

# **CATALOGUE OF ARBOREAL FLORA OF FERGUSSON COLLEGE CAMPUS**

**Prepared by**

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## PREFACE

Being Botany students plants have always been a source of inspiration and admiration to us. Nevertheless taxonomist Dr. V.D.Vartak's contribution to the field of Botany and the *Adenonia digitata* (Gorakh chinch) in our botanical garden were the main inspiration behind starting this work. Wondering in the Botanical garden, talking about the unique contributions of Vartak sir and admiring the beauty of massive baobab, thoughts passed our minds that there must be so much more on our campus to explore, admire and care for. Close association with Dr. Hema Sane and her dedication to work further inspired us to contribute atleast a tiny bit to the subject.

We have completed one project on listing of plants of Fergusson College campus and preparation of its data base. The rationale behind this project was to explore and document the existing arboreal flora on campus as precisely as possible. The method we adopted is exploring, listing and mapping each tree and creating a database. On completion of documentation and mapping, we comprehended the treasure we have and which our forefathers have given us. At the same time, we also realized that we cannot overlook our responsibility to protect and further enrich this existing treasure for our generations to come. This project is an attempt; firstly, to share this plant wealth on our campus with those who feel affectionate for plant and also with those who do not, in a bid to develop an interest in them, in our own small way. Secondly to try and get all Fergussons (students, teaching and non teaching staff) together to make sure we not only restore the existing trees around us but also plant lots more natives/indigenous trees to make our campus not just green but ecologically important.

This catalogue mainly contains 1) Comprehensive list of tree species found on campus 2) Information about each species such as scientific, vernacular name, common name, main morphological characters, meaning/origin of the scientific names, ecological importance along with photographs.

## ACKNOWLEDGEMENT

While doing the project and preparing this catalogue, numerous memories rush into our minds which are full of gratitude to those who encouraged and helped us at various stages to this unique endeavor. Our enthusiasm would have meant anything without their genuine support. It's our great pleasure to record this feeling of gratitude.

We would appreciate Professor D.V. Kulkarni, Ex Vice Principal, Fergusson College, Pune, for his idea of 'green initiative' to harness the botanical treasure on our campus. This initiative not only enhances the beauty of campus, but also help students to know the flora of campus.

We were privileged to get the able guidance and motivation from Ex Principal Dr. Ravindra Sing Pardeshi who shared our love and passion for plants. His ever inspiring support and boosting of our morals are the most important factors leading to the completion of this catalogue.

We are thankful to our Principal Dr. Shyam Mude, for constant encouragement and support. He has given permission for uploading this catalogue on Fergusson College website. Due to his permission, the flora of Fergusson College campus will definitely help researchers, Botanists, students and nature lovers

This work would not have been possible without guidance of expert taxonomist. We were fortunate to learn a lot that too on field from Dr. Hema Sane, Ex. Head, Dept of Botany, Garware College. We are indebted to her enthusiasm, knowledge and experience in the field of Botany which enabled in proper identification and confirmation of species. She also guided us with the compilation of this catalogue. We were further fortunate to get all the support and guidance from experts such as Dr. Vinaya Ghate, Dr. S.D Mahajan Dr. Mandar Datar, Dr. Sachin Punekar, Mr. Shrikant Ingalhalikar.

Sincere thanks to Dr. S.L. Laware, Reader, Department of Botany for their support. We express our deep sense of gratitude to Shri. Pramod Rawat, Chairman, Vice Chairman Adv. Ashok Palande, Deccan Education Society (DES), Dr. Anand Katikar, Secretary, DES society, Mrs Swati Joglekar, Secretary, Governing Body, Dr. Vinaykumar Acharya, Member, Governing Body DES for their constant support and encouragement.

We are very much thankful to our student Miss Sayee Ghule, Department of Environmental Science, Fergusson College, for helping us in the preparation of catalogue.

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## 1. INTRODUCTION

Biodiversity is the variety or diversity found in the living species present on this earth. However today due to the over consuming anthropogenic activities, this diversity of life is facing serious threats all round the world. Pune, the city of knowledge started expanding since 1700s during Peshwa's and further continued to expand during British rule. However a drastic expansion and change due to rapid industrialization & unplanned growth occurred in 1960s after the Panshet floods. A matter of serious concern of this growth is the loss of its irretrievable environmental and ecological assets. Cutting trees for developing areas, introduction of exotics and monoculture plantations through programs have further aggravated the problem.

The city of Pune is located just along the transition belt between Western Ghats and the Eastern plains at the confluence of two rivers Mula and Mutha (Lat. 18° 22' and 18° 35' North and 73° 50' and 73° 55' East Long) Its mean elevation is about 460m, above the sea level, but the outcrops of some hills upto 500m. Average rainfall is 600mm, mostly received between June and October. Weather is generally pleasant throughout the year. Fergusson College, Pune established by Lokmanya Tilak and Gopal Ganesh Agarkar in 1885 is one of the well-known and pioneer educational institutions in India. The college is located centrally in Pune close to Deccan Gymkhana on the Fergusson road. The college campus is spread over 108 acres of land with the institutional buildings scattered within the lush greenery .The campus includes an amphitheatre, Library, sports courts, canteen, two sports ground, a hillock on which a Hanuman temple is built, boys and girls hostel blocks and off course the various departmental buildings.

Arboreal vegetation of Fergusson campus is both natural and man-made. Being located along the transition between Western Ghats and eastern plains and thus shares their Botanical characteristics. Apart from that a lot of good looking exotic trees have been introduced and maintained. A spacious well-known Botanical Garden is a unique and rich heritage of Fergusson College. It is perhaps the only college in western India having such a vast, well established and rich botanical garden. The botanical garden was established in 1902 by the late professor Shevade, the then professor of Botany and Head

of the Biology department. It was planned on systematic lines; the plants are arranged according to their families or habitats. It is also having a fernery and a rockery in which many shade loving plants with some exotic and wild ferns were planted. For aquatic plants two big tanks are constructed where as two small tanks are for lotus. Around 1920, besides increasing the number of plants in the garden a small herbarium was established in the Biology Department. Later on lot of efforts were made by the members of the Botany Department and research workers to procure rare plants and plants of botanical interest from various places and successfully cultivated them in this garden. Many big trees grow luxuriantly in the garden but due to bursting of Panshet dam in 1961, the water supply through canal to garden was almost stopped. This had disastrous effect on the garden and flora of the campus suffered a setback. However, in the course of last ten Years the garden has been renovated by partially restoring the water supply through two newly dug bore well and by planting large number of different types of plants. Unfortunaetely the present state of the Botanical garden is worrying and needs attention.

The identity of botanical gardens is changing rapidly all over the world and most of them converting in to orchards, lawn and flowers stands. Under such circumstances it becomes very important to assess the biodiversity at city level, suggest remedies to check the threat caused by urbanization and maintain the ecology of the place. V.D.Vartak studied the arboreal flora of Poona Corporation campus in 1963. He also studied the flora of Fergusson college campus in 1958. His work was the pioneer work and emphasized more on the Botanical Garden. Dr. Hema Sane and Dr. Vinaya Ghate in 2006 studied the rare trees of Pune and published a book o the same. Recently awareness regarding urban biodiversity is increasing and it is very much essential to conserve the existing biodiversity and make campus ecologically important.

Thus this work was thus undertaken to i) Document the present plant diversity and abundance on campus ii) understand the change in species composition since 1958-63 iii) Identify the intensity of work to be undertaken for restoration of arboreal flora and conservation of ecology on campus.

## **OUTCOME OF THE DATA**

189 plant species on 110 acre area of Fergusson college campus (including Botanical Garden) representing 54 families and 147 Genus (Table 1, 2 & 3). The indigenous plant diversity was found to be 51.85% while exotic plant diversity to be 48.15%. The abundance of native tree species was found to be 50.82% and that of exotic tree species to be 49.18% (Table 1, 2 & database). 34 tree species which were recorded by V.D. Vartak have been lost from the Botanical garden alone, since 1963 (Vartak 1963) (Table 4). Eight families are dominant on campus representing 91 (48.15%) species; Apocynaceae (10), Bignoniaceae (10), Arecaceae (9), Caesalpiniaceae (17), Euphorbiaceae (11), Mimosaceae (13), Moraceae (10), Rubiaceae (11). While 46 families represent the remaining 98 (51.85%) species. Seven acre area of Botanical garden comprises 114 species, while the remaining 103 acre comprises only 75 species. Species recorded on campus are ecologically important as they provide nesting and resting sites.

### Review of work done on flora of Fergusson College Campus

- DhundirajLaxman Dixit (1869–1948), (alias Annasaheb Dixit) served the Fergusson College for 32 years as a professor, and then later in 1907 as the head of Biology department. He was well-known for his work on vascular cryptogams from Western India and initiated the establishment of the herbarium in the Botany department. The bryophyte *Aspiromitusdixitianus*Mahab. (1941), was described by his student Dr. T. S. Mahabale.
- Govind Gopal Kolhatkar (1901–1982), another faculty member at the Fergusson Botany department, also collected sizeable number of specimens from the campus for herbarium. Kolhatkar was the teacher of, and had a major influence on, V.D. Vartak. He also described the pteridophyte *Marsileapoonensis*Kolhatkar (1957) now treated as a synonym of *Marsileaminuta*L.
- Prof Shevade: established the Fergusson Botanical garden in 1902
- VamanDattatreyaVartak (1925–2001) graduated in botany from the Fergusson College, Pune and after post-graduate studies. During his tenure at Fergusson as a lecturer, Dr.Vartak conducted an extensive floristic survey of the campus, of which only the analysis was published (Vartak, 1958a), thereafter this was supplemented by articles including Vartak (1959a, 1960). He also dealt with the Fergusson flora indirectly in other publications (Vartak, 1957a, 1959b, c, d, e, 1964). References to rare or endangered plants and plants of botanical interest present in the botanical hotspot of the College’s Botanical Garden were also made in most of these articles.A lichen *Parmotremavartakii*Hale (1977) and an asclepiad *Brachystelmavartakii*Kambale&S.R.Yadav (2014) were named after Vartak.
- NaliniGunjatkar: Another notable collection in the Fergusson herbarium is of pteridophytes gathered by NaliniGunjatkar (1934–1989). She completed her doctoral work under Dr.Vartak, was a faculty member of the Botany department, Fergusson College during the 1980s and worked on ethnobotany. Some of her major contributions to the field were published in Gunjatkar&Vartak (1982, 1983).
- Other collections in the herbarium are those of S. S. Ranade, S. R. Deshpande, M. N. Kanitkar, D. P. Deshmukh and AnandKarve, collected in and around Pune. S. S. Ranade was associated with the Fergusson College and Vartak, whose collections were referred to by Razi (1952). Vartak acknowledged M. N. Kanitkar several times in his publications for assistance with his projects and providing inputs to manuscripts.
- Dr. S. L. Lawre- (1990- 2016)
- Dr. Minakshi Mahajan (1998 till today)
- Student’s contribution- Mr. Ashish Nerlekar, Mr. Akshay Onkar and Sairandhri Laplikar (2008 to till today)

## Fergusson's biodiversity gets international acclaim

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The work by our team has resulted in several novel insights about the campus biodiversity. These novelties and highlights have also been appreciated at national and international platforms.

### 1) The Fergusson College Botany Department Herbarium:

Herbarium is a collection of dried and preserved plant specimens that are the backbone of plant taxonomy. Today, herbarium collections contribute much more than plain taxonomy and are also used in biochemical and climate change studies. The Botany Department of Fergusson College has one such herbarium which has recently been recognized at an international platform.

Our team could successfully register this herbarium in the 'Index Herbariorum'- an online repository and portal for the world's herbaria

(<http://sweetgum.nybg.org/science/ih/>) in January 2017. This prestigious global repository is hosted and managed by the **New York Botanical Garden (NYBG)**

(<http://sweetgum.nybg.org/science/>). In spite of the collection being small (about 2000 sheets), we could index it based on the importance of the collections. The Fergusson herbarium has been given an acronym 'FCP' and more details can be found here:

<http://sweetgum.nybg.org/science/ih/herbarium-details/?irn=248026>. Staff members include Dr. M. C. Mahajan of the Botany department who is the curator of the herbarium, Ashish Nerlekar, who is the correspondent and AkshayOnkar, a volunteer and ex-Botany student

([http://sweetgum.nybg.org/science/ih/person\\_list.php?NamOrganisationAcronym=FCP](http://sweetgum.nybg.org/science/ih/person_list.php?NamOrganisationAcronym=FCP)).

Fergusson College is the second college in Maharashtra to register its collections in this portal (after St. Xaviers of Mumbai), and the **only college in Pune city**. (for a map of all the registered herbaria, see the following link. Zoom into India and find all the herbaria: <http://sweetgum.nybg.org/science/ih/ihmap.php>) Rest registrations include either research institutes (eg. Agharkar Research Institute, Botanical Survey of India) or Universities (eg- Pune University). It is thus a noteworthy achievement for the college considering the limited infrastructure and resources available for such research.

### 2) The Fergusson Long-term Vegetation monitoring initiative

Global long-term ecological research has by and large focused on forested landscapes. For example, out of the 24 NSF- Long-Term Ecological Research(LTER) projects established till 2003 in the US, only two focus on urban landscapes. In spite of this, the science of urban ecology has advanced considerably in the recent decades globally. In India, there has been a growing interest in setting up long term research plots to understand community ecology. But again, they are also largely focused on protected forested areas.

There is substantial evidence today to infer that Indian urban areas house significant biodiversity. As of now, we have a fair deal of baseline documentation of the patterns of biodiversity for various taxa across various Indian cities, but since most previous studies provide only a one-time documentation, we lack a formal long-term

monitoring program for the Indian cities. With this backdrop, in May 2018, we have set up a **long-term vegetation monitoring program** for the Fergusson College campus. Through this initiative, we broadly aim to understand the structural and functional changes in the woody vegetation of the campus and their key drivers over time (ten years at least).

The detailed protocol and data are available on the **ProjectAshoka GitHub portal** (<https://github.com/gubbilabs/project-ashoka/tree/fergusson-college>). This long-term urban monitoring is the **first of its kind in the country** and we have recently submitted a short correspondence to **Current Science** about it (paper accepted). We have deposited the data and protocols on an open source so that other educational and research institutes in the country can easily replicate this monitoring. Eventually, this will result into the following benefits for the researchers:

- 1) Help popularise the rich campus biodiversity among a larger audience
- 2) Greater potential to form inter-institutional collaborations
- 3) Facilitation of high quality scientific publications in reputed journals from the long-term data

#### **Relevant Publications:**

- Nerlekar, A. N., Lapalikar, S. A., Onkar, A. A., Laware, S. L. and M. C. Mahajan (2016). Flora of Fergusson College campus, Pune, India: monitoring changes over half a century. *Journal of Threatened Taxa* 8(2): 8452-8487.
- Nerlekar, A. N. (2016). Herbarium collections of the Botany Department, Fergusson College, Pune, India. *Taprobatica* 8(1): 24-32
- Nerlekar, A. N. and S. L. Laware (2013). Occurrence of *Dorstenia indica* Wight (Moraceae) in Pune city, Maharashtra, India. *Zoo's Print Magazine*. 28(2): 22-23.
- Nerlekar, A. N., Das, S., Onkar, A., Mhaisalkar, P., Bhagwat, M., S. A. Lapalikar, V. D. Chavan and M. C. Mahajan (2018). India needs long-term biodiversity monitoring in urban landscapes. *Current Science* (117): in press.

