. Historically, membership within the genus has been highly variable, with different publications including anywhere from 70 to 165 species, depending largely on the inclusion or exclusion of species alternately listed under genera such as Hoffmannseggia. It contains tropical or subtropical woody plants.

72. Curry leaf

Botanical name: *Murraya koenigii*
Common name: Curry leaf, karipatta

Family: Rutaceae

Curry Leaf tree is a small or medium sized tree, most famous for its aromatic leaves that provide curry spice. It is a small tree, growing 4-6 m tall, with a trunk up to 40 cm diameter. The leaves are pinnate, with 11-21 leaflets, each leaflet 2-4 cm long and 1-2 cm broad. They are highly aromatic. When cooking, the leaves are generally used fresh off of the tree. Outside the Indian sphere of influence, they are rarely found. The yellow "curry powder" that is common in Western countries is actually not curry at all, but a mix of spices intended to mimic the true curry flavor. The yellow color comes from turmeric root.

Medicinal uses: Leaves are digestive, tonic, stimulant, rich in vitamin A and calcium. Leaves are also used for diarrhoea, dysentry and checking vomitting. Bark-paste is antisceptic, applied to skin eruptions. Root extract is taken for relief from renal pain.















DESCRIPTION OF PLANTS AT LIBRARY PREMISES

SL.NO	PLANTS BOTANICAL NAME)	FAMILY
1.	*Pachira glabra*	Malvaceae
2.	*Broussonetia papyrifera*	Moraceae
3.	*Mangifera indica*	Anacardiaceae
4.	*Tabernaemontana pandacaqui*	Apocyanaceae
5.	*Manihot esculenta*	Euphorbiaceae
6.	*Colocasia esculenta*	Araceae
7.	*Ficus benghalensis*	Moraceae
8.	*Theobroma cacao*	Malvaceae
9.	*Caryota mitis*	Aracaceae
10.	*Moringa oelifera*	Meliaceae
11.	*Paulownia tomentosa*	Paulowniaceae
12.	*Peltophorum pterocarpum*	Leguminosae
13.	*Ipomoea lacunose*	Convolvulaceae
14.	*Xanthosoma sagittifolium*	Araceae

15.	*Ficus auriculata*	Moraceae
16.	*Hedychium gardnerianum*	Zingiberaceae
17.	*Alternanthera sessilis*	Amaranthiaceae
18.	*Synedrella nodiflora*	Composite
19.	*Robinia pseudoacacia*	Leguminosae
20.	*Euphorbia heterophylla*	Euphorbiaceae
21.	*Ricinus communis*	Euphorbiaceae
22.	*Ficus racemose*	Moraceae
23.	*Pennisetum polystachion*	Poaceae
24.	*Panicum pirgatum*	Poaceae
25.	*Kalanchoe pinnata*	Crassulaceae
26.	*Calophyllum inophyllum*	Clusiaceae
27.	*Phyllanthus tenellus*	Phyllanthaceae
28.	*Synandrella modiflora*	Compositae
29.	*Solanum torvum*	Solanaceae
30.	*Cleome rutidosperma*	Cleomaceae
31.	*Handroanthus ochrauus*	Bignoniaceae
32.	*Setaria pumila*	Poaceae
33.	*Milium effusum*	Poaceae
34.	*Ipomoea cairica*	Convolvulaceae
35.	*Leycestiria formusa*	Caprifoliaceae
36.	*Pistacia terebinthus*	Anacardiaceae
37.	*Citrus aurantium*	Rutaceae
38.	*Petiveria alliacea*	Phytollaccaceae
39.	*Plectranthus scutellariodes*	Laminaceae
40.	*Flemingia steobilifera*	Leguminosae
41.	*Syzygium cumini*	Myrtaceae

42.	*Calotropis procera*	Apocyanaceae
43.	*Calottropis gigantea*	Apocyanaceae
44.	*Ponagamia pinnata*	Leguminosae
45.	*Barleria lupulina*	Acanthaceae
46.	*Lagerstroemia speciosa*	Lythraceae
47.	*Trema cannabina*	Cannabaceae
48.	*Zanthoxylum clava*	Rutaceae
49.	*Ixora coccinea*	Rubiaceae
50.	*Thunbergia erecta*	Acanthaceae
51.	*Hymenocallis littoralis*	Amaryllidaceae
52.	*Cryptomaria japonica*	Cupressaceae
53.	*Peperomia pellucida*	Piperaceae
54.	*Phyllanthus bourgeoisii*	Phyllanthaceae
55.	*Orthosiphon aristatus*	Lamiaceae
56.	*Coddiaeum variegatum*	Euphorbiaceae
57.	*Cordylina fruticose*	Asparagaceae
58.	*Hibiscus schizopetalous*	Malvaceae
59.	*Trchelospermum jasminoides*	Apocyanaceae
60.	*Ficus benjamina*	Moraceae
61.	*Syzygium jambos*	Myrtaceae
62.	*Cuphea hyssopifolia*	Lythraceae
63.	*Cyanthillium sinereum*	Compositae
64.	*Broussonetia papyrifera*	Moraceae
65.	*Pterocarya stenoptera*	Juglandaceae
66.	*Jacarandea mimosifolia*	Bignoniaceae
67.	*Phyllanthus acidus*	Phyllanthaceae
68.	*Nerium oleander*	Apocyanaceae

69.	*Ixora finlaysoniana*	Rubiaceae
70.	*Garsinia atroviridis*	Clusiaceae
71.	*Mangifera indica*	Anacardeaceae
72.	*Bauhinia purpurea*	Fabeaceae
73.	*Pongamia pinnata*	Fabaceae
74.	*Senna occidentalis*	Leguminosae
75.	*Cheilocastus speciosus*	Costaceae
76.	*Muntingia calabura*	Muntingiaceae
77	*Alstonia scholaris*	Apocyanaceae
78.	*Murraya koenigii*	Rutaceae
79.	*Cycas revoluta*	Cycadaceae
80.	*Acalypha wilkesiana*	Euphorbiaceae
81.	*Vauhinia variegata*	Leguminosae
82.	*Aglaonema commutatum*	Araceae
83.	*Syngonium podothillum*	Araceae
84.	*Dieffenbachia seguine*	Araceae
85.	*Zamioculcas zamiifolia*	Araceae
86.	*Oxalis corniculata*	Oxilidaceae
87.	*Varleria cristata*	Acanthaceae
88.	*Catharanthus roseus*	Apocyanaceae
89.	*Dracaena reflexa*	Asparagaceae
90.	*Epipremnum aureum*	Araceae
91.	*Ipomoea obscura*	Convolvulaceae
92.	*Impatiens walleriana*	Balsaminaceae
93.	*Mercurialis annua*	Euphorbiaceae
94.	*Justicia spicigera*	Acanthaceae
95.	*Dypsis lutescens*	Araceae

1.Pachira glabra

Botanical name : Pachira glabra
Common name : Saba nut , American chestnut
Family : Malvaceae
Saba Nut is an evergreen tree growing up to 9-15 m tall, and its leaves are digitately compound with a fan of 5 to 9 leaflets. It has smooth greenish-grey bark and the trunks are often swollen at the base, even at a young age. Its large, white, fragrant flowers bloom on a long, at branch-ends flower-cluster-stalk, opening at night and dropping by the middle of the following day. Its 10-20 cm long smooth green fruit split open naturally to reveal 10 to 25 irregularly rounded brown seeds that are roughly 2.5 cm in diameter. In Brazil the Saba nut is a fruit tree, cultivated as an ornamental elsewhere.

2.Broussonetia papyrifera

Botanical name: Broussonetia papyrifera
Common name: Paper Mulberry
Family: Moraceae
Paper Mulberry is a deciduous tree growing to 15 m tall, native to Japan and neighboring areas. The leaves are variable in shape, just like Mulberry leaves. They can be ovate heart- shaped too deeply lobed. They are 7–20 cm long, with a rough surface above, fuzzy-downy below and a finely toothed margin. The male flowers are produced in an oblong inflorescence, and the female flowers occur in a ball, with long hairs on the surface. In summer, the female flower matures into a red to orange, sweet, juicy fruit 3–4 cm diameter, which is an important food for wild animals. The fruit is edible and very sweet, but too fragile to be commercialized. The bark is composed of very strong fibres, and can be used for making high-quality paper. The tender leaves and twigs can be used to feed deer, and the tree is sometimes nicknamed the "Deer's Tree".

3.Mangifera indica

Botanical name:Mangifera indica
Common name:Mango tree
Family:Anacardiaceae

It is a matter of astonishment to many that the delicious mango, one of the most celebrated of Indian fruits, is a member of the family Anacardiaceae–notorious for embracing a number of highly poisonous plants. The mango tree is erect, 30 to 100 ft high, with a broad, rounded canopy which may, with age, attain 100 to 125 ft in width, or a more upright, oval, relatively slender crown. In deep soil, the taproot descends to a depth of 20 ft, the profuse, wide-spreading, feeder root system also sends down many anchor roots which penetrate for several feet. The

tree is long-lived, some specimens being known to be 300 years old and still fruiting. Nearly evergreen, alternate leaves are borne mainly in rosettes at the tips of the branches and numerous twigs from which they droop like ribbons on slender petioles 1 to 4 in long. Hundreds and even as many as 3,000 to 4,000 small, yellowish or reddish flowers, 25% to 98% male, the rest hermaphroditic, are borne in profuse, showy, erect, pyramidal, branched clusters 2 1/2 to 15 1/2 in high. There is great variation in the form, size, color and quality of the fruits. They may be nearly round, oval, ovoid-oblong, or somewhat kidney-shaped, often with a break at the apex, and are usually more or less lop-sided.

4. Tabernaemontana pandacaqui

Botanical name:Tabernaemontana pandacaaqui
Common name: Windmill bush and Banana bush
Family: Apocyanaceae

Tabernaemontana pandacaqui grows as a shrub or tree up to 14 m (50 ft) tall. Its flowers feature white or pale-yellow corolla lobes. The fruit is orange, red or yellow with paired follicles, each up to 7 cm (3 in) in diameter.
Tabernaemontana pandacaqui is native to China, Taiwan, Thailand, Malaysia, Papua NewGuinia Australia and many Pacific islands.] It is found in a wide variety of habitats, particularly in drier areas.]The species is also reportedly naturalized in the Windward islands, Trinidad and Tobago and Panama

5. Manihot esculenta

Botanical name:Manihot esculenta
Common name:Tapioca
Family:Euphorbiaceae

Tapioca is a tall semiwoody perennial shrub or a small tree with large palmately compound leaves. It looks deceptively similar to the castor bean plant. Leaves are dark green, a foot or more across and have 5-9 lobes. Leaf stalks are are very long, up to 2 ft and they are red, and so are the stems. Plants can grow more than20 ft tall. The plant is known for its tuberous edible roots, that are 8-30 in long and 1-3 in in diameter. They grow in outward pointing clusters from the base of the stem just below the soil surface. The roots are eaten roasted or boiled almostall over India. There are several cultivars of this plant. In fact, there are some garden cultivars of Tapioca which have variegated leaves, and probably do not flower.

6. Colocasia esculenta

Botanical name:Colocasia esculenta
Common name: Taro, cocoyam, Green taro, aivi.

Family: Araceae
Taro is a tuberous bulb plant growing 3-5 ft tall. The large leaves of the plant resemble elephant ears. It produces heart shaped leaves 2-3 ft long and 1-2 ft across on 3 ft long stalks that all emerge from an upright tuberous rootstock, technically a corm. The inflorescence, which is rarely produced in cultivated plants, is a pale green spathe and spadix, typical of the arum family. The corm is shaped like a top with rough ridges, lumps and spindly roots, and usually weighs around 0.5-1 kg, but occasionally as much as 3.5 kg. The skin is brown and the flesh is white or pink. Certain kinds of taros produce smaller tubers or "cormels" which grow off the sides of the main corm.

7. Ficus benghalensis

Botanical name:Ficus benghalensis
Common name:Banyan tree
Family:Moraceae

Barh or Banyan, a remarkable tree of India and tropical Africa sends down from its branches great numbers of shoots, which take root and become new trunks. A single tree thus may spread over a large area and look like a small forest. This tree is considered to be sacred in some places in India. A specimen in the Calcutta botanical garden is more than 100 years old. It has a main trunk 13 feet (4 m) in diameter, 230 trunks as large as oak trees, and more than 3,000 smaller ones. The largest banyan tree known is on the island of Sri Lanka. It has 350 large trunks and over 3,000 small ones. The banyan often grows to a height of over 21 meters and lives through many ages. Perhaps the most amazing part of this extraordinary tree is its flower. What we think of as the fruit is really a hollow, flower-bearing structure called a cyconia. The inside it is lined with hundreds of male and female flowers. The males carry pollen and the females bear seeds. Various parts of this plant are considered medicinal. The bark of this therapeutically valuable tree is attributed with tonic, astringent, cooling and diuretic properties in Ayurveda. A postal stamp was issued by the Indian Postal Department to commemorate this tree.

8. Theobroma cacao

Botanical Name : Theobroma cacao
Common name : Cocoa tree,Cacao
Family : Malvaceae
The cocoa tree is native to the Americas. In the wild, it grows to 50 feet tall as an "understory" tree in the shade of towering 200-foot-tall hardwoods and other trees. Cocoa trees require constant warmth and rainfall to thrive. They need to be shaded from the strong tropical sun and sheltered from the wind, and grow best in the shade of other trees. Cocoa Tree is a wide-branching evergreen tree, reaching 20-25 feet in height. The plant is "cauliflorous" with flowers (and later

fruits) protruding directly from the woody branches and trunk.The fruit, or "pod", reaches to one foot long and 2-4 inches in diameter. Cacao beans contain the caffeine alkaloid Theobromine, which is a mild stimulant. Cacao is the source of chocolate, which is obtained by roasting and grinding the seeds. Chocolate is also said to contain the chemical Phenylethylamine, a natural amphetamine found in the human brain, which induces a feeling of euphoria.

9.Caryota mitis

Botanical name: Caryota mitis
Common name: Fishtail Palm, Jaggery Palm.
Family: Arecaceae
Fishtail palm is a fast growing feather palm that makes a beautiful addition to the landscape. It has a gray trunk (grows to about 30') that is covered by regularly spaced leaf scar rings. Toddy palm has a leaf shape that resembles the lower fin of a fish. When these palms grow to reach 20', they start producing flowers at the top of the trunk with subsequent flowers produced lower and lower on the trunk. When the lowest flower blooms, the tree dies. Flowers are long plait like bunches hanging down. Toddy palm is an Asian species that grows from India to Burma and on the island country of Sri Lanka.

10. Moringa oleifera

Botanical name:Moringa oleifera
Common name:Drumstick tree
Family:Moringaceae

Drumstick tree is a small, deciduous tree, of the family Moringaceae, native to tropical Asia but also naturalized in Africa and tropical America. Drumstick trees can reach a height of about 9 m (30 feet); they have corky gray bark, branching and fernlike leaves. Highly scented white flowers and long bean like seed pods. Seed pods are used as a vegetable, especially in south Indian cuisine, e.g. drumstick sambar. An excellent oil is derived from the seeds, which is used for cooking and lubrication of delicate mechanisms. The leaves are extensively used as a vegetable in many parts of the world, and the root can be made into a condiment similar to horse radish

Medicinal uses: The bark, sap, roots, leaves, seeds and flowers are used in traditional medicine. Research has examined how it might affect blood lipid profiles, although it is not effective at diagnosing, treating, or preventing any human diseases

11.Paulownia tomentosa

Botanical name:Paulownia tomentosa
Common name:Empress tree,Princess tree
Family:Paulowniaceae

Empress Tree is a deciduous tree native to central and western China. It grows to 10-25 m tall, with large heart-shaped to five-lobed leaves 15-40 cm across, arranged in opposite pairs on the stem. On young growth, the leaves may be in whorls of three and be much bigger than the leaves on more mature growth. The flowers are produced before the leaves in early spring, on panicles 10-30 cm long, with a tubular purple corolla 4-6 cm long resembling a foxglove flower. The fruit is a dry egg-shaped capsule 3-4 cm long, containing numerous tiny seeds. Empress tree is a really fast-growing tree. The Chinese plant this tree when their daughter is born. When she marries, they cut the tree down and make furniture and other useful things for her and her new husband. This tree is rare in India.

12. Peltophorum pterocarpum

Botanical name : Peltophorum pterocarpum

Common name : Copperpod,Rusty shield-bearer,Bettada huli

Family : Leguminosae

Copperpod is sometime also called yellow flame tree, because of the resemblance of its fern-like leaves to that of Gulmohar. It is a very handsome tree with its spreading crown of many branches consisting of feathery mimosa like leaves and abundance of bright yellow blooms. When the copper-red seedpods cover the tree in profusion it is a wonderful sight. Thus, the tree is much cultivated as an ornamental and is often planted alternately with Gul Mohur. It is easily propagated by seeds and the timber is used for cabinet work. The copper-pod is a native of Indo-China to North Australia.

13.Ipomoea lacunose

Botanical name: .Ipomoea lacunose

Common name:White morning glory

Family:Convolvulaceae

Ipomoea lacunosa occurs in a variety of habitat types, including disturbed areas, It grows on prairie, riverbanks, lakeshores, and roadsides, and in cultivated and abandoned fields and meadows

The stem of I. lacunosa is a slightly hairy (white hairs), twisting, climbing and twining vine with a small taproot. It can reach 2 meters in length. I. lacunose depends on its vining habit for dispersal. The roots are fibrous and have a small taproot. In a mature plant, the leaves take on a cordate shape, with a pointed tip, although sometimes it may have 3 deep lobes. The leaves of a less mature plant are usually ovate. They are arranged alternately on the stem of the plant. The slender petioles are usually at least 3 centimeters long and have a slight adaxial groove. The leaves themselves can be up to 8 cm wide and 9.4 cm long. The margin of the leaf is typically purple and smooth. The upper side of the leaf may have a small number of white hairs.

The stalks of the plant that bears flowers is rough and usually has 1-3 flowers. The funnel-shaped flowers of the plant are normally white, but on rare occasion

the flowers can be light purple or pink. The five petals are joined (sympetalous) or shallowly lobed and are approximately 2.5 cm long. The sepals are light green, lanceolate, take on a leathery texture and can be up to 11.5 mm long. The anthers are a pinkish-purple and the filaments are white. The ovary is superior, cone-like in shape, and green. There is a single white stigma and style. There are five stamens. The flowers have no perceptible or obvious scent. There are large seed capsules in the flower that are spherical in shape and hairy. The seeds themselves are irregularly oblong, shiny, and brown or black.

14. Xanthosoma sagittifolium

Botanical name :Xanthosoma sagittifolium

Common name :Arrowleaf Elephant Ear,Tannia

Family : Araceae

Great looking bromeliad – to a casual observer, this looks like it could be a desert plant. Green foliage with prominent dark bands across them, and stunning flowers in the later summer. Distinctive is the long flower spike, which emerges from the um-like centre of the plant when it is several years old. The basic Flaming sword's flower head is a flattened "sword" of tightly knit red bracts from which yellow flowers emerge. Other varieties have flower heads which are branched and/or have bracts in lighter shades of red and orange. The sword shaped bright red inflorescence will develop yellow tubular flowers that last only one day each. This is a bromeliad from the moist forests of south eastern Brazil, and is sensitive to other climatic conditions

15. Ficus auriculata

Botanical name : Ficus auriculata

Common name :Elephant Ear Fig,Roxburgh Fig

Family : Moraceae

Elephant Ear Fig a fig tree with very large leaves, reminding one of elephant ears. The young leaves start intensely red, and turn more and more green when reaching their ultimate size of up to 50 cm length. It is a tree 5-10 m tall, with crown wide, and a bole diameter of 10-15 cm. Bark is gray, smooth. Branchlets are sparsely pubescent. Stipules, falling off soon, are ovate-lanceolate, 1-1.5 cm.Leaves are alternately arranged, carried on 4-6 cm long stalks. They are obovate-elliptic to elliptic, 12-25 × 6-23 cm, papery, densely small tuberculate on the underside, hairless above, base shallowly heart-shaped to broadly wedge-shaped, margin irregularly toothed. Figs are clustered on short branchlets of old stems, sometimes even on the roots of the tree. They are dark red when mature, pear- shaped to spherical, with 4-6 longitudinal ridges and small tubercles. They are large for figs, 2-3.5 cm in diameter, covered with soft hairs. Figs are edible and sweet. In Meghalaya, fruits are eaten raw, leaves are lopped for highly palatable fodder. Elephant Ear Fig is found in the Himalayas, from Nepal to NE India, Burma, S. China, Indo-China and Malaya, at altitudes of 1000-2100 m.

16. Hedychium gardnerianum

Botanical name: .Hedychium gardnerianum
Common name:Kahili ginger,Himalayan ginger
Family:Zingiberaceae
Kahili Ginger is a beautiful perennial herb with leafy stem, up to 1.5 m tall. Leaves are oblong, long-pointed, white-powdered on the underside. Flowers are bright lemon-yellow, erect densely-flowered spikes, 20-45 cm long. The name Kāhili (in Hawaiian) comes from the shape of the flower cluster which resembles a large feather topped staff carried by the king's escorts. Bracts are large, oblong, as long or longer than sepals. Flower tube is a little longer than the bracts with petals, 3.5-5 cm long, turned back. lip is centrally tinged orange, 2.5-3 cm long. Stamen are bright reddish orange, far exceeding the lip, about 6.5 cm long. Lateral staminodes are yellow, 3 cm long. Kahili Ginger is found in the Himalayas, from c. Nepal to NE India, at altitudes of 1900 m. It is widely cultivated in many countries for its showy flowers. Flowering: August-September.