#### **Newspaper coverage:**

- <https://punemirror.indiatimes.com/pune/civic/Mexican-bloom-at-FC-garden/articleshow/51260833.cms?>
- <https://punemirror.indiatimes.com/pune/civic/fcs-herbarium-gets-international-acclaim/articleshow/56960543.cms>

**List of Herbs and climbers species**

| <b>Sr. no.</b> | <b>Scientific name</b>            | <b>Family</b>    | <b>Common name</b>    | <b>Marathi name</b> |
|----------------|-----------------------------------|------------------|-----------------------|---------------------|
| 1              | <i>Abutilon indicum</i>           | Malvaceae        | Indian Mallow         | Petari              |
| 2              | <i>Acacia concinna</i>            | Fabaceae         | Soap-pod              | Shikakai, Reetha    |
| 3              | <i>Acacia greggii</i>             | Fabaceae         |                       |                     |
| 4              | <i>Acalypha hispida</i>           | Euphorbiaceae    | Cat's tail            |                     |
| 5              | <i>Acalypha indica</i>            | Euphorbiaceae    | Indian Copperleaf     | Kuppi               |
| 6              | <i>Acalypha wilkesiana</i>        | Euphorbiaceae    | Copperleaf            |                     |
| 7              | <i>Acanthospermum hispidum</i>    | Asteraceae       | Bristly Starbur       | Landga              |
| 8              | <i>Achyranthes aspera</i>         | Amaranthaceae    | Prickly Chaff Flower  |                     |
| 9              | <i>Adenium obesum</i>             | Apocynaceae      | Desert Rose           |                     |
| 10             | <i>Adenocalymma comosum</i>       | Bignoniaceae     | Yellow Trumpet Vine   |                     |
| 11             | <i>Justicia adhatoda</i>          | Acanthaceae      | Malabar Nut           | Adulsa              |
| 12             | <i>Adiantum sp.</i>               | Pteridaceae      | Maiden hair fern      |                     |
| 13             | <i>Agave americana</i>            | Asparagaceae     | Century plant         |                     |
| 14             | <i>Ageratum conyzoides</i>        | Asteraceae       | Goat weed             | Ghanera osaadi      |
| 15             | <i>Allium cepa</i>                | Amaryllidaceae   | Onion                 | Kanda               |
| 16             | <i>Alloteropsis cimicina</i>      | Poaceae          | Summer Grass          |                     |
| 17             | <i>Aloe vera</i>                  | Xanthorrhoeaceae | Aloe Vera             | Khorpad             |
| 18             | <i>Alternanthera brasiliiana</i>  | Amaranthaceae    | Joy Weed              |                     |
| 19             | <i>Alternanthera sessilis</i>     | Amaranthaceae    | Sessile Joyweed       | Kanchari            |
| 20             | <i>Alysicarpus tetragonolobus</i> | Fabaceae         | Red Alyce Clover      | Lal shevra          |
| 21             | <i>Amaranthus spinosus</i>        | Amaranthaceae    | Prickly Amaranth      | kante bhaji         |
| 22             | <i>Amaranthus viridis</i>         | Amaranthaceae    | Green Amaranth        | Math                |
| 23             | <i>Bothriochloa pertusa</i>       | Poaceae          | Indian bluegrass      |                     |
| 24             | <i>Andrographis echioides</i>     | Acanthaceae      | False Waterwillow     | Ranchimani          |
| 25             | <i>Antigonon leptopus</i>         | Polygonaceae     | Coral vine            |                     |
| 26             | <i>Apluda aristata</i>            | Poaceae          | Mauritian Grass       |                     |
| 27             | <i>Arachis hypogaea</i>           | Fabaceae         | Groundnut             | Sheng-dana          |
| 28             | <i>Argemone mexicana</i>          | Papaveraceae     | Mexican Prickly Poppy | Firangi dhotra      |
| 29             | <i>Aristida funiculata</i>        | Poaceae          |                       |                     |
| 30             | <i>Aristida redacta</i>           | Poaceae          |                       |                     |
| 31             | <i>Aristida setacea</i>           | Poaceae          |                       |                     |
| 32             | <i>Artabotrys odoratissimus</i>   | Annonaceae       | Ylang Ylang Vine      | Hirva chapha        |
| 33             | <i>Artemisia japonica</i>         | Asteraceae       | Japanese Wormwood     |                     |
| 34             | <i>Arthraxon prionodes</i>        | Poaceae          |                       |                     |
| 35             | <i>Arundinella ciliata</i>        | Poaceae          |                       |                     |
| 36             | <i>Asclepias curassavica</i>      | Apocynaceae      |                       |                     |
| 37             | <i>Asparagus densiflorus</i>      | Asparagaceae     | Asparagus Fern        |                     |
| 38             | <i>Asparagus racemosus</i>        | Asparagaceae     | Buttermilk root       | Shatavari           |

|    |                                  |                |                           |                    |
|----|----------------------------------|----------------|---------------------------|--------------------|
| 39 | <i>Asparagus setaceus</i>        | Asparagaceae   | Common Asparagus fern     |                    |
| 40 | <i>Asystasia mysorensis</i>      | Acanthaceae    | Mysore Asystasia          |                    |
| 41 | <i>Axonopus compressus</i>       | Poaceae        | Carpet grass              |                    |
| 42 | <i>Bambusa multiplex</i>         | Poaceae        | Hedge Bambo               |                    |
| 43 | <i>Barleria cristata</i>         | Acanthaceae    | White Philippine Violet   | koranti            |
| 44 | <i>Barleria prionitis</i>        | Acanthaceae    | Porcupine Flower          | pivali koranti     |
| 45 | <i>Beaucarnea recurvata</i>      | Asparagaceae   | Ponytail Palm             |                    |
| 46 | <i>Begonia coccinea</i>          | Begoniaceae    | Angel Wing Begonia        |                    |
| 47 | <i>Begonia grandis</i>           | Begoniaceae    | Hardy Begonia             |                    |
| 48 | <i>Bidens biternata</i>          | Asteraceae     | Yellow Flowered Blackjack |                    |
| 49 | <i>Blainvillea acmella</i>       | Asteraceae     | Para Cress Flower         |                    |
| 50 | <i>Blainvillea rhomboidea</i>    | Asteraceae     |                           |                    |
| 51 | <i>Blepharis maderaspatensis</i> | Acanthaceae    | Creeping Blepharis        | Madrashi kate maka |
| 52 | <i>Blepharis molluginifolia</i>  | Acanthaceae    |                           |                    |
| 53 | <i>Blumea lacera</i>             | Asteraceae     | Kakronda                  | Burando            |
| 54 | <i>Boehmeria nivea</i>           | Urticaceae     | Ramie                     |                    |
| 55 | <i>Boerhavia diffusa</i>         | Nyctaginaceae  | Red hogweed               |                    |
| 56 | <i>Borreria stricta</i>          | Rubiaceae      |                           |                    |
| 57 | <i>Brachiaria eruciformis</i>    | Poaceae        |                           |                    |
| 58 | <i>Buchnera hispida</i>          | Orobanchaceae  | Hairy Buchnera            | Karanji            |
| 59 | <i>Cajanus indicus</i>           | Fabaceae       |                           |                    |
| 60 | <i>Calliandra haematocephala</i> | Fabaceae       | Red Powder Puff           |                    |
| 61 | <i>Calotropis gigantea</i>       | Asclepiadaceae | Crown Flower              | Rui                |
| 62 | <i>Canavalia ensiformis</i>      | Fabaceae       | Horse Bean                | Abai               |
| 63 | <i>Canna indica</i>              | Cannaceae      | Indian Shot               | Kardal             |
| 64 | <i>Capparis zeylanica</i>        | Capparaceae    | Ceylon caper              | Govindi            |
| 65 | <i>Capsicum annuum</i>           | Solanaceae     | Sweet Pepper              |                    |
| 66 | <i>Cardamine trichocarpa</i>     | Brassicaceae   |                           |                    |
| 67 | <i>Carica papaya</i>             | Caricaceae     | Papaya                    | Pappayi            |
| 68 | <i>Cassia pumila</i>             | Caesalpinaceae | Dwarf Cassia              | Sarmal             |
| 69 | <i>Cassia tora</i>               | Caesalpinaceae | Stinking Cassia           | Takla              |
| 70 | <i>Catharanthus roseus</i>       | Apocynaceae    | Periwinkle                | Sadaphuli          |
| 71 | <i>Ceropegia bulbosa</i>         | Asclepiadaceae | Bulbous Ceropegia         | Ankalodya          |
| 72 | <i>Cestrum nocturnum</i>         | Solanaceae     | Night blooming jasmine    | Raatrani           |
| 73 | <i>Chloris barbata</i>           | Poaceae        | Swollen Finger Grass      | gondvel            |
| 74 | <i>Chloris virgata</i>           | Poaceae        | Rhodes-grass              |                    |
| 75 | <i>Chlorophytum comosum</i>      | Asparagaceae   | Spider plant              |                    |
| 76 | <i>Chrysanthemum indicum</i>     | Asteraceae     | Indian Chrysanthemum      | Shevanti           |
| 77 | <i>Chrysopogon montanus</i>      | Poaceae        | Reddish-Yellow Beardgrass | Karni              |

|     |                                      |                |                                     |                 |
|-----|--------------------------------------|----------------|-------------------------------------|-----------------|
| 78  | <i>Chrysopogon zizanioides</i>       | Poaceae        | Khas                                | Vala            |
| 79  | <i>Cissus quadrangularis</i>         | Vitaceae       | Veldt Grape                         | Kandavela       |
| 80  | <i>Citrus aurantiifolia</i>          | Rutaceae       | Lime                                | ambatanimbu     |
| 81  | <i>Cleome simplicifolia</i>          | Cleomaceae     | Simple Leaved<br>Clammyweed         | Gawati tilwan   |
| 82  | <i>Cleome viscosa</i>                | Cleomaceae     | Asian spider flower                 | Pivala tilavan  |
| 83  | <i>Clerodendrum<br/>infortunatum</i> | Verbenaceae    | Hill Glory Bower                    | Bhandira        |
| 84  | <i>Clerodendrum splendens</i>        | Verbenaceae    | Pagoda Flower                       |                 |
| 85  | <i>Clitoria ternatea</i>             | Fabaceae       | Butterfly Pea                       | Gokurna         |
| 86  | <i>Coccinia grandis</i>              | Cucurbitaceae  | Ivy Gourd                           | Tondli          |
| 87  | <i>Cocculus hirsutus</i>             | Menispermaceae | Broom Creeper                       | Vasanvel        |
| 88  | <i>Codiaeum variegatum</i>           | Euphorbiaceae  | Croton                              |                 |
| 89  | <i>Colocasia esculenta</i>           | Araceae        | Taro                                | Aaloo           |
| 90  | <i>Combretum latifolium</i>          | Combretaceae   | Large Leaved<br>Climbing Bushwillow |                 |
| 91  | <i>Commelina benghalensis</i>        | Commelinaceae  | Bengal Dayflower                    | Kena            |
| 92  | <i>Corchorus trilocularis</i>        | Malvaceae      | Wild Jute                           | Kaaduchunch     |
| 93  | <i>Coriandrum sativum</i>            | Apiaceae       | Coriander                           | Kothimbir       |
| 94  | <i>Cosmos bipinnatus</i>             | Asteraceae     | Mexican aster                       |                 |
| 95  | <i>Crinum asiaticum</i>              | Amaryllidaceae | Grand crinum lily                   |                 |
| 96  | <i>Crossandra undulifolia</i>        | Acanthaceae    | Crossandra                          | Aboli           |
| 97  | <i>Crotalaria filipes</i>            | Fabaceae       | Creeping Hemp                       | Phatphati       |
| 98  | <i>Crotalaria juncea</i>             | Fabaceae       | Sunn Hemp                           | Dhakti ghagri   |
| 99  | <i>Crotalaria medicaginea</i>        | Fabaceae       | Medick Rattlepod                    |                 |
| 100 | <i>Cryptolepis buchananii</i>        | Apocynaceae    | Wax Leaved Climber                  | Dudh-vel        |
| 101 | <i>Cryptostegia grandiflora</i>      | Apocynaceae    | Rubber vine                         | Vilyati-Vakundi |
| 102 | <i>Cucurbita pepo</i>                | Cucurbitaceae  | Pumpkin                             | Kohala          |
| 103 | <i>Cuphea hyssopifolia</i>           | Lythraceae     | Mexican Heather                     |                 |
| 104 | <i>Cuscuta reflexa</i>               | Convolvulaceae | Giant Dodder                        | Nirmali         |
| 105 | <i>Cyanotis fasciculata</i>          | Commelinaceae  | Nilwanti                            | Nilwanti        |
| 106 | <i>Cyathocline purpurea</i>          | Asteraceae     | Gangotra                            | Gangotra        |
| 107 | <i>Cymbopogon citratus</i>           | Poaceae        | Lemon Grass                         | Olecha          |
| 108 | <i>Cymbopogon martini</i>            | Poaceae        | Palmarosa Grass                     | Kusatan         |
| 109 | <i>Cynanchum tunicatum</i>           | Apocynaceae    | Pretty-Wing Swallow-<br>Wort        |                 |
| 110 | <i>Cynodon dactylon</i>              | Poaceae        | Bermuda Grass                       | Dhurva          |
| 111 | <i>Cyperus alternifolius</i>         | Cyperaceae     | Cyperus alternifolius               |                 |
| 112 | <i>Dactyloctenium aegyptium</i>      | Poaceae        | Crowfoot Grass                      |                 |
| 113 | <i>Datura metel</i>                  | Solanaceae     | Devil's Trumpet                     | Dhutro          |
| 114 | <i>Dendrophthoe falcata</i>          | Loranthaceae   | Honey Suckle<br>Mistletoe           | Vanda           |
| 115 | <i>Derris scandens</i>               | Fabaceae       | Jewel Vine                          | Garudvel        |
| 116 | <i>Desmodium scorpiurus</i>          | Fabaceae       | Scorpion Tick Trefoil               |                 |
| 117 | <i>Desmodium tortuosum</i>           | Fabaceae       |                                     |                 |

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|-----|--------------------------------|-----------------|------------------------|-------------------|
| 118 | <i>Dianella tasmanica</i>      | Liliaceae       | Flax lily              |                   |
| 119 | <i>Dianthus chinensis</i>      | Caryophyllaceae | China Pink             |                   |
| 120 | <i>Dichanthium annulatum</i>   | Poaceae         | Hindi grass            |                   |
| 121 | <i>Dicliptera paniculata</i>   | Acanthaceae     | Panicled Foldwing      |                   |
| 122 | <i>Dieffenbachia amoena</i>    | Araceae         | Dumb Cane              |                   |
| 123 | <i>Digitaria marginata</i>     | Poaceae         |                        |                   |
| 124 | <i>Digitaria radicata</i>      | Poaceae         |                        |                   |
| 125 | <i>Dinebra retroflexa</i>      | Poaceae         |                        |                   |
| 126 | <i>Diplocyclos palmatus</i>    | Cucurbitaceae   | Lollipop Climber       | Shivlinge         |
| 127 | <i>Dorstenia indica</i>        | Urticaceae      |                        |                   |
| 128 | <i>Dracaena fragrans</i>       | Asparagaceae    | Corn Plant             |                   |
| 129 | <i>Dracaena marginata</i>      | Asparagaceae    |                        |                   |
| 130 | <i>Dracaena reflexa</i>        | Asparagaceae    | Song of India          |                   |
| 131 | <i>Dregea volubilis</i>        | Asclepiadaceae  | Sneeze Wort            | Harandodi         |
| 132 | <i>Duranta plumieri</i>        | Verbenaceae     | Sky flower             |                   |
| 133 | <i>Dyopsis lutescens</i>       | Arecaceae       | Golden Cane Palm       |                   |
| 134 | <i>Ecbolium ligustrinum</i>    | Acanthaceae     | Green Shrimp Plant     | Ekboli, Ran aboli |
| 135 | <i>Echinochloa colona</i>      | Poaceae         | Jungle Rice            | Borur             |
| 136 | <i>Eclipta prostrata</i>       | Asteraceae      | False Daisy            |                   |
| 137 | <i>Ehretia aspera</i>          | Boraginaceae    |                        |                   |
| 138 | <i>Eichhornia crassipes</i>    | Pontederiaceae  | Water Hyacinth         |                   |
| 139 | <i>Eleusine indica</i>         | Poaceae         | Indian Crowfoot Grass  | Rannachani        |
| 140 | <i>Emilia sonchifolia</i>      | Asteraceae      | Purple Sow Thistle     | Sadamandee        |
| 141 | <i>Entada rheedii</i>          | Fabaceae        | Sea Bean               | Garbi             |
| 142 | <i>Epidendrum radicans</i>     | Orchidaceae     | Red Crucifix Orchid    |                   |
| 143 | <i>Epiphyllum oxypetalum</i>   | Cactaceae       | Orchid cactus          | Brahma kamal      |
| 144 | <i>Epipremnum aureum</i>       | Araceae         | Money plant            |                   |
| 145 | <i>Eragrostis atrovirens</i>   | Poaceae         |                        |                   |
| 146 | <i>Eragrostis ciliaris</i>     | Poaceae         |                        |                   |
| 147 | <i>Eragrostis japonica</i>     | Poaceae         |                        |                   |
| 148 | <i>Eragrostis minor</i>        | Poaceae         |                        |                   |
| 149 | <i>Eragrostis nutans</i>       | Poaceae         |                        |                   |
| 150 | <i>Eragrostis tenuifolia</i>   | Poaceae         |                        |                   |
| 151 | <i>Erigeron bonariensis</i>    | Asteraceae      | Flaxleaf Fleabane      |                   |
| 152 | <i>Eupatorium odoratum</i>     | Asteraceae      | Siam Weed              |                   |
| 153 | <i>Euphorbia cotinifolia</i>   | Euphorbiaceae   | Caribbean Copper Plant |                   |
| 154 | <i>Euphorbia cristata</i>      | Euphorbiaceae   | Crested Spurge         |                   |
| 155 | <i>Euphorbia heterophylla</i>  | Euphorbiaceae   | Painted Leaf Poinsetti |                   |
| 156 | <i>Euphorbia hirta</i>         | Euphorbiaceae   | Asthma Weed            | Dudhi             |
| 157 | <i>Euphorbia lactea</i>        | Euphorbiaceae   | Euphorbia lactea       |                   |
| 158 | <i>Euphorbia splendens</i>     | Euphorbiaceae   | Giant Crown of Thorns  |                   |
| 159 | <i>Euphorbia thymifolia</i>    | Euphorbiaceae   | Gulf Sandmat           | Dhakti dudhi      |
| 160 | <i>Euphorbia tithymaloides</i> | Euphorbiaceae   | Redbird flower         |                   |