17. Alternanthera sessilis

Botanical name: Alternanthera sessilis
. Common name: Stalkless Joyweed
Family: Amaranthaceae
Stalkless Joyweed is a perennial herb, often found in and near ponds, canals and reservoirs. It prefers places with constant or periodically high humidity and so may be found in swamps, shallow ditches, and fallow rice fields. A much-branched prostrate herb, branches often purplish, frequently rooting at the lower nodes; leaves simple, opposite, somewhat fleshy, lanceolate, oblanceolate or linear-oblong, obtuse or subacute, sometimes obscurely denticulate, glabrous, shortly petiolate; flowers small, white, in axillary clusters; fruits compressed obcordate utricles, seeds suborbicular. In Manipur, tender shoots and leaves are eaten cooked with rice along with fermented soyabean. Stalkless Joyweed is found in the Himalayas, at altitudes of 200-2000 m.
Medicinal uses: Warning: Unverified information Stems and leaves useful in eye trouble. Decoction is taken with little salt drunk to check vomiting of blood. Shoot with other ingredients used to restore virility. Poultice used for boils.

18. Synedrella nodiflora

Botanical name : Synedrella nodiflora
Common name : Cinedrella weed,Nodeweed,Pig grass,Synedrella
Family : Compositae
Peace Lily, is a very popular indoor houseplant. It is a clump-growing herbaceous perennial which produces white flowers which look like the hood of a cobra. Leaves are shiny and glossy, attractive even with no spathes. Peace lilies are sturdy plants with glossy, dark green oval leaves that narrow to a point. The leaves

rise directly from the soil. The long-lasting flowers start out pale green and slowly turn creamy white as they open. Keep the leaves clean with water washes to remove dust and dirt. Peace Lily can attract mites, scales and mealy bugs so cleaning will help keep these pests away.

19. Robinia pseudoacacia

Botanical name:Robinia pseudoacacia
Common name:White lowcast tree,False Acacia
Family:Leguminosae
White Locust Tree is a deciduous tree that grows to 14–25 m tall, with a trunk up to 0.8 m diameter, with thick, deeply furrowed blackish bark. The tree is native to North America, introduced and widely cultivated in Europe. It was probably introduced in India by the British while developing the hill stations, where it is now seen. The leaves are 10–25 cm long, pinnate with 9–19 oval leaflets, 2–5 cm long and 1.5–3 cm broad. Leaflets are rounded at both the ends and notched at the tip. Each leaf usually has a pair of short thorns at the base, 1–2 mm long or absent on adult crown shoots, up to 2 cm long on vigorous young plants. The intensely fragrant flowers are white, borne in pendulous racemes 8–20 cm long, and are considered edible. The fruit is a legume 5–10 cm long, containing 4–10 seeds. The species name pseudoacacia means false acacia. The name locust is said to have been given to Robinia by Jesuit missionaries. The Bible tells the storyof how John the Baptist was kept alive in the wilderness by eating 'locusts', whichwere not the insects, but the pods of the Carob tree, which have some resemblanceto locusts. When the Christian immigrants discovered Robinia which has roughly similar pods, they were also called Locust tree

20. Euphorbia heterophylla

Botanical name:Euphorbia heterophylla
Common name: Wild Poinsettia, Wild spurge.
Family: Euphorbiaceae
Wild Poinsettia is an erect annual herb to 1.5 m tall (rarely taller). Stems are hollow, usually with scattered hairs. Leaves are ovate-elliptic to rhomboid, 0.5–5 cm wide, paler toward the base, with margins entire or slightly toothed. It is distinguished by being an erect annual herb, the milky sap, and the leaves on stems alternate below, opposite above, 2–12 cm long. Leaf stalk is 0.5–4 cm long. This plant is often confused with Painted Leaf Poinsettia, but its uppermost leaves are never pink or red at base. Flowers male or female in clusters at the top of the stems, each flower-head (cyathium) with a solitary terminal female flower surrounded by male flowers enclosed in a cup-shaped involucre with a solitary conspicuous gland. Capsule is 3–4 mm long, 5–6 mm wide, hairless, 3-lobed. Seeds warty, brown or grey, mottled, ovoid, 2.5–3 mm long. Flowers attract bees and butterflies. Wild Poinsettia is native to Southern United States to Argentina and the West Indies, and widely naturalized in India.

21. Ricinus communis

Botanical name : Ricinus communis

Common name : Castor oil plant,Castor bean ,Wonder tree

Family : Euphorbiaceae

The castor bean plant, an erect, tropical shrub or small tree, grows up to 30 feet tall. As an annual in the cooler zones, it grows up to 15' tall. It is a very fast-growing plant. The joints of the hollow stem, stalks and leaves are reddish to purple. The 6 – 11 lobed, palmate leaves with uneven serrated edge, are also red or colored and often have a blue-gray bloom. There is also a green variety. The flat seeds are in a seedpod that explodes when ripen. All the top of the stem and stalks are the inflorescence with the male - and female flowers. The female flowers are the fuzzy red structures at the top of the flower spike with the male flowers positioned on the lower half, and have conspicuous yellow anthers The oblong fruit turns brown when ripe. In each seed pod (a capsule) there are three seeds. The seeds of castor bean or castor oil plant, are very poisonous to people, animals and insects

22. Ficus racemosa

Botanical name: Ficus recemosa

Common name:Cluster fig

Family:Moraceae

Goolar is an attractive fig tree with a crooked trunk and a spreading crown. Unlike the banyan, it has no aerial roots. The most distinctive aspect of this tree is the red, furry figs in short clusters, which grow directly out of the trunk of the tree. Those looking for the flower of goolar should know that the fig is actually a compartment carrying hundreds of flowers. One might wonder how these flowers enclosed in a ball are pollinated. The flowers are pollinated by very small wasps that crawl through the opening in search of a suitable place to reproduce (lay eggs) Without this pollinator service fig trees cannot reproduce by seed. In turn, the flowers provide a safe haven and nourishment for the next generation of wasps. Goolar is a tree commonly found in cities and towns. It has evergreen leaves, if it is close to a water source. Otherwise it sheds its leaves in january. Figs have been traditionally used by children to play. Thin sticks can be joined by inserting them in goolar figs to make interesting shapes

23. Pennisetum polystachion

Botanical name:Pennisetum polystachion

Common name;Mission grass

Family:Poaceae

Mission Grass is a clustered annual grass, with stems slender to moderately stout, up to 2 m tall, usually 1-2 m, simple or few-branched, Leaves are 5-40 cm long,

5-18 mm wide, hairless or velvet-hairy. Flowers are borne in dense spikes, yellow brown, 5-25 cm long, 13-26 mm wide; spikelets surrounded by bristles, these densely hairy at base, unequal, one longer than the others but not greatly exceeding the next one or two shorter ones, 12-25 mm long. Spikelets are 2-flowered about 5 mm long, upper floret perfect. Mission Grass is native to Tropical Africa to India.

24. Panicum pirgatum

Botanical name: Panicum pirgatum
Common name:Blue panicgrass
Family:Poaceae

Blue Panicgrass is a tall grass that can reach a height of 6.5 feet. The leaves have a distinct midrib and wavy margins. Blue Panicgrass begins growing in late spring and blooms from July to October. It requires fertilization and irrigation to maintain its growth.

25. Kalanchoe pinnata

Botanical name:Kalanchoe pinnata
Common name:Air plant,Donkey ears
Family: Crassulaceae
Native Hawaiian plant. Easy to grow just from one leaf set on top of moist soil. Very fast growing, drought tolerant small shrub. Tolerates almost any conditions. Spectacular bloomer. Air Plant grows to about 3-6 feet tall. The erect, thick, succulent stems bear large, fleshy leaves, each with 3 or 5 oval leaflets with round-toothed edges. Young plantlets develop along the margins of the mature leaves. The attractive, drooping blooms are borne on large panicles. The flowers have purple or yellowish-white tinged calyxes and reddish corollas. Kalanchoe is a genus of about 125 species of tropical, succulent flowering plants, mainly native to the Old World but with a few species in the New World. These plants are cultivated as ornamental houseplants and rock or "cactus" garden plants. They are popular because of their ease of propagation, low water requirements, and wide variety of flower colors typically borne in clusters well above the vegetative growth. The "Air plant" Kalanchoe pinnata is a curiosity because new individuals develop vegetatively at indents along the leaf, usually after the leaf has broken off the plant and is laying on the ground, where the new plant can take root. Medicinal uses: Bahamians call it Life Leaf or Ploppers. In the Bahamas it is mostly used for Asthma or shortness in breath.

26. Caloophyllum inophyllum

Common name: Beauty Leaf,Sulthan champa
Botanical name: Calophyllum inophyllum

Family: Calophyllaceae
Sultan Champa is a beautiful large evergreen tree native to southern coastal India, East Africa, Malaysia and Australia. It is a low-branching and slow-growing tree with a broad and irregular crown. It usually reaches 8 to 20 m in height. The tree supports a dense canopy of glossy, elliptical leaves. The very fragrant white flowers are 25 mm across and occur in racemose or paniculate inflorescences consisting of 4 to 15 flowers. The flowers have snow-white petals with a thick center of yellow stamens. The fragrant flowers have been prized as an adornment and as a perfume. The fruit (the ballnut) is a round, green drupe reaching 2 to 4 cm in diameter and having a single large seed. When ripe, the fruit is wrinkled and its color varies from yellow to brownish-red.

27. Phyllanthus tenellus

Botanical name: Phyllanthus tenellus
Common name:Long stalked leaf-flower
Family:Phyllanthaceae
Long Stalked Leaf-Flower is an erect, many-branched annual or perennial, broad-leaved, hairless herb, growing up to 50 cm tall. Alternately spirally arranged, simple leaves are nearly stalkless with 1–1.5 mm long stalks. Leaf blade 1.4–2.5 cm long (leaves are in one plane), .7–1 cm wide, elliptic or obovate, base rounded or tapering, margins entire with some depressions and protrusions. Flower arise singly or in racemes or in cymes. Flowers are predominantly green or white, with 1.5–5 mm long stalks. Male flowers are shorter than females. Flowers have a 0.5–1.5 mm long sepal cup with 6 sepals. Petals are absent. Stamens are 5 and styles 3. Fruit is a capsule, non-fleshy, 1.2–1.4 mm long, greenish. Long Stalked Leaf-Flower is native to parts of Africa and Asia, naturalized in India.

28. Synedrella nodiflora

Botanical name : Synedrella nodiflora
Common name : Cinedrella weed,Nodeweed,Pig grass,Synedrella
Family : Compositae
Peace Lily, is a very popular indoor houseplant. It is a clump-growing herbaceous perennial which produces white flowers which look like the hood of a cobra. Leaves are shiny and glossy, attractive even with no spathes. Peace lilies are sturdy plants with glossy, dark green oval leaves that narrow to a point. The leaves rise directly from the soil. The long-lasting flowers start out pale green and slowly turn creamy white as they open. Keep the leaves clean with water washes to remove dust and dirt. Peace Lily can attract mites, scales and mealy bugs so cleaning will help keep these pests away.

29. Solanum torvum

Botanical name : Solanum torvum

Common name : Turkey berry,Susumber
Family : Solanaceae

Turkey berry is a broadleaved, evergreen, shrub 1.2-1.7 m or more tall. Stem and branches are sparsely prickly, star-shaped woolly. Leaves are 9-13 x 5-10.5 cm, ovate-wavy, star-shapely velvet-hairy woolly, may have prickles along the midvein. Flowers are pale white, in compact panicle-like cymes. Flower-cluster-stalks are stout, 1.0-4.0 cm long. The stems are armed with stout, straight or lightly curved prickles. The alternate leaves are elliptical in shape, and range from unlobed to strongly lobed. Fruit is small yellow berries 1-1.5 cm in diameter. Once established, it can sprout from its roots, creating large thickets that could displace other vegetation. Turkey berry is found throughout the world's tropical regions, although it is native to Central America. The young fruits areedibleaftercooking.
Medicinal uses: Whole plant is used as sedative, diuretic and stomachic. Fruit decoction is used to cure cough; useful in liver and spleen enlargement. Pounded roots are applied in cracks in the feet.

30. Cleome rutidosperma
Botanica name:Cleome rutidosperma
Common name:Fringed spider flower
Family:Cleomaceae

Fringed Spider Flower is an erect, branched, annual herb, growing up to 15-100 cm tall. The plant has angular stems and trifoliolate leaves on stalks 1.5-5 cm long. The leaflets are ovate to lancelike, 2-5 cm long, 0.5-2.5 cm wide. Flowers blue or pink, occur singly in leaf axils. Sepals and petals are 4 in number. Petals are about a cm long. Fruit is a 2-valved, beaked capsule, 5-7 cm long, 4-5 mm wide. Fringed Spider Flower is native to Tropical Africa, naturalized in India and elsewhere. Flowering: May.

31. Handroanthus ochrauus
Botanical name:Handranthus ochrauus
Common name: Surinam green heart
Family:Bignoniaceae
Handroanthus is a genus of flowering plants in the family Bignoniaceae. It consists of 30 species of trees, known in Latin America by the common names poui, pau d'arco, or ipê. The latter sometimes appears as epay or simply ipe (unaccented) in English. The large timber species are sometimes called lapacho or guayacan, but these names are more properly applied to the species Handroanthus lapacho and Handroanthus guayacan, respectively.

The name Handroanthus was established in 1970,] but was not generally accepted. In 1992, its species were included in Tabebuia in the most recent revision of that genus. Handroanthus was resurrected in 2007 when a comparison of DNA sequences by cladistic methods showed that Tabebuia, as then circumscribed, was not monophyletic.
Handroanthus are indigenous from Central America to northern Argentina, Paraguay and Chile, with one species, Handroanthus billbergii, native to northern South America and the Antilles. Handroanthus are frequently cultivated far from their natural range, as ornamental trees, for their large and showy flowers. They easily become naturalized where introduced because their seeds are prolifically produced and widely scattered by the wind.] Several species are important timber trees of the American tropics Medicinal use has been reported, but its efficacy and side effects have not been well studied.

32. Setaria pumila

Botanical name: Setria pumila
Common name:Yellow Foxtail
Family:Poaceae
Yellow Foxtail is a clump-forming summer annual with a seed head that resembles a fox's tail. A weed of many agronomic crops, turf, landscapes, and nurseries. Leaf blades may reach 12 inches in length and 7-12 mm in width, and have long silky hairs at the leaf bases. Auricles are absent and the ligule is a fringe of hairs reaching 2 mm in length. The seed head is a cylindrical bristly panicle, reaching 6 inches in length and 1/3-2/3 inch in width. Spikelets are approximately 3 mm long, green, and each spikelet has 1-3 bristles that are 5-10 mm long. The bristles turn yellow at maturity, giving the plant it's name

33. Milium effusum

Botanical name: Milium effusum
Common name: American milletgrass or wood millet
Family: Poaceae,
Milium effusum, the American milletgrass or wood millet, is a species of flowering plant in the grass family Poaceae, native to damp forests of the Holarctic Kingdom.
Milium effusum inhabits damp, deciduous woods and shaded banks, where it grows on winter-wet, calcareous to mildly acidic clay and loam soils, and also over rocks in western Scotland. It can be found in the northern United States and Canada, and Europe, including Britain but excluding the Mediterranean, east to Siberia and the Himalayas.
The yellow-leaved cultivar 'Aureum', known as Bowles' golden grass, is cultivated as an ornamental garden plant, and in the UK has won the Royal Horticultural Society’s Award of Garden Merit.

34. Ipomoea cairica

Botanical name: Ipomoea cairica
Common name: Railway creeper
Family: Convolvulaceae

One of the commonest yet most useful of the evergreen creepers, refreshing the eve in the hottest weather with its clear, green leaves and delicate, mauve blooms, the Railway Creeper is found in gardens, villages, and on practically every railway station, thus earning for itself its nickname. This morning glory vine is beautiful, climbing on to whatever it finds - the purple flower studded vine wrapped around bending bamboo stems, is a pleasing sight. Its stem is hairless, readily set roots when in touch with the earth. This species can be identified by its leaves which are hairless to 9cm long with 5-7 lobes, middle lobe the largest. Flowers purple, pink or rarely pinkish white, to 8cm across, solitary or in groups of 2-3. Fruit a 4-valved capsule, about 1cm across, each valve with 1 seed. Seed with wispy hairs attached. Spread by wind, water and humans.

35. Leycestiria formusa
Botanical name: Leycestiria formusa
Common name:Himalayan Honeysuckle,Flowering Nutmeg
Family:Caprifoliaceae
Himalayan Honeysuckle is a deciduous shrub native to the Himalayas and SW China. It has soft, hollow, upright green stems 1-2 m tall, which only last for 2-5 years before collapsing and being replaced by new stems from the roots. Oppositely arranged dark green leaves, 6-18 cm long and 4-9 cm broad, have an entire or wavy margin. The flowers are produced on 5-10 cm long pendulous racemes. Each flower is small, white, subtended by a purple bract. The fruit is a soft purple-black berry 1 cm across, eaten by birds which disperse the seeds. Himalayan Honeysuckle was popularly used in Victorian shrubberies. It is seldom found in contemporary British gardens, though attempts have been made in recent years to popularise the species in Britain again with new cultivated varieties appearing in most garden centres. Himalayan Honeysuckle is found in forests and shrubberies in the Himalayas, from Pakistan to Burma, at altitudes of 2100-3000 m. Flowering: May-July.

36. Pistacia terebinthus
Botanical name: Pistacia terebinthus
Common name:Turpentine tree
Family:Anacardiaceae

The terebinth is a deciduous flowering plant belonging to the cashew family, Anacardiaceae; a small tree or large shrub, it grows to 10 m (33 ft) tall. The leaves are compound, 10–20 cm (3.9–7.9 in) long, odd pinnate with five to eleven

opposite glossy oval leaflets, the leaflets 2–6 cm (0.79–2.36 in) long and 1–3 cm (0.39–1.18 in) broad. The flowers are reddish-purple, appearing with the new leaves in early spring. The fruit consists of small, globular drupes 5–7 mm (0.20–0.28 in) long, red to black when ripe. All parts of the plant have a strong resinous smell.

The terebinth is a dioecious tree, i.e. it exists as male and female specimens. For a viable population both sexes must be present. The oblong leaf is bright green, leathery, with 10 cm (3.9 in) long or more with three to nine leaflets. Leaves alternate, leathery and compound paripinnate (no terminal leaflet) with three or six deep green leaflets. They are generally larger and rounder than the leaves of the mastic, reminiscent of the leaves of carob tree. The flowers range from purple to green, the fruit is the size of a pea and turns from red to brown, depending on the degree of maturation. The whole plant emits a strong smell: bitter, resinous, or medicinal. In the vegetative period they develop "galls" shaped like a goat's horn (from which the plant gets the name "cornicabra", the common name in Spanish), that occur on the leaves and leaflets which have been bitten by insects. The species propagates by seeds and shoots. Although marred by the presence of galls, it is a very strong and resistant tree which survives in degraded areas where other species have been eliminated.

37. Citrus aurantium

Botanical name: Citrus aurantium

Common name: Sweet Orange

Family: Rutaceae

Sweet Orange is a small tree seldom exceeding 30 cm diameter of the trunk. Oil dots are quite prominent, readily visible to the naked eye. Leaf blades are about 6-10 x 3-5 cm, elliptic to ovate-oblong. Leaf-stalk narrowly winged. Straight spines often present in the leaf axils. Flowers are white, fragrant. Petals are hairless, about 1.6-1.8 cm x 6-7 mm, oil dots yellowish, large and prominent, readily visible to the naked eye on the outer surface of the petals. Stamens are about 22-25, staminal filaments about 0.8-1.0 cm long. Disk is at the base of the ovary, inside the whorl of staminal filaments. Fruit is depressed globular to patelliform, about 7-11 cm in diameter, surface smooth or slightly pitted. Pulp is orange in colour, sweet. Sweet Orange is native to India, but widely cultivated world over. Flowering: September-October.

38. Petiveria alliacea

Botanical name : Petiveria alliacea

Common name : Guinea Henweed,Anamu, Garlic weed

Family : Petiveriaceae

Guinea Hen weed is a deeply rooted herbaceous perennial shrub native to tropical areas of Africa, South and Central America and the Caribbean. It has now naturalized in India. It grows up to 1 m tall, and has velvety to smooth stems. The

roots and leaves have a strong, garlic-like odour which taints the milk and meat of animals that graze on it. It produces dark green leathery leaves that lie close to the ground and tall spikes lined with small white flowers that sway above the leaves. Leaves are elliptic to oblong or obovate, to 20 × 7 cm, with 0.4-2 cm long stalks. Base is acute to wedge-shaped; tip is narrow or acute to obtuse or rounded. Flowers are regularly spaced, with white or greenish to pinkish, linear-lance shaped to linear-oblong sepals, about 3.5-6 mm long.
Medicinal uses: Warning: Unverified information Guinea Hen weed has been widely used to treat an astounding range of medical conditions both in humans and in animals including: venereal diseases, an antiseptic, arthritis, pain, cancer, womb inflammation, diuretic, decoagulant, cold, snake bite, flu, cods, hysteria, paralysis, fever, rabies, to treat arrow poison in Brazil and as a bat and insect repellent.

39. Plectranthus scutellarioides

Botanical name: Plectranthus scutellarioides
Common name : Indian Coleus
Family :Lamiaceae
Indian Coleus is a densely hairy perennial herb, with pale blue flowers arranged in whorls, forming long leafless interrupted spikes. Flowers are up to 2 cm long, tube bent abruptly downward, longer than the sepal cup. Flowers are 2-lipped, the upper lip short, turned back, 3-lobed, the lower much longer, boat-shaped, pointed. Sepal cup is hairy, bell-shaped, with lance shaped, prickly-tipped sepals. Bracts are broadly ovate, pointed, overlapping in bud, soon falling. Leaves are ovate to oblong, blunt, rounded-toothed, short-stalked, 5-8 cm long. They are arranged in opposite pairs perpendicular to each other, along a 1-3 ft tall stem. Indian Coleus is found in the Himalayas, from Uttarakhand to Bhutan, at altitudes of 1200-2400 m. It is also found in Western Ghats. Flowering: August-October.
Medicinal uses: In Ayurvedic medicine Coleus species have been used to treat heart disease, convulsions, spasmodic pain and painful urination.

40. Flemingia steobilifera

Botanical name: Flemingia steobilifera
Common name:Wild Hops,luck plant
Family:Fabaceae
Wild Hops is a shrub growing to 2 m tall. Leaflet 1, obovate to ovate, 9.5-15 cm long, 4-9 cm wide. Flowers occur in at branch-ends or in leaf-axils branched racemes 8-15 cm long. Flowers are enclosed in large leaf-like bracts 1-3 cm. The bracts obovate to heart-shaped, papery, persistent, enclosing the flowers. Flowers have creamy petals, light yellow, or pinkish to purple. Standard petal large and circular. Flowering: October-December.