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| 161 | <i>Euphorbia umbellata</i>      | Euphorbiaceae    | African Milk Bush             | Shend          |
| 162 | <i>Evolvulus alsinoides</i>     | Convolvulaceae   | Dwarf Morning Glory           | Vishnukranta   |
| 163 | <i>Flueggea leucopyrus</i>      | Phyllanthaceae   | Indian snow berry             | Pandharphali   |
| 164 | <i>Foeniculum vulgare</i>       | Apiaceae         | Sweet fennel                  |                |
| 165 | <i>Furcraea foetida</i>         | Asparagaceae     | Giant Cabuya                  |                |
| 166 | <i>Gardenia lucida</i>          | Rubiaceae        | Brilliant Gardenia            | Dikemali       |
| 167 | <i>Gerbera jamesonii</i>        | Asteraceae       | Gerber daisy                  |                |
| 168 | <i>Gnaphalium polycaulon</i>    | Asteraceae       | Many-Stemmed Cudweed          |                |
| 169 | <i>Gomphrena globosa</i>        | Amaranthaceae    | Globe Amaranth                |                |
| 170 | <i>Gossypium arboreum</i>       | Malvaceae        | Cotton                        | Kapus          |
| 171 | <i>Gracilea royleana</i>        | Poaceae          | Desert Black-Millet           |                |
| 172 | <i>Grewia hirsuta</i>           | Malvaceae        | Kukurbicha                    | Govli          |
| 173 | <i>Hackelochloa granularis</i>  | Poaceae          | Pitscale Grass                |                |
| 174 | <i>Haemanthus katharinae</i>    | Amaryllidaceae   |                               |                |
| 175 | <i>Haplanthus nilgherrensis</i> | Acanthaceae      |                               |                |
| 176 | <i>Hedychium coronarium</i>     | Zingiberaceae    | Butterfly Ginger Lily         | Sontaka        |
| 177 | <i>Helianthus annuus</i>        | Asteraceae       | Sunflower                     | Suryaphool     |
| 178 | <i>Heliconia rostrata</i>       | Heliconiaceae    | Lobster claw                  |                |
| 179 | <i>Heliotropium ovalifolium</i> | Boraginaceae     | Grey Leaf Heliotrope          |                |
| 180 | <i>Hemidesmus indicus</i>       | Apocynaceae      | Indian Sarsaparilla           | Anant vel      |
| 181 | <i>Hemigraphis repanda</i>      | Acanthaceae      | Dragon's Breath               |                |
| 182 | <i>Heteropogon contortus</i>    | Poaceae          | Black Speargrass              |                |
| 183 | <i>Heylandia latebrosa</i>      | Fabaceae         |                               |                |
| 184 | <i>Hibiscus sabdariffa</i>      | Malvaceae        | Roselle                       | Laal-ambaari   |
| 185 | <i>Hibiscus schizopetalus</i>   | Malvaceae        | Japanese Hibiscus             |                |
| 186 | <i>Hiptage madablota</i>        | Malpighiaceae    | Helicopter Flower             |                |
| 187 | <i>Hydrilla sp.</i>             | Hydrocharitaceae | Water Thyme                   | Shakharisheval |
| 188 | <i>Hydrocotyle asiatica</i>     | Araliaceae       | Indian Pennywort              | Brahmi         |
| 189 | <i>Hymenocallis littoralis</i>  | Amaryllidaceae   | Spider lily                   |                |
| 190 | <i>Hyptis suaveolens</i>        | Lamiaceae        | American Mint                 | Darp tulas     |
| 191 | <i>Impatiens holstii</i>        | Balsaminaceae    |                               |                |
| 192 | <i>Indigofera cordifolia</i>    | Fabaceae         | Heart-Leaf Indigo             | Bechka         |
| 193 | <i>Indigofera linifolia</i>     | Fabaceae         | Narrowleaf Indigo             | Lal godhadi    |
| 194 | <i>Ipomoea eriocarpa</i>        | Convolvulaceae   | Tiny Morning Glory            | Maal ghanti    |
| 195 | <i>Ipomoea hederifolia</i>      | Convolvulaceae   | Scarlet Morning Glory         | Lal pungli     |
| 196 | <i>Ipomoea obscura</i>          | Convolvulaceae   | Obscure Morning Glory         | Bokadi         |
| 197 | <i>Ipomoea palmata</i>          | Convolvulaceae   | Railway creeper               | Bhaura         |
| 198 | <i>Ipomoea parasitica</i>       | Convolvulaceae   | Yellow-Throated Morning Glory |                |
| 199 | <i>Ipomoea triloba</i>          | Convolvulaceae   | Little Bell                   |                |
| 200 | <i>Iseilema antheboroides</i>   | Poaceae          |                               |                |
| 201 | <i>Jacquemontia violacea</i>    | Convolvulaceae   | Skyblue Clustervine           |                |
| 202 | <i>Jasminum auriculatum</i>     | Oleaceae         | Juhi                          | Jai            |

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| 203 | <i>Jasminum azoricum</i>        | Oleaceae       | Azores Jasmine           |             |
| 204 | <i>Jasminum dichotomum</i>      | Oleaceae       | Rose Bud Jasmine         |             |
| 205 | <i>Jasminum laurifolium</i>     | Oleaceae       | Angelwing Jasmine        |             |
| 206 | <i>Jasminum officinale</i>      | Oleaceae       | Common Jasmine           | Jati-jai    |
| 207 | <i>Jasminum sambac</i>          | Oleaceae       | Arabian Jasmine          |             |
| 208 | <i>Jatropha gossypifolia</i>    | Euphorbiaceae  | Bellyache Bush           |             |
| 209 | <i>Jatropha integerrima</i>     | Euphorbiaceae  | Peregrina                |             |
| 210 | <i>Jatropha podagrica</i>       | Euphorbiaceae  | Australian bottle plant  |             |
| 211 | <i>Justicia gendarussa</i>      | Acanthaceae    | Willow-Leaf Justicia     | Kala adulsa |
| 212 | <i>Justicia heterocarpa</i>     | Acanthaceae    |                          |             |
| 213 | <i>Kalanchoe blossfeldiana</i>  | Crassulaceae   | Kalanchoe                |             |
| 214 | <i>Kalanchoe laciniata</i>      | Crassulaceae   | Christmas Tree Plant     |             |
| 215 | <i>Kickxia ramosissima</i>      | Plantaginaceae | Indian Toadflax          | Banwel      |
| 216 | <i>Kyllinga triceps</i>         | Cyperaceae     |                          |             |
| 217 | <i>Lactuca remotiflora</i>      | Asteraceae     |                          |             |
| 218 | <i>Lagascea mollis</i>          | Asteraceae     | Silk Leaf                | Jharwad     |
| 219 | <i>Lagerstroemia indica</i>     | Lythraceae     | Common Crape Myrtle      | Dhayti      |
| 220 | <i>Lantana camara</i>           | Verbenaceae    | Lantana                  | Ghaneri     |
| 221 | <i>Lantana montevidensis</i>    | Verbenaceae    | Trailing lantana         | Tantani     |
| 222 | <i>Lavandula bipinnata</i>      | Lamiaceae      | Feather-leaved Lavender  | Ghodegui    |
| 223 | <i>Ledebouria revoluta</i>      | Asparagaceae   | South Indian Squill      | Lahanakonda |
| 224 | <i>Leea coccinea</i>            | Vitaceae       | Red Leea                 |             |
| 225 | <i>Lemna minor</i>              | Araceae        | Common duckweed          |             |
| 226 | <i>Leonotis nepetifolia</i>     | Lamiaceae      | Lion's Ear               | Deepmal     |
| 227 | <i>Lepidagathis cristata</i>    | Acanthaceae    | Crested Lepidagathis     | Bhui Gend   |
| 228 | <i>Leucas aspera</i>            | Lamiaceae      | Common Leucas            | Tamba       |
| 229 | <i>Leucas urticifolia</i>       | Lamiaceae      |                          |             |
| 230 | <i>Lophopogon tridentatus</i>   | Poaceae        |                          |             |
| 231 | <i>Ludwigia perennis</i>        | Onagraceae     | Perennial Water Primrose |             |
| 232 | <i>Malpighia glabra</i>         | Malpighiaceae  | Barbados Cherry          |             |
| 233 | <i>Malvastrum tricuspidatum</i> | Malvaceae      | False Mallow             | Chandiri    |
| 234 | <i>Malvaviscus arboreus</i>     | Malvaceae      | Sleeping hibiscus        |             |
| 235 | <i>Martynia diandra</i>         | Martyniaceae   |                          |             |
| 236 | <i>Mentha × piperita</i>        | Lamiaceae      | Peppermint               |             |
| 237 | <i>Merremia dissecta</i>        | Convolvulaceae | Alamo Vine               |             |
| 238 | <i>Microchloa indica</i>        | Poaceae        |                          |             |
| 239 | <i>Mimosa pudica</i>            | Fabaceae       | Touch-me-not             | Lajalu      |
| 240 | <i>Mirabilis jalapa</i>         | Nyctaginaceae  | Four O'clock             | Gulabas     |
| 241 | <i>Mollugo pentaphylla</i>      | Molluginaceae  | Five Leaved Carpetweed   | Sarsalida   |
| 242 | <i>Momordica dioica</i>         | Cucurbitaceae  | Ban karela               | Kartoli     |
| 243 | <i>Monstera deliciosa</i>       | Araceae        | Windowleaf               |             |
| 244 | <i>Murraya paniculata</i>       | Rutaceae       | Orange Jasmine           | Kunti       |

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|-----|-----------------------------------------|----------------|-----------------------------|-----------------|
| 245 | <i>Musa × paradisiaca</i>               | Musaceae       | Banana                      | Kel             |
| 246 | <i>Mussaenda erythrophylla</i>          | Rubiaceae      | Ashanti Blood               |                 |
| 247 | <i>Nicotiana plumbaginifolia</i>        | Solanaceae     | Tex-Mex Tobacco             |                 |
| 248 | <i>Nymphaea nouchali</i>                | Nymphaeaceae   | Blue water lily             |                 |
| 249 | <i>Ocimum americanum</i>                | Lamiaceae      | Hoary Basil                 | Ran-tulshi      |
| 250 | <i>Ocimum tenuiflorum</i>               | Lamiaceae      | Holy basil                  | Tulshi          |
| 251 | <i>Oldenlandia corymbosa</i>            | Rubiaceae      | Diamond Flower              | Pitpapda        |
| 252 | <i>Oplismenus burmanni</i>              | Poaceae        | Wavy-Leaf<br>Basketgrass    |                 |
| 253 | <i>Opuntia elatior</i>                  | Cactaceae      | Prickly Pear                | Phadya nivadung |
| 254 | <i>Oxalis corniculata</i>               | Oxalidaceae    | Creeping Wood Sorre         |                 |
| 255 | <i>Oxalis latifolia</i>                 | Oxalidaceae    | Wood Sorre                  |                 |
| 256 | <i>Pandanus tectorius</i>               | Pandanaceae    | Tahitian screwpine          |                 |
| 257 | <i>Parthenium hysterophorus</i>         | Asteraceae     | Congress grass              |                 |
| 258 | <i>Passiflora foetida</i>               | Passifloraceae | Love-in-a-mist              | Vel-ghani       |
| 259 | <i>Pennisetum pedicellatum</i>          | Poaceae        | Deenanath Grass             |                 |
| 260 | <i>Pennisetum purpureum</i>             | Poaceae        | Uganda grass                |                 |
| 261 | <i>Pentalinon luteum</i>                | Apocynaceae    | Wild Allamanda              |                 |
| 262 | <i>Pentas lanceolata</i>                | Rubiaceae      | Pentas                      |                 |
| 263 | <i>Peperomia pellucida</i>              | Piperaceae     | Shiny Bush                  |                 |
| 264 | <i>Petrea volubilis</i>                 | Verbenaceae    | Purple Wreath               |                 |
| 265 | <i>Petunia nyctaginiflora</i>           | Solanaceae     | Wild white petunia          |                 |
| 266 | <i>Phaseolus radiatus</i>               | Fabaceae       | Moong Bean                  | Moong           |
| 267 | <i>Phaseolus trilobus</i>               | Fabaceae       |                             |                 |
| 268 | <i>Phyllanthus niruri</i>               | Phyllanthaceae | Black-Honey Shrub           | Panjuli         |
| 269 | <i>Phyllanthus reticulatus</i>          | Phyllanthaceae | Gulf leaf flower            | Bhuiavali       |
| 270 | <i>Pilea cadierei</i>                   | Urticaceae     | Aluminium Plant             |                 |
| 271 | <i>Pilea microphylla</i>                | Urticaceae     | Gunpowder Plant             |                 |
| 272 | <i>Pistia stratiotes</i>                | Araceae        | Water Cabbage               | Gondal          |
| 273 | <i>Plectranthus<br/>scutellarioides</i> | Lamiaceae      | Coleus                      |                 |
| 274 | <i>Plumbago auriculata</i>              | Plumbaginaceae | Chitrak                     |                 |
| 275 | <i>Plumbago zeylanica</i>               | Plumbaginaceae | Cape Leadwort               |                 |
| 276 | <i>Plumeria alba</i>                    | Apocynaceae    | Common White<br>Frangipani  |                 |
| 277 | <i>Plumeria obtusa</i>                  | Apocynaceae    | White Frangipani            |                 |
| 278 | <i>Plumeria pudica</i>                  | Apocynaceae    | Wild Plumeria               |                 |
| 279 | <i>Podranea brycei</i>                  | Bignoniaceae   | Zimbabwe Creeper            |                 |
| 280 | <i>Pogonatherum crinitum</i>            | Poaceae        |                             |                 |
| 281 | <i>Polianthes tuberosa</i>              | Asparagaceae   | Mexican tuberose            | Gulcheri        |
| 282 | <i>Polygala chinensis</i>               | Polygalaceae   | Field Milkwort              |                 |
| 283 | <i>Polygala persicariaefolia</i>        | Polygalaceae   | Knotweed Leaved<br>Milkwort |                 |
| 284 | <i>Portulaca grandiflora</i>            | Portulacaceae  | Moss rose                   |                 |
| 285 | <i>Portulaca oleracea</i>               | Portulacaceae  | Purslane                    |                 |

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|-----|-----------------------------------|------------------|---------------------------|-------------------|
| 286 | <i>Pseuderanthemum laxiflorum</i> | Acanthaceae      | Shooting Star             |                   |
| 287 | <i>Psilotum sp.</i>               | Psilotaceae      | Whisk fern                |                   |
| 288 | <i>Pteris vittata</i>             | Pteridaceae      | Chinese ladder brake      |                   |
| 289 | <i>Pulicaria wightiana</i>        | Asteraceae       | Sontikli                  | Sontikli          |
| 290 | <i>Punica granatum</i>            | Lythraceae       | Pomegranate               | Dalimb            |
| 291 | <i>Quisqualis indica</i>          | Combretaceae     | Rangoon Creeper           | Vilayati chambeli |
| 292 | <i>Rauvolfia canescens</i>        | Apocynaceae      | Wild Snake Root           |                   |
| 293 | <i>Rhapis excelsa</i>             | Arecaceae        | Lady Palm                 |                   |
| 294 | <i>Rhus mysorensis</i>            | Anacardiaceae    | Mysore Sumac              | Amboni            |
| 295 | <i>Rhynchosia minima</i>          | Fabaceae         | Burn-Mouth Vine           | Dhakta ranghevada |
| 296 | <i>Ricinus communis</i>           | Euphorbiaceae    | Castor bean               |                   |
| 297 | <i>Rivina humilis</i>             | Phytolaccaceae   | Blood Berry               |                   |
| 298 | <i>Rosa sp.</i>                   | Rosaceae         | Mini Rose                 |                   |
| 299 | <i>Ruellia simplex</i>            | Acanthaceae      | Desert Petunia            |                   |
| 300 | <i>Ruscus hypoglossum</i>         | Asparagaceae     | Spineless Butcher's Broom |                   |
| 301 | <i>Sansevieria cylindrica</i>     | Asparagaceae     | Spear Sansevieria         |                   |
| 302 | <i>Sansevieria trifasciata</i>    | Asparagaceae     | Snake Plant               |                   |
| 303 | <i>Schefflera arboricola</i>      | Araliaceae       | Dwarf Umbrella            |                   |
| 304 | <i>Schefflera actinophylla</i>    | Araliaceae       | Octopus Tree              |                   |
| 305 | <i>Scoparia dulcis</i>            | Plantaginaceae   | Sweet Broom Weed          |                   |
| 306 | <i>Sehima nervosum</i>            | Poaceae          |                           |                   |
| 307 | <i>Senna polyphylla</i>           | Fabaceae         | Desert Cassia             |                   |
| 308 | <i>Senna surattensis</i>          | Fabaceae         | Glaucous Cassia           | Motha farvad      |
| 309 | <i>Sesamum indicum</i>            | Pedaliaceae      | Sesame                    |                   |
| 310 | <i>Setaria glauca</i>             | Poaceae          | Yellow Foxtail            | Barati            |
| 311 | <i>Setaria verticillata</i>       | Poaceae          | Bristly Foxtail           |                   |
| 312 | <i>Sida mysorensis</i>            | Malvaceae        | Mysore Fanpetals          |                   |
| 313 | <i>Sida spinosa</i>               | Malvaceae        | Prickly Fan-Petals        |                   |
| 314 | <i>Solanum lycopersicum</i>       | Solanaceae       | Tomato                    |                   |
| 315 | <i>Solanum melongena</i>          | Solanaceae       | Brinjal                   | Vanga             |
| 316 | <i>Solanum nigrum</i>             | Solanaceae       | Black nightshade          | Laghukavali       |
| 317 | <i>Solanum seafortianum</i>       | Solanaceae       | Brazilian Nightshade      |                   |
| 318 | <i>Sopubia delphinifolia</i>      | Orobanchaceae    | Common Sopubia            |                   |
| 319 | <i>Sorghum bicolor</i>            | Poaceae          | Jowar                     | Jowari            |
| 320 | <i>Sorghum controversum</i>       | Poaceae          |                           |                   |
| 321 | <i>Spathiphyllum wallisii</i>     | Araceae          | Cobra plant               |                   |
| 322 | <i>Sphagneticola calendulacea</i> | Asteraceae       | Chinese Wedelia           | Pivala-Bhangra    |
| 323 | <i>Spilanthes calva</i>           | Asteraceae       |                           |                   |
| 324 | <i>Sporobolus tenuissimus</i>     | Poaceae          |                           |                   |
| 325 | <i>Stemodia verticillata</i>      | Scrophulariaceae |                           |                   |
| 326 | <i>Striga gesnerioides</i>        | Orobanchaceae    | Purple Witchweed          | Bambaku           |
| 327 | <i>Stylosanthes fruticosa</i>     | Fabaceae         | Shrubby Pencil-Flower     |                   |

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| 328 | <i>Syngonium podophyllum</i>     | Araceae          | Arrowhead Plant        |              |
| 329 | <i>Tabernaemontana coronaria</i> | Apocynaceae      | Crape jasmine          | Tagar        |
| 330 | <i>Tagetes erecta</i>            | Asteraceae       | Marigold               | Jhendu       |
| 331 | <i>Tecoma capensis</i>           | Bignoniaceae     | Cape Honeysuckle       |              |
| 332 | <i>Tecoma stans</i>              | Bignoniaceae     | Yellow bells           | Ghanti phool |
| 333 | <i>Tephrosia pumila</i>          | Fabaceae         | Indigo Sauvage         |              |
| 334 | <i>Tephrosia purpurea</i>        | Fabaceae         | Wild Indigo            | Sharpankha   |
| 335 | <i>Tephrosia tenuis</i>          | Fabaceae         |                        |              |
| 336 | <i>Tetrapogon tenellus</i>       | Poaceae          |                        |              |
| 337 | <i>Themeda quadrivalvis</i>      | Poaceae          | Kangaroo grass         |              |
| 338 | <i>Thryallis glauca</i>          | Malpighiaceae    |                        |              |
| 339 | <i>Thunbergia fragrans</i>       | Acanthaceae      | Sweet Clock-Vine       | Chimine      |
| 340 | <i>Thunbergia grandiflora</i>    | Acanthaceae      | Bengal Clock Vine      | Neel lata    |
| 341 | <i>Tinospora cordifolia</i>      | Menispermaceae   | Gulbel                 | Gulvel       |
| 342 | <i>Tithonia rotundifolia</i>     | Asteraceae       | Mexican Sunflower      |              |
| 343 | <i>Torenia fourneiri</i>         | Linderniaceae    |                        |              |
| 344 | <i>Tradescantia pallida</i>      | Commelinaceae    | Purple heart           |              |
| 345 | <i>Tradescantia spathacea</i>    | Commelinaceae    | Moses in the Cradle    |              |
| 346 | <i>Trichodesma indicum</i>       | Boraginaceae     | Indian Borage          | Chota Kalpa  |
| 347 | <i>Tricholepis radicans</i>      | Asteraceae       | Lahan                  | Lahan        |
| 348 | <i>Tridax procumbens</i>         | Asteraceae       | Tridax Daisy           |              |
| 349 | <i>Tripogon jacquemontii</i>     | Poaceae          |                        |              |
| 350 | <i>Triumfetta rhomboidea</i>     | Malvaceae        | Burr Bush              | Jhinhardi    |
| 351 | <i>Tylophora indica</i>          | Apocynaceae      | Indian Ipecac          | Antamul      |
| 352 | <i>Urochloa ramosa</i>           | Poaceae          | Browntop Millet        |              |
| 353 | <i>Vallis heynei</i>             | Apocynaceae      | Bread flower           |              |
| 354 | <i>Verbascum coromandelianum</i> | Scrophulariaceae | Chinese Mullein        | Kutki        |
| 355 | <i>Verbena hybrida</i>           | Verbenaceae      | Verbena                |              |
| 356 | <i>Vernonia cinerea</i>          | Asteraceae       | Little ironweed        | Sadodi       |
| 357 | <i>Vicoa indica</i>              | Asteraceae       | Sonkadi                | Sonkadi      |
| 358 | <i>Woodfordia floribunda</i>     | Lythraceae       | Fire Flame Bush        | Dowari       |
| 359 | <i>Xanthium strumarium</i>       | Asteraceae       | Broad bur              | Shankeshrvar |
| 360 | <i>Yucca aloifolia</i>           | Asparagaceae     | Spanish Dagger/Bayonet |              |
| 361 | <i>Zapoteca portoricensis</i>    | Fabaceae         |                        |              |
| 362 | <i>Zea mays</i>                  | Poaceae          | Corn                   | Bhutta       |
| 363 | <i>Zephyranthes rosea</i>        | Amaryllidaceae   | Rosy Rain Lily         |              |
| 364 | <i>Ziziphus jujuba</i>           | Rhamnaceae       | Chinese date           | Bor          |
| 365 | <i>Ziziphus oenopolia</i>        | Rhamnaceae       | Jackal Jujube          | Burgi        |
| 366 | <i>Ziziphus xylopyrus</i>        | Rhamnaceae       |                        |              |
| 367 | <i>Zornia diphylla</i>           | Fabaceae         | Two-Leaf Zornia        | Jimgari      |

| Sr. No. | Scientific name                     | Family         | Common name                      | Marathi name       |
|---------|-------------------------------------|----------------|----------------------------------|--------------------|
| 1.      | <i>Acacia arabica</i>               | Mimosaceae     | Black babool, Gum arabic tree    | Babul              |
| 2.      | <i>Acacia auriculoformis</i>        | Mimosaceae     | Golden shower                    | Australian babul   |
| 3.      | <i>Acacia catechu</i>               | Mimosaceae     | Cutch or Kath tree               | Khair              |
| 4.      | <i>Acacia concinna</i>              | Mimosaceae     |                                  | Shikekai           |
| 5.      | <i>Acacia ferruginea</i>            | Mimosaceae     | Rusty Acacia                     | Pandhra khair      |
| 6.      | <i>Acacia greggii</i>               | Mimosaceae     |                                  |                    |
| 7.      | <i>Acacia lecophloea</i>            | Mimosaceae     | Hevar                            |                    |
| 8.      | <i>Achras sapota</i>                | Sapotaceae     | Sapodilla plum                   | Chiku              |
| 9.      | <i>Adansonia digitata</i>           | Bombacaceae    | Baobab, Monkey bread tree        | Gorakh chinch      |
| 10.     | <i>Adenanthera pavonina</i>         | Mimosaceae     | Red sandal wood, Peacock tree    | Ratangunj          |
| 11.     | <i>Adhatoda zeylanica</i>           | Acanthaceae    | Malabar nut tree                 | Adulsa             |
| 12.     | <i>Aegle marmelos</i>               | Rutaceae       | Golden apple, Stone apple        | Bel                |
| 13.     | <i>Ailanthus excelsa</i>            | Simaroubaceae  | Tree of heaven                   | Maharuk            |
| 14.     | <i>Albizia procera</i>              | Mimosaceae     | White siris                      | Kinhai             |
| 15.     | <i>Albizia lebeck</i>               | Mimosaceae     | Frywood tree, Rattle pod         | Shirish            |
| 16.     | <i>Alstonia scholaris</i>           | Apocynaceae    | Devil's Tree, Ditabark tree      | Satvin, Saptaparni |
| 17.     | <i>Anogeissus latifolia</i>         | Combretaceae   | Dabria, Button tree              | Dhaura             |
| 18.     | <i>Anogeissus sericea</i>           | Combretaceae   |                                  |                    |
| 19.     | <i>Anona reticulata</i>             | Anonaceae      | Bullock's heart                  | Ramphal            |
| 20.     | <i>Anona squamosa</i>               | Anonaceae      | Custard apple                    | Sitaphal           |
| 21.     | <i>Aphanamixis polystachya</i>      | Meliaceae      | Pithraj Tree                     | Raktharohida       |
| 22.     | <i>Araucaria cunninghamii</i>       | Araucariaceae  | Christmas tree, Moreton bay pine |                    |
| 23.     | <i>Areca catechu</i>                | Arecaceae      | Betel Palm                       | Pophali            |
| 24.     | <i>Artabotrys odoratissimus</i>     | Anonaceae      | Champa, Climbing ylang-ylang     | Hirva chapha       |
| 25.     | <i>Artocarpus integrifolia</i>      | Moraceae       | Jack fruit                       | Phanas             |
| 26.     | <i>Azadirachta indica</i>           | Meliaceae      | Neem tree, Margosa, Indian lilac | Kadunimb           |
| 27.     | <i>Bassia latifolia</i>             | Sapotaceae     | Mahua tree, Mowra butter tree    | Mahua              |
| 28.     | <i>Bassia longifolia</i>            | Sapotaceae     | Indian Butter tree               | Mahua              |
| 29.     | <i>Bauhinia purpurea</i>            | Caesalpinaceae | Orchid tree, Geranium tree       | Kanchan            |
| 30.     | <i>Bauhinia racemosa</i>            | Caesalpinaceae | Burmese silk orchid              | Apta               |
| 31.     | <i>Bauhinia tomentosa</i>           | Caesalpinaceae | Yellow Orchid Tree               | Dev Kanchan        |
| 32.     | <i>Bombax ceiba</i>                 | Bombacaceae    | Red silk cotton tree             | Kate savar         |
| 33.     | <i>Boswellia serrata</i>            | Burseraceae    | Indian Olibanum                  | Dhupali            |
| 34.     | <i>Bougainvillea spectabilis</i>    | Nyctaginaceae  | Bougainvel                       | Bougainvel         |
| 35.     | <i>Brassia actinophylla</i>         | Araliaceae     | Queensland umbrella tree         |                    |
| 36.     | <i>Bridelia squamosa</i>            | Euphorbiaceae  |                                  | Asana              |
| 37.     | <i>Broussonetia papyrifera</i>      | Moraceae       | Paper mulberry                   |                    |
| 38.     | <i>Butea frondosa</i>               | Fabaceae       | Flame of the forest, Parrot tree | Palas              |
| 39.     | <i>Caesalpinia bonduc</i>           | Caesalpinaceae | Yellow Nicker                    | Sagarlata          |
| 40.     | <i>Caesalpinia ferrea</i>           | Caesalpinaceae | Brazilian Ironwood               |                    |
| 41.     | <i>Caesalpinia pulcherima</i>       | Caesalpinaceae | Peacock flower                   | Shankasur          |
| 42.     | <i>Calliandra hybrida 'Alipore'</i> | Mimosaceae     | Powderpuff                       | Powderpuff         |

|     |                                           |                |                                    |                   |
|-----|-------------------------------------------|----------------|------------------------------------|-------------------|
| 43. | <i>Calliandra hybrida 'protoricensis'</i> | Caesalpinaceae | Powderpuff                         | Powderpuff        |
| 44. | <i>Calliandra hybrida 'tweedii'</i>       | Caesalpinaceae | Powderpuff                         | Powderpuff        |
| 45. | <i>Callistemon lanceolatus</i>            | Myrtaceae      | Bottlebrush                        | Bottlebrush       |
| 46. | <i>Capparis grandis</i>                   | Capparaceae    | Tree Caper                         | Padanbor          |
| 47. | <i>Carrisa carandas</i>                   | Apocynaceae    | Karaunda, Christ's thorn           | Karvanda          |
| 48. | <i>Caryota urens</i>                      | Arecaceae      | Fish tail palm, Toddy palm         | Bherli mal        |
| 49. | <i>Cassia fistula</i>                     | Caesalpinaceae | Indian laburnum, Golden shower     | Bahava            |
| 50. | <i>Cassia glauca</i>                      | Caesalpinaceae |                                    | Motha tarvad      |
| 51. | <i>Cassia marginata</i>                   | Caesalpinaceae | Red Cassia                         |                   |
| 52. | <i>Cassia siamea</i>                      | Caesalpinaceae | Iron wood tree, Simax sens         | Kasood, Kashid    |
| 53. | <i>Cassine glauca</i>                     | Celastraceae   | Ceylon Tea                         | Motha bhutya      |
| 54. | <i>Casuarina equisetifolia</i>            | Casurinaceae   | Red beefwood, Australian oak       | Suru              |
| 55. | <i>Cedrela toona</i>                      | Meliaceae      | Indian mahogany tree               | Maha neem         |
| 56. | <i>Ceiba pentandra</i>                    | Bombacaceae    | White silk cotton tree, Kapok tree | Panderi savar     |
| 57. | <i>Chrysalidocarpus lutescens</i>         | Arecaceae      | Areca palm                         | Areca palm        |
| 58. | <i>Chrysophyllum cainito</i>              | Sapotaceae     | Star Apple                         | Tarsiphala        |
| 59. | <i>Cicca acida</i>                        | Euphorbiaceae  | Gooseberry                         | Rai avala         |
| 60. | <i>Citrus medica</i>                      | Rutaceae       | Lemon                              | Limbu             |
| 61. | <i>Citrus sinensis</i>                    | Rutaceae       | Sweet orange                       | Mosambi           |
| 62. | <i>Cocos nucifera</i>                     | Arecaceae      | Coconut                            | Naral             |
| 63. | <i>Cordia dichotoma</i>                   | Boraginaceae   | Sebastin plum                      | Bhokara           |
| 64. | <i>Cordia macleodii</i>                   | Boraginaceae   | ----                               | ----              |
| 65. | <i>Cordia sebastena</i>                   | Boraginaceae   | Scarlet Cordia                     |                   |
| 66. | <i>Cordia senensis</i>                    | Boraginaceae   | Scarlet cordia                     | Ghodan            |
| 67. | <i>Couroupita guianensis</i>              | Lecythidaceae  | Cannon ball tree                   | Shivalingam       |
| 68. | <i>Cycas circinalis</i>                   | Cycadaceae     | Cycas                              | Jungli madan mast |
| 69. | <i>Cycas revoluta</i>                     | Cycadaceae     | Sago palm                          |                   |
| 70. | <i>Dalbergia melanoxylon</i>              | Fabaceae       | Dalbergia                          | Dalbergia         |
| 71. | <i>Dalbergia lanceolaria</i>              | Fabaceae       |                                    | Sarsa, Hardi      |
| 72. | <i>Dalbergia sisoo</i>                    | Fabaceae       | Indian rosewood                    | Sisso, Shisham    |
| 73. | <i>Delonix regia</i>                      | Caesalpinaceae | Peacock flower, Flame tree         | Gulmohar          |
| 74. | <i>Dendrocalamus giganteus</i>            | Gramineae      | Bamboo                             | Bamboo            |
| 75. | <i>Dendrocalamus strictus</i>             | Gramineae      | Bamboo                             | Bamboo            |
| 76. | <i>Derris pinnata</i>                     | Fabaceae       | Indian beech, Poonga oil plant     | Karanj            |
| 77. | <i>Diospyros embryopteris</i>             | Ebenaceae      |                                    | Timburi           |
| 78. | <i>Dodonea viscosa</i>                    | Sapindaceae    | Hop Bush                           | Lutchmi           |
| 79. | <i>Dolichandrone falcata</i>              | Bignoniaceae   | Medhshingi                         | Medhshingi        |
| 80. | <i>Dracaena fragrans</i>                  | Dracaenaceae   | Dragon plant                       |                   |
| 81. | <i>Dypsis decaryi</i>                     |                |                                    |                   |
| 82. | <i>Ehretia laevis</i>                     | Boraginaceae   |                                    | Ajan vruksh       |
| 83. | <i>Elacis guinensis</i>                   | Arecaceae      | African oil palm                   |                   |
| 84. | <i>Elaecarpus ganitrus</i>                | Elaeocarpaceae |                                    | Rudhraksha        |
| 85. | <i>Elaeodendron glaucum</i>               | Celastraceae   | Bakri jamrasi                      | Bhutkar           |

|      |                                            |                 |                                |               |
|------|--------------------------------------------|-----------------|--------------------------------|---------------|
| 86.  | <i>Emblca officinalis</i>                  | Euphorbiaceae   | Emblc myrobalan                | Avala         |
| 87.  | <i>Erythrina indica</i>                    | Fabaceae        | Indian coral tree              | Pangara       |
| 88.  | <i>Eucalyptus globosus</i>                 | Myrtaceae       | Tasmanian blue gum             | Nilgiri       |
| 89.  | <i>Eugenia jambolica</i>                   | Myrtaceae       | Black Plum                     | Jamul         |
| 90.  | <i>Euphorbia antiquorum</i>                | Euphorbiaceae   | Cactus                         | Thor          |
| 91.  | <i>Euphorbia nerifolia</i>                 | Euphorbiaceae   | Neewdung, Nurang               | Sabar         |
| 92.  | <i>Euphorbia tirucalli</i>                 | Euphorbiaceae   | Milk bush                      | Tridhari      |
| 93.  | <i>Ferronia elephantum</i>                 | Rutaceae        | Elephant apple tree            | Kavath        |
| 94.  | <i>Ficus amplissima</i>                    | Moraceae        | Indian Bat Tree                | Piper         |
| 95.  | <i>Ficus benghalensis</i>                  | Moraceae        | Banyan tree                    | Vad           |
| 96.  | <i>Ficus benamina</i>                      | Moraceae        | Java fig                       | Pimpri        |
| 97.  | <i>Ficus diversifolia</i>                  | Moraceae        | Mistletoe fig                  |               |
| 98.  | <i>Ficus elastica</i>                      | Moraceae        | Rubber tree                    |               |
| 99.  | <i>Ficus glomerata</i>                     | Moraceae        | Fig                            | Umbar         |
| 100. | <i>Ficus macleiandi</i>                    | Moraceae        | Banana-Leaf Fig                |               |
| 101. | <i>Ficus microcarpa</i>                    | Moraceae        | Laurel fig                     | Nandrukh      |
| 102. | <i>Ficus religiosa</i>                     | Moraceae        | Pipal tree, Scared fig         | Pipal tree    |
| 103. | <i>Filicium decipiens</i>                  | Sapindaceae     | Fern tree                      |               |
| 104. | <i>Gardenia jasminoides</i>                | Rubiaceae       | Cape jasmine                   | Gandhraj      |
| 105. | <i>Gardenia latifolia</i>                  | Rubiaceae       |                                | Dikamali      |
| 106. | <i>Gliricidia sepium</i>                   | Fabaceae        | Quickstick, Mexican lilac      | Saranga,      |
| 107. | <i>Gmelina arborea</i>                     | Verbenaceae     | Kashmir teak                   | Shivan        |
| 108. | <i>Grevillea robusta</i>                   | Proteaceae      | Australian oak, Silver oak     | Rupasi        |
| 109. | <i>Grewia tiliaefolia</i>                  | Tiliaceae       |                                | Dhaman        |
| 110. | <i>Guazuma tomentosa</i>                   | Elaeocarpaceae  | Bastard cedar                  | Rudrakshi     |
| 111. | <i>Hamelia patens</i>                      | Rubiaceae       | Scarlet bush                   | Hamelia       |
| 112. | <i>Hardwickia binata</i>                   | Caesalpiniaceae | Anjan                          | Kamara        |
| 113. | <i>Heterophragma quadriloculare</i>        | Bignoniaceae    | Waras                          | Waras         |
| 114. | <i>Hibiscus rosa sinensis</i>              | Malvaceae       | Shoe flower                    | Jasvand       |
| 115. | <i>Hibiscus rosa sinensi 'Juno'</i>        | Malvaceae       | China rose                     | Jasvand       |
| 116. | <i>Hibiscus rosa sinensis 'snow flake'</i> | Malvaceae       | China rose                     | Jasvand       |
| 117. | <i>Hibiscus rosa sinensis 'varigated'</i>  | Malvaceae       | China rose                     | Jasvand       |
| 118. | <i>Holoptelea integrifolia</i>             | Ulmaceae        | Indian elm-conju tree          | Waval, Papdi  |
| 119. | <i>Ixora coccinea</i>                      | Rubiaceae       | Flame tree of woods            | Ixora         |
| 120. | <i>Ixora nigricans</i>                     | Rubiaceae       | Ixora                          | Ixora         |
| 121. | <i>Ixora parviflora</i>                    | Rubiaceae       | Torch tree                     | Raikuda       |
| 122. | <i>Jacaranda mimosifolia</i>               | Bignoniaceae    | Jacaranda, Brazillian rosewood | Nilmohar      |
| 123. | <i>Jatropha curcas</i>                     | Euphorbiaceae   | Physic nut, Purging nut        | Mogali errand |
| 124. | <i>Khaya senegalensis</i>                  | Meliaceae       | African Mahogany               |               |
| 125. | <i>Kigelia africana</i>                    | Bignoniaceae    | Sausage Tree                   |               |
| 126. | <i>Kleinovia hospitata</i>                 | Sterculiaceae   | Tree antogonon                 | Bhola         |
| 127. | <i>Lagerstroemia indica</i>                | Lythraceae      | Crapemyrtle tree               | Taman         |