Medicinal uses: Roots are used in epilepsy, hysteria and to induce sleep; pounded roots are given in fever. The leaves are used as a vermifuge for children.

The Marma tribe of Bangladesh uses this plant as fly repellent; decoction of the leaf is taken orally by them to cure body swellings due to cessation of menstruation; bath taken with leaf-boiled water has similar effect. The plant is also used for rheumatic fever.

41. Syzygium cumini

Botanical name: Syzygium cumini
Common name:Java plum,Jamun
Family:Myrtaceae

The evergreen jamun plant is originally from Indonesia and India. Indian mythology describes the Indian subcontinent as an island, 'situated in the centre of the world', called Jambudweep. Because of a majority of Jamun (black berry) trees, this island was named as Jambudweep. An evergreen tropical tree, 50 to 100 ft. tall, with oblong opposite leaves that are smooth, glossy and having a turpentine smell. Jamun has fragrant white flowers in branched clusters at stem tips and purplish-black oval edible berries. The leaves are antibacterial, and are used for strengthening the teeth and gums. The fruit and seeds are sweet, acrid, sour, tonic, and cooling, and are used in diabetes, diarrhea and ringworm. The bark is astringent, sweet sour, diuretic, digestive and anthelmintic.

42. Calotropis procera

Botanical name: Calotropis procera
Common name: Apple of Sodom
Family: Apocynaceae
Calotropis procera is a species of flowering plant in the family Apocynaceae that is native to North Africa, tropical Africa, Western Asia, South Asia, and Indochina. The green fruits contain a toxic milky sap that is extremely bitter and turns into a gluey coating which is resistant to soap. Common names for the plant include Apple of Sodom, Sodom apple, stabragh[citation needed], king's crown, rubber bush,and rubber tree. The name Apple of Sodom and Dead Sea Apple comes from the fact that the ancient authors Josephus and Tacitus described it as growing in the area of biblical Sodom.

43. Calotropis gigantea

Common name: Crown Flower
Botanical name: Calotropis gigantea
Family: Apocynaceae
This large shrub, which can sometimes grow large enough to look like a small tree, sports clusters of waxy flowers that are either white or lavender in color. Each flower consists of five pointed petals and a small, elegant "crown" rising from the center, which holds the stamens. The plant has oval, light green leaves

and milky stem. The flowers last long, and in Thailand they are used in various floral arrangements. They were also supposed to be popular with the Hawaii queen Liliuokalani, who considered them as symbol of royalty and wore them strung into leis. In India, the plant is common in the compounds of temples. The fruit is a follicle and when dry, seed dispersal is by wind. The seeds with a parachute of hairs, is a delight for small children, who like to blow it and watch it float in the air. This plant plays host to a variety of insects and butterflies

44. .Pongamia pinnata

Botanical name : Pongamia pinnata

Common Name : Seashore Mempari, Pongam, Indian beech

Family : Fabaceae

A fast-growing deciduous tree up to 20 metres tall that is thought to have originated in India and is found throughout Asia. It is a deciduous tree that grows to about 15-25 meters in height with a large canopy that spreads equally wide. The leaves are a soft, shiny burgundy in early summer and mature to a glossy, deep green as the season progresses. Small clusters of white, purple, and pink flowers blossom on their branches throughout the year, maturing into brown seed pods. The tree is well suited to intense heat and sunlight and its dense network of lateral roots and its thick, long taproot make it drought tolerant. Flowering: March-April.

Medicinal uses: A thick brownish oil can be extracted from the large seeds, and is used industrially and in medicine, notably for the treatment of rheumatism.

45. Barleria lupulina

Botanical name: Barleria lupulina

Common name: Hophead, hop-headed barleria

Family: Acanthaceae

Hophead is a popular medicinal plant distributed in mountains of southern and western India. Shrubbery plant with single dark green leaves, red-brown branches, and flowers that bloom in upright spikes. It is an erect shrub with smooth, hairless stems and leaves. Leaves narrowly obovate, spine-tipped, 3.5-9 cm long, 0.8-1.2 cm wide. Flowers occur in a terminal spike with overlapping bracts which are broadly ovate, 15 mm long, green with purple upper half. Flower consists of a 3m long corolla tube, opening into 1 cm long petals. Longer stamen filaments 2 cm long; shorter stamens fertile. Style is 3 cm long and smooth.

Medicinal uses: Traditional and therapeutic use is anti-inflammatory for insect bites, herpes simplex use by its fresh leaves, and roots for anti-inflammatory centipede bites.

46.Lagerstroemia speciosa

Botanical name: Lagerstroemia speciosa

Common name: Queen crape myrtle

Family:Lythraceae

This tropical flowering tree is one of the most outstanding summer bloomers. Lagerstroemia speciosa is a larger form of the more commonly grown L. indica (Crape myrtle.) It is called Queen Crape Myrtle because it's the Queen of the Crape Myrtles, dominating with grand size and larger, crinkled flowers. The name Crape myrtle is given to these tree/shrubs because of the flowers which look as if made from delicate crape paper. Lagerstroemia speciosa is a large treegrowing up to 50' but it can be kept smaller by trimming. It stands on an attractive,spotted bark that often peels. This bark is commercially used and is a valuable timber. The large leaves are also appealing as they turn red right before they dropin the winter. A postal stamp was issued by the Indian Postal Department to commemorate this flower.

Medicinal uses: Leaves are used in the Philippines as a folk medicine for the treatment of diabetes and kidney diseases. The fruit are used India to cure mouth ulcers. The roots are also considered astringent and the seeds narcotic.

47. Trema cannabina

Botanical name: Trema cannabina

Common name: Indian Charcoal Tree

Family:Cannabaceae

Indian charcoal tree is a fast-growing shade tree with soft foliage. Depending on climatic conditions, trees may be evergreen or deciduous. In forests it is a straight, slender tree, up to 18 m on forest margins, and in the open it is wider-spreading, sometimes drooping, and in dry areas it often grows as a shrub approximately 3 m tall. The less water it receives, the shorter it is. Trema bark is smooth and light grey with conspicuous lenticels (corky spots). The leaves are simple, alternate, stipulate although the stipules drop early, and usually 3-nerved from the base. The leaf base is frequently unequal. Leaves taper from the base to the apex, and vary from 60 to 150 mm long and 25 to 50 mm wide. Leaf margins are finely serrated, and the young leaves are rough and hairy, occasionally becoming smooth when old. Flowers are small, inconspicuous and greenish, carried in shortdense bunches. They are usually unisexual, i.e., male and female are separate, occasionally they are found together. Flowers appear irregularly from late winterto summer. The name Trema is based on the Greek word for hole and pertains tothe pitted stone of the fruit. The common name pigeon wood is derived from thefact that pigeons are frequently seen nesting or roosting in these trees.

48. Zanthoxylum clava

Botanical name: Zanthoxylum clava

Common name:

Family: Rutaceae

Zanthoxylum clava-herculis, the Hercules' club, Hercules-club, pepperwood, or southern prickly ash, is a spiny tree or shrub native to the southeastern United States. It grows to 10–17 m tall and has distinctive spined thick, corky lumps 2–3 cm long on the bark. The leaves are glabrous and leathery, pinnately compound, 20–30 cm long with 7-19 leaflets, each leaflet 4–5 cm long. The flowers are dioecious, in panicles up to 20 cm long, each flower small, 6–8 mm diameter, with 3-5 white petals. The fruit is a two-valved capsule 6 mm diameterwith a rough surface, and containing several small black seeds. The tree has alsobeen called Z. macrophyllum. The genus name is sometimes spelled Xanthoxylum
he tree has a rounded crown and requires plentiful water and sunlight. Its leaves are browsed by deer and its fruit is eaten by birds. The fruit passes through birds, which helps the seeds to germinate. The new trees tend to sprout below the favorite resting places of the birds, along fence rows and the edge of woods. Itis known to be host to a number of insect species, including the Giant Swallowtail (Papilio cresphontes) and the leaf beetle Derospidea brevicollis.

49. Ixora coccinea

Botanical name: Ixora coccinea
Common name: Red ixora
Family:Rubiaceae
Ixora is native to Asia and its name derives from the word 'Isvara' or Ishwara, a name variously meaning God, Supreme Being, Supreme Soul, lord, in India. It is a branched shrub, up to 1 m tall; branches hairless. Leaves are mostly stalkless, opposite decussate, 4-8 x 1.5-6.5 cm, entire, apiculate, blunt or with a short sharp point, 8-15 pairs at lateral nerves, hairless; stipules triangular, cuspidate or awned. Flowers are borne at branch-ends, in dense corymb-like cymes, flower-cluster-stalk very short or absent; bracts about 8 mm long. Flowers are stalkless, bright scarlet, hypanthium 1-1.5 mm long, becoming hairless, teeth, about 0.5 mm long. Flower-tube is prominently long, 2.5-4.0 cm long, 1.5 mm wide, hairless, petals 8-10 x 4-5 mm, twisted in bud, throat hairless. Stamens are 4, inserted on the throat of flower-tube, filaments very short. Style protruding; stigma 1.5 mm long. Fruit is spherical, red when ripe, crowned with the sepal-cup teeth. It is a very common garden plant.
Medicinal uses Roots are stomachic, sedative, astringent, febrifuse and acrid. Leaf extract is given in dysentery. Bark powder is applied to sores, burns and injuries. Flower are sweet, carminative, digestive and constipating. Flower extract is used as an eye lotion.

50. Thunbergia erecta

Botanical name : Thunbergia erecta
Common Name: Bush clockvine, King’s mantle, Potato bush
Family :Acanthaceae

King's Mantle is an upright shrub growing up to 4 ft. The shoots are quadrangular and each angle bears a narrow wing. Leaves are ovate-elliptic, and oppositely arranged. Leaf margin is entire or wavy or occasionally with a broad triangular tooth above the middle. Flowers occur in leaf axils, either singly or in pairs, sitting on peduncles up to 1.5 inches long. Sepal's cup is short, bowl shaped. Flower tube is 1.5-2.5 inches long, slightly conical at the base, swelling above, and distinctly curved. The flower tube flares open into five dark purple, roundish petals, yellowish-white at the base. It can be grown as a bush with weeping branches or it can be trained like a vine. It is not always easy to come by in the nursery. The flowers are absolutely wonderful and it flowers in the colder season. King's Mantle is native to west Africa, but commonly cultivated in India.

51. Hymenocalis littoralis

Common name: Beach spider lily

Family: Amaryllidaceae

Beach Spider Lily is a plant 30-70 cm tall with narrow sword shaped leaves. The flowers are in fragrant white umbels, each flower with slender recurved petals and elongated stamens emerging from a central cup. The flower tube is 14-17 cm long or longer, and there are six segments, which are united at the base by a thin membranous cup of corona. The flowers are borne in cluster of 2-12 flower on around 2 ft long stalk arising from the Centre of the leaves. It is called spider lily because of the petals, which look like spider legs. The flowers open one by one in 4-5 days. The sword-shaped leaves are about 4-5 cm broad and the plant flowers throughout the year. Beach Spider Lily is native to Mexico to N. Peru and Brazil, widely cultivated in the Tropical world

52. Cryptomeria japonica

Botanical name: Cryptomeria japonica

Common name: Japanese Cedar, Sugi, Japanese Red Cedar.

Family: Cupressaceae

Japanese cedar is a tall, cone shaped evergreen with bluish green foliage and a massive trunk. Bark is thick reddish brown and peels in long strips. This is a fast-growing tree that can get more than 50 m tall with a trunk diameter exceeding 12 ft, in its native habitat. Planted specimens may be rarely more than 60 ft tall. Branches are arranged in horizontal tiers, ascending at first, then drooping near their ends. The flattened, wedge- shaped leaves are about 1.3 cm long and point forward, while their bases clasp the twigs. The leaves are overlapping and crowded in 5 ranks that spiral around and completely cloak the twigs. Male and female cones, 1 inch or less in length, are on the same tree. Female cones are brown, globular, 1.5-2 cm, composed of 20-30 overlapping cone-scales. Japanese cedar is a forest tree native to Japan, naturalized in China. It is extensively planted in eastern Himalayas – Darjeeling, Arunachal Pradesh, E. Nepal and Kathmandu.

53. Peperomia pellucida

Botanical name: Peperomia pellucida
Common name: Shiny bush
Family: Piperaceae

Shiny bush is a common fleshy annual herb, growing by roadside and in wasteland. Stems are translucent pale green, erect or ascending, usually 15-45 cm long, internodes usually 3-8 cm long, hairless. Fleshy leaves are heart shaped, shiny light green, 1.5-4 cm long, 1-3.3 cm wide. It has very small bi-sexual flowers growing in the form of cord-like spikes, 3-6 cm long, arising from the leaf axils. The fruits are also very small, round to oblong, ridged, first green later black. They have one single seed. Shiny bush has a mustard like odor. The plant can be utilized as a vegetable and in salads. Shiny Bush is native to south America, but widely naturalized and cultivated.

Medicinal uses: In South America, Shiny Bush is used medicinally. A solution of the fresh juice of stem and leaves is used against eye inflammation. It is also been applied against coughing, fever, common cold, headache, sore throat,diarrhea, against kidney - and prostate problems and against high blood pressure.Shiny bush is also used in Ayurvedic medicine.

54. Phyllanthus bourgeoisie

Botanical name: Phyllanthus bourgeoisie
Common name: Black-Honey Shrub
Family:Phyllanthaceae

Black-Honey Shrub is usually a much-branched somewhat climbing shrub, rarely a small tree. Leaves are ovate-oblong to elliptic, 1-5 cm long, 0.7-3 cm wide, produced on short lateral branchlets, looking like leaflets of a compound leaf. Flowers are borne in clusters on short axillary branchlets, small, yellowish, sexes separate on the same plant, flowering before or with the new leaves. Theflowering shoots and pedicels are covered in short, velvety hairs. Fruit is berry- like, 4-6 mm across, blackish when ripe. Flowering: March-July.

Medicinal uses: The leaves and roots are used as medicine for the fractures and traumatic injury

55. Orthosiphon aristatus

Botanical name: Orthosiphon aristatus
Common name:Cat's whiskers
Family:Phyllanthaceae

Cat's Whiskers is a perennial herb found mainly throughout South East Asia and tropical Australia. It grows to be about 1 to 3 feet tall and has a very open

branching habit with 1-inch dark green, ovate leaves with serrated margins. At the end of the branches are racemes of flowers. When the flowers open, the stamens and pistil extend out far beyond the petals, creating the "cat's whiskers" effect. The flowers are most commonly white, but they can also occur in light shades of purple.

Medicinal uses In Manipur, the leaves are used as tea in kidney and bladder diseases. According to clinical studies, infusion of dried leaf has diuretic effect and increases uric acid excretion.

56. Codiaeum variegatum

Botanical name: Codiaeum variegatum
Common name: Croton.
Family: Euphorbiaceae

Crotons with their colorful, glossy foliage and variation of leaf types are popular plants. It is a native of the tropics from Java to Australia and the South Sea Islands. In the wild, garden croton is an evergreen shrub that grows to 10 ft tall and has large, leathery, shiny leaves. The cultivated garden crotons are usually smaller and come in an amazing diversity of leaf shapes and colors. What they do have in common are rather thick evergreen alternate leaves, tiny inconspicuousstar-shaped yellow flowers that hang down in long racemes, and a milky sap thatbleeds from cut stems. Depending on the cultivar, the leaves may be ovate to linear, entire to deeply lobed, and variegated with green, white, purple, orange, yellow, red or pink. The colors may follow the veins, the margins or they may bein blotches on the leaf.

57.Cordyline fruticosa

Botanical name: Cordyline fruticosa
Common name: Hawaiian Ti Plant.
Family: Asparagaceae

The Hawaiian Ti plant (pronounced as in tea not tie) is a palmlike evergreen shrub with a strong, usually unbranched trunk that can get up to 10' tall. However, most of us know it as a smaller foliage house plant, before much of a trunk has developed. The leaves are 12-30" long, 4-6" wide and may be glossy green, reddish purple, or marked with various combinations of purple, red, yellow or white. The leaves originate in tufts at the top of the woody stems in mature plants, and more or less along the stems in younger house plants. Mature plants produce yellowish or reddish flowers that are sweetly scented, less than a half inch across, and clustered in conspicuous 12" panicles. The fruits are red berries. Ti sometimes grows in clumps by suckering from the enlarged tuber-like rhizomes. A red ti plant cultivar. Many cultivars have been selected for their beautiful foliage.

58. Hibiscus schizopetalus

Botanical name: Hibiscus schizopetalus
Common name: Japanese Hibiscus
Family: Malvaceae

Japanese Hibiscus is a shrub that will reach about 6 to 8 feet with a spread of 5 to 6 feet. It is a very fast grower and needs to be pruned often. highly decorative hanging red flowers, 3-4" in diameter, that have graceful lace-like petals that turn upwards and a long style that hangs down. Most usually these plants are sold as hanging basket plants and are treated as annuals. Hibiscus schizopetalus is native to tropical east Africa. Hibiscus schizopetalus need part shade and intermediate to warm temperatures. In the greenhouse, we grow ours under 52% shade all year long. We use a soil mix consisting of 2 parts peat moss to 2 parts loam to 1 part sand or perlite. The plant cannot stand much drought and should be kept moist at all times.

59. Trachelospermum jasminoides

Botanical name: Trachelospermum jasminoides
Common name: Confederate jasmine, Star jasmine
Family: Apocyanaceae

Confederate jasmine is an evergreen woody liana growing to 10 ft high. When they meet a wet surface, they emit aerial weed roots, otherwise they twine around the support. The fragrant flowers are white, 1-2 cm in diameter, pinwheel shaped, with five twisted petals. The flowers have a sepal-cup formed by five narrow, smooth, reflexed sepals 2-5 mm, much shorter than the flower tube. The five stamens are inserted in the middle of the flower tube. If cut, like most Apocynaceae, they exude a white latex, resembling sticky milk. Young twigs, initially velvet-hairy, become hairless with age. The leaves are opposite, oval to lance shaped, 2-10 cm long and 1-4.5 cm broad, with an entire margin and a tapering tip. Confederate jasmine is not a “true” jasmine, and comes from China, but has been a popular garden plant in Europe and the U.S. for centuries.

60. Ficus Benjamina

Common name: Weeping Fig, golden fig, tropic-laurel, Chinese banyan
Family: Moraceae

The Weeping Fig is an evergreen tree, native to south and southeast Asia. It is the official tree of Bangkok, Thailand. It is a tree reaching 30 m tall in natural conditions, with gracefully drooping branchlets and glossy leaves 6-13 cm long, oval with a pointed tip. In its native range, its small fruit are a favorite food of some birds. It is a very popular house plant, due to its elegant growth and tolerance of poor growing conditions; it does best under bright, sunny conditions but will also tolerate considerable shade. It requires a moderate amount of watering in summer, and only enough to keep it from drying out in the winter. It does not need to be misted. The plant is sensitive to cold and should be protected

from strong drafts. When grown indoors, it can grow too large for its situation, and may need drastic pruning or replacing. The leaves are very sensitive to small changes in light. When it is re-located it reacts by dropping many of its leaves and replacing them with new leaves adapted to the new light intensity. Weeping Fig has many varieties like Ficus benjamina var. nuda and Ficus benjamina var. comosa.

61. Syzygium jambos

Botanical name: Syzygium jambos
Common name: Rose apple, Malabar Plum, Jambo
Family: Myrtaceae

Rose Apple is an evergreen tree up to 10 m tall. The terminal inflorescence is showy and usually carries four whitish-green flowers on the outside of the crown. The leaves are lance shaped, 2-4 cm broad, 10 cm to 20 cm long, pointed, base wedge-shaped with hardly any leaf-stalk, lively red when growing, but dark, glossy green on attaining full size. The showy flowers are in small clusters at branch-ends, white or greenish white, the long, numerous stamens giving them a diameter of 5-8 cm. The fruits are whitish-green, rose scented, about 5 cm long and ripen over an extended period. The edible fruit is shaped like a small pear. The flesh is a bit softer than that of an apple. It tastes like a cross between apple and watermelon, with a very mild rose scent and a slightly bitter aftertaste. In ancient Sanskrit, the land now called India was referred to by the ancient Indians themselves as Jambudvipa, which means Rose-apple-land (jambu = rose apple; dvipa = land). The dry, crisp fresh fruit is used to make jellies. Fruit/seed can be produced following self-pollination. Rose Apple is native to India, China and SE Asia.

62. Cuphea hyssopifolia

Botanical name:.Cuphea hyssopifolia
Common name: Mexican Heather, Mexican false heather, false heather, Hawaiian heather.
Family: Lythraceae

Mexican false heather is a small tropical evergreen sub-shrub with many charming attributes including compact form and fine textured foliage. Growing to a maximum height of about 24 in false heather grows to form flat topped mounds 18-36 in in diameter. The plant’s flat feathery sprays of foliage are 12-18 in long and are highly branched. The small oblong leaves resemble those of Scotch heather (genus Calluna also known by its synonym Erica) and are about ¾ to 1 in long and ¼ to ½ in wide. They are arranged alternately the length of the stems giving the plant a fernlike appearance. In tropical climates tiny flowers emerge from the axils (the points where the leaf attaches to a stem) to create a show of color that lasts for much of the year. False heather flowers range from

the typical purple and lavender to the less frequently seen white, pink and deep rose varieties.

63. Cyanthillium cinereum

Botanical name: Cyanthillium cinereum
Common name: Little ironweed, Purple feabane.
Family: Asteraceae
Little ironweed is an annual or short-lived perennial to 50cm with ovate leaves. The stems branch repeatedly at the top to hold aloft the small cylindrical, purple flower heads. Flowers throughout the year. Originally from Tropical Asia & Africa, now a pantropical weed, it is sometimes considered native to Western Australia. Found in upland crop areas, waste places and roadsides throughout India.
Medicinal uses: Warning: Unverified information the seeds yield a fatty oil and are used as an anthelmintic and alexipharmic; they are said to be quite effective against roundworms and threadworms. They are also given for coughs, flatulence, intestinal colic and dysuria and for leucoderma, psoriasis and other chronic skin-diseases. The seeds are made into a paste with lime juice and used for destroying pediculi.