|      |                                  |                |                                  |                 |
|------|----------------------------------|----------------|----------------------------------|-----------------|
| 128. | <i>Lannea coromandelica</i>      | Anacardiaceae  | Indian Ash Tree                  | Shemat          |
| 129. | <i>Leucaena leucocephala</i>     | Mimosaceae     | Horse tamarind                   | Subabul         |
| 130. | <i>Livistonia rotundifolia</i>   | Arecaceae      | Fan leaved palm                  |                 |
| 131. | <i>Magnolia grandiflora</i>      | Magnoliaceae   | Lily tree, Laurel magnolia       | Kavathi Chapha  |
| 132. | <i>Mallotus philippinensis</i>   | Euphorbiaceae  | Monkey faced tree                | Shendri         |
| 133. | <i>Mangifera indica</i>          | Anacardiaceae  | Mango                            | Amba            |
| 134. | <i>Manilkara hexandra</i>        | Sapotaceae     | Ceylon iron wood                 | Khirmi, Rayan   |
| 135. | <i>Markhamia platycalyx</i>      | Bignoniaceae   | Siala (Ugandan)                  |                 |
| 136. | <i>Melia azadirachta</i>         | Meliaceae      | Bead tree, China berry           | Bakana nimb     |
| 137. | <i>Mesua ferrea</i>              | Clusiaceae     | Indian rose chestnut             | Nagchampaka     |
| 138. | <i>Michelia champaca</i>         | Magnoliaceae   | Champak                          | Sonchapha       |
| 139. | <i>Millingtonia hortensis</i>    | Bignoniaceae   | Indian cork, Jasmine tree        | Buch            |
| 140. | <i>Mimusops elengi</i>           | Sapotaceae     | Indian medlar                    | Bakul           |
| 141. | <i>Mitragyana parvifolia</i>     | Rubiaceae      |                                  | Kalamb          |
| 142. | <i>Morinda citrifolia</i>        | Rubaiceae      |                                  | Bartondi        |
| 143. | <i>Morinda tinctoria</i>         | Rubiaceae      | Anishi                           | Aseti, Nagkara  |
| 144. | <i>Moringa oleifera</i>          | Moringaceae    | Drum stick, Benzolive nut tree   | Shevga          |
| 145. | <i>Morus alba</i>                | Moraceae       | White mulberry                   | Tuti, Shetu     |
| 146. | <i>Muntingia calabura</i>        | Elaeocarpaceae | Singapore cherry                 |                 |
| 147. | <i>Murraya koenghii</i>          | Rutaceae       | Curry leaf                       | Kadinimb        |
| 148. | <i>Murraya paniculata</i>        | Rutaceae       | Indian box tree                  | Kunti           |
| 149. | <i>Neolamarckia cadamba</i>      | Rubiaceae      | Kadamba                          | Kadamba         |
| 150. | <i>Nerium indicum</i>            | Apocynaceae    | Olender rose bay                 | Kaner           |
| 151. | <i>Nyctanthes arbor-tristis</i>  | Oleaceae       | Night jasmine, Coral jasmine     | Prajakta        |
| 152. | <i>Opuntia dillenii</i>          | Cactaceae      | Cactus                           |                 |
| 153. | <i>Parkia biglandulosa</i>       | Mimosaceae     | Badminton ball tree              | Chendu phul     |
| 154. | <i>Parmentiera cereifera</i>     | Bignoniaceae   | Candle Tree                      |                 |
| 155. | <i>Peltophorum pterocarpum</i>   | Caesalpinaceae | Rusty shield bearer, Copper pod  | Sonmohar        |
| 156. | <i>Phoenix sylvestris</i>        | Arecaceae      | Date palm, Silver date           | Shindhi, Khaji  |
| 157. | <i>Pithecellobium dulce</i>      | Mimosaceae     | Manila tamarind, Madras thorn    | Vilayati chinch |
| 158. | <i>Plumeria acutifolia</i>       | Apocynaceae    |                                  | Pandhara chapha |
| 159. | <i>Plumeria lutea</i>            | Apocynaceae    |                                  | Pivala chapha   |
| 160. | <i>Plumeria rubra</i>            | Apocynaceae    | Temple tree, Pagoda tree         | Lal chapha      |
| 161. | <i>Polyalthia longifolia</i>     | Anonaceae      | Ashok                            | Ashok           |
| 162. | <i>Prosopis julifera</i>         | Mimosaceae     | Algarroba                        | Vilaiti Keekar  |
| 163. | <i>Psidium guajava</i>           | Myrtaceae      | Guava                            | Peru            |
| 164. | <i>Pterospermum suberifolium</i> | Sterculiaceae  | Bayur tree                       | Muchkund        |
| 165. | <i>Pterygota alata</i>           | Sterculiaceae  | Buddha Coconut                   |                 |
| 166. | <i>Punica granatum</i>           | Punicaceae     | Pomogranate                      | Dalimb          |
| 167. | <i>Putranjiva roxburghii</i>     | Euphorbiaceae  | Child life tree, Lucky bean tree | Putravanti      |
| 168. | <i>Ricinus communis</i>          | Euphorbiaceae  | Castor                           | Erand           |
| 169. | <i>Roystonea regia</i>           | Arecaceae      | Cuban Royal palm, Bottle palm    |                 |
| 170. | <i>Samania saman</i>             | Mimosaceae     | Rain tree, Monkey pod            | Rain tree       |

|      |                                   |                |                                       |                   |
|------|-----------------------------------|----------------|---------------------------------------|-------------------|
| 171. | <i>Santalum album</i>             | Santalaceae    | Sandal wood                           | Chandan           |
| 172. | <i>Sapindus emarginatus</i>       | Sapindaceae    | Notched Leaf Soapnut                  | Reetha            |
| 173. | <i>Sapindus laurifolius</i>       | Sapindaceae    | Soapnut                               | Ritha             |
| 174. | <i>Saraca indica</i>              | Caesalpinaceae | Sorrowless tree                       | Sitecha ashok     |
| 175. | <i>Schleichera oleosa</i>         | Sapindaceae    | Lac tree                              | Kosimb, Kusum     |
| 176. | <i>Simarouba amara</i>            | Simaroubaceae  |                                       |                   |
| 177. | <i>Simarouba glauca</i>           | Simarubaceae   |                                       |                   |
| 178. | <i>Spathodia campanulate</i>      | Bignoniaceae   | Scarlet bell tree, African tulip tree | Pichkary          |
| 179. | <i>Stenolobium stans</i>          | Bignoniaceae   | Yellow elder, Trumpet flower          | Tecoma            |
| 180. | <i>Sterculia foetida</i>          | Sterculiaceae  | Dung tree, Bastard poon tree          | Jangli badam      |
| 181. | <i>Swietenia mahogoni</i>         | Meliaceae      | Madeira redwood                       | Mahogani          |
| 182. | <i>syzygium heyneanum</i>         | Myrtaceae      |                                       | Lendi Jamun       |
| 183. | <i>Tabebuia argentea</i>          | Bignoniaceae   | Golden bell                           | Tabebuia          |
| 184. | <i>Tabebuia rosea</i>             | Bignoniaceae   | Rosy trumpet tree                     | Tabebuia          |
| 185. | <i>Tabernaemontana divaricata</i> | Apocynaceae    | Cape jasmine                          | Chandini          |
| 186. | <i>Tamarindus indica</i>          | Caesalpinaceae | Tamarind                              | Chinch            |
| 187. | <i>Tectona grandis</i>            | Verbenaceae    | Teak                                  | Sagwan            |
| 188. | <i>Terminalia crenulata</i>       | Combretaceae   |                                       | Ain, Asna         |
| 189. | <i>Terminalia arjuna</i>          | Combretaceae   | White murdah                          | Arjun             |
| 190. | <i>Terminalia bellerica</i>       | Combretaceae   | Beleric myrobalan                     | Behda             |
| 191. | <i>Terminalia cattapa</i>         | Combretaceae   |                                       | Badam             |
| 192. | <i>Thevetia peruviana</i>         | Apocynaceae    | Yellow oleander, Trumpet flower       | Bitti             |
| 193. | <i>Thrinax barbadensis</i>        | Palmae         |                                       |                   |
| 194. | <i>Thuja orientalis</i>           | Cupressaceae   | Oriental arbor-vitae                  | Vidya             |
| 195. | <i>Trema orientalis</i>           | Urticaceae     | Charcoal tree                         | Ghol, Karamatigol |
| 196. | <i>Vitex nigundo</i>              | Verbenaceae    | Indian privet                         | Nirgudi           |
| 197. | <i>Washingtonia filifera</i>      | Arecaceae      | Fan palm, Cotton palm                 | Fan palm          |
| 198. | <i>Wrightia arborea</i>           | Apocynaceae    | lanete                                | Pandu kuda        |
| 199. | <i>Wrightia tinctoria</i>         | Apocynaceae    | Pala indigo                           | Kala kuda         |
| 200. | <i>Ziziphus zuzuba</i>            | Rhamnaceae     | Indian jujube                         | Bor               |

***Acacia arabica* Willd. Syn. *A. nilotica* (L) Willd.**

**Family: Mimosaceae**

**Common Name:** Black babool, Gum arabi tree; **Vernacular Name:** Babhool

***Arabica:*** of Arabian countries; ***Nilotica:*** (Arabic) from the valley of the Nile.

Acacia refers to spines appearing as branchlets and specific epithet indicates its origin.

It is indigenous in the most hotter parts of India, Arabia and Africa.

**Morphology:**

Habit: A thorny dwarf tree.

Bark: Brown with deep longitudinal fissures.

Leaves: Compound, bipinnate 6-12 pairs of leaflets, leaflets linear, 4-8mm long.

Inflorescence: Axillary, globose head.

Flower color: Yellow, scented

Flowering period: June-Aug

Fruit: Pod moniliform, contracted between seeds, 7-12 cm long, whitish tomentose

Method of cultivation: By seed

**Uses:** Branches and leaves are cut and used as food for cattle and goats. The heavy wood is excellent for making farm tools, and is also used for fuel and charcoal. Gum is used for making glue and sweets. The thorns are used as pins. Twigs are used for cleaning teeth. Lac is obtained is used for sealing packages and securing envelopes.

**Ecological importance:** Birds like Baya Weaver, Little Brown Dove, Rose: ringed Parakeet, Common Wood Shrike, Black Shouldered Kite, Short-Toed Snake Eagle, White-eyed Buzzard, Black Dronge or King Crow and Large Grey Babbler use fruits as food source and branches for nesting.

## ***Acacia auriculoformis* syn. *A. moniliformis***

Family: Mimosaceae

**Common Name:** Golden shower; **Vernacular Name:** Australian babul

**Acacia:** Ac (Celtic) a point or Akazo (Greek) to sharpen; **Moniliformis:** like a string of beads. The name refers to arrangement of flowers on the spike. It is a native of Australia.

### **Morphology**

**Habit:** A medium size thorn less quick growing evergreen tree of 13-15m height.

**Leaves:** are present only in seedling stage, the apparent leaves are actually the modified midrib called phyllode which are leathery, sickle shaped, tapered at each end, veins parallel.

**Inflorescence:** Spike near the end of branches

**Flower color:** Yellow, scented.

**Flowering period:** Profuse flowering occur in Sept-Oct, but occasional blooms are observed anytime inbetween March-December

**Method of cultivation:** By seeds

**Uses:** It increases productivity of biomass



## *Acacia catechu* Willd.

Family: Mimosaceae

**Common Name:** Cutch Tree (the gummy extract of the wood is commercially known as “Kath” or “Cutch”); **Vernacular Name:** Khair

**Acacia:** Ac (Celtic) a point or Akazo (Greek) to sharpen; **Catechu:** Kachu (Kannada) extract from the heartwood. The name refers to stipular spines and catechu which is extracted from the heart wood of this tree.

### **Morphology:**

Habit: A moderate sized deciduous tree, 9-12 m in height

Bark: Black with deep ridges and furrows

Leaves: Bipinnately compound, main rachis with glands between many pairs of pinnae and a long conspicuous gland at or near the middle of the petiole, stipules spiny, hooked, leaflets 30-50 pairs, leaflets develop brownish galls in which insect eggs are laid.

Inflorescence: Axillary spike

Flower color: Pale Yellow

Flowering period: Aug-Sept

Fruits: Flat brown pods, shiny and with a triangular beak at the apex and narrowed at the base, seeds 3-10 per pod.

Methods of cultivation: Seeds

**Uses:** Heartwood is useful in cough, leprosy, leucoderme, skin diseases, diarrhoea, dysentery, foul ulcers and wounds. Katho is useful in flatulence, ulcers, skin diseases, leprosy, leucoderme and wounds.

**Ecological importance:** Bay backed Shrike, Lesser Whitethroat, Little Brown Dove, Red Collared Dove; Eurasian collared Dove, Purple rumped Sunbird use tree for nesting sites and feed on the insects present on the tree.



***Acacia concina*** DC. Syn. ***A .rugata*** Merr. Lam

Family: Mimosaceae

**Vernacular Name:** Shikekai

**Acacia:** *Ac* (Celtic) a point or *Akazo* (Greek) to sharpen; **Concina:** *Cocinnus* (Latin) well put together, neat elegant. **Rugata:** *ruga* (Latin) a wrinkle, full of wrinkles, puckered. The name refers to scattered prickles, elegant branches and wrinkled pods.

**Morphology:**

**Habit:** An extensive climbing shrub armed with numerous small hooked prickles. Branches brown, dotted with white.

**Bark:** Grey, 4-5 whitish strips running longitudinally on which spines present.

**Leaves:** Bipinnately compound, long, main rachis armed with sharp hooked prickles with a large gland at or below the middle of the petiole and one between the uppermost or the two uppermost pairs of pinnae 4-8 pairs.

**Inflorescence:** Racemose panicles

**Flower color:** Red

**Flowering period:** More or less throughout the year.

**Fruits:** Pods shortly stalked.

**Methods of cultivation:** Seeds.

**Uses:** Power of pods used for washing the hair. The bark is used for dyeing and tanning, fishing nets in south India.



*Acacia ferruginea* DC.

Family: Mimosaceae

**Vernacular name:** Pandhra khair, **Common name:** Rusty Acacia

Native to India and Sri Lanka

**Morphology: -**

Habit: Drought-resistant deciduous tree

Bark: Bark is rough, cracking into pieces with curved, paired prickles.

Leaves: Leaves are alternately arranged, double-compound.

Inflorescence: Panicle

Color: Pale yellow

Fruit: Pods are smooth, dark-brown in color, contain a dry sweetish pulp.

Flowering season: March-May



***Acacia gregii*** (A. Gray) Britton & Rose

Family: Mimosaceae

**Common Name:** Gregg's catclaw

It is native to the southwestern United States and northern Mexico.

**Morphology:**

Habit: It is a large shrub or small tree.

Leaves: The grey-green leaves are deciduous, and bipinnate, divided into 1-3 pairs of pinnae, each pinna 2–3 cm (0.79–1.18 in) long with 10-18 leaflets that are 3–6 mm (0.12–0.24 in). Pinnae are most frequently in two pairs, with the proximal pair perpendicular to the petiolule and the distal pair forming a V at the tip.

Flower: The blooms are produced in dense cylindrical spikes of numerous flowers, each individual flower with five cream colored 3 mm (0.12 in) petals and numerous creamy yellow 6 mm (0.24 in) stamens.

Fruit: The fruit is a flat, twisted legume (pod) 6–15 cm (2.4–5.9 in) long, containing generally 3 to 5 hard, flattened, medium brown seeds. The seed pod is constricted between seeds (a loment), and seed dispersal occurs both through dehiscence and breaks at these constrictions.

**Uses:** it is used as forage for livestock



## *Acacia leucophloea*

Family: Mimosaceae

**Vernacular name:** Hevar, **Common name:** White Bark Acacia

Found mostly in Southern India.