64. Broussonetia papyrifera

Botanical name: Broussonetia papyrifera
Common name: Paper Mulberry
Family: Moraceae
Paper Mulberry is a deciduous tree growing to 15 m tall, native to Japan and neighbouring areas. The leaves are variable in shape, just like Mulberry leaves. They can be ovate heart- shaped too deeply lobed. They are 7–20 cm long, with a rough surface above, fuzzy-downy below and a finely toothed margin. The male flowers are produced in an oblong inflorescence, and the female flowers occur in a ball, with long hairs on the surface. In summer, the female flower matures into a red to orange, sweet, juicy fruit 3–4 cm diameter, which is an important food for wild animals. The fruit is edible and very sweet, but too fragile to be commercialized. The bark is composed of very strong fibres, and can be used for making high-quality paper. The tender leaves and twigs can be used to feed deer, and the tree is sometimes nicknamed the "Deer's Tree".

65. Pterocarya stenoptera

Botanical name : Pterocarya stenoptera
Common name: Chinese wingnut
Family: Juglandaceae
Pterocarya stenoptera is quite similar to P. fraxinifolia. The major difference lies in the shape of the wings on the fruit: reminiscent of the wings of the common fly, they are connected to the two sides of the walnut shaped fruit, which is about

the size of a chickpea. The wings lie in two different planes. The fruits develop in the summer on 2.5 cm long catkins, hanging from the distinctly differently textured green foliage. The fruiting catkins are frequently considered desirable from a landscaping perspective.The foliage is dense, though it can be thinned by pruning. The alternate deciduous leaves are pinnately compound, bearing odd numbers of elliptic-oblong pinnately-veined leaflets with serrate margins. The bark on the trunk is similar to P. fraxinifolia, but is smoother. The tree grows rapidly under optimal conditions, easily reaching 70 feet with substantial spreading branches. One tree in Raleigh grew to 25 feet in only six years, with a trunk diameter of fourteen inches. Trunk diameters as large as eight feet have been reported. Used in East Asian classical garden design

66. Jacarandea mimosifolia

Botanical name : Jacarandea mimosifolia
Common name: :Blue Jacaranda
Family: Juglandaceae

The Jacarandas are impressive trees in May when covered with clusters of blue tubular flowers. The ground below them turns rapidly blue, and some gardeners might object to that quantity of litter. A variety 'Alba' with white flowers, and denser foliage, is occasionally available. Native to Brazil growing to 50' or larger. Moderate to fast growth during warm season. Bi-pinnately compound leaves hold till late in winter. Can be completely winter deciduous in colder areas. Flowers in spring are trumpet like lavender and 2" long by 1 1/2" wide. There are white and pink also. If the tree is given too much water, the leaves appear first, somewhat spoiling the startling effect of the flowers. The flowers are followed by woody, disc-shaped seed pods

67. Phyllanthus acidus

Botanical name: Phyllanthus acidus
Common name: Star Gooseberry
Family: Phyllanthaceae

Star Gooseberry is a small deciduous tree reaching about 25-30 ft in height. Leaves are compound, 14-25 inches long, crowded at the ends of the branches leaflets 2-3.5 inches long by 1-1.5 inches wide, alternately arranged along the rachis, ovate or obliquely ovate, acute or somewhat acuminate, base rounded or somewhat wedge-shaped. The genus name Phyllanthus is derived from Greek words meaning leaf-flower, an allusion to the apparent bearing of flowers on the leaves. The species name acidus is on account of the acidity of the fruit. Flowers are very minute, in short dense spike-like clusters arising from nodules along the branches, like mulberries. Fruit is pendulous, in small clusters from the branches, round or slightly flattened at the poles, with shallow or deep ribs (usually 5) 0.75 inch across. The tree usually flowers and produces fruit twice a year. Fruits appear

simultaneously with the flowers. So, the tree usually has fruits hanging from it, at any time of the year. The fruit is used chiefly for pickling and for the preparation of preserves. It makes an excellent jam. Star Gooseberry is native of Malay Islands and Madagascar and frequently grown in India for its acid fruit.

68. Nerium oleander

Botanical name: Nerium oleander
Common name: Oleander
Family: Apocyanaceae

Beautiful blossoms, of fragrant pink flowers in bunches, at the tip of branchlets rendering an eye-catching sight that is 'Oleander'. A native of India and China, it is now widely grown in tropical and subtropical gardens, parks, avenues, and is popular for its hue and fragrance. It rises up to 3 meters erect with its short branches and dark dusty green leathery narrow leaves, which grow in whorls. They are narrow lancelike, 5-21 cm long and 1-3.5 cm broad, with an entire margin. The flowers grow in clusters at the end of each branch; they are white, pink or yellow, 2.5-5 cm diameter, with 5 petals fringed at the base. They are often, but not always, sweetly scented. The fruit is a long narrow capsule 5-23 cm long, which splits open at maturity to release numerous downy seeds. The plants are almost free from pests and diseases and untouched by cattle and goats, due to their toxicity. In India they are thus the most favored plants for the road dividers, where a plant has to withstand heat and dust, and little water. There are single and double forms in white, pink and red. Several other cultivars have been developed - once example is a popular variety called 'Petit Salmon' which is a dwarf that grows to only 4 ft (1.2 m)

69. Ixora finlaysoniana

Botanical name: Ixora finlaysoniana
Common name: Fragrant ixora
Family:Rubiaceae

Fragrant Ixora is a shrub or small trees to 8 m tall. White flowers with 4 petals are born in corymbs 5-13 cm wide, open, stalkless or nearly so; flower-cluster-stalk up to 2 cm long; bracts 0.8-1.3 cm long, linear-lance shaped, lower most bract 2.3-3.3 x 0.7-1.8 cm, leaf-like. Flowers are white or pale green, faintly scented, central flowers of the trichasia stalkless and ebracteolate, others stalked, bracteolate; flower-stalk 1-2.5 mm long. Sepal-tube is 1.5-2.5 mm long, velvet-hairy or hairless; sepals 3-12 mm long, lanceshaped or oblong, pointed. Flower-tube is 1.5-3.5 cm long, hairless; petals 5-10 x 2-5 mm, ovate-oblong, blunt; filaments 1-2 mm long, hairless; anthers 2.5-5 mm long; style 1.7-3.7 cm long, hairless; stigmatic arms 1.5-2 mm long; buds greenish brown. Leaves are oppositely arranged, 7-23 x 3-9 cm, elliptic, oblong, obovate, oblong-inverted-lance shaped, ovate or elliptic-ovate, tip blunt, pointed, tapering, refuse or apiculate, base pointed, smooth, leathery, hairless on both the surfaces; lateral

nerves 10-12 pairs; leaf-stalk 4-17 mm long, hairless. Fruit is 7-10 x 6-10 mm, spherical, glossy, black or reddish, blue at maturity. Fragrant Ixora is found in NE India, China, Indochina, Philippines, Thailand, at altitudes of 100-1100 m. Itis cultivated worldwide.

70. Garsinia atroviridis

Botanical name: Garsinia atroviridis
Common name: ***Asam gelugur****,* ***Asam gelugo****, or* ***Asam keping***
Family: Clusiaceae
Garcinia atroviridis, known as asam gelugur, asam gelugo, or asam keping is a large rainforest tree native to Peninsular Malaysia.[1] This species grows wild throughout Peninsular Malaysia but is also widely cultivated, especially in the northern states, owing to its economic and medicinal value. Garcinia atroviridis is a large perennial plant commonly found in evergreen forests in the southern region of Thailand and Malaysia. The tree grows to a height of more than 20 m and has a long trunk, smooth grey bark and drooping branches. The leaves are dark green, shiny, long and narrow with a pointed tip and upturned edges. The flowers are dark red. The round fruits are borne singly on twig ends about 7–10 cm in diameter. The ripe fruits are bright orange yellow, which are sliced, dried and used in curries or stewed in plenty of sugar to be eaten. Asam gelugor is a perennial fruit tree native to the tropical climate in Malaysia. The trees can also be found in other parts of South East Asia, particularly in Thailand where demand for the asam fruit is increasing.

71. Mangifera indica

Botanical name: Mangifera indica
Common name: Mango tree
Family:Anacardaceae

It is a matter of astonishment to many that the delicious mango, one of the most celebrated of Indian fruits, is a member of the family Anacardiaceae–notorious for embracing a number of highly poisonous plants. The mango tree is erect, 30 to 100 ft high, with a broad, rounded canopy which may, with age, attain 100 to 125 ft in width, or a more upright, oval, relatively slender crown. In deep soil, the taproot descends to a depth of 20 ft, the profuse, wide-spreading, feeder root system also sends down many anchor roots which penetrate for several feet. The tree is long-lived, some specimens being known to be 300 years old and still fruiting. Nearly evergreen, alternate leaves are borne mainly in rosettes at the tips of the branches and numerous twigs from which they droop like ribbons on slender petioles 1 to 4 in long. Hundreds and even as many as 3,000 to 4,000 small, yellowish or reddish flowers, 25% to 98% male, the rest hermaphroditic,

are borne in profuse, showy, erect, pyramidal, branched clusters 2 1/2 to 15 1/2 in high. There is great variation in the form, size, color and quality of the fruits. They may be nearly round, oval, ovoid-oblong, or somewhat kidney-shaped, often with a break at the apex, and are usually more or less lop-sided.

72. Bauhinia purpurea

Botanical name: Bauhinia purpurea
Common name: Purple Orchid Tree
Family: Fabaceae

The Purple Orchid Tree is an exotic tropical tree that blooms over a long period of time. The beautiful & fragrant, classic, Orchid-like flowers of Bauhinia purpurea makes this small tree, native to India, a favorite of many plant lovers. In fall, before the leaves drop, Orchid-Tree is festooned with many showy and delightfully fragrant, five-inch-wide blossoms, the narrow purple, pink, and lavender petals arranged to closely resemble an orchid. These flowers appear on the trees from September through November and are a beautiful sight to see, creating a vivid splash of color in the autumn landscape. Curiously, the flower colors varies quite a lot. There are some trees which have white flowers with only some streaks of purple in them. Purple orchid tree can be easily distinguished from Orchid Tree (Bauhinia variegata) in that the petals of purple orchid tree are narrower and do not overlap. On the other hand, the petals of Bauhinia variegata are broad and overlap - it never opens fully flat. The flowers are followed by 12-inch-long, slender, brown, flat seedpods which usually persist on the tree throughout the winter. The foliage light green and deeply notched at the tip. Bauhinia purpurea can reach up to 20 feet tall and have a 25-foot crown.

73. Pongamia pinnata

Botanical name : Pongamia pinnata
Common Name: Seashore Mempari, Pongam, Indian beech
Family: Fabaceae

A fast-growing deciduous tree up to 20 meters tall that is thought to have originated in India and is found throughout Asia. It is a deciduous tree that grows to about 15-25 meters in height with a large canopy that spreads equally wide. The leaves are a soft, shiny burgundy in early summer and mature to a glossy, deep green as the season progresses. Small clusters of white, purple, and pink flowers blossom on their branches throughout the year, maturing into brown seed pods. The tree is well suited to intense heat and sunlight and its dense network of lateral roots and its thick, long taproot make it drought tolerant. Flowering: March-April.

Medicinal uses: A thick brownish oil can be extracted from the large seeds, and is used industrially and in medicine, notably for the treatment of rheumatism.

74. Senna occidentalis

Botanical name: Senna occidentalis
Common Name: Coffee senna, coffeeweed
Family: Caesalpiniaceae
Coffee Senna is a smooth annual that can grow up to 2 m tall. The leaves are compound, leaflets, in 4-6 pairs, have a sharp tip. These leaflets are 2-9 cm long and 2-3 cm wide with a distinct gland 3-5 mm from the base of the stalk. Flowers occur in leaf axils. Sepals are green and 6-9 mm long. The petals are yellow and 1-2 cm long. The 6-7 stamens are of two different lengths. The seed pods are dark brown, 8 to 12 cm long, 7-10 mm wide and curve slightly upward. The seeds are dull brown, 4-5 mm long and flattened on both ends. The seeds can be roasted and made into a coffee-like drink. Coffee Senna is native to Tropical & Subtropical America, but widely naturalized in the Tropical world.
Medicinal uses: The seed is bitter and has purgative properties. It is also used as a diuretic, liver detoxifier, as a hepato-tonic (balances and strengthens the liver). Further, used in whooping cough and convulsion.

75. Cheilocostus speciosus
Botanical name: Cheilocostus speciosus
Common name: Crepe Ginger,cane-reed,spiral flag
Family :Costaceae
Despite its common name, crepe ginger is only a distant relative of the edible ginger family. It is a tall and dramatic landscape plant with large dark green leaves arranged on the stalk in a spiral. This Costus can grow to 10 ft tall in frost-free areas, but is typically small as a potted plant. The flowers appear in late summer or early fall, and are quite unusual looking. They form on red 4 in cone-shaped bracts, with several 2 in pure white crinkled flowers protruding from each cone. The flowers look like crepe paper - thus the common name of crepe ginger. After the flowers fade away, the attractive red cone-shaped bracts remain. The large creepy object is not the petal, but the stamen - the three true petals of each flower are inconspicuous, and are almost hidden by the bell-shaped stamen.
Medicinal uses: Crepe Ginger has many historical uses in Ayurveda, where the rhizome has been used to treat fever, rash, asthma, bronchitis, and intestinal worms. It is mentioned in the Kama Sutra as an ingredient in a cosmetic to be used on the eyelashes to increase sexual attractiveness.

76.Muntingia calabura
Botanical name: Muntingia calabura
Common name: Jamaica Cherry
Family: Muntingiaceae
Jamaica Cherry is a very fast-growing tree of slender proportions, reaching 25 to 40 ft in height, with spreading, nearly horizontal branches. The leaves are evergreen, alternate, lanceolate or ovate, long-pointed at the apex, oblique at the base. The flowers with 5 green sepals and 5 white petals and many prominent

yellow stamens last only one day, the petals falling in the afternoon. Flowers resemble strawberry bloom, hence the common name, Strawberry tree. The abundant fruits are round, 1-1.25 cm wide, with red or sometimes yellow, smooth, thin, tender skin and light-brown, soft, juicy pulp, with very sweet, musky, somewhat fig-like flavor, filled with exceedingly minute, yellowish seeds, too fine to be noticed in eating. The tree has the reputation of thriving with no care in poor soils. It is drought-resistant but not salt-tolerant. Wherever it grows, fruits are borne nearly all year. The leaf infusion is drunk as a tea-like beverage. Fruits contain hundreds of tiny seeds.

Medicinal uses: The flowers are said to possess antiseptic properties. An infusion of the flowers is valued as an antispasmodic. It is taken to relieve headache and the first symptoms of a cold.

77 . Alstonia scholaris

Botanical name: Alstonia scholaris
Common name: Scholar Tree
Family: Apocynaceae

Scholar Tree is an elegant evergreen tree, found in most parts of India. The generic name commemorates the distinguished botanist, Prof. C. Alston of Edinburgh, 1685-1760. The species name scholaris refers to the fact that the timber of this tree has traditionally been used to make wooden slates for school children. In October small, green yet fragrant flowers appear. All parts of the tree can be considered poisonous. It is a tall elegant tree with greyish rough bark. Branches are whorled, and so are the leaves, that is, several of them coming out of the same point. The tree is really elegant whether it is flowering or not. The slightly rounded, leathery, dark green leaves form whorls of 4-7. And a very regular branching gives the tree a beautiful shape. The wood is too soft for making anything - so it is usually used in making packing boxes, blackboards etc. On the Western Ghats, tribal people are reluctant to sit or pass under this tree, for the fear of the devil. Local superstition about its devilish character mainly stems from the fact that its milky sap is rich in poisonous alkaloid, and thus the tree is shunned by cattle.

Medicinal uses: Warning: Unverified information Its bark, known as Dita Bark, is used in traditional medicine to treat dysentery and fever. In Ayurveda it is used as a bitter and as an astringent herb for treating skin disorders, malarial fever, urticaria, chronic dysentery, diarrhea, in snake bite and for upper purification process of Panchakarma. The Milky juice of the tree is applied to ulcers.

78. Murraya koenigii

Botanical name : Murraya koenigii
Common name: Curry leaf, kari patta
Family : Rutaceae

Curry Leaf tree is a small or medium sized tree, most famous for its aromatic leaves that provide curry spice. Curry leaves are extensively used in Southern India and Sri Lanka (and are absolutely necessary for the authentic flavour), but

are also of some importance in Northern India. It is a small tree, growing 4-6 m tall, with a trunk up to 40 cm diameter. The leaves are pinnate, with 11-21 leaflets, each leaflet 2-4 cm long and 1-2 cm broad. They are highly aromatic. The flowers are small white, and fragrant. The small black, shiny berries are edible, but their seeds are poisonous. Together with South Indian immigrants, curry leaves reached Malaysia, South Africa and Réunion island. When cooking, the leaves are generally used fresh off of the tree. Outside the Indian sphere of influence, they are rarely found. The yellow "curry powder" that is common in Western countries is actually not curry at all, but a mix of spices intended to mimic the true curry flavour. The yellow colour comes from turmeric root.

Medicinal uses: Leaves are digestive, tonic, stimulant, rich in vitamin A and calcium. Leaves are also used for diarrhoea, dysentery and checking vomiting. Bark-paste is antiseptic, applied to skin eruptions. Root extract is taken for relief from renal pain.

79. Cycas revoluta

Botanical name: Cycas revoluta
Common name : Sago palm,Bettada madanamasti
Family :Cycadaceae

Sago palms have become very popular landscape plants in modern, classy Indian gardens. But most people do not realize that these are not palms at all, despite the name and appearance. Sago palm is actually a cycad. Cycads are a group of plants that are very primitive in their origins. Fossils have been found on almost every continent on the planet. It is often stated that cycads have evolved little since the days of the dinosaurs. There are species that seemed to show little evolution over millions of years. Therefore as a group, cycads are often referred to as “living fossils”. Sago Palms have erect, sturdy trunks that are typically about one to two feet in diameter, sometimes wider and can grow into very old specimens with twenty feet of trunk. The leaves are a dark olive green and about three to four feet long when the plants are of a reproductive age. Sago palms are very slow growing plants. So, mostly one finds only young plants which have not grown a stem and look like a rosette of leaves coming from a stem near the ground. The name revoluta was given because of the revolute (to curl back) nature of the leaflets; the edges roll under the leaflet.

80. Acalypha wikesiana

Botanical name: Acalypha wikesiana
Common name: Copper leaf
Family: Euphorbiaceae

Copperleaf is a remarkable plant which has leaves that are more colorful than many flowers. It grows as a spreading evergreen shrub with upright branches that tend to originate near the base. It can get up to 10 ft tall with a similar spread. Alternately arranged leaves are elliptic to oval, toothed, 5-8 in long and multi-

colored. The flowers are small and inconspicuous, in 4-8 in long, somewhat drooping, green racemes often hidden in the foliage. Many cultivars are available with different leaf forms and colors. Acalypha wilkesiana 'Marginata' has coppery-green leaves with pink or crimson margins. 'Macrophylla' has larger leaves, variegated with bronze, cream, yellow and red. The leaves of 'Musaica' are mottled with orange and red. 'Godseffiana' has narrow, drooping leaves with cream-colored margins. Copperleaf is native to Fiji and neighboring South Pacific islands, widely cultivated in India.

Medicinal uses: Warning: Unverified information Acalypha wilkesiana ointment is used to treat fungal skin diseases.

81. Vauhinia variegata

Botanical name:Vauhinia variegata
Common name: Kachnar,Orchid tree
Family: Caesalpiniaceae

Kachnar is closely related to peacock flower and to the tree many consider the world's most beautiful, the royal poinciana - and it shows! Orchid tree is staggeringly beautiful when in bloom - and it blooms for several months! Orchid tree grows 20-40 ft tall and 10-20 ft wide with a spreading crown of briefly deciduous leaves which are 4-6 in across and rounded with lobed ends and heart shaped bases. The leaves are shaped a little like a cow's hoof. The flowers are reminiscent of showy orchids, with five irregular, usually slightly overlapping petals in shades of magenta, lavender, purplish blue or even white. The flowers often make their first appearance in late winter while the tree is bare of leaves. The blooming period then lasts until early summer. The flowers are 3-5 in across and carried in clusters at the branch tips. A postal stamp was issued by the Indian Postal Department to commemorate this tree.

82. Aglaonema commutatum

Botanical name : Aglaonema commutatum
Common name: Chinese evergreen
Family: Araceae

Aglaonema commutatum, commonly called Chinese evergreen, is an evergreen perennial that generally resembles dieffenbachia (dumb cane) in appearance. It typically grows to 20” tall. Thick, elliptic to lance-shaped, dark green leaves (to 4-8” long and 2-3” wide) with attractive silver-gray blotches on erect, sometimes branched stems. As a houseplant, it rarely flowers. Each axillary flower (typical arum family) features a small creamy white spadix enclosed by a pale green spathe, usually in late summer to early fall. Clusters of red berries follow the flowers.

83. Syngonium podothillum

Botanical name : Syngonium podothillum

Common name: Arrowhead vine
Family: Araceae
Peace Lily, is a very popular indoor houseplant. It is a clump-growing herbaceous perennial which produces white flowers which look like the hood of a cobra. Leaves are shiny and glossy, attractive even with no spathes. Peace lilies are sturdy plants with glossy, dark green oval leaves that narrow to a point. The leaves rise directly from the soil. The long-lasting flowers start out pale green and slowly turn creamy white as they open. Keep the leaves clean with water washes to remove dust and dirt. Peace Lily can attract mites, scales and mealy bugs so cleaning will help keep these pests away.