### **Morphology:-**

Habit: White Bark Acacia is a large thorny tree attaining a height of 35 m.

Bark: The stout trunk is divided into several wide branches. Open-grown specimens have a characteristic wide umbrella-like crown. Bark is white to yellowish gray, smooth, on old trees becoming black and rough.

Leaves: Leaves double compound, with 4-13 pairs of pinnae, each with 5-30 pairs of leaflets. Circular glands found on the rachis below the junction of paired-pinnae. The feathery green foliage offers a strong contrast to the light-coloured bark. Spines 2-5 mm long, at the base of leaves.

Flowers: Flowers conspicuous, light-yellow to cream in colour, in pendunculate glomerules aggregated in panicles, 5-merous, corolla 1.2-2 mm long, at the end of branches or in leaf axils.

Fruits: Pods yellow, green or brown in colour, flat and fairly straight, 10-20 cm long, 5-10 mm wide, containing 10-20 smooth, oblong seeds, dark brown in colour, 6 x 4 mm in size.

**Uses:** The bark extracts of *Vachellia leucophloea* are used in Pakistan traditional medicine as an astringent, a bitter, a thermogenic, a styptic, a preventive of infections, an anthelmintic, a vulnerary, a demulcent, an expectorant, an antipyretic, an antidote for snake bites and in the treatment of bronchitis, cough, vomiting, wounds, ulcers, diarrhea, dysentery, internal and external hemorrhages, dental caries, stomatitis, and intermittent fevers and skin disease. An ethanolic extract ointment has shown marked wound healing activity in trials.

*Achras sapota* Linn.

Family: Sapotaceae

**Common Name:** Sapodilla plum; **Vernacular Name:** Chiku

**Morphology**

Habit: A small evergreen tree, hairy with milky juice

Leaves: Elliptic, entire, leathery, hairy, brown

Inflorescence: Solitary axillary

Flower color: White

Flowering period: April-Oct, May-June

Fruit: Berry.

Method of cultivation: By seeds

**Uses:** Fruits edible



## *Adansonia digitata* L

Family: Bombacaceae

**Common Name:** Baobab, monkey bread tree; **Vernacular Name:** Gorakh chinch

**Adansonia:** name of French Botanist Michel Adanson; **Digitata:** digitus (Latin) a finger, leaves or leaflets are finger shaped. It is a native of Africa and Madagascar.

### **Morphology:**

Habit: Largest tree of the world & live for a thousands years, grows upto 16-20m.

Bark: Smooth grayish bark & a short trunk which is broad at the base & tapers rapidly upwards giving the look of bottle, lenticels forming ridges & furrows

Leaves: Palmately compound, consist of 3 leaflets in the young plant & 5-7 in older ones. leaflets are dark green.

Inflorescence: Solitary cyme.

Flower color: Creamy and white.

Flower: With a strong unpleasant smell, hairy, singly on stalks from the branches, calyx velvety on the outside, corolla with wrinkled margin, blooms generally appers when the tree is leafless.

Flowering period: June-July.

Fruits: Green or brownish, gour shaped hanging from a thick stalk pulp, relished by monkey's.

Methods of cultivation: By seeds, slow growing.

**Uses:** Paste of is applied on swellings, boils etc. Decoction of leaves: is given as a prophylactic against fever. Decoction of bark is useful for malaria, diarrhoea. Fruit\_pulp is used in diarrhoea, dysentery, fever, thirst, dyspepsia.

**Ecological importance:** Jungle crow uses the plant for nesting sites.

*Adenanthera pavonina* Linn.

Family: Mimosaceae

**Common Name:** Red sandal wood, bead tree, red wood, peacock tree;

**Vernacular Name:** Ratangunj

**Adenanthera:** Aden is a gland. Antheros, blooming having gland bearing anthers;

**Pavonina:** Named in honour of Jose Antonic. Pavon derived from peacock.

The name refers to a deciduous gland at the top of the anther cells. It is native to China and Malaysia.

**Morphology:**

Habit: A medium to large quick growing tree, 10-16m tall, branches ascending, heart wood hard, coral red

Bark: Rough, dark grey forming network like structure.

Inflorescence: Spike

Leaves: Bipinnate, dark green, divided into large number] of elliptic oblong leaflets

Flower colour: Yellowish and scented

Flower: Scented, calyx campanulate, corolla star like, 10 free stamens with anthers set on the tips.

Flowering period: March-April, some also appear in Sept-Oct.

Fruits: Long & narrow pods, 15-20cm. Seeds are bright red, shinny, all of same size and shape and fall to the ground in hundreds. They are called circassian seeds.

Method of cultivation: By seeds, by cuttings in monsoon.

**Use:** seeds are used by Smiths & Jewelers as weights. Each seed weigh exactly 3gm.

**Bark and leaves:** are useful in ulcers, vitiated conditions of vata and gout. Seeds are useful in vomiting, fever and giddiness. Heart wood is useful in dysentery, haemorrhages.

The wood is used for furniture and paneling walls.



***Adhatoda vasica*** Nees. Syn. *A. zeylanica*

Family: Acanthaceae

**Common Name:** Malabar nut tree; **Vernacular Name:** Adulsa

***Adhatoda*** : Ad a (Tamil) goat.thodai (Tamil) not touch; ***Vasica***: Vasaka (Sanskrit) perfume having aromatic smell. The name refers to very bitter leaves which even goats can't relish.

**Morphology:**

Habit: A much branched woody shrub.

Bark: Soft, grey lenticels longitudinally in a row. In between the 2 rows bark is soft.

Leaves: Simple Opposite, entire, elliptic, lanceolate.

Inflorescence: Axillary spike.

Flower color: Off white with rose colored

Flower: With elliptic bracts, bracteoles, oblong, lanceolate, margins hairy, corolla bilabiate.

Flowering period: Aug –Sept.

Method of cultivation: By cutting

**Use**: Leaves use against cough, cold bronchitis, and asthma.



## *Aegle marmelos* Corr.

Family: Rutaceae

**Common Name:** Bel; **Vernacular Name:** Bel

**Aegle:** Name refers to naiads, hesporides, and female divities of Greek mythology who presided over springs, rivers and lakes; **Marmelos:** (Portuguese) conserve of quinces  
The name refers to fruits which resemble quinces.

### **Morphology:**

Habit: A small thorny tree.

Bark: Bark whitish yellow with longitudinal superficial striations.

Leaves: 3 foliate, leaflets, lanceolate.

Inflorescence: Axillary panicles

Flower color: Greenish white or yellow

Flower: scented, lobed, hairy.

Flowering period: April-May

Fruits: Globose, amphisarca, orange, sweet taste, outer covering woody

Method of cultivation: By seeds

**Use:** Leaves offered to lord Shiva. Unripe fruits are used in dysentery & chronic diarrhoea, stomachalgia. Ripe fruits are good for the heartburn, dyspepsia, and diarrhoea. Leaves are useful in diabetes, deafness, ophthalmia, and inflammations.



## *Alianthus excelsa* Roxb.

Family: Simaroubaceae

**Common Name:** Tree of Heaven; **Vernacular Name:** Maharuk, Mahanimb

***Alianthus*:** Ailanto (Latin) sky tree, tree of heaven; ***Excelsa*:** (Latin) tall, lofty.

The name refers to majestic height. It is a native of East Asia and Australia.

### **Morphology**

**Habit:** A tall deciduous quick growing tree. The large branches which grow at the right angles from the trunk tend to curve upwards.

**Bark:** Light grayish brown, bark in the form of small patches arranged in typical manner. The base of the patch is black color.

**Leaves:** Compound pinnate, long, tomentose and clustered near the end of the branches, from which they spread outwards in all directions. Leaflets 16-28 alternate or sub opposite, coarsely or irregularly toothed.

**Inflorescence:** Panicle with male, female and bisexual flowers.

**Flower color:** White or yellowish.

**Flower:** Stamens 10, inserted at the base of leaf.

**Flowering period:** End of cold season

**Fruits:** Coppery red, pods papery, twisted, single seed

**Methods of cultivation:** By seeds, cuttings and suckers.

**Uses:** Decoction of bark is employed in asthma, fever, cough, dyspepsia, bronchitis, diarrhoea, dysentery etc. Juice of leaves is given in dyspepsia, bronchitis, asthma, general debility.



## *Albizzia procera*

Family: Mimosaceae

**Vernacular name:** Kinhai, **Common name:** White siris

Native to Indomalay region and China

### **Morphology: -**

Habit: Deciduous tree

Bark: Smooyhish light brown to light greenish grey in color.

Leaves: Leaves pinnately compound; leaflets 12-20, oblong elliptic, rounded or retuse.

Infloroscence: Globose, Raceme

Color: Whitish

Fruit: The fruit are flattened pods changing from green to deep red or reddish brown on maturity.

Flowering season: July-August



## *Albizia lebbek* Benth

Family: Mimosaceae

**Common Name:** Black siris, parrot tree, fry wood tree; **Vernacular Name:** Shirish

**Albizia:** Named after Fidel Albizzi, a Florentine nobleman; **Lebbek:** In honour of unknown Botanist Arabic name

### **Morphology**

**Habit:** A large deciduous tree with spreading branches

**Bark:** Brownish grey bark with numerous short cracks, rough, lenticels brown in pairs, unevenly distributed, reddish inside.

**Leaves:** Compound bipinnate with a large gland on the petiole above the base & one below the uppermost pair of pinna, petioles swollen, hairy at base, pinnae 2-3 pairs, leaflets with glands between their bases.

**Inflorescence:** Globose umbellate head.

**Flower color:** Creamy white, fragrant

**Flower:** Calyx campanulate, corolla funnel shaped stamens indefinite, exerted.

**Flowering period:** March-May

**Fruit:** Pod, oblong pale yellow, smooth shining, 4-12 seeded.

**Method of cultivation:** By seed, stem cutting.

**Uses:** Bark is useful in asthma, cough and catarrh, skin eruptions, leprosy, leucoderma, sprains, wounds, ulcers, diarrhoea, inflammations, all types of poisoning. Flowers are useful in chronic cough and bronchitis. Seeds are useful in inflammations, skin diseases, leprosy, leucoderma, seminal weakness etc.



## *Alstonia scholaris* R.Br.

Family: Apocynaceae

**Common Name:** Devil's tree, Dita bark tree; **Vernacular Name:** Satvin, saptaparni

**Alstonia:** Named in honour of Dr. Charles Alstem, Professor of Botany, Edinburgh University;  
**Scholaris:** (Latin) belonging to school. The name refers to writing boards made from its wood were used in schools. It is native of India, China, Malaysia and Sri-Lanka.

### **Morphology**

**Habit:** A tall evergreen tree, base of which often buttressed, Branches spreading in tiers or whorls and horizontal.

**Bark:** Rough, dark grey, crown, slender, rather conical, exuding latex if injured.

**Leaves:** smooth, shining rather narrow dark green above & milky white below and arranged in 4-7 whorls.

**Inflorescence:** Terminal corymbose or umbellate cymes.

**Flower color:** Greenish white

**Flower:** Sepals and petals 5, stamens 5 inserted.

**Flowering period:** Sept - Nov

**Fruits:** Follicles hanging in clusters from the tips of the branches, seeds hairy.

**Method of cultivation:** By seeds.

**Uses:** The bark is "Dita bark". Decoction of bark or powdered bark is useful in malaria, diarrhoea, fever, dysentery, skin diseases, asthma, bronchitis, worms and helminthiasis. Paste of leaves is used against ulcers. Tender leaves in the form of poultice are good for ulcers with foul discharge.



## *Anogeissus latifolia* wall.

Family: Combretaceae

**Common Name:** Dabria, button tree, Axle wood; **Vernacular Name:** Dhaura

**Anogeissus:** Ano (Greek) upwards geisson (Greek) house like; **Latifolia:** (Latin) broad. Phulon (Greek) a leaf. The name refers to horizontally placed two winged flat seeds and broad leaves. It is native if India and Africa.

### **Morphology**

**Habit:** A medium sized, gregarious, deciduous tree upto 10m high, trunk erect, smooth.

**Bark:** Rough dark grey bark, usually a crooked trunk black red dots, gum oozes out, exfoliating in flakes.

**Leaves:** Alternate or sub opposite, midrib prominent, pink.

**Inflorescence:** Small dense heads, pendulous axillary

**Flower colour:** Dull yellow

**Flower:** Calyx hairy, stamens 10.

**Flowering period:** May - July

**Fruits:** Winged yellowish brown.

**Method of cultivation:** By seeds.

**Uses:** Roots are used in abdominal diseases. Decoction of bark is given in ulcers, inflammations, diabetes, diarrhoea, dysentery, leprosy. Juice of leaves is given in pyorrhea and diarrhoea. Gum is given in leucorrhoea, piles etc. Fruit is used against diarrhoea and dysentery. It is used commercially in textile printing.



## *Anogeissus sericea*

Family: Combretaceae

**Common Name:** Roundleaf Axlewood

Roundleaf Axlewood is an endemic and rare tree of the Thar Desert.

### **Morphology:-**

Leaves: Leaves are obovate to round, on pendulous branches.

Flowers: Flowers are yellowish, born in tight clusters.

**Uses:** Wood of this tree is hard enough to be used in making agricultural appliances, carts, etc. In addition, it is also a valuable source of fuel and fodder. Being a large, beautiful tree, it has the potential to be used as an avenue tree.



## *Annona reticulata* Linn.

Family: Annonaceae

**Common Name** –Bullock's heart; **Vernacular Name:** Ramphal

**Annona:** Latinized version of the Indian i.e. menona for the custard apple;

**Reticulata:** reticulus (Latin) network. The name refers to net work like pentagonal marking on the outer surface of the Fruit.

### **Morphology**

Habit: A small tree with hairy young branches

Bark: Grey, soft, superficial grey, white black, alternate bands run longitudinally.

Inflorescence: Solitary extra axillary

Leaves: Oblong, lanceolate, transparent, dots, present, upper surface without hairs.

Flower colour: Greenish: yellow

Flower: Sepals & petals hairy, stamens indefinite, carpel numerous.

Flowering period: July-November

Fruit: Sub globose or heart shaped, fleshy berry with pentangular lightly marked areoles.

Method of cultivation: By seeds

**Uses:** Unripe and dried fruits are used in diarrhoea, dysentery. Paste of leaves is applied on boils, wounds etc. Decoction of bark is given in diarrhoea.



## *Annona squamosa* Linn.

Family: Annonaceae

**Common Name** –Custard apple, sugar apple; **Vernacular Name:** Sitaphal

**Annona:** Latinized version of the Indian Vernacular Name i.e. menona for the custard apple;

**Squamosa:** (Latin) scale. The name refers to persistent scale like carpels.

### **Morphology**

Habit: A small tree.

Bark: Light grey, lenticels blackish grey, horizontally arranged.

Inflorescence: Solitary extra-axillary

Leaves: Oblong, lanceolate, transparent, dots, present, upper surface without hairs.

Flower colour: Green

Flower: Sepals & petals hairy, stamens indefinite, carpel numerous.

Flowering period: March-August

Fruit: Sub globose or heart shaped, berry with pentangular lightly marked areoles.

Method of cultivation: By seeds.

**Uses:** Roots are useful in mental depression and spinal disorders. Leaves are useful in destroying lice. Fruits are useful in anemia, burning sensation, vomiting, cough, malignant tumors and for strengthening muscles. Seeds are useful in destroying lice and dandruff in the hair.

**Ecological importance:** Rose ringed Parakeet, Indian Myna, Crimsonbreasted Barbet or Coppersmith, Red Whiskered Bulbul feed on the Fruits of the tree.



## *Aphanamixis polystachya*

Family: Meliaceae

**Common name:** Pithraj Tree, **Vernacular name:** Raktharohida

Native to India

### **Morphology:-**

Habit: Deciduous tree

Bark: Bark reddish-brown mottled with green with red blaze

Leaves: Leaves are compound, imparipinnate, alternate; oblong-lanceolate, apex acuminate; base asymmetric; with entire margin.

Infloriscence: Panicle

Color: White

Fruit: Fruit is a single seeded pale-reddish subglobose capsule

Flowering season : May-September

**Uses:** Bark is used in spleen, liver diseases, tumour and abdominal complaints. Seed-oil is used in rheumatism



## *Araucaria cunninghamii*

Family: Araucariaceae

**Common Name** –Christmas tree, Moreton Bay Pine, Hoop Pine;

**Vernacular Name:** Christmas tree

***Araucaria*:** arowo: from Araucaria a province of Southern Chile. It is native of South Africa and Australia.

### **Morphology**

**Habit:** Tall evergreen tree with whorled branches, upper ascending & lower horizontal or drooping branchlets densely clustered, pendulous.

**Bark:** Brownish, blackish, rough, hard. Alternate soft rough patches of bark forming typical arrangement. Gum oozes out.

**Leaves:** Needle shaped, some what quadrangular, 6-12 mm long, crowded

**Inflorescence:** Male catkin

**Flower:** Crowded. There are no flowers or fruit in the normal sense but male and female cones rise on the branches. In the tropics blossoming is rather rare, except in the northern latitudes.

**Method of cultivation:** By seeds, cuttings, layerings

**Uses:** Cultivated in parks and gardens for their evergreen eligence.



## *Areca catechu*

Family: Arecaceae

**Common name:** Betel Palm, **Vernacular name:** Pophali

Native to Philippines.

### **Morphology**

Habit: Deciduous medium-sized tree

Leaves: The leaves are pinnately compound with numerous, crowded leaflets.