84. Dieffenbachia seguine
Botanical name: Dieffenbachia seguine
Common name: Dumb Cane.
Family: Araceae
Dieffenbachias are easy houseplants that tolerate a wide range of conditions. The name Dumb Cane reflects the fact that the acrid sap will burn the mouth and numb the throat to the extent that it may even paralyze the vocal cords. Some people may get a skin rash from the plant's sap. This plant can be toxic if eaten. Plants may reach up to 6 feet tall bearing dark green leaves with irregular zones of creamy white along the primary lateral veins. Leaves will reach 47 cm long by about half as wide. Petioles are 30 cm long and winged along about half of their length. They make a tough and durable houseplant that will withstand low light conditions. Plants may flower at any time of the year if conditions are favorable. Their "flowers", rather inflorescences are spadices, erect, often white, housed within boat-shaped green spathes. The spadix carries the actual numerous flowers.

85. Zamioculcas zamiifolia
Botanical name: Zamioculcas zamiifolia
Common name:
Family:Araceae

Zamioculcas is a genus of flowering plants in the family Araceae. Zamioculcas is a genus of flowering plants in the family Araceae. It is a herbaceous perennial growing to 45–60 centimetres (17.7–23.6 in) tall, from a stout underground, succulent rhizome. It is normally evergreen, but becomes deciduous during drought, surviving drought due to the large potato-like rhizome that stores water until rainfall resumes. The leaves are pinnate, 40–60 centimetres (15.7–23.6 in) long, with 6–8 pairs of leaflets 7–15 centimetres (2.8–5.9 in) long; they are smooth, shiny, and dark green. The stems of these pinnate leaves are thickened at the bottom.

The flowers are produced in a small bright yellow to brown or bronze spadix 5–7 centimetres (2.0–2.8 in) long, partly hidden among the leaf bases; flowering is from mid-summer to early autumn. Zamioculcas zamiifolia contains an unusually high water contents of leaves (91%) and petioles (95%)[8] and has an individual leaf longevity of at least six months, which may be the reason it can survive extremely well under interior low light levels for four months without water.

86. Oxalis corniculate

Botanical name: Oxalis corniculata
Common name: Creeping wood Sorrel, Pullampuriche
Family : Oxalidaceae

Creeping wood sorrel is a world-wide weed which is almost impossible to get rid of. So, one might as well enjoy it - it has beautiful yellow flowers. Creeping wood sorrel is of uncertain origin just because it became so wide spread so long ago. Branching from the base and often rooted at the nodes, the upper portion is ascending or weakly erect, smooth or hairy. The leaves are arranged alternately along the stems. A single long stalk arises from the axils of the leaf, from which extend three flower stalks, each with a single flower. The flowers are 7-11 mm wide and have 5 yellow petals. The fruit is a capsule, 1-1.5 cm long, cylindric, pointed apically, and 5-ridged in cross section. Creeping wood sorrel is also found in the Himalayas, at altitudes of 300-3000 m. Flowering: February-October.

Medicinal uses: Creeping Wood Sorrel is used in the treatment of influenza, fever, urinary tract infections, enteritis, diarrhoea, traumatic injuries, sprains and poisonous snake bites. The juice of the plant, mixed with butter, is applied to muscular swellings, boils and pimples. An infusion can be used as a wash to rid children of hookworms. The plant is a good source of vitamin C and is used as an antiscorbutic in the treatment of scurvy. The leaves are used as an antidote to poisoning by the seeds of Datura spa, arsenic and mercury. The leaf juice is applied to insect bites, burns and skin eruptions. It has an antibacterial activity.

87. Barleria cristata

Botanical name: Barleria cristata
Common name: Philippine Violet, bluebell barleria
Family: Acanthaceae

Philippine Violet is native to India and southeast Asia. It grows as a shrub 60-100 cm tall. The leaves are dark green on the upper surface and pale green on the lower surface. They are elliptic to narrowly ovate. The flowers are about 5 cm long, funnel-shaped in violet or pink color. The fruits are about 1.5 cm long ellipsoid capsules. Thy become hairless and glossy at maturity. In Tamil Nadu it is known as December Poo or December Flower as it blooms in December and is normally strung into garlands of flowers for women to wear in their hair.

Medicinal uses: This plant is used in Thailand as a traditional herbal remedy. It allegedly acts as a tonic, diuretic and blood purifier.

88.Catharanthus roseus

Botanical name: Catharanthus roseus
Common name: Periwinkle
Family: Apocyanaceae

Periwinkle is a happy-go-lucky small subshrub. It grows in adverse conditions, rain, heat, dust. It can be quite often seen growing out of cervices of walls. It is an evergreen subshrub or herbaceous plant growing 1 m tall. The leaves are oval to oblong, 2.5–9 cm long and 1–3.5 cm broad, glossy green, hairless, with a pale midrib and a short leaf-stalk 1–1.8 cm long; they are arranged in opposite pairs. The flowers are white to dark pink with a darker red Centre, with a basal tube 2.5–3 cm long and a flower 2–5 cm diameter with five petal-like lobes. The fruit is a pair of follicles 2–4 cm long and 3 mm broad. Lots of cultivars have been developed with various colors, from red to white.

Medicinal uses: In Ayurveda the extracts of its roots and shoots, though poisonous, is used against several diseases. In traditional Chinese medicine, extracts from it have been used against numerous diseases, including diabetes, malaria, and Hodgkin's lymphoma. Many of the vinca alkaloids were first isolated from Catharanthus roseus. The substances vinblastine and vincristine extracted from the plant are used in the treatment of leukemia and Hodgkin's lymphoma.

89. Dracaena reflexa

Botanical name: Dracaena reflexa
Common Name: Pleomele, Song of India.
Family:Asparagaceae

Pleomele is a Tender evergreen shrubs or small tree native to Madagascar and Mauritius. But this is a tropical tree. It may reach a height of 4–5 m, rarely 6 m in ideal, protected locations, D. reflexa is usually much smaller, especially when grown as houseplant. It is slow-growing and upright in habit, tending to an oval shape with an open crown. This is a full sun tree. In too much shade, plants may grow spindly with the variegated leaves losing their variegation. Plants like high humidity and consistent year-round temperatures. The shiny leaves are narrowly lance-shaped, green in the middle and bordered with pale yellow that frames each leaf. There is greener version. The leaves spiral upwards from the stems to tip in a wild fashion that creates the Song of India’s messy and unpredictable crown

90. Epipremnum aureum

Botanical name :Epipremnum aureum
Common name: Money plant,Golden pathos ,House plant
Family : Araceae

Money Plant is an extremely popular houseplant in India. It is an evergreen vine growing up to 20 m tall, with stems up to 4 cm in diameter, climbing by means of aerial roots which adhere to surfaces. However, the plant can be grown virtually anywhere, even in water without soil, or completely away from light.

The leaves are alternate, heart-shaped, entire on juvenile plants, but irregularly pinnately cut on large mature plants, up to 100 cm long and 45 cm broad. Juvenile leaves are much smaller, typically under 20 cm long. The plant never flowers due to a genetic impairment of the gibberellin (GA) biosynthetic gene. This was understood only as recently as 2016. It flowers if artificially treated with GA biosynthesis genes. The flowers are typical of arum family, produced in a spathe up to 23 cm long. This plant produces trailing stems when it climbs up trees and these take root when they reach the ground and grow along it. The leaves on these trailing stems grow up to 10 cm long and are the ones normally seen on this plant when it is cultivated as a potted plant. Money Plant is native to Moorea Islands in the Pacific Ocean, widely cultivated in India.

91. Ipomoea obscura

Botanical name: Ipomoea obscura
Common name:Obscure morning glory
Family: Convolvulaceae

Although the flowers on this lovely morning glory are small (about 1" across), the color is so unusual and lovely it really makes it worth adding to your garden. Beautiful pale-yellow flowers with deep purple throats adorn this vigorous vine with small, heart shaped leaves. As with most morning glories, it loves full sun and average, well-drained soil. It's taking a while for the blooms to start on this lovely vine, which climbs up to 6-10 ft. beautiful heart-shaped leaves are 3-9 cm long. It is native to Tropical East Africa, Mascarene Islands, tropical Asia, throughout Malaysia to northern Australia and Fiji. Flowering: August-March.

92. Impatiens walleriana

Botanical name: Impatiens walleriana
Common name:Sultan's Balsam
Family:Balsaminaceae

Sultan's balsam is native to eastern Africa from Tanzania to Mozambique. It is a herbaceous perennial plant growing to 15-60 cm tall, with broad lanceolate leaves 3-12 cm long and 2-5 cm broad, with toothed margins and a long stalk bearing stalked glands. The flowers are profusely borne, 2-5 cm diameter, with five petals. The numerous garden cultivars, selected for varying flower colours, include: 'Accent Stars', 'Confection', 'Blackberry Ice', 'Eclipse', 'Elfin White','Extra Dwarf', 'Lipstick', 'Red Star', 'Super Elfin', 'Tempo Series' and 'Wink and Blink'.

93. Mercurialis annua

Botanical name: Mercurialis annua
Common name:Annual mercury

Family:Euphorbiaceae

Mercurialis annua is a species of flowering plant in the spurge family Euphorbiaceae known by the common name annual mercury or (rarely) French mercury. It is native to Europe, North Africa, and the Middle East but it is known on many other continents as an introduced species. This is an annual herb growing 10 to 70 centimetres tall with oppositely arranged, stipulate oval leaves each a few centimetres long. The male flowers are borne in spikelike clusters sprouting from leaf axils, and female flowers grow at leaf axils in clusters of 2 or 3. The fruit is a bristly schizocarp 2 or 3 millimetres wide containing shiny, pitted seeds. The species is monoecious or androdioecious.

A plant of Mercurialis annua can produce up to 135 million pollen grains.

94. Justicia spicigera

Botanical name: Justicia spicigera

Common name:Mexican Honeysuckle

Family: Acanthaceae

Mexican Honeysuckle is an evergreen shrub is native to Mexico and South America. It is cultivated as a garden plant in India for its plumes of orange, narrow-tubular flowers. Mexican Honeysuckle has large, narrow-elliptic,velvety, medium green leaves. Bright orange tubular flowers are borne in clustersall year. The tubular flower clusters, up to 1.5 inches long, are a beautiful bright orange and appear at the end of branches. It is an easy to grow plant, and toleratesvarious types of soils.

95. Dypsis lutescens

Botanical name: .Dypsis lutescens

Common name: Golden Cane Palm, Areca Palm.

Family: Arecaceae

Golden Cane Palm is clump-growing with ringed, bamboo-like stems and yellow leaf-ribs. The foliage is evergreen, of fine texture and yellow-green in color. P.innate, 6 to 8 pale green leaves per stem, 80 to 100 leaflets, to 8 feet long (2.4 m). Yellow if grown with enough light, 2 feet long. Yellow male and female flowers on the same inflorescence. Flower stalk coming from below the leaves. Fruit is yellow to purple, 2 cm, oval in shape. This is one of the most useful Palms of the tropics the world around. Native to Madagascar, Golden Cane Palm is tropical-looking, serves as a super, bamboo-like screening plant and is relatively pest-free.


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Verification by Lead Auditor.

The data gathered was verified and authenticated by the lead Auditor Dr. Vinayak, Asst Professor & HOD of Botany Department. SVS College, Bantwal. The Auditor member did a detailed study of the green audit report and physically verified certain tangible components in the report. The suggestions and recommendations offered by them have been incorporated at the end of the report and will form the basis for future policies and planning for initiatives for sustainable ecosystem in the campus.

CONCLUSION

In conclusion, the overall quality of the college environment was found to be satisfactorily good by the green audit committee. The audit helped the committee to draw attention of the concerned people towards the water wastage through leaky taps and helped in setting it right so that the wastage could be reduced to minimum possible levels.

The audit helped in identifying the areas which can be further utilised for increasing greenery in the college. Even though the college has organised good number of awareness programmes, the need to create social responsibility among the stakeholders in particular and the community in general towards preservation of the environment has been identified as the call of the hour. It is the earnest hope of the green audit committee that this green audit will provide a basis for future plans and policy initiatives for creating a sustainable ecosystem.

ENCLOSURES

Suggestions and Recommendations:

The Lead Auditor of Green Audit, Dr. Vinayak, Asst. Professor of Botany & HOD of SVS College, Bantwal made a detailed study of the data and its analysis presented by the Green Audit Committee. He visited the campus and physically verified certain tangible components in the report like the trees and shrubs in the campus, the waste management practices etc. He made some suggestions and recommendations for implementing in the campus.

Comments and Recommendations:

The Green Campus Audit Committee has done tremendous work and methodically recorded all the necessary data required for the College Environment policy. It is a very big campus in the heart of the city, it is important to utilize it well with necessary green around.

CERTIFICATE

PRANA Panchavati
RESEARCH ACADEMY FOR NATURE(R)
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CERTIFICATE OF GREEN AUDIT

This is to certify that University College Mangalore , Hampankatta 575001, Karnataka *has successfully undergone* "GREEN AUDIT" on 27th May 2022 *o assess the Eco-friendly initiatives planning carried out in the campus to maintain a sustainable environment to the stakeholders was found satisfactory.*

Vinayaka

Dr. Vinayaka K.S.
Certified Lead auditor
Certified by Nature Science Foundation

7.1.6
(2)

ENERGY AUDIT REPORT 2020-21

UNIVERSITY COLLEGE MANGALORE
HAMPANAKATTA - 575001

A Constituent College of Mangalore University

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1.	**Policy Document on Energy Audit**
2.	**Energy Audit Committee**
3.	**Executive Summary**
4.	**Introduction**
5.	**Objectives of Energy Audit**
6.	**Energy Management Focus group**
7.	**Energy consumption in Campus**
8.	**Audit Report**
9.	**Conclusion**
10.	**Certificate**

UNIVERSITY COLLEGE MANGALORE
ವಿಶ್ವವಿದ್ಯಾನಿಲಯ ಕಾಲೇಜು ಮಂಗಳೂರು

A Constituent College of Mangalore University

(Reaccredited by NAAC with 'A' Grade and College with Potential for Excellence)

Office of the Principal,
U.P. Malya Road, Hampanakatta
Mangalore 575 001

ಪ್ರಾಂಶುಪಾಲರಕಛೇರಿ,
ಯು.ಪಿ. ಮಲ್ಯ ರಸ್ತೆ, ಹಂಪನಕಟ್ಟೆ
ಮಂಗಳೂರು 575 001

Email: ucmangalore1@gmail.com **Phone No: 0824 2424760** **Website: https://universitycollegemangalore.com**

POLICY DOCUMENT ON ENVIRONMENT AND ENERGY USAGE

The Environment and Energy usage policy of University College Mangalore is to invest in sustainable growth through clean energy and to find ways to use energy efficient and renewable sources. This environment and energy policy is applicable for all the branches of the institution and all stakeholders come in its preview too. It will enable us to become energy independent and efficient in a cost-effective way. This policy will make us serious about reducing air & water pollution and greenhouse gas emissions. Waste Management Committee and Green Audit Committee are devoted to the cause of environmental awareness, to undertake green initiatives and to conduct green literacy programs to save energy and protect the environment.

POLICIES:

- To gauge our energy usage and measure its impact on the environment.
- To count carbon emissions generated by our means of transportation vehicles.
- To get Green Audit, Environment Audit and Energy Audit done by external as well as internal agencies.
- To reduce the air pollution emission using environment friendly vehicles public transportation and pooling of vehicles.
- To install LED and Solar lights in the campus to use in exhaustible sources of energy.
- To develop system for rain water harvesting and underground water management.
- To develop a no plastic zone in the institution.
- To generate awareness about segregation of the waste.

PRINCIPAL
University College, Mangalore

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- To encourage faculty and students to switch off lights, fans and electrical appliances in labs and classrooms when not in use.
- To adopt paperless measures to minimize impact on nature.
- To organize seminars on the initiatives that should be undertaken to conserve energy.

The policy will be communicated to the students and employees through internal communication channels and will be uploaded on the website of the institution for all the stakeholders. The environment and energy usage policy will be monitored periodically by the conveners of Waste Management Committee, Environment Management and Green Audit Committee and their members under the guidance of the Principal.

This policy is to be reviewed every five years.

PRINCIPAL
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University College, Mangalore.

Energy Audit Committee

Sl No	Name & Designation	Designation in the Committee
1.	Dr. Anasuya Rai, Principal University College, Mangaluru – 575001	Chairman
2.	Dr. Siddaraju M.N. Asst. Professor of Botany & Dy. Director of Environment Association, University College, Mangaluru – 575001	Convenor (Green campus)
3.	Dr. Suresh Asst. Professor, Department of Economics & IQAC Coordinator, University College, Mangaluru – 575001	Member (Ex-Officio)
4.	Dr. Sudha N Vaidhya, Asso. Professor, Department of Commerce & NAAC Coordinator, University College, Mangaluru – 575001	Member (Ex-Officio)
5.	Dr. Laxmana K., Asso. Professor, & Coordinator Dept of PG Chemistry, University College, Mangaluru – 575001	Member (Waste Management)
6.	Dr. Veerabhadrappa, Asso. Professor & Head, Dept of Computer Science University College, Mangaluru – 575001	Member (Energy)
7.	Dr. Aboobakar Siddiq, Asso. Professor, Department of Commerce & Criterion VII Convenor, University College, Mangaluru – 575001	Member (Carbon Foot print)
8.	Dr. Gayathri, Asst. Professor, Dept of Sociology & NSS Officer, University College, Mangaluru – 575001	Member (Water)
9.	Mrs. Bhagyalakshmi, Office Superintendent University College, Mangaluru – 575001	Member
10.	Mr. Suresh, Electrician, University College, Mangaluru – 575001	Member
11.	Dr. Vinayak Asst. Professor & Head, Dept of Botany Sri Venkataramana College, Bantwal	External Member

Executive Summary

Educational Institutions have a crucial role to play to instil in the minds of youth the importance of a clean and healthy environment and the necessity for them to conserve the resources for the future. There is a dire need for the educational institutions to sensitize the students with regard to the present and possible future environmental and ecological problems that we could encounter if we don't learn from our mistakes. Smart use of the available resources and minimizing levels of waste is the need of the hour.

The first step towards this goal is recognising the need for conducting an environmental and green audit that helps in assessing the environmental performance of our Institution so that we know where we stand and where we need to go and how to get there. The green auditing process has been a part of this effort to understand how to achieve a sustainable development with limited resources. The audit mainly tries to focus on certain parameters like water consumption, energy consumption, waste management, green campus initiatives, and soil and water quality in the campus. It is imperative for the college to assess our own contributions towards a sustainable eco system. Questionnaires were prepared for conducting the survey of the above-mentioned parameters and data collected was analysed and tabulated. Report was prepared with appropriate observations and recommendations directed towards management, staff and students so that issues related to the environment can be addressed in a timely and appropriate way.

INTRODUCTION

About the College Environment

The relationship between University College and nature is a long and enduring one, something that students and staff of the college are aware of. The buildings of this educational institution stand in the midst of Mangalore City. Mangalore is sited on the western coast of India and it is surrounded by the Arabian Sea in its west and in its east it is surrounded by the Western Ghats. 12.86713N, 74.84084E. The average elevation possessed by Mangalore is 22 meters above the level of sea. According to the Koppen Climate Classification, tropical monsoon climate is experienced by Mangalore and the city is found to be under the straight influence of the southwest monsoon with its branch in the Arabian Sea. Winters and summers are quite similar in Mangalore and both the seasons are found to be gratifying possessing an average temperature that ranges between 27^{o}C to 34^{o}C. Humidity is a very huge problem in the city and it sometimes reaches the average of 78% and this is something that makes Mangalore Per-Humid Zone. Mangalore can very typically be identified as a monsoonal station because it receives 95% of its yearly rainfall within a span of six months and this is during the months from May to October. From the months of December to March, extremely dry climate is found in the city. Yearly precipitation in Mangalore is around 3479 millimetres and the humidity is quite high during the months of May, June and July. Maximum humidity in July is 93% and minimum is 56% recorded in January.

Programmes offered by the college:

The college offers undergraduate programmes in Commerce Bachelor of Commerce (B.Com.), Bachelor of Science (B.Sc.), Bachelor of Arts (B.A.), Bachelor of Business Administration (BBA) and a post graduate programme in Commerce (M.Com.), Science (M.Sc. Chemistry), MA in History and Archaeology, MA in Hindi, MA in Economics.

Vision: To be the center for knowledge to all sections of the society.

Vision Statement: Perform your duty without fail.

Mission: Activating the dormant spirit deep down in an individual thereby enabling one to lead meaningful and purposeful life.

Total strength of students, teachers and non-teaching staff

	Male	Female	Total
No. of Students	647	1256	1903
No. of Teachers	51	69	120
No. of Non-Teaching staff	12	26	38
Total	**710**	**1351**	**2061**

Physical Structure

The college campus is located in **715 c**ents of Land. The built up area of the college is **13632.13**Sq. Mtrs.

Building	Numbers
Staff Rooms	**17**
Laboratories	**06**
Seminar Hall	**04**
Canteen	**01**
Libraries	**01**

AUDITING FOR ENERGY MANAGEMENT

Conservation of energy is an important component of sustainability. Energy audit tries to track and record the levels of energy consumption. It also tries to explore the possibility of using an alternative source of energy which is environment friendly.

Energy Management Focus Group:

Sl. No.	Name	Designation
1.	Dr. Veerabhadrappa, Asso. Professor, Dept of Computer Science University College, Mangaluru – 575001	Coordinator of the focus group
2.	Mrs. Vibha B jain, Guest Lecturer, Dept. of Commerce University College, Mangaluru – 575001	Staff volunteer
3.	Mr. Ranjith K.S. Guest Lecturer, Dept. of History University College, Mangaluru – 575001	Staff volunteer
4.	Mrs. Mallika, Guest Lecturer, Dept. of Chemistry University College, Mangaluru – 575001	Staff volunteer
5.	Vinyas V III BSc 'A'	Student Volunteer
6.	Rithesh Melric Mendonca III BSc 'A'	Student Volunteer
7.	Shashank III BSc 'A'	Student Volunteer
8.	Pallavi K III BSc 'A'	Student Volunteer
9.	Sushma Acharya III BSc 'A'	Student Volunteer

Methodology: Onsite Observation and Data collection through Survey Forms: Each focus group with the concerned questionnaires visited the relevant departments and other places in the campus for collecting data as per the parameters mentioned. Student volunteers were taken for assisting wherever possible. Once the data was gathered, it was turned over to the committee for analysis and tabulation purposes.