Inflorescence: Branched panicles

Color: Creamy-white

Fruit: Fibrous, ovoid fruits, yellow to orange when ripe, contain betel nut

Flowering season: Throughout the year

**Uses:** Produces betelnut, an important ingredient of paan.



***Artabotrys odoratissimus*** R. Br.Syn. ***A. hexapetalus*** Linn.

Family: Annonaceae

**Common Name:** Champa, Climbing ylang; ylang; **Vernacular Name:** Hirva chapha

***Artabotrys*:** Artao (Greek) to suspend botrys: a bunch of grapes; ***Odoratissimus*:** odor (Latin) an odour, very fragrant; ***Hexapetalus*:** hexa (Greek) six. The name refers to berries appearing in bunches and six petalled very fragrant flowers.

**Morphology**

Habit: A scandant shrub, often a big climber.

Bark: Blackish brown, smooth, spiral, vertical striations run throughout the length.

Leaves: Oblong, lanceolate, shortly acuminate, and acute at the base, glabrous shining,

Inflorescence: Solitary axillary or in pairs.

Flower color: Greenish yellow

Flower: Sepals 3 and petals in 2 series, connate at the base. Stamens indefinite, carpels 6: 10, flowers sweet scented

Flowering period: Aug-Sept

Fruits: Etario of berries.

Method of cultivation: By seeds

**Uses:** Decoction of leaves is employed in cholera and antifertility as family planning. Tincture of flowers is given in sore throat, leucorrhoeas.

## *Artocarpus integrifolia* Linn.f.

Family: Moraceae

**Common Name:** Jack fruit; **Vernacular Name:** Phanas

**Artocarpus:** Artos (Greek) a bread. Karpos (Greek) a fruit; **Integrifolia:** integer (Latin) entire. Folium (Latin) a leaf, entire leaves. Hetero (Greek) various diverse phyllon (Greek) a leaf. The name refers to fruit from which breads is prepared. It is native to East Asia.

### **Morphology**

Habit: A large evergreen tree

Bark: Grey, soft, irregular dark grey color striations.

Leaves: Alternate, elliptical, oblong, stipules, large bud scales.

Inflorescence: Fleshy globose spikes on the dwarf shoots on the main trunk.

Flower colour: Greenish

Flower: Male flowers sepals 2- 4, stamen 1 Female: perianth tubular

Flowering period: Jan- Feb

Fruit: Sorosis.

Method of cultivation: By seeds.

**Uses:** Largest edible fruit in the world. Fruits are useful in anorexia, sexual debility, flatulence; colic, cardiac debility. Latex is useful in external applications for hyperadenosis and abscesses.



## *Azadirachta indica*

Family: Meliaceae

**Common Name:** Neem tree, margosa tree, Indian lilac; **Vernacular Name:** Neem

***Azadirachta:*** Azad- Dhirakat free growing, noble tree; ***Indica:*** Pertaining to India.

The trees grow all over India. It is one of the best known Indian trees not only because of the reverence in which it is held by Hindus. It is a native of India and Malaysia.

### **Morphology**

Habit: A medium to large graceful deciduous tree.

Bark: Rough, grayish & delicate, with long and oblique fissures on the outer surface.

Leaves: Compound pinnate, leaflets 9-12, subopposite, obliquely, lanceolate, acute, serrate.

Inflorescence: Branched panicles.

Flower color: White and fragrant.

Flowering period: Mar-May.

Fruit: Drupe.

Method of cultivation: By seed.

**Uses:** Tree has exceptional medicinal importance. Bark is used in intestinal worms, skin diseases, eczema, leprosy, leucoderma, intermittent and malarial fevers, wounds, ulcers, burning sensation, tumor, tubercular glands, anorexia, and lumbago. Stem is used to clean teeth. Leaves are used in ulcers, boils, burning sensations, leprosy etc. Leaves absorb more Carbon: di oxide faster than other trees, more oxygen is released it is a healthy tree to grow in gardens and near houses.

**Ecological Importance:** House crow, Indian Myna, Little Brown Dove, Redvented Bulbul, White eyed Buzzard feed on fruits and use branches of the tree for nesting.

***Bassia latifolia*** Roxb. Syn. ***Madhuca indica*** J.F.Gmel.

Family: Sapotaceae

**Common Name:** Mahua tree, mowra butter tree; **Vernacular Name:** Mahua

***Bassia:*** In memory of Fernando Bass curator to the Botanical Garden, Bolonga, Itlay.

***Latifolia:*** (Latin) with broad leaves. ***Madhuca:*** Madhu (Sanskrit) honey, latinized name of Indian name. ***Indica:*** of India. The name refers to broader to longer leaves and to sweet liquor obtained from flowers.

### **Morphology**

Habit: A large tree with a short trunk & rounded crown.

Bark: Smooth, blackish brown small grayish patches, exuding milky latex.

Leaves: Elliptical about 10-11 inches long, bluntly acuminate, acute at base, coriaceous, lateral nerves about 12 pairs, parallel and prominent below.

Inflorescence: Flowers in dense fascicles near the ends of branches.

Flower color: Yellow.

Flower: Gamopetalous corolla and stamens 24-26 in 3 rows.

Flowering period: Mar-Apr.

Fruit: Berry.

Method of cultivation: By seeds.

**Uses:** Flowers distilled for the preparation of country liquor, seeds crushed to yield oil called vegetable butter.

## ***Bassia longifolia* Linn.**

Family: Sapotaceae

**Common Name:** Mahua tree, mowra butter tree; **Vernacular Name:** Dakhani Mahua

***Bassia:*** In memory of Fernando Bass curator to the Botanical Garden, Bologna, Italy.

***Longifolia:*** (Latin) with long leaves. The name refers to longer leaves and to sweet liquor obtained from flowers.

### **Morphology**

Habit: A large tree with a short trunk & rounded crown.

Bark: Smooth, blackish brown small grayish patches.

Leaves: Elliptical about 4 inches long, bluntly acuminate, acute at base, coriaceous, lateral nerves about 10 pairs.

Inflorescence: Flowers in dense fascicles near the ends of branches.

Flower color: Yellow.

Flower: Corolla united, stamens 16: 20 in two rows.

Flowering period: Mar-Apr.

Fruit: Berry.

Method of cultivation: Seed

**Uses:** Flowers distilled for the preparation of country liquor, seeds crushed to yield oil called vegetable butter.

***Bauhinia purpurea*** Linn. (Syn) ***Bauhinia variegata***. L

Family: Caesalpiniaceae

**Common Name:** Camel's foot tree, Geranium tree; **Vernacular Name:** Rakta kanchan

***Bauhinia*:** The name is given in memory of Bauhin & his brother Gaspard Bauhin. Leaf is two lobed grow from the same base refers to noble pair of brothers. ***Purpurea*:** Purple (Latin). The name refers to twin leaflets united to form a single leaf. It is native to India.

**Morphology**

Habit: An almost evergreen tree of moderate size

Inflorescence: Flowers fragrant in terminal& axillary few flowered corymbose racemes.

Bark: Thick nearly smooth, dark brown in colour, remnants of small dot like lenticels irregularly distributed.

Leaves: Simple opposite, roundish as broad as long divided in to 2 obtuse lobes, stipules long, triangular.

Flower color: Various to shades of purple.

Flower: Clawed petals, rosy purple with veins, fertile stamens 3, others reduced to staminodes, filaments as long as petals,

Flowering period: October.

Fruits: Pod linear, flat, pointed, 10-12cm long with 5-6 seeds.

Method of cultivation: By seeds and cutting

**Uses:** Tender leaves and flower buds are eaten as vegetables. The decoction of root is useful in dyspepsia and said to posses principles of antidote to snake poison. The bark is alterative, tonic and astringent and cures skin diseases and ulcers.



***Bauhinia racemosa*** Lam.

Family: Caesalpinaceae

**Vernacular Name:** Apta, sheethsona, vanu-raja

***Bauhinia:*** The name is given in memory of Bauhin & his brother Gaspard Bauhin. Leaf is two lobed grow from the same base refers to noble pair of brothers. ***Racemosa:*** racemes (Latin) a cluster of grapes or racemose Inflorescence. The name refers to raceme inflorescence.

**Morphology**

Habit: A small crooked tree.

Bark: Thick nearly smooth dark brown in colour, remnants of small dot like lenticels irregularly distributed.

Leaves: simple divided in to 2 rounded lobes broader than long green & glabrous above, white hairy below, base cordate.

Inflorescence: Terminal raceme.

Flower color: White or pale yellow.

Flower: Bracteate, stamens 10, all fertile, filaments hairy at base.

Flowering period: June.

Fruits: Pods stalked, blunt above, tapering below 12-20 seeds.

Methods of cultivation: Seeds.

**Uses:** Root bark is used in diarrhoea, worms, dysentery, swellings, ulcers and skin disorders. Paste of leaves applied on wounds, headache, decoction of leaves is given in headache, fever, biliousness, thirst, skin disorders, throat disorders, diarrhoea, dysentery, worms, etc. flowers are used in piles, haemorrhage, cough and indigestion

## ***Bauhinia tomentosa***

Family: Caesalpinaceae

**Vernacular Name:** Devkanchan

***Bauhinia*:** The name is given in memory of Bauhin & his brother Gaspard Bauhin. Leaf is two lobed grow from the same base refers to noble pair of brothers;

***tomentos*:** Presence of hairs on lower surface of leaves.

### **Morphology**

Habit: An erect shrub.

Bark: Thick nearly smooth dark brown in colour, remnants of small dot like lenticels irregularly distributed.

Leaves: bilobed, hairy below, main nerves 7 or rarely 9 from base.

Inflorescence: Short axillary

Flower colour: White a purple blot on the face, yellow.

Flower: Bracteate, stamens 10, all fertile, stigma peltate.

Flowering period: Nov-Jan

Fruit: Pods stalked flat, pointed, 8-12 seeds.

Methods of cultivation: By seeds.

**Uses:** Ornamental



***Bombax ceiba*** Dc. Syn. ***B. malabaricum*** Dc.

Family: Bombacaceae

**Common Name:** Red silk cotton tree; **Vernacular Name:** Kate savar

***Bombax*:** Cotton; ***ceiba*:** Latinized version of the South American name for silk cotton tree; ***Malabaricum*:** Malaber or from Malabar. It is native to America.

**Morphology**

Habit: A very big deciduous tree with hard conical prickles on the stem & branches.

Bark: Grayish brown with thick base conical prickles. Stem of grown up tree generally with large thick buttresses at the base.

Leaves: Palmately compound, leaflet 3-7 in number, lanceolate, tip pointed, base acute.

Inflorescence: Flowers many near the end of branches when the tree is leafless.

Flower colour: Yellow to red, rarely off white.

Flower: With leathery calyx & corolla, stamens arranged in 5 bundles of 9-15.

Flowering period: Feb

Fruits: Capsule, filled with long fibers of silky cotton embedding small brown seed.

Methods of cultivation: By seeds.

**Uses:** Roots are used in dysentery. Gum is useful in dysentery, leucorrhoea, influenza, burning sensation, blood impurities, haemorrhoids, strangury, and menorrhagia. Bark is used for fomenting and healing wounds, Skin eruptions. Young fruits are used in calculus affections, chronic inflammations and ulcerations of the bladder and kidney. Seeds are useful in treating gonorrhoea, chronic cystitis. Cotton is good for stuffing cushion and pillows.

**Ecological importance:** Purple: rumped Sunbird, Rosy Starling, Golden Oriole, Green Bee: eater, Crimsonbreasted Barbet or Coppersmith, House Crow, Jungle Crow, Redvented Bulbul, Black: hooded Oriole, Greater Racket: tailed Drongo, White-bellied Drongo, Chestnut-shouldered Petronia, Large Grey Babbler, Great Tit, Yellowfronted Pied or Mahratta Woodpecker feed on nectar and insects on branches and stem.



## ***Boswellia serrata***

Family: Burseraceae

**Common name:** Indian Olibanum; **Vernacular name:** Dhupali

The plant is native to much of India and the Punjab region that extends into Pakistan.

### **Morphology**

Habit: It is a medium sized tree, 3-5 m tall

Bark: Ash coloured papery bark

Leaves: Alternately arranged leaves are pinnate, crowded at the end of branches, 20-40 cm long. There are 8-15 pairs of leaflets, 3-6 cm long, with an odd one at the tip. Leaflets are ovate, with toothed margin.

Flowers: Flowers are tiny, creamy, about 8 mm across, borne in 10-15 cm long racemes in leaf axils. There are 10 stamens with a short style and a 3-lobed stigma.

Fruits: Fruits are 2 cm long, 3-cornered

Flowering: January

**Uses:** Indian Olibanum tree, on injury, exudates an oleo-gum-resin known as Salai, Guggal or Indian Frankincense. Extracts of Indian Olibanum have been clinically studied for osteoarthritis and joint function, particularly for osteoarthritis of the knee.



## ***Bougainvillea spectabilis*** Refulgens

Family: Nyctaginaceae

**Common Name:** Bougainvella; **Vernacular Name:** Bougainvel

***Bougainvillea*** –refers to Bougainville, a Mathematician, scientist, lawyer, soldiers and author;

***Spectabilis:*** Spectacular showy. The name refers to spectacular bracts of the plant.

### **Morphology**

**Habit:** An extensive climber by means of curved, woody thorns on the stem & branches which are also hairy

**Bark:** Smooth, brown, dot like elevated lenticels irregularly distributed

**Inflorescence:** Terminal or axillary panicles.

**Leaves:** Simple opposite, ovate, wavy, hairy

**Flower colour:** Off white.

**Flower:** Head consist of 3 petaloid bracts arranged as an involucre & carrying the flower, bract purple or rosy purple, membranous & reticulately veined .Each flower is adnate to the median nerve of the bract.

**Flowering period:** March –July

**Fruit:** achene

**Method of cultivation:** Cuttings, layering and budding

**Uses:** Ornamental plant

**Ecological importance:** Purple: rumped Sunbird, Red Whiskered Bulbul, Redvented Bulbul use the tree for nesting sites and to feed on insects on leaves.

***Brassia actinophylla* Syn. *Schefflera macrostachya***

Family: Araliaceae

**Common Name:** Queensland umbrella tree

***Actinophylla*:** (Latin) meaning ray like leaves in allusion to the arrangement of leaflets. The name is probably in honour of some celebrity. It is native of sub-tropical Australia

**Morphology**

Habit: An erect growing evergreen tree with beautiful foliage.

Leaves: arranged at the top of branches like an umbrella, digitate, leaflets 6: 8, leathery, shiny, green, elliptical oblong,

Inflorescence: Flowers on terminal spike.

Flower colour: Red.

Fruit: A berry obconic, ribbed below.

Methods of cultivation: .By seeds, cuttings.

**Uses:** Ornamental



***Bridelia squamosa*** Lamk. ***B.retusa*** Spreng.

Family: Euphorbiaceae

**Vernacular Name:** Asana, Ashind, Kutgi

***Bridelia:*** In memory of Prof.S.E. Bridel Swiss Botanist; ***Squamosa:*** squama (Latin) scaly;

***Retusa:*** retusus (Latin) blunt with a small shallow notch in a rounded apex.

**Morphology**

Habit: A small deciduous tree.

Inflorescence: Axillary clusters or terminal panicle spike.

Bark: Yellowish white, pointed thorns in groups distributed throughout the length.

Leaves: Alternate, leathery, elliptical oblong obtuse slightly pinkish brown before falling, entire or crenulate,

Flower colour: Greenish white.

Flower: Calyx tinged with red, petals 5, greenish white, obovate, stamens 5 united, disk fleshy & pulpy in male flowers but truncate enclosing the ovary in female flowers .

Flowering period: May-Oct.

Fruit: Drupe, fleshy seated on persistent calyx.

Methods of cultivation: By seeds.

**Uses:** Very useful in rheumatism and paralysis. Bark is used for tanning.

**Ecological importance:** Red Whiskered Bulbul, Redvented Bulbul, Indian Myna, Koel, Grey Hornbill, Rosy Starling feed on the fruits of trees



***Broussonetia papyrifera* Vent.**

Family: Moraceae

**Common Name:** Paper mulberry

**Morphology**

Habit: Tree 12 to 15 tall

Leaves: Long, obliquely, ovate or oblong, acuminate, entire or sinuately 2-3 lobed or toothed along margins, membranous, scabrid above, pubescent beneath

Bark: Dark brown, smooth, lenticels creamish red. Branchlets sub tomentose,

Inflorescence: Males & Females spikes

Flower color: White

Flower: Male spikes long, cylindrical, and pubescent. Female spikes, capitate, tomentose,

Flowering period: May-July

Fruit: Achenes, fleshy, red, shining.

Methods of cultivation: Seeds

**Uses:** The bark of the tree is stripped which after retting yields fibre. The fibre is jointed with arrow root paste and bitten together to form the famous tapa or kappa cloth.



***Butea frondosa*** Koenig. Syn. ***B. monosperma*** Kuntze.

Family: Fabaceae

**Common Name:** Flame of the forest, parrot tree, Bastard teak; **Vernacular Name:** Palas

***Butea*:** *Butea monosperma* Kuntze dedicated to John, Earl of Bute munificent patron of botany; ***Frondosa*:** frondis: frons (Latin) a leaf, a leaf of ferns; leafy twigs;

***Monosperma*:** monos (Greek) single, alone. The name refers to thick foliage and or one seeded pods. It is a native of India.

### **Morphology**

Habit: A medium size deciduous tree, untidy in growth.

Bark: Thick, fibrous & light brown or grey, corky easily removed in rectangular patches.

Leaves: Trifoliate, leaflets coriaceous, roundish, ovate. Flowers bracteate, bracteolate, corolla is papilionaceous, stamens 10 diadelphous.

Inflorescence: Flowers in big racemes.

Flower colour: Orange- red.

Flowering period: Feb –March.

Fruits: Pods pale green, pendulous, covered with silky hairs, yellowish grey when ripe.

Methods of cultivation: Fresh seeds, the young seedlings produce bulb like swellings at the base of the stem& may die back during hot weather, new shoots develop at the advent of the rainy season.