Survey Forms

1. **Energy Audit**

Sl. No	Electrical Appliances/ instruments	Total No.	Power (W)	Total power (KW)	Operation (Hrs/day)	No. of days in a month	Total consumption
1							
2							
	TOTAL						

Item: Bulbs (CFL, Incandescent, Led etc); A/c, fan, computer, instruments

ENERGY CONSERVATION:

Conservation of energy is an important component of sustainability. Energy audit is the key to a systematic approach for decision making in the area of energy- management. It tries to tracks and record the level of energy consumption and also tries to explore the possibility of using an alternative source of energy which is environment friendly. Energy audit attempts to balance the total energy inputs with its use, and serves to identify all the energy streams in a facility. It would give a positive orientation to energy cost reduction, preventive maintenance and quality control programmes which vitals for production and utility activities.

The institution has taken following measures to conserve the electricity namely

- Installation of solar panels and solar lights,
- Use of LED blubs
- Various boards including quotes that promotes awareness to save and conserve energy are displayed for all the stakeholders of the institution.

Energy audit survey was done in the institution and collected all the necessary information to analyse the effect of green house in the campus.

ENERGY AUDIT REPORT:

Sl. No	Electrical Appliances/ instruments	Total No.	Power (W)	Total power (KW)	Operation (Hrs/day)	No. of days in a month	Total consumption
1	Amplifier	3	50	0.15	1	20	3
2	CCTV Camera	75	2	0.15	24	30	108
3	LED Bulbs	42	8	0.336	6	25	50.4
4	CFL Bulbs	20	14	0.28	6	25	42
5	LED Tube light	100	20	2	7	25	350
6	Exhaust Fan	10	32	0.32	3	25	24
7	Tube lights	600	40	24	7	25	4200
8	Laptops	5	50	0.25	1	25	6.25
9	Printers	24	60	1.44	1	20	28.8
10	Fans	450	60	27	5	25	3375
11	Refrigerator	6	150	0.9	6	20	108
12	Desktop Computers	120	200	24	5	25	3000
13	Projector	24	200	4.8	1	20	96
14	Photocopy Machine	2	650	1.3	1	25	32.5

15	Microwave	3	1000	3	1	15	45
16	A/C	5	1500	7.5	4	25	750
17	Centrifuge Machine	10	50	0.5	2	10	10
18	Colorimeter	9	50	0.45	2	15	13.5
19	Bunsen Burner	8	200	1.6	2	10	32
20	Fume Hood	1	50	0.05	1	10	0.5
21	Hot air Oven	3	1000	3	1	10	30
22	pH Meter	10	4.5	0.045	2	10	0.9
23	Potentiometer	15	2	0.03	2	10	0.6
24	Spectrophotometer	4	60	0.24	1	12	2.88
25	Electronic Balance	1	5	0.005	1	15	0.075
26	Turbidity Meter	5	22	0.11	1	15	1.65
27	Hair Dryer	6	800	4.8	1	15	72
28	Heating Mantle	1	150	0.15	1	15	2.25
29	Ice Flaker	1	200	0.2	1	15	3
30	Single Distillation Unit	2	100	0.2	1	10	2
31	Hot Plate	1	200	0.2	1	15	3
32	Thermostat	1	80	0.08	1	10	0.8
33	Cathode Ray Oscilloscope	4	80	0.32	2	12	7.68
34	Function Generator	5	50	0.25	2	12	6
35	Spectrometer	5	20	0.1	2	10	2
36	Sodium Vapour Lamp(lab)	4	40	0.16	1	7	1.12
37	Mercury Lamp	4	40	0.16	1	10	1.6
38	16 port Network switch	4	12	0.048	24	30	34.56
39	24 port Network switch	4	18	0.072	24	25	43.2
40	LED Street lights	11	60	0.66	12	30	237.6
41	Sodium Vapour Lamp(Street)	2	200	0.4	12	30	144
42	Water Cooler	5	500	2.5	8	25	500
43	Aquaguard	7	300	2.1	8	25	420
44	2 HP Submercible Pump	1	1200	1.2	3	25	90
45	UPS 10 KVA	1	7000	7	3	25	525
46	UPS 5 KVA	5	3500	17.5	6	25	2625
47	UPS 3 KVA	3	2000	6	6	25	900
	TOTAL						**17931.865 Units**

Solar Panels as alternative renewable energy sources in the campus.

Solar lights in the campus

Wheeling to the Grid

Verification by External member

The data gathered was verified and authenticated by the external auditor Dr. Vinayak, Asst Professor & HOD of Botany Department. SVS College, Bantwal. The external member did a detailed study of the green audit report and physically verified certain tangible components in the report. The suggestions and recommendations offered by them have been incorporated at the end of the report and will form the basis for future policies and planning for initiatives for sustainable ecosystem in the campus.

CONCLUSION

In conclusion, the overall quality of the college environment was found to be satisfactorily good by the green audit committee. The audit helped the committee to draw attention of the concerned people towards the water wastage through leaky taps and helped in setting it right so that the wastage could be reduced to minimum possible levels.

The audit helped in identifying the levels of waste generation and the waste management practices in the college. This step goes a long way in future planning for reducing the waste and recycling wherever possible. The audit has also thrown light on the energy consumption levels of the college which will assist in planning for energy saving devices in the future. It has also led the committee to contemplate alternative energy sources like solar energy.

ENCLOSURES

Suggestions and Recommendations:

The external auditor Dr. Vinayak, Asst. Professor of Botany & HOD of SVS College, Bantwal made a detailed study of the data and its analysis presented by the Green Audit Committee. He visited the campus and physically verified certain tangible components in the report. He made some suggestions and recommendations for implementing in the campus.

Comments and Recommendations:

The Green Campus Audit Committee has done tremendous work and methodically recorded all the necessary data required for the College Environment policy. It is a very big campus in the heart of the city, it is important to utilize it well with necessary green around

Energy audit:

1. Electrical energy grid- wheeling is an exceptional work.

2. Add few more sign board or notices seen to instruct/motivate students to save energy. *Eg. Switch off lights, fans, the last person leaving should check for the electrical usage.*
3. Very less LED bulbs are used. Replace traditional bulbs.
4. Avoid Battery setting near the office working area.
5. Electrical Room should be easily accessible. No fire extinguisher near electrical room.
6. Need Clean labelling on each electrical unit.

Answers to the comments:

	Recommendations	**Answers by the committee**
1	**Energy audit:**	
	Electrical energy grid- wheeling is an exceptional work.	Thank you for the appreciation
	Add few more sign board or notices seen to instruct/motivate students to save energy. *Eg. Switch off lights, fans, the last person leaving should check for the electrical usage.*	Sign boards added
	Very less LED bulbs are used. Replace traditional bulbs.	Annually we are replacing LED bulbs.
	Avoid Battery setting near the office working area.	The Battery setting will be removed from the area
	Electrical Room should be easily accessible. No fire extinguisher near electrical room. Need Clean labelling on each electrical unit.	Electrical Room is cleaned and labelled

CERTIFICATE

PRANA Panchavati
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Vinayaka

Dr. Vinayaka K.S.
Certified Lead auditor
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ENVIRONMENT AUDIT REPORT 2020-21

UNIVERSITY COLLEGE MANGALORE
HAMPANAKATTA - 575001

A Constituent College of Mangalore University

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6.	**Areas earmarked for Environment Audit**
7.	**Methodology**
8.	**Survey Forms**
9.	**Audit Report**
10.	**Conclusion**

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Dwarkya
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This policy is to be reviewed every five years.

PRINCIPAL
PRINCIPAL
University College, Mangalore.

Environment Audit Committee

Sl No	Name & Designation	Designation in the Committee
1.	Dr. Anasuya Rai, Principal University College, Mangaluru – 575001	Chairman
2.	Dr. Siddaraju M.N. Asst. Professor of Botany & Dy. Director of Environment Association, University College, Mangaluru – 575001	Convenor (Green campus)
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5.	Dr. Laxmana K., Asso. Professor, & Coordinator Dept of PG Chemistry, University College, Mangaluru – 575001	Member (Waste Management)
6.	Dr. Veerabhadrappa, Asso. Professor & Head, Dept of Computer Science University College, Mangaluru – 575001	Member (Energy)
7.	Dr. Aboobakar Siddiq, Asso. Professor, Department of Commerce & Criterion VII Convenor, University College, Mangaluru – 575001	Member (Carbon Foot print)
8.	Dr. Gayathri, Asst. Professor, Dept of Sociology & NSS Officer, University College, Mangaluru – 575001	Member (Water)
9.	Mrs. Bhagyalakshmi, Office Superintendent University College, Mangaluru – 575001	Member
10.	Mr. Suresh, Electrician, University College, Mangaluru – 575001	Member
11.	Dr. Vinayak Asst. Professor & Head, Dept of Botany Sri Venkataramana College, Bantwal	External Member

Executive Summary

Educational Institutions have a crucial role to play to instil in the minds of youth the importance of a clean and healthy environment and the necessity for them to conserve the resources for the future. There is a dire need for the educational institutions to sensitize the students with regard to the present and possible future environmental and ecological problems that we could encounter if we don't learn from our mistakes. Smart use of the available resources and minimizing levels of waste is the need of the hour.

The first step towards this goal is recognising the need for conducting an environmental and green audit that helps in assessing the environmental performance of our Institution so that we know where we stand and where we need to go and how to get there. The green auditing process has been a part of this effort to understand how to achieve a sustainable development with limited resources. The audit mainly tries to focus on certain parameters like water consumption, energy consumption, waste management, green campus initiatives, and soil and water quality in the campus. It is imperative for the college to assess our own contributions towards a sustainable eco system. Questionnaires were prepared for conducting the survey of the above-mentioned parameters and data collected was analysed and tabulated. Report was prepared with appropriate observations and recommendations directed towards management, staff and students so that issues related to the environment can be addressed in a timely and appropriate way.

INTRODUCTION

About the College Environment

The relationship between University College and nature is a long and enduring one, something that students and staff of the college are aware of. The buildings of this educational institution stand in the midst of Mangalore City. Mangalore is sited on the western coast of India and it is surrounded by the Arabian Sea in its west and in its east it is surrounded by the Western Ghats. 12.86713N, 74.84084E. The average elevation possessed by Mangalore is 22 meters above the level of sea. According to the Koppen Climate Classification, tropical monsoon climate is experienced by Mangalore and the city is found to be under the straight influence of the southwest monsoon with its branch in the Arabian Sea. Winters and summers are quite similar in Mangalore and both the seasons are found to be gratifying possessing an average temperature that ranges between 27^{o}C to 34^{o}C. Humidity is a very huge problem in the city and it sometimes reaches the average of 78% and this is something that makes Mangalore Per-Humid Zone. Mangalore can very typically be identified as a monsoonal station because it receives 95% of its yearly rainfall within a span of six months and this is during the months from May to October. From the months of December to March, extremely dry climate is found in the city. Yearly precipitation in Mangalore is around 3479 millimetres and the humidity is quite high during the months of May, June and July. Maximum humidity in July is 93% and minimum is 56% recorded in January.

About University College Mangalore:

University College with its noble vision to prepare educationally strong and culturally vibrant students is a prestigious institute for higher learning, well acclaimed to have its deep-rooted existence since 1973 with its moral ideals, rich core values and fusion of cultural ethos; pioneered by a great legendary soul, Late Sri Ammemmbal Subba Rao Pai. It has a glorious history and legacy in the field of imparting value-based, character-building education to its aspirants. True to its motto of "Educating for Righteous Life" and philosophy of commitment towards offering quality education at affordable cost, it is located centrally in the coastal educational hub of Mangaluru city. The institution is governed and managed by University High School Association, Mangaluru, reaccredited by NAAC and affiliated to Mangalore University.

Programmes offered by the college:

The college offers undergraduate programmes in Commerce Bachelor of Commerce (B.Com.), Bachelor of Science (B.Sc.), Bachelor of Arts (B.A.), Bachelor of Business Administration (BBA) and a post graduate programme in Commerce (M.Com.), Science (M.Sc. Chemistry), MA in History and Archaeology, MA in Hindi, MA in Economics.

Vision: To be the center for knowledge to all sections of the society.

Vision Statement: Perform your duty without fail.

Mission: Activating the dormant spirit deep down in an individual thereby enabling one to lead meaningful and purposeful life.

Total strength of students, teachers and non-teaching staff

	Male	Female	Total
No. of Students	647	1256	1903
No. of Teachers	51	69	120
No. of Non-Teaching staff	12	26	38
Total	**710**	**1351**	**2061**

Physical Structure

The college campus is located in **715 c**ents of Land. The built up area of the college is **13632.13**Sq. Mtrs.

Building	Numbers
Staff Rooms	**17**
Laboratories	**06**
Seminar Hall	**04**
Canteen	**01**
Libraries	**01**

Objectives of ENVIRONMENT and ENERGY Audit

The main objectives of this audit are to assess the quality of our college environment and strategies being implemented towards improving it. Following are the specific objectives:

1. To track and record the energy consumption patterns of the campus.
2. To monitor the water consumption levels and water wastage if any in the campus.
3. To examine and quantify the waste generation and waste management practices in the campus.
4. To examine the carbon footprint of the college.
5. To identify the areas where awareness programmes and the likes are needed in terms of waste management.
6. To provide a base for future plans and policy initiatives for creating a sustainable ecosystem.

Areas earmarked for Environment Auditing

Green Campus Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of an Institution. It is an important part of resource management and when carried out at regular interval can trigger high levels of changes and improvement in an institution. Eco- campus is one whose focus is on judicious use of water and energy, minimisation of waste generation and prudent disposal of the same and reduction of pollution levels

All the above parameters are assessed in this process of green auditing. The target areas earmarked for the green auditing are water, waste, energy, green campus and carbon footprint.

1. **Auditing for Water Management**

Water is a source of life for all the organisms. Drinking water is freely available in some places while it is difficult to get potable water in some places. Depletion of the water table and contamination of ground water is rampant in urban areas which is very alarming, hence the necessity to examine the storage, distribution and usage of water in the college.

2. **Auditing for energy management**

Conservation of energy is an important component of sustainability. Energy audit tries to track and record the levels of energy consumption. It also tries to explore the possibility of using an alternative source of energy which is environment friendly.

3. **Auditing for Waste Management**

In everyday life humans create lots of waste – solid or liquid, degradable or non-degradable, wet or dry. Handling, collecting and disposing of this waste without causing harm to the environment is a big challenge before mankind, for this waste can cause pollution becoming health hazards. Categorizing solid waste into bio-degradable, non-biodegradable and hazardous waste is a must. Bio-degradable waste like food waste, canteen waste etc can be converted into manure while non- biodegradable wastes like plastic; glass etc needs more

careful disposal. Hazardous waste like chemicals, acid etc are most dangerous to the environment if not disposed scientifically. Special care needs to be taken while disposing such waste in the college. Auditing of waste management tries to quantify the levels of waste in the college and tries to identify the waste disposal system.

4. Auditing for Carbon Footprint

Humans are not the only cause of carbon dioxide. Fossil fuels also emit greenhouse gases like carbon dioxide, methane, nitrous oxide etc. Use of vehicles in the campus leads to emission of carbon dioxide and this audit tries to assess the modes of transport used by the students and staff to commute to and from the college.

5. Auditing for Green Campus Management

Plants and trees are an essential part of an ecological system and urbanisation has led to trees being cut at an alarming rate. Trees can absorb large amounts of carbon dioxide and emit oxygen into the environment. Trees are good in a campus because of the large number of students that gather in the campus leading to huge quantities of carbon dioxide being released into the environment. Green audit is also an effort to identify and label the trees and their age in the campus.

Focus groups: - Environment Audit is a combined effort of four focus groups – one each for water management, waste management, energy management, green campus and carbon footprints - for collecting the information. The following students and staff were a part of the focus groups

Energy Management Focus Group:

Sl. No.	Name	Designation
1.	Dr. Veerabhadrappa, Asso. Professor, Dept of Computer Science University College, Mangaluru – 575001	Coordinator of the focus group
2.	Mrs. Vibha B jain, Guest Lecturer, Dept. of Commerce University College, Mangaluru – 575001	Staff volunteer
3.	Mr. Ranjith K.S. Guest Lecturer, Dept. of History University College, Mangaluru – 575001	Staff volunteer
4.	Mrs. Mallika, Guest Lecturer, Dept. of Chemistry University College, Mangaluru – 575001	Staff volunteer
5.	Vinyas V III BSc 'A'	Student Volunteer
6.	Rithesh Melric Mendonca III BSc 'A'	Student Volunteer
7.	Shashank III BSc 'A'	Student Volunteer
8.	Pallavi K III BSc 'A'	Student Volunteer
9.	Sushma Acharya III BSc 'A'	Student Volunteer

Waste Management Focus Group:

Sl.No	Name	Designation
1.	Dr. Lakshman K Asso. Professor, Co-ordinator, Dept of M.Sc Chemistry, University College, Mangaluru – 575001	Coordinator of the focus group
2.	Ms. C Lahari	Staff volunteer
3.	Mr. Prashanth M	Staff volunteer
4.	Mrs. Madhura K.	Staff volunteer
5.	Sybil	Student Volunteer
6.	Jithesh	Student Volunteer
7.	Priyadarshini	Student Volunteer
8.	Sushmitha Bekal	Student Volunteer
9.	Jayalaxmi	Student Volunteer

Water Management Focus Group:

Sl. No	Name	Designation
1.	Dr. Gayathri N. Asst. Professor, Dept of Sociology& NSS Officer, University College, Mangaluru – 575001	Coordinator of the focus group
2.	Mrs. Sheethal K	Staff volunteer
3.	Mrs. Shama I.N.M.	Staff volunteer
4.	Dr. Sanjeev Kumar	Staff volunteer
5.	Mrs. Shylaja K	Staff volunteer
6.	Preethika	Student Volunteer
7.	Saraswathi	Student Volunteer
8.	Gagan	Student Volunteer
9.	Prinson	Student Volunteer

Green Campus Focus Group:

Sl. No	Name	Designation
1.	Dr. Siddaraju MN, Asst. Professor, Dept of Botany University College, Mangaluru – 575001	Coordinator of the focus group
2.	Ms. Harshitha	Staff volunteer
3.	Ms. Nidhishree	Staff volunteer
4.	Ms. Sahala	Staff volunteer
5.	Chetan M	Student Volunteer
6.	Vedhashini gouda	Student Volunteer
7.	Gurunath.R.Asangikar	Student Volunteer
8.	Pallavi K	Student Volunteer
9.	Malleshwari M	Student Volunteer
10	Sanjana Sandeep	Student Volunteer
11	Hemanth V	Student Volunteer
12	Poojashree	Student Volunteer
13	Lekhan B L	Student Volunteer

Onsite Observation and Data collection through Survey Forms: Each focus group with the concerned questionnaires visited the relevant departments and other places in the campus for collecting data as per the parameters mentioned. Student volunteers were taken for assisting wherever possible. Once the data was gathered, it was turned over to the committee for analysis and tabulation purposes.

Survey Forms

1. **Water Management**

Sl. No	Parameters	Response
1.	Source of water	
2.	No of wells	
3.	No of motors used	
4.	Horse power of motor	
5.	Total depth of well	
6.	Water level	
7.	Number of water tanks	
8.	Capacity of tank	
9.	Quantity of water pumped every day	
10.	Any water wastage? Why?	
11.	Water usage for gardening	
12.	Fate of waste water from labs	
13.	Whether waste water from labs mixed with ground water	
14.	Any treatment for lab water	
15.	No. of water coolers	
16.	Whether rain water harvest available	
17.	No. of units and amount of water harvested	
18.	Any leaky taps	
19.	Amount of water lost per day	
20.	Are there any signs reminding people to turn off the taps?	

2. Energy Audit

Sl. No	Electrical Appliances/ instruments	Total No.	Power (W)	Total power (KW)	Operation (Hrs/day)	No. of days in a month	Total consumption
1							
2							
	TOTAL						

Item: Bulbs (CFL, Incandescent, Led etc); A/c, fan, computer, instruments

3. Waste Management

Approximate quantity of waste generated per day (in kg)

Sl. No	Types of waste	In Kgs/day
1.	Biodegradable	
2.	Non –biodegradable	
3.	Hazardous	
4.	Others	

How the waste generated in the college is managed?

	Yes/No	**Remarks**
A) Composting/Vermicomposting		
B) Recycling		
C) Reusing		
D) Other ways		

Do you use recycled paper in college?	
Any waste management methods used?	

4. Carbon Footprint Analysis

1. Total number of vehicles used by the stakeholders of the college. (per day)
2. No of cycles used
3. No of two wheelers used (average distance travelled and quantity of fuel and amount used per day)
4. No of cars used (average distance travelled and quantity of fuel and amount used per day)
5. No of persons using public transportation
6. No of generators used per day
7. Amount of fuel used.-
8. Number of LPG cylinders used in canteen/ labs
9. Use of any other fossil fuels in the college
10. Any suggestion to reduce the use of fuel:

5. Green Campus

- ❖ Flora of the campus
- ❖ Tree count
- ❖ Green cover area

WATER MANAGEMENT REPORT

1. WATER MANAGEMENT REPORT:

Water is an essential precondition for life. It plays a vital role in sanitation for rural and urban communities. Water is also a important economic resource, necessary for all forms of agriculture and industrial production processes. Global changes like population growth, climate variability, ever-expanding industrialization and urbanization often combined with pollution severely affect water availability and lead to chronic water shortages in a growing number of regions. However, preserving the quality and availability of fresh water resources has now become a pressing environment challenge. National Water policy and National water mission focuses on need for publishing water accounts and water audit reports indicating leakages and wastages. The policy recommends systems to evolve benchmarks for water uses for different purposes, i.e., water footprints, and water auditing to ensure efficient use of water. Water audit is an effective management tool for minimizing losses, optimizing various uses and thus enabling considerable conservation of water. Thus, Educational Institutions has entrusted for conducting water audit and in this regard university college has conducted the water audit and the report shows the existing water scenario in the institution. Water Report also discusses its potential water savings and how the basic water audit approach has been applied to water conservation. Institution has the practice of regular water testing mechanism to know the quality of drinking water.

WATER MANAGEMENT REPORT:

Sl. No	Parameters	Response
1.	Source of water	Corporation water supply
2.	No of wells	Nil
3.	No of motors used	02
4.	Horse power of motor	2 HP
5.	Total depth of well	NA
6.	Water level	NA
7.	Number of water tanks	13
8.	Capacity of tank	1,000 L (overhead-04) 2,000 L (08 tanks) 40,000 L underground -01
9.	Quantity of water pumped every day	30,000 L/day
10.	Any water wastage? Why?	Yes, Leaky taps
11.	Water usage for gardening	3000 L/day
12.	Fate of waste water from labs	Drained out
13.	Whether waste water from labs mixed with ground water	No
14.	Any treatment for lab water	• Triple dilution before flushing down the drain • The liquid waste of the laboratories are segregated into organic and inorganic waste. • Inorganic wastes are neutralized before disposal. • Chemistry lab has taken measures to ensure that all the chemicals are diluted before discarding into wash basin.
15.	No. of water coolers	08 Water Cooler 2 Aquaguards
16.	Whether rain water harvest available	Under construction
17.	No. of units and amount of water harvested	NA
18.	Any leaky taps	Yes 02 Taps in ladies rest room
19.	Amount of water lost per day	6 L/day Approx.
20.	Are there any signs reminding people to turn off the taps?	YES

ENERGY AUDIT REPORT

2. ENERGY CONSERVATION:

Conservation of energy is an important component of sustainability. Energy audit is the key to a systematic approach for decision making in the area of energy- management. It tries to tracks and record the level of energy consumption and also tries to explore the possibility of using an alternative source of energy which is environment friendly. Energy audit attempts to balance the total energy inputs with its use, and serves to identify all the energy streams in a facility. It would give a positive orientation to energy cost reduction, preventive maintenance and quality control programmes which vitals for production and utility activities.

The institution has taken following measures to conserve the electricity namely

- Installation of solar panels and solar lights,
- Use of LED blubs
- Various boards including quotes that promotes awareness to save and conserve energy are displayed for all the stakeholders of the institution.

Energy audit survey was done in the institution and collected all the necessary information to analyse the effect of green house in the campus.

ENERGY AUDIT REPORT:

Sl. No	Electrical Appliances/ instruments	Total No.	Power (W)	Total power (KW)	Operation (Hrs/day)	No. of days in a month	Total consumption
1	Amplifier	3	50	0.15	1	20	3
2	CCTV Camera	75	2	0.15	24	30	108
3	LED Bulbs	42	8	0.336	6	25	50.4
4	CFL Bulbs	20	14	0.28	6	25	42
5	LED Tube light	100	20	2	7	25	350
6	Exhaust Fan	10	32	0.32	3	25	24
7	Tube lights	600	40	24	7	25	4200
8	Laptops	5	50	0.25	1	25	6.25
9	Printers	24	60	1.44	1	20	28.8
10	Fans	450	60	27	5	25	3375
11	Refrigerator	6	150	0.9	6	20	108
12	Desktop Computers	120	200	24	5	25	3000
13	Projector	24	200	4.8	1	20	96
14	Photocopy Machine	2	650	1.3	1	25	32.5

15	Microwave	3	1000	3	1	15	45
16	A/C	5	1500	7.5	4	25	750
17	Centrifuge Machine	10	50	0.5	2	10	10
18	Colorimeter	9	50	0.45	2	15	13.5
19	Bunsen Burner	8	200	1.6	2	10	32
20	Fume Hood	1	50	0.05	1	10	0.5
21	Hot air Oven	3	1000	3	1	10	30
22	pH Meter	10	4.5	0.045	2	10	0.9
23	Potentiometer	15	2	0.03	2	10	0.6
24	Spectrophotometer	4	60	0.24	1	12	2.88
25	Electronic Balance	1	5	0.005	1	15	0.075
26	Turbidity Meter	5	22	0.11	1	15	1.65
27	Hair Dryer	6	800	4.8	1	15	72
28	Heating Mantle	1	150	0.15	1	15	2.25
29	Ice Flaker	1	200	0.2	1	15	3
30	Single Distillation Unit	2	100	0.2	1	10	2
31	Hot Plate	1	200	0.2	1	15	3
32	Thermostat	1	80	0.08	1	10	0.8
33	Cathode Ray Oscilloscope	4	80	0.32	2	12	7.68
34	Function Generator	5	50	0.25	2	12	6
35	Spectrometer	5	20	0.1	2	10	2
36	Sodium Vapour Lamp(lab)	4	40	0.16	1	7	1.12
37	Mercury Lamp	4	40	0.16	1	10	1.6
38	16 port Network switch	4	12	0.048	24	30	34.56
39	24 port Network switch	4	18	0.072	24	25	43.2
40	LED Street lights	11	60	0.66	12	30	237.6
41	Sodium Vapour Lamp(Street)	2	200	0.4	12	30	144
42	Water Cooler	5	500	2.5	8	25	500
43	Aquaguard	7	300	2.1	8	25	420
44	2 HP Submercible Pump	1	1200	1.2	3	25	90
45	UPS 10 KVA	1	7000	7	3	25	525
46	UPS 5 KVA	5	3500	17.5	6	25	2625
47	UPS 3 KVA	3	2000	6	6	25	900
	TOTAL						**17931.865 Units**

Solar Panels as alternative renewable energy sources in the campus.

Solar lights in the campus

Wheeling to the Grid

WASTE MANAGEMENT

1. WASTE MANAGEMENT:

Waste Management Practices adopted by the college

University College is committed to striving towards "minimal waste". The college has a reasonable green campus and gives top priority to keep the campus very clean and eco-friendly. The boards with meaningful slogans are displayed to inculcate environmental consciousness among the students as well as stakeholders.

1. Solid waste management:

Waste from garden, canteen and other wet wastes are collected promptly from various parts of the campus. Biodegradable materials are converted into manure in bio bin which is used as an organic fertilizer for the garden. Non-biodegradable materials such as paper, plastic, old newspapers, old answer papers and raw paper material is sold out to the scrap shop.
Municipal waste collectors visit the campus regularly to collect the waste.
To create awareness about managing solid waste, college organized a state level seminar on waste management where participants were enlightened on bio bin usage and in association with Ramakrishna mission the bio bin aspirants list was collected.

2. E-waste management:

E- Waste program was organized for creating awareness about E-Waste and its hazards among the youth and the general public and also to understand the usefulness of Re-using the E- Waste. Our students were educated about the proper disposal of electrical and electronic wastein a systematic manner.
A bin has been placed in the college, for the proper disposal of e-waste. To create awareness about proper and safe disposal of Electronic and Electrical waste.

3. Waste recycling system:

In order to promote recycling of waste and creating the practice of organic farming Vermicompost was introduced by the department of Zoology.

Types of Waste Generated (Kg/ day)*Kg/Week

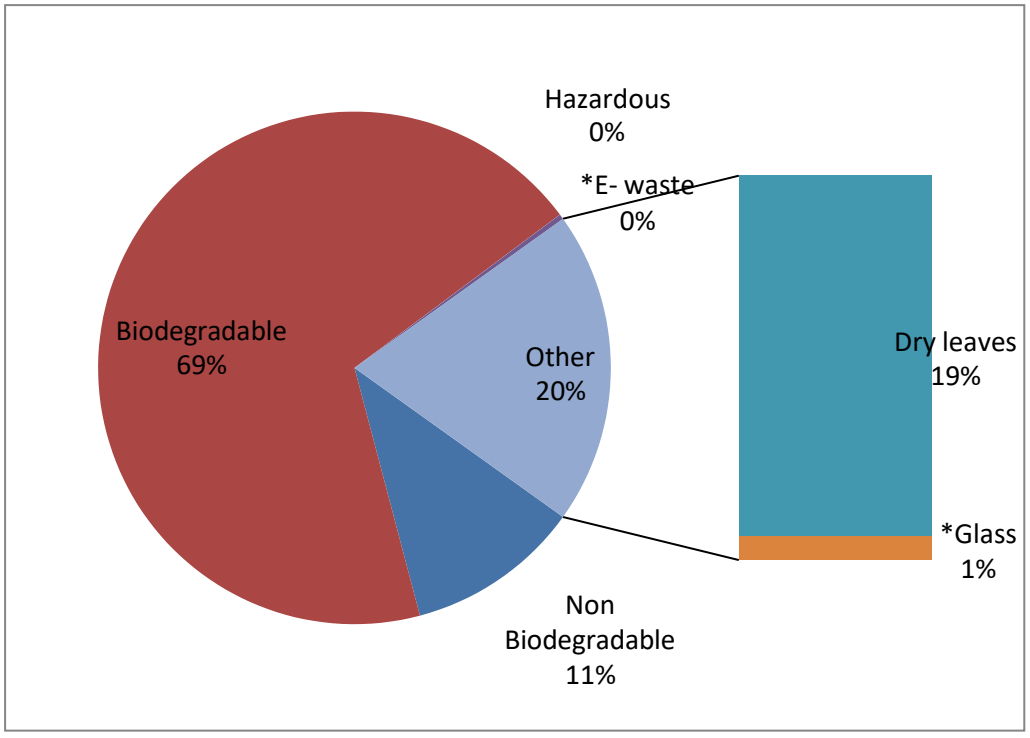
Room No.	Description	Non Biodegradable	Biodegradable	Hazardous	*E-waste	Dry leaves	*Glass
1	Principal's chamber	0.05	0.05	0	0	0	0
2	Principal's Washroom	0.02	0.10	0	0	0	0
3	Principal's Rest room	0	0	0	0	0	0
4	Main office	0.25	0.3	0	0	0	0
5	Next to the account's section room	0.01	0.05	0	0	0	0

6	account's section office	0.01	0.01	0	0	0	0
7	Classroom	0.01	0.01	0	0	0	0
8	Classroom	0.01	0.01	0	0	0	0
9	Shivarama karantha hall	0	0	0	0	0	0
10	NSS Office	0.01	0.01	0	0	0	0
11	English Department	0.01	0.01	0	0	0	0
12	Alumni association room	0	0	0	0	0	0
13	Ladies room	0	0.02	0	0	0	0
14	Store room Inside ladies room	0	0	0	0	0	0
15	Ladies wash room	0	0.02	0	0	0	0
16	English language lab	0	0.02	0	0	0	0
17	History and archaeology Classroom	0.01	0.025	0	0	0	0
18	History and archaeology Classroom	0.01	0.025	0	0	0	0
19	Canteen	0.5	6	0	0	0	0
20	Wash room next to canteen	0	0	0	0	0	0
21	…..	0	0	0	0	0	0
22	…..	0	0	0	0	0	0
23	…..	0	0	0	0	0	0
24	…..	0	0	0	0	0	0
25	…..	0	0	0	0	0	0
26	Political science / Sociology department	0.001	0.002	0	0	0	0
27	Hindi department	0.001	0.002	0	0	0	0
28	Kannada department	0.001	0.002	0	0	0	0
29	Green room 1	0	0	0	0	0	0
30	Green room 2	0	0	0	0	0	0
31	Classroom	0.001	0	0	0	0	0
32	Classroom	0.001	0	0	0	0	0
33	Classroom	0.001	0	0	0	0	0
34	Classroom	0.002	0	0	0	0	0
35	Classroom	0.001	0	0	0	0	0
36	Classroom	0.001	0	0	0	0	0
37	Classroom	0.002	0	0	0	0	0
38	Classroom	0.001	0	0	0	0	0

39	Classroom	0.001	0	0	0	0	0
40	Classroom	0.003	0	0	0	0	0
41	Classroom	0.001	0	0	0	0	0
42	Classroom	0.001	0	0	0	0	0
43	Classroom	0.002	0	0	0	0	0
44	Ladies wash room (Upstairs)	0	0.02	0	0	0	0
45	Boys wash room (Ground floor)	0	0	0	0	0	0
46	Girls wash room (Ground floor)	0.01	0.02	0	0	0	0
47	…..	0	0	0	0	0	0
48	…..	0	0	0	0	0	0
49	…..	0	0	0	0	0	0
50	…..	0	0	0	0	0	0
51	Physics lab 2	0.01	0.005	0	0	0	0
52	Physics store room	0	0	0	0	0	0
53	Ladies wash room	0	0.02	0	0	0	0
54	Gents wash room	0	0	0	0	0	0
55	Computer science and Math’s department	0.001	0.002	0	0	0	0
56	Computer science lab	0.001	0	0	0.02	0	0
57	Physics department	0.001	0.002	0	0	0	0
58	Mathematics lab	0	0	0	0	0	0
59	Electronics lab	0	0	0	0.02	0	0
60	HOD Physics room	0	0	0	0	0	0
61	Computer science hardware room	0	0	0	0	0	0
62	Classroom	0.001	0.003	0	0	0	0
63	Classroom	0.001	0	0	0	0	0
64	Classroom	0.001	0.002	0	0	0	0
65	Classroom	0.002	0	0	0	0	0
66	Classroom	0.001	0	0	0	0	0
67	NCC army wing	0	0	0	0	0	0
68	Classroom	0.002	0.002	0	0	0	0
69	Classroom	0.001	0.003	0	0	0	0
70	Classroom	0.001	0	0	0	0	0
71	Wash room	0.003	0.004	0	0	0	0
72	Sanskrit department	0.001	0	0	0	0	0
73	Geography department	0.001	0	0	0	0	0

74	Zoology department	0.002	0.08	0	0	0	0
75	Zoology preparation room	0.001	0.002	0	0	0	0
76	Zoology staff room	0	0	0	0	0	0
77	Botany lab	0.002	0.04	0	0	0	0
78	Botany preparation room	0	0	0	0	0	0
79	Botany department	0	0	0	0	0	0
80	Classroom	0.002	0.002	0	0	0	0
81	Classroom	0.001	0.003	0	0	0	0
82	Classroom	0.001	0	0	0	0	0
83	Microbiology lab	0.002	0.06	0	0	0	0
84	MSc Chemistry lab	0.01	0.07	0	0	0	0.04
85	Wash room	0	0	0	0	0	0
86	Microbiology department	0.001	0	0	0	0	0
87	PG Chemistry Office	0.008	0	0	0		0
88	Chemistry lab 1	0.01	0.02	0	0	0	0.06
89	store room	0	0	0	0	0	0
90	Chemistry Staff room	0	0	0	0	0	0
91	Chemistry lab 2	0.01	0.02	0	0	0	0.03
92	Preparation room	0	0	0	0	0	0
93	…..	0	0	0	0	0	0
94	…..	0	0	0	0	0	0
95	…..	0	0	0	0	0	0
96	…..	0	0	0	0	0	0
97	…..	0	0	0	0	0	0
98	…..	0	0	0	0	0	0
99	…..	0	0	0	0	0	0
100	…..	0	0	0	0	0	0
101	Classroom	0.001	0	0	0	0	0
102	Media lab	0	0	0	0	0	0
103	M.Com classroom	0.001	0	0	0	0	0
104	M.Com classroom	0.001	0	0	0	0	0
105	Department of tourism	0.001	0.001	0	0	0	0
106	Department of History	0.001	0.001	0	0	0	0
107	Recording studio	0	0	0	0	0	0
108	UGC room	0	0	0	0	0	0
109	NCC naval wing	0	0	0	0	0	0
110	Sports room	0.1	0	0	0	0	0

111	Classroom	0.002	0.002	0	0	0	0
112	Classroom	0.001	0.003	0	0	0	0
113	Classroom	0.001	0	0	0	0	0
114	Classroom	0.001	0	0	0	0	0
115	Commerce Department	0.01	0.1	0	0	0	0
116	Evening College office room	0.01	0.1	0	0	0	0
117	Evening College Principal's room	0	0	0	0	0	0
118	Classroom	0.001	0	0	0	0	0
119	Classroom	0.002	0	0	0	0	0
120	Classroom	0.001	0	0	0	0	0
121	MBA computer lab	0	0	0	0	0	0
122	M.Com office	0.01	0.1	0	0	0	0
123	MBA coordinator's room	0	0.001	0	0	0	0
124	Classroom	0.001	0	0	0	0	0
125	Classroom	0.002	0	0	0	0	0
126	Konkani/ Byari Study centre	0	0	0	0	0	0
127	Department of Tulu	0	0	0	0	0	0
128	Library	0.03	0.07	0	0	0	0
129	College campus	0	0	0	0	2	0
	Total	**1.186**	**7.424**	**0.000**	**0.035**	**2.000**	**0.130**



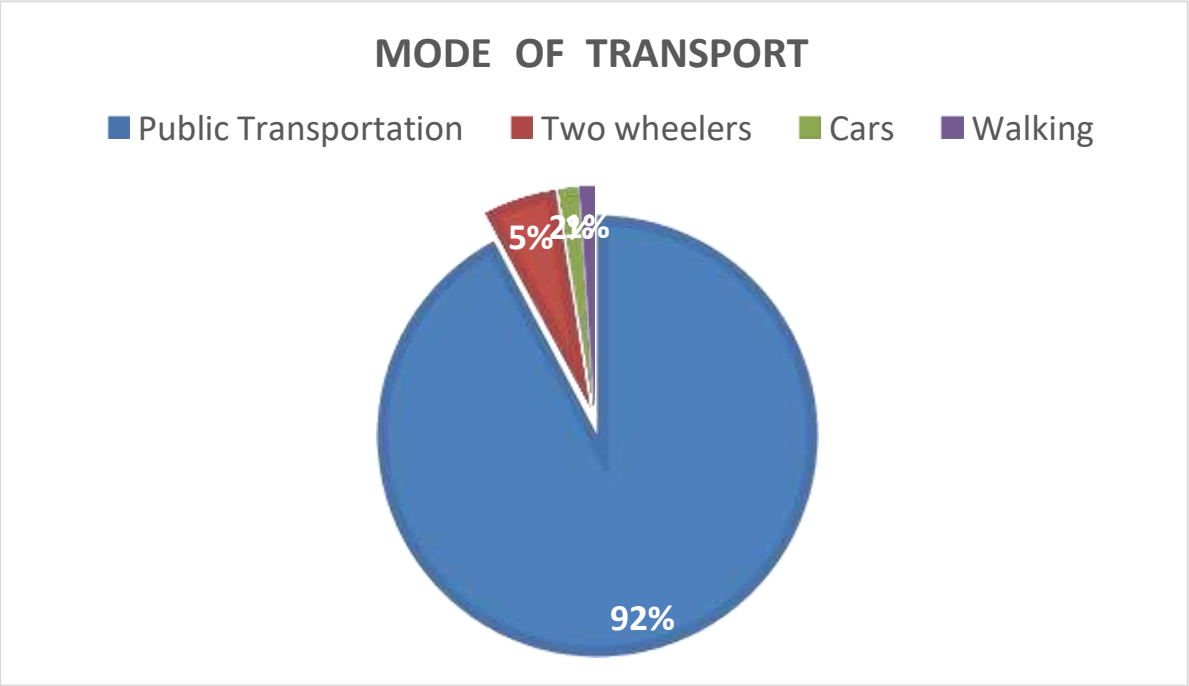
CARBON FOOT PRINT ANALYSIS

4. CARBON FOOT PRINT ANALYSIS

1. No. of persons using public transportation-1749
2. Total no. of vehicles used by the stakeholders of the college(per day)- 128
3. No. of cars used - 27
4. No. of two wheelers used- 101
5. No. of Bicycles used- Nil
6. No. of stakeholders who walk to the college- 20
7. No. of generators used per day- 2
8. Amount of fuel used- Approximately100 L/day
9. Number of LPG cylinders used in canteen /labs- 3
10. Use of any other fossil fuels in the college- Nil
11. Any suggestions to reduce the use of fuel- i)Use of electric vehicles and compressed natural gas (CNG) vehicles. ii) Some students and staff who live close by can resort to walking to the college.

Carbon footprint analysis

Sl. No.	Mode of transport used	No. of stakeholders	Total number of stakeholders	Percentage
1	Public Transportation	1749	1897	92.2
2	Two wheelers	101	1897	1.42
3	Cars	27	1897	5.32
4	Walking	20	1897	1.06
5	Bicycles	Nil	1897	0
Total				**100**



Verification by External member

The data gathered was verified and authenticated by the external auditor Dr. Vinayak, Asst Professor & HOD of Botany Department. SVS College, Bantwal. The external member did a detailed study of the green audit report and physically verified certain tangible components in the report. The suggestions and recommendations offered by them have been incorporated at the end of the report and will form the basis for future policies and planning for initiatives for sustainable ecosystem in the campus.

CONCLUSION

In conclusion, the overall quality of the college environment was found to be satisfactorily good by the green audit committee. The audit helped the committee to draw attention of the concerned people towards the water wastage through leaky taps and helped in setting it right so that the wastage could be reduced to minimum possible levels.

The audit helped in identifying the levels of waste generation and the waste management practices in the college. This step goes a long way in future planning for reducing the waste and recycling wherever possible. The audit has also thrown light on the energy consumption levels of the college which will assist in planning for energy saving devices in the future. It has also led the committee to contemplate alternative energy sources like solar energy.

ENCLOSURES

Suggestions and Recommendations:

The external auditor Dr. Vinayak, Asst. Professor of Botany & HOD of SVS College, Bantwal made a detailed study of the data and its analysis presented by the Green Audit Committee. He visited the campus and physically verified certain tangible components in the report. He made some suggestions and recommendations for implementing in the campus.

Comments and Recommendations:

The Green Campus Audit Committee has done tremendous work and methodically recorded all the necessary data required for the College Environment policy. It is a very big campus in the heart of the city, it is important to utilize it well with necessary green around

Energy audit:

1. Electrical energy grid- wheeling is an exceptional work.

2. Add few more sign board or notices seen to instruct/motivate students to save energy. *Eg. Switch off lights, fans, the last person leaving should check for the electrical usage.*
3. Very less LED bulbs are used. Replace traditional bulbs.
4. Avoid Battery setting near the office working area.
5. Electrical Room should be easily accessible. No fire extinguisher near electrical room.
6. Need Clean labelling on each electrical unit.

Water audit:

1. Water storage tank is not marked.
2. Test the water quality – water from the tank, tap, and from water filter.
3. Rain harvesting system is not completed.

Waste management:

1. Place enough dustbins in the campus.
2. Staff room and canteens should have wet waste and dry waste.
3. Liquid waste segregation? Does the laboratory have SOP?

Answers to the comments:

	Recommendations	**Answers by the committee**
1	**Energy audit:**	
	Electrical energy grid- wheeling is an exceptional work.	Thank you for the appreciation
	Add few more sign board or notices seen to instruct/motivate students to save energy. *Eg. Switch off lights, fans, the last person leaving should check for the electrical usage.*	Sign boards added
	Very less LED bulbs are used. Replace traditional bulbs.	Annually we are replacing LED bulbs.
	Avoid Battery setting near the office working area.	The Battery setting will be removed from the area
	Electrical Room should be easily accessible. No fire extinguisher near electrical room. Need Clean labelling on each electrical unit.	Electrical Room is cleaned and labelled
2	**Water audit:**	
	Water storage tank is not marked.	Marked now

	Test the water quality – water from the tank, tap, and from water filter.	Water quality tested and submitted to Principal
	Rain harvesting system is not completed.	It is under construction
3	**Waste management:**	
	Place enough dustbins in the campus.	Enough Dustbins placed in the campus.
	Staff room and canteens should have wet waste and dry waste bins	Wet waste and dry waste bins kept in Canteen and staff rooms
	Liquid waste segregation? Does the laboratory have SOP?	Yes, SOP is in Chemistry Department

CERTIFICATE

PRANA Panchavati
RESEARCH ACADEMY FOR NATURE(R)
The Spirit.....

Mob: 9945221582
: 9739317563
: 9886207442
: 9480213082
: 9482480859

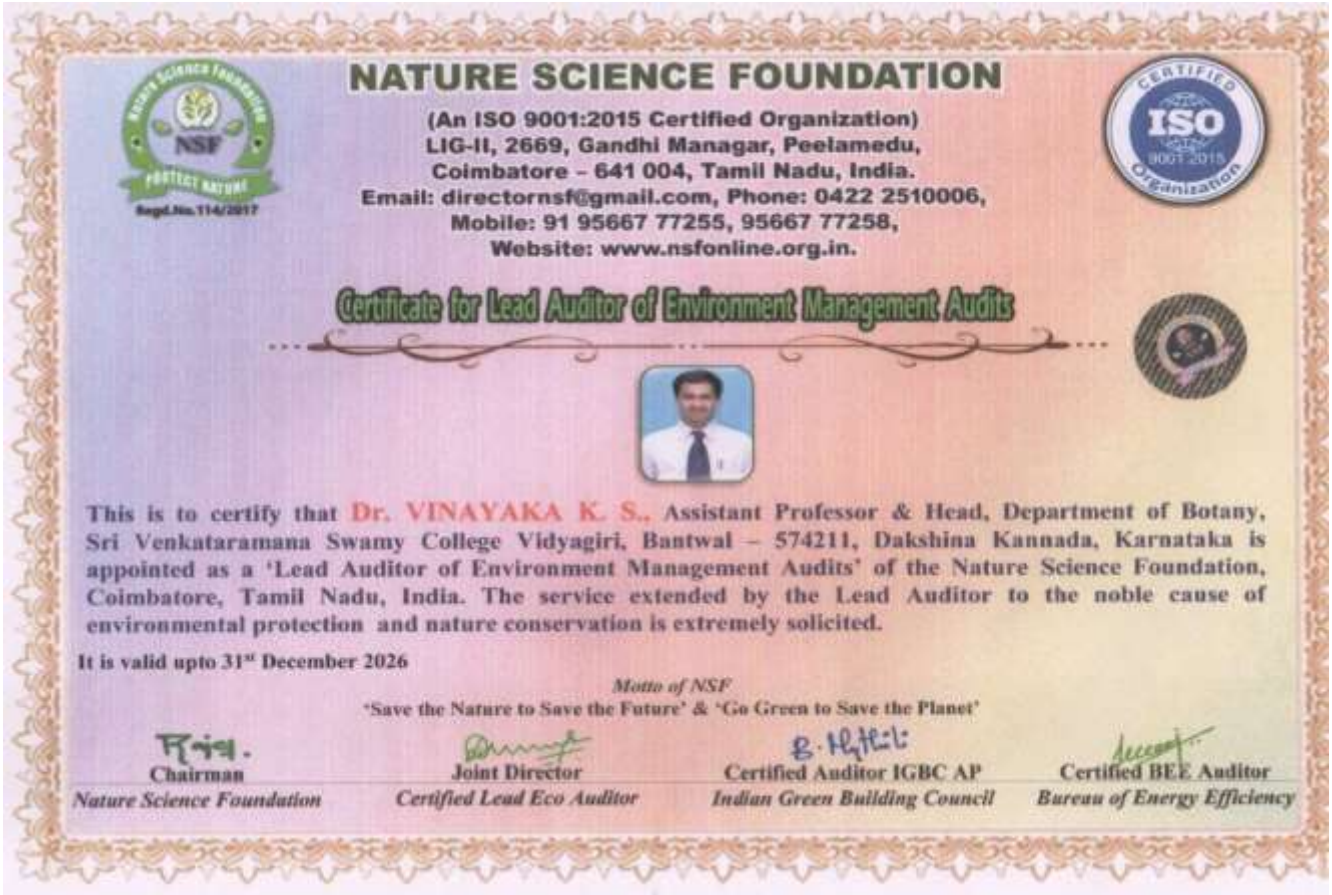
"Giridhama", Kalamanji, Linganamakki (P),
Sagar (Tq.), Shimoga (Dist.) - 577 421.
e-mail: pranasmg243@gmail.com

CERTIFICATE OF ENVIRONMENT AUDIT

This is to certify that University College Mangalore , Hampankatta 575001, Karnataka *has successfully undergone* "ENVIRONMENT AUDIT" on 27th May 2022 *To assess the Eco-friendly initiatives planning carried out in the campus to maintain a sustainable environment to the stakeholders was found satisfactory.*

Vinayaka

Dr. Vinayaka K.S.
Certified Lead auditor
Certified by Nature Science Foundation



NATURE SCIENCE FOUNDATION
(An ISO 9001:2015 Certified Organization)
LIG-II, 2669, Gandhi Managar, Peelamedu,
Coimbatore – 641 004, Tamil Nadu, India.
Email: directornsf@gmail.com, Phone: 0422 2510006,
Mobile: 91 95667 77255, 95667 77258,
Website: www.nsfonline.org.in.

Certificate for Lead Auditor of Environment Management Audits

This is to certify that Dr. VINAYAKA K. S., Assistant Professor & Head, Department of Botany, Sri Venkataramana Swamy College Vidyagiri, Bantwal – 574211, Dakshina Kannada, Karnataka is appointed as a 'Lead Auditor of Environment Management Audits' of the Nature Science Foundation, Coimbatore, Tamil Nadu, India. The service extended by the Lead Auditor to the noble cause of environmental protection and nature conservation is extremely solicited.

It is valid upto 31st December 2026

Motto of NSF
'Save the Nature to Save the Future' & 'Go Green to Save the Planet'

Chairman, Nature Science Foundation | Joint Director, Certified Lead Eco Auditor | Certified Auditor IGBC AP, Indian Green Building Council | Certified BEE Auditor, Bureau of Energy Efficiency

7.1.6
(5)

Environment Promotional Activities on the Campus and Beyond the Campus

UNIVERSITY COLLEGE MANGALORE
HAMPANAKATTA - 575001

A Constituent College of Mangalore University

GREEN PRACTICES IN THE CAMPUS and BEYOND THE CAMPUS

The college organizes several programmes every year so as to create awareness among the students as well as staff on various environmental issues. It is imperative for every stakeholder of the college to be aware of the importance of environment to the society as well as the individual and the importance of conservation of the environment and sustainable use of environmental resources. Every individual can contribute in a small way towards preserving the environmental resources for the future generations. The first step towards this is creating awareness. The departments and different associations of the college try to fulfil this objective through seminars with an objective to create awareness and activities which give hands-on experience in the areas of waste management, water conservation and maintaining green campus. The following are some of the programmes conducted by the departments and different associations of the college:

ENVIRONMENT PROMOTIONAL ACTIVITIES ON THE CAMPUS AND BEYOND THE CAMPUS

Sl. No.	Title of The Programme	ORGANIZING DEPT. / ASSOCIATION / CLUB / CELL	Year
1	Koti Vruksha Andholan by Forest Department and District Administration	NSS	2016-17
2	Plantation Of Trees at Polali	NSS	2016-17
3	College Campus Cleaning – Half Day Sharamadan on Swach Bharath	NSS	2016-17
4	Vanamahotsava Celebration by Plantation of Trees and Plants Distribution	NSS	2016-17
5	Cleaning The Premises of District Wenlock Hospital- Swachch Bharath – Half Day	NSS	2016-17
6	Janandolana Program – Plastic Free Village	NSS	2016-17
7	Street Play on Swachch Bharath	NSS	2016-17
8	Half Day Camp Mangalore Bus Stand Cleaning-Shramadan	NSS	2016-17
9	National Bird Day	Innovation Club, Science Association and Zoology Department	2016-17
10	Visit To Shobhavana Garden at Moodbidre	Innovation Club and Science Association	2016-17
11	Talk On “Cycling for Recycling the Body”	Innovation Club , Environment Club And Sports Association	2016-17
12	Half Day Shramadana- Swachch Bharath	NSS	2017-18
13	Suvarna Karnataka Swachchatha Abhiyana	NSS	2017-18
14	Prakruthi Samrakshan Dhinacharane	NSS	2017-18

15	Vanamahotsava-Plantation of Trees	NSS	2017-18
16	Beach Cleaning – Swachch Bharath	NSS	2017-18
17	One Day Camp in Medicinal Garden Pilikula-Plantation of Medicinal Plants	NSS	2017-18
18	Cleaning The Botanical Garden	Innovation Club and Science Association	2017-18
19	Half Day Shramaadana - Railway Station Cleaning- Swachch Bharath	NSS	2017-18
20	Visit To Cpcri Kasargod	Botany Department	2017-18
21	A Program On “Rain Water Harvesting”	NSS	2017-18
22	National Farmer’s Day	Science Association	2017-18
23	Swachchatha Abhiyana-Shramadaana	NSS	2017-18
24	Half Day Shramadana- Swachch Bharath	NSS	2017-18
25	Visit To Terrace Garden Hosabettu	Botany Department	2017-18
26	Compost Pit Preparation	Botany Department	2017-18
27	Importance Of Segregation of Waste	NSS	2018-19
28	National Bird Day	Innovation Club & Science Association	2018-19
29	Transplanting Of Paddy Seedlings- Paddy Field Work –Half Day Shramadaana at Kallimaru, Konaje	NSS	2018-19
30	Plantation Of Trees at Kariyangala Grama	NSS	2018-19
31	Awareness Via Documentary On Rain Water Harvesting	NSS	2018-19
32	Vanamahothsava -Plantation of Trees	NSS	2018-19
33	Half Day Shramadaana – Plantation of Trees in Medicinal Garden	NSS	2018-19
34	National Science Day – Visit to Nitk Surathkal	Botany Department	2018-19
35	Swachch Bharath – Rally	NSS	2018-19
36	One Day Shramadana Krishi Polali Hasiru Prakruthi - Neji	NSS	2018-19

37	Visit To Pilikula Herbarium	Botany Club	2018-19
38	Beach Cleaning-Swachch Bharath	NSS	2018-19
39	Shramadana – Half Day – Swachch Bharath	NSS	2018-19
40	Street Play-Swachch Bharath	NSS	2018-19
41	Street Play-Swachch Bharath	NSS	2018-19
42	Railway Station Cleaning – Swachch Bharath	NSS	2018-19
43	Swacch Soch Program	NSS	2018-19
44	Pro-Tray Work Shop	NSS	2018-19
45	Protray Krishi And Vegetable Garden – Shramadana	NSS	2018-19
46	World Environment Day—At Sez Baikampady	NSS	2018-19
47	Green Mangalore Project	NSS	2018-19
48	Green Mangalore – Planting Tree for Future	NSS	2018-19
49	Smudaya Krishi- At Ramakrishna Thapovan Polali	NSS	2018-19
50	University Level Seminar on Swach Soch at Ramakrishna Mission Mangalore	NSS	2018-19
51	Swachatha Arivu-One Day Shramadaan in Lady Goshen Hospital.	NSS	2018-19
52	Anti-Plastic Abhiyan -Alternatives to Plastic Exhibition and Sale.	NSS	2018-19
53	Vrakshothsava- Awareness Jaatha and Vanamahotsava	NSS	2018-19
54	Swacha Mangalore- Ramakrishna Mission Clean Abhiyaan	NSS	2018-19
55	Environmental Day -Online Programme	NSS	2018-19
56	Environmental Day Celebration in College- Planting of Saplings	NSS	2018-19
57	Active Participation of Volunteers in Spit Free Campaign	NSS	2018-19

58	Importance Of Segregation of Waste	NSS	2018-19
59	Transplanting Of Paddy Seedlings- Paddy Field Work –Half Day Shramadaana at Kallimaru, Konaje	NSS	2018-19
60	Swacch Gelathi Training Program	NSS	2018-19
61	Plantation Of Trees at Kariyangala Grama	NSS	2018-19
62	Awareness Via Documentary On Rain Water Harvesting	NSS	2018-19
63	Vanamahothsava -Plantation of Trees	NSS	2018-19
64	Swacch Gelathi – Class-Class Campaign	NSS	2018-19
65	Half Day Shramadaana – Plantation of Trees in Medicinal Garden	NSS	2018-19
66	Swachch Bharath – Rally	NSS	2018-19
67	One Day Shramadana Krishi Polali Hasiru Prakruthi - Neji	NSS	2018-19
68	Beach Cleaning-Swachch Bharath	NSS	2018-19
69	Shramadana – Half Day – Swachch Bharath	NSS	2018-19
70	Street Play-Swachch Bharath	NSS	2018-19
71	Street Play-Swachch Bharath	NSS	2018-19
72	Railway Station Cleaning – Swachch Bharath	NSS	2018-19
73	Swacch Soch Program	NSS	2018-19
74	Pro-Tray Work Shop	NSS	2018-19
75	Kvk Visit and Interaction with Scientist on Paddy Cultivation and Disease Management	Environment Association	2019-20
76	National Science Day – Interaction with Farmers	Innovation Club and Environment Association	2019-20
77	Vanamahothsava In Connection with Independence Day Celebration	NSS	2020-21

78	Birth Anniversary Of J C Bose	Innovation Club And Environment Association	2020-21
79	Beach Cleaning In Association With Radio Sarang107.8fm	NSS	2020-21
80	World Soil Day	Innovation Club And Environment Association	2020-21
81	Earth Day Celebration	NSS	2020-21
82	Environmental Day	NSS	2020-21
83	Virtual Environment Day Celebration	NSS	2020-21
84	Visit To District Horticulture Department	Botany Department	2020-21
85	Visit To Soil Testing Lab In Kvk Mangalore	Environment Association & Botany Department	2020-21
86	Visit To District Horticulture Research Station At Ullal	Innovation Club & Botany Department	2020-21
87	National Biodiversity Day Celebration	Environment Association & Innovation Club	2020-21
88	World Environment Day Celebration	Environment Association & Innovation Club	2020-21
89	World Environment Day Celebration	Microbiology Department	2020-21

Principal
University College, Mangalo

National Bird Day

Introducing a new concept: Bird Day

Date: 5th Jan 2017

Number of students: 50

Organized by: Innovation Club, Science Association, Environment Association and Zoology Dept.

Speaker: Dr. Hemachandra, Associate Professor of Zoology.

A visit to Shobavana at Moodbidre

Date: 18th Feb 2017
Number of students: 50
Organized by: Science Association and Innovation Club
Guide: Dr. Siddaraju MN, Dr. Shobha, Dr. Nagarathna, Dr. Ganapathi Gowda

A day in nature along with tree experts.

Garden Cleaning

Date: 5th Aug 2017
Number of students: 30 students
Organized by: Innovation Club
Program: Cleaning Garden after monsoon to maintain the selected trees and useful plants

National Farmers Day

Introducing a new concept: Farmers Day

Date: 23rd Dec 2017 at 2.30 pm

Number of students: 30

Organized by: Innovation Club, Science Association.

Topic: Introduction by Dr. Siddaraju MN and Student talk on the importance of the day.

Shanthamurthy and **Vijayalaxmi** of II BSc B

Visit to Terrace Garden at Hosabettu

Date: 6th Jan 2018

Number of students: 12

Organized by: Botany Dept.

Escorts: Dr. Shobha and Dr. Siddaraju MN – Luxurious growth of Vegetable plants on Terrace using Wick watering method

Compost Pit Preparation

Date: 10th Feb 2018
Number of students: 36
Organized by: Botany Dept.
Demonstration by: Pradeep Suri – Agriculturist, Mangalore

National Bird Day

Date: 5th Jan 2019
Number of students: 50
Organized by: Innovation Club, Science Association and Zoology Dept.
Speaker: Mr. Suhas Krishna, Lecturer, Vivekananda College Puttur. - Creating awareness on Birds and their habitat.

ವಿವಿ ಕಾಲೇಜಿನಲ್ಲಿ
ರಾಷ್ಟ್ರೀಯ ಪಕ್ಷಿಗಳ ದಿನಾಚರಣೆ

National Science Day – Visit to NITK Suratkal

Date: 28th Feb 2019
Number of students: 50
Program: Science Day Celebration at NITK Suratkal- Talks and Science Video demonstration. Campus Visit, Onsite Plant identification.
Escort: Dr. Siddaraju M.N.

Visit to Pilikula Herbarium

Date: 2nd March 2019
Number of students: 36
Organized by: Botany Dept.
Escorts: Dr. Shobha and Dr. Siddaraju MN – Herbarium technique demo and Arboretum visit.

KVK Visit and interaction with Scientist

Date: 2nd Oct 2019

Number of students: 6

Organized by: Environment association

Program: Interaction with KVK Scientist Mr. Harish Shenoy- Paddy cultivation and disease management.

World Soil Day

Date: 5th Dec 2020
Number of students: 40 students
Organized by: Environmental association and Innovation Club
Program: Soil Day celebration at their respective house- home gardens. Gowsiya explained the days importance and Dr. Siddaraju suggested few procedures to test the soil quality at home.

ಮಣ್ಣಿನ ಸಮೃದ್ಧತೆ ದೇಶದ ಸಮೃದ್ಧತೆ: ವಿಶ್ವ ಮಣ್ಣಿನ ದಿನ

National Biodiversity Day celebration

Date: 22nd May 2021

Number of students: 10+ 30 students

Organized by: Environmental association and Innovation Club

Program: Celebrated by organizing a Creative Competition- Poster designing competition on the Topic "Nature has an Answer"

Spoorthy 3rd BSc - I place
Tanushree I BCom II place
Vedashini 2nd BSc III place

World Environment Day- Botany Dept.

Date: 5th June 2021

Number of students: 36 students

Organized by: Environmental association and Innovation Club

Program: Mr. Ramakrishna Marathe Scientific Officer of the Pilikula Center Scientific explained the importance of the biodiversity of the Western Ghats to the students through a webinar. Three plants belonging to the endangered species were planted in the college campus. Students planted saplings in their house gardens as a part of the celebration.

BEACH CLEANING AT PANAMBUR BEACH (15/09/2018)

BEACH CLEANING AT BENGRE BEACH (04/12/2019)

STREET PLAY ON SWACHCH BHARATH (11/03/2017)

"SWACHATHA ARIVU" ONE DAY SHRAMADAAN IN LADY GOSCHEN HOSPITAL (31/08/2019)

ಟ್ರೆಂಡ್ಸ್ ಯುವಜನರಿಗಾಗಿ

ನೈರ್ಮಲ್ಯ | ಮಾತಾ ಅಮೃತಾನಂದಮಯಿ ಮಠ ಲೇಡಿಗೋಶನ್ ಆಸ್ಪತ್ರೆ ಆವರಣದಲ್ಲಿ ಅಮಲ ಭಾರತ ಸ್ವಚ್ಛತಾ ಅಭಿಯಾನ

ಲೇಡಿಗೋಶನ್ ಆಸ್ಪತ್ರೆಯಲ್ಲಿ ಸ್ವಚ್ಛತಾ ಜನ ಜಾಗರಣ ಯಜ್ಞ ನಡೆಯಿತು.

ಸ್ವಚ್ಛತಾ ಸೇವೆ ಶ್ಲಾಘನೀಯ

ರೆಡ್ ಕ್ರಾಸ್ ಸೊಸೈಟಿ ಅಧ್ಯಕ್ಷ ಶಾಂತಾರಾಮ್ ಶೆಟ್ಟಿ ಮಾತನಾಡಿ, ಅಮ್ಮನವರ ಸಂಕಲ್ಪದಂತೆ 9 ವರ್ಷಗಳಿಂದ ಸ್ವಚ್ಛತಾ ಸೇವೆಗೈಯುತ್ತಿರುವ ಮಾತಾ ಅಮೃತಾನಂದಮಯಿ ಮಠ, ಸೇವಾರ್ಥಿಗಳು, ವಿದ್ಯಾರ್ಥಿ ಸಮುದಾಯದ ಪಾತ್ರ ಶ್ಲಾಘನೀಯ ಎಂದರು.

World Environment Day- Environment Club

Date: 6th June 2021

Number of students: 40+ 20 students

Organized by: Environmental association and Innovation Club

Program: Celebrated the world environment day by having a conversation with Hanagal Sahithi Prasanna Kumar about "Must have Plants around our City" as part of the day.

1. Exhibited 101 plant species of Dakshina kannada.
2. Illustration of state fruit, flower, and trees of all 29 states and 7 union territories.
3. A singing event of Kannada songs with flower name in it was also organized.

ವಿ.ವಿ. ಕಾಲೇಜಿನಲ್ಲಿ
ಪರಿಸರ ಸಂಘದಿಂದ
ಸಂವಾದ

World Environment Day

ವಿವಿ ಕಾಲೇಜು: ಪರಿಸರ ಸಂಘದಿಂದ
ಸಂವಾದ ಕಾರ್ಯಕ್ರಮ

VRAKSHOTHSAVA – AWARENESS JAATHA AND VANAMAHOTSAVA
(24/09/2019)

Principal
University College, Mangalo