**Uses:** Bark useful in dyspepsia, diarrhoea, dysentery, haemorrhoids, intestinal worms, bone fractures, rectal diseases, gonorrhoea, ulcers, diabetes, tumors and hepatopathy.

Leaves are recommended in pimples, boils, flatulence, colic, worm infestation, inflammations, haemorrhoids. Flowers are used in diabetes diarrhoea, strangury, leprosy, skin diseases, swellings, menorrhagia, fractures and are very efficacious in birth control. Seeds are used in epilepsy, roundworms, arthritis, flatulence, constipation and diabetes. Gum is used in diarrhoea, haemorrhoids, dyspepsia and fever, hyperacidity, ulcer, skin diseases.

**Ecological importance:** Large Grey Babbler, Red: vented Bulbul, Green Bee: eater, Jungle Crow, House Crow, Great tit, Golden Oriole , Purple rumped sunbird, purple sunbird feed on nectar and insects on the tree.



## *Caesalpinia bonduc*

Family: Caesalpiniaceae

**Common name:** Yellow Nicker, **Vernacular name:** Sagarlata

### **Morphology:-**

Habit : Large, thorny, straggling shrub

Bark : Armed with hooks and straight hard yellow prickles

Leaves : Leaves are large, double compound, with 7 pairs of pinnae, and each with 3-8 pairs of leaflets with 1-2 small recurved prickles between them on the underside.

Inflorescence: Raceme

Color: Yellow

Fruit: Fruits are inflated pods, covered with wiry prickles.

Flowering season: March-May

**Uses:** Fruits are tonic and antipyretic. Seeds yield a fatty oil used as a cosmetic and for discharges from the ear. Leaves and bark are febrifuge. Seeds as jewellery



## *Caesalpinia ferrea*

Family: Caesalpinaceae

**Common name:** Brazilian Ironwood

Native to Brazil.

### **Morphology:-**

Habit: Tree

Bark: White and chocolate flaking bark. The bark of the Brazilian Ironwood is the single most attractive feature of the plant. The pattern formed by the flaking bark inspired the name "Leopard Tree".

Leaves: The leaves are double-compound, with broadly oval, rounded leaflets.

Infloriscence: Raceme

Color: Yellow

Fruit: Brown colored pods



## ***Caesalpinia pulcherima* Sw. Syn. *Poinciana pulcheriana***

Family: Caesalpinaceae

**Common Name:** Peacock flower, pride of Barbados; **Vernacular Name:** Shankasur

***Caesalpinia:*** *Andreas* Caesalpinices. A celebrated Italian Botanist Pulcher (Latin) beautiful;

***Pulcherima:*** most beautiful. The name refers to beautiful inflorescence.

### **Morphology**

**Habit:** A small unarmed shrub with stout trunk and spreading branches

**Bark:** Brownish grey, uneven lenticels, thorns elevated on oval base, bark papery white.

**Leaves:** Bipinnate, stipulate, leaflets 8-12 pairs

**Inflorescence:** Branched raceme

**Flower colour:** Yellow or red.

**Flower:** Calyx petaloid, deeply cleft, corolla: petals unequal, petals clawed, stamens 10, free, filaments, long petaloid.

**Flowering period:** Throughout the year.

**Fruits:** Pods oblong flat.

**Var flava:** A variety with bright yellow flowers.

**Var rosea:** A variety with rosy red flowers.

**Methods of cultivation:** Seeds or cutting

**Uses:** Leaves are used as purgative and stimulant. Infusion of flower is prescribed in bronchitis, asthma and malarial fevers. Fruits are rich source of tannin and the flowers yield a red dye.

**Ecological importance:** Rose: ringed Parakeet, Red: vented Bulbul, Pale: billed Flower Pecker, Purple-rumped Flower Pecker feeds on flowers and fruits and uses branches for nesting.



***Calliandra hybrida*** Var. Alipore

Family: Mimosaceae

**Vernacular Name:** Powder puff

***Calliandra*:** Kallos meaning beauty and ***Andros*:** Stamens in reference to the long, richly colored stamens which constitute the main feature of the blooms. It is native of tropical and sub-tropical America and India.

**Morphology**

Habit: A tall much branched shrub.

Leaves: Pinnately compound, leaflets 6-9 pairs, oblong, elliptic or linear long, flowers many in axillary powder puff like clusters. Filaments numerous deep pink, lower portion white.

Inflorescence: Axillary.

Flower colour: Lower portion white, filament numerous pink.

Flowering period: Throughout the year.

Methods of cultivation: Seeds or air layering

**Uses:** Ornamental



## ***Calliandra hybrida 'protoricensis'***

Family: Mimosaceae

**Common Name:** Powder puff

**Calliandra:** Kallos meaning beauty; **Andros:** stamens in reference to the long, richly colored stamens which constitute the main feature of the blooms.

### **Morphology**

Habit: A tall shrub about 2.5m high

Bark: Smooth, grayish brown, irregular pieces of bark not easily separated.

Leaves: Bipinnate with 2-5 pairs of pinnae, each of 3 leaflets obliquely obovate.

Inflorescence: Spherical head.

Flower colour: White.

Flowering period: Winter & spring.

Methods of cultivation: Seeds or cuttings. As the plants are fairly quick growing they need pruning almost every year.

**Uses:** Ornamental tree



## ***Calliandra hybrida 'tweedii'***

Family: Mimosaceae

**Common Name:** Powder puff

***Calliandra*:** Kallos meaning beauty; ***Andros*:** Stamens in reference to the long, richly colored stamens which constitute the main feature of the blooms.

### **Morphology**

Habit: A tall shrub about 3m high.

Bark: Cream color, lenticels dotted, slightly elevated giving red tinge to the stem smooth, branches almost spreading horizontally,

Leaves: Bipinnate with 10: 14 pairs of pinnae. Many leaflets narrow oblong & dull green.

Inflorescence: Hemispherical head, axillary.

Flower colour: Upper part of the stamens pink, lower part white.

Flowering period: Throughout the year.

Methods of cultivation: By seeds, air layering or cuttings

**Uses:** Ornamental tree



***Callistemon lanceolatus*** D.C. Syn. ***C. coccineus*** D.C.

Family: Myrtaceae

**Common Name:** Bottlebrush; **Vernacular Name:** Bottlebrush refers to appearance of flower is just like brush which is used for washing the bottles.

***Callistemon*:** (Greek) Kallos means beauty and stemon means stamen.

***Lanceolatus*:** (Latin) meaning lanceolate shaped in allusion to the leaves.

The name refers to beautiful stamens and lanceolated leaves. It is native of Australia

### **Morphology**

**Habit:** A low evergreen tree with slender drooping branches

**Bark:** Grayish brown, rough, bark deeply cleft vertically in to narrow ridges.

**Leaves:** Linear, lanceolate, leathery, midvein & lateral nerves prominent clustered near the ends of the twigs, reddish when young, calyx pale greenish, petals 5 cauducous, stamens indefinite, free, bright red, projecting stiffly outward.

**Inflorescence:** Flowers appears on cylindrical spikes at the tip twigs among leaves resembling a cylindrical brush,

**Flowering period:** Throughout the year except during winter.

**Flower colour:** Bright red.

**Fruit:** capsule.

**Methods of cultivation:** Seeds, cuttings and air layering. Seedlings take about 3 years to flowers.

**Uses:** Wood of the tree is very hard and heavy and can be used for preparing toys, shoe heels and decorative carvings. The leaves and twigs contain an essential oil rich in cineol which is used as an expectorant and in inflammation of nose and throat

**Ecological importance:** Pale: billed Flower Pecker, Rose: ringed Parakeet, Blossom: headed Parakeet, Ashy Prinia, Purple: rumped Sunbird, Great Tit feed on the nectare.



## *Capparis grandis*

Family: Capparaceae

**Common name:** Tree Caper, **Vernacular name:** Padanbor

Native to Indomalayan region.

### **Morphology:-**

Habit: Small tree

Leaves: Leaves are 4-6 x 3-4 cm, elliptic, ovate to obovate, woolly on both sides; leaf-stalk up to 1 cm, densely woolly

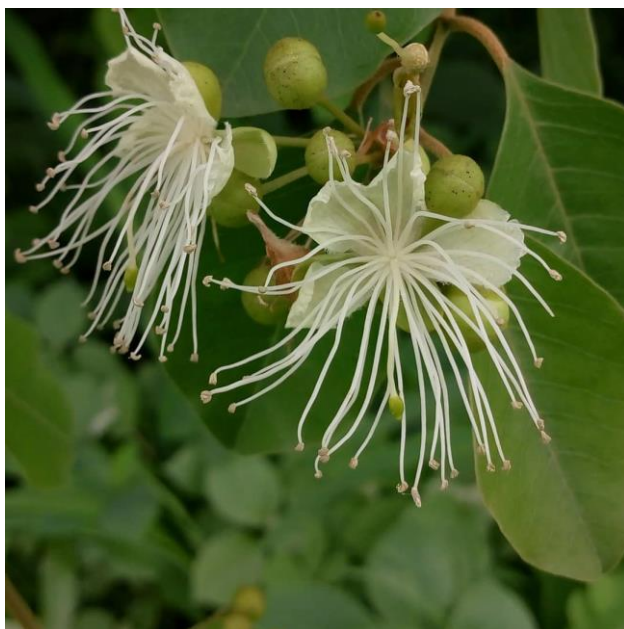
Infloroscence: Corymbs

Color: White

Fruit: Spherical berry

Flowering season: All year

**Uses:** Fresh leaves are cooked and eaten as vegetable soup to treat skin eruptions. Fresh leaves are crushed and the pulp is applied to insect bites.



***Carrisa carandas*** Linn.

Family: Apocynaceae

**Common Name:** Karaunda, Christ's thorn, Jasmine flowered, Carissa

**Vernacular Name:** Karvanda

**Carrisa:** Probably derived from Krishna which refers to black or blue colored berries.

**Carandas:** Congestus (Latin) collection heaped together. The name refers to blue black berries appearing in bunches.

**Morphology**

Habit: A large armed shrub. Branches with stout, straight, twin thorns, often branched above.

Bark: Creamish yellow bands, Lenticels off white, elevated from the base

Inflorescence: Terminal corymbose cymes

Leaves: Opposite, coriaceous, corolla salver shaped.

Flower colour: White

Morphological characters: Branchlets alternate with twin, stout, sharp horizontal thorns,

Flowering period: Jan-April

Fruit: Berry

Fruiting – May - June

Methods of cultivation: By seeds

**Uses:** Fruits rich in vitamin C, edible, unripe fruits are used as pickle. Roots are useful in stomach disorders intestinal worms, scabies and pruritus. Unripe fruit used in hyperdipsia, diarrhoea, anorexia and intermittent fevers. Ripe fruit is useful in burning sensation, skin diseases, scabies and pruritus.

**Ecological importance:** Eurasian Blackbird, Red Whiskered Bulbul, Crimsonbreasted Barbet or Coppersmith, Large Grey Babbler use branches for nesting and feed on the fruits.

## *Caryota urens* Linn.

Family: Arecaceae

**Common Name:** Kittul Elephant's Palm, Fish tail palm (refers to shape of branches resemble tail of fish.), Wild sago palm; **Vernacular Name:** Bherli mad

**Caryota:** Karyon is nut, the tree bears nut like Fruits. **Urens:** uro (Latin) burn stinging. The name refers to nut like fruits and sharply pointed leaflets. It is native to Newguinea, Australia and Malaysia.

### **Morphology**

Habit: A tall handsome palm

Inflorescence: Flowers monoecious, spadix, drooping and freely hanging

Leaves: Bipinnate, leaflet triangular, irregularly cut, wedge shaped, obliquely truncate, apex praemorse, the upper margin prolonged into a tail like process, leaf sheath smooth, fibrous, netted.

Flower color: Male flower reddish and female flower greenish

Flower: Placed in threes, the central and lowermost being female and develops late. The side flowers are male.

Flowering period: Throughout the year.

Fruit: Drupe, round yellow.

Methods of cultivation: By seeds, division of clumps

**Uses:** A very useful palm, the fiber are manufactured into ropes, brushes, brooms, baskets. From the pith a good quality of sago is obtained which is highly nutritive. Toddy it is also obtained from this palm, the terminal bud is edible. Tender leaves and nut are useful in diarrhoea, dysentery.

## ***Cassia fistula*** Linn

Family: Caesalpiaceae

**Common Name:** Indian laburnum, golden shower, purging fistula;

**Vernacular Name:** Bahava, amaltas, garma

***Cassia*:** Quetsiah (Hebrew): Kasia (Greek) old name used for the plant; ***Fistula*:** (Latin) tube, hollow throughout tubular. The name refers to tubular pods. It is native of India.

### **Morphology**

**Habit:** A small to medium sized open branched, deciduous and hardy tree of slow growth.

**Bark:** Smooth, greenish, grey on young trees, turning brown and rough with age, smooth, longitudinally lines.

**Leaves:** Paripinnate, leaflets 4-5 pairs, base wedge shaped.

**Inflorescence:** Drooping raceme

**Flower color:** Yellow

**Flower:** Fragrant, calyx and corolla 5, petals clawed, veined, stamens 10, 3 longest stamens are much curled and bear large much curled anthers, the 4 median stamens are straight and 3 remaining are very short and erect, staminodes.

**Flowering period:** March –June

**Fruit:** Pods long cylindrical, pendulous seeds many, embedded in sweet dark colored pulp separated by transverse dissepiments called phragmatas.

**Fruiting:** All year around

**Methods of cultivation:** By seeds

**Uses:** Roots are used in skin diseases, tuberculous glands, syphilis and burning sensations. Bark is used in boils, pustules, leprosy, ringworm, colic, constipation, fever, diabetes, dyspepsia, and strangury. Leaves are used in intermittent fevers, ulcers; skin diseases and leprosy. Flowers are useful in skin diseases, pruritus, burning sensation, dry cough and bronchitis. Fruits are useful in inflammations, rheumatism, jaundice, cardiac disorders, anorexia, and general debility.

*Cassia glauca* Lamk. *C. surattensis* Burm.f.ssp.

*C. arborescens* Vahl.

Family: Caesalpiaceae

**Vernacular Name:** Motha tarved

**Cassia :** *Quetsiah* (Hebrew): Kasia (Greek) old name used for the plant.

**Glauc:** glaucus (Latin) bluish grey, with bluish: grey and green tinge.

### **Morphology**

Habit: A big shrub,

Bark: Brown with reddish kidney shaped lenticels.

Leaves: Paripinnate, leaflets 4: 6 pairs with a gland in each of the lower 2: 3 pairs of leaflets, elliptic: oblong, sepals petaloid, stamens 10, all perfect sub equal

Inflorescence: Corymb raceme

Flower color: Yellow

Flowering period: Sept: Mar

Fruit: Pods flat straight.

Methods of cultivation: By seeds

**Uses:** Ornamental



## *Cassia marginata*

Family: Caesalpiniaceae

**Common Name:** The Burmese pink cassia; **Vernacular Name:** Pink cassia

**Cassia:** Quetsiah (Hebrew) : Kasia (Greek) old name used for the plant.

**Renigera:** renes (Latin) kidneys; renigera kidney bearing. The name alludes to kidney shaped stipules. Native to Burma

### **Morphology**

Habit: A small tree upto 6-9m high.

Bark: Brownish grey covered with small excrescences.

Leaves: Paripinnate, stipules large, kidney shaped, caducous, leaflets 8-20 pairs, oblong, rounded at the apex and slightly pointed. Leaf fall is in December to March. New leaves appear in May.

Inflorescence: Racemose. Clusters of flowers born upon a short sturdy stem

Flower color: Pink to white

Flower: Calyx of dull red sepals outside but green inside, pubescent. Petals deep pink, oblong, gradually turning to white as they become old. Stamens 10, the largest 3, swollen in the centre and much curled, anthers large and green, there are 4 median stamen and 3 small and erect, all fertile.

Flowering period: May-July

Fruits: Pods long cylindrical and indehiscent.

Methods of cultivation: by seeds

**Uses:** Ornamental planted on roadsides and Indian gardens



*Cassia siamea* Lamk. *Senna sumatrana* Roxb.

Family: Caesalpiniaceae

**Common Name:** Iron wood Tree, simax sens; **Vernacular Name:** Kasood, kashid

**Cassia:** Quetsiah (Hebrew)-Kasia (Greek) old name used for the plant.

**Siamea:** pertaining to Siam. The name alludes to the origin of the plant.

### **Morphology**

**Habit:** A medium sized evergreen tree reaching about 12-14 meter height, crown rounded becoming straggling upright drooping branches

**Bark:** Smooth grey marked with slight longitudinal fissures. Lenticels in longitudinal lines forming alternate longitudinal bands of light brown and black colour.

**Leaves:** Paripinnate, leaflets 6: 14 pairs, oblong emerginate, mucronate

**Inflorescence:** Panicles of corymbose raceme

**Flower color:** Yellow.

**Flower:** stamens 10, seven fertile and 3 sterile, pod flat brown

**Flowering period:** Aug –May

**Fruiting -** April

**Methods of cultivation:** By seeds

**Uses:** Avenue plantation



## *Cassine glauca*

Family: Celastraceae

**Common name:** Ceylon Tea    **Vernacular name:** Mothya bhutya

Endemic to islands of Sri Lanka.

### **Morphology:-**

Habit: Ceylon Tea is a large evergreen tree, upto 5 meters high.

Bark: Branchlets are reddish; bark red inside, exuding a watery sap when cut.

Leaves: Leaves are simple, opposite, 3-16 x 1.5-7.5 cm, elliptic, ovate-oblong or obovate, glabrous, dark green, shining above, glaucous beneath; petiole 0.5-1 cm long, channelled.

Inflorescence: Inflorescence is an axillary dichotomous cyme; Flower white or greenish yellow.

Fruit: Fruit green in colour, ovoid and a drupe..

Flowering: February-May



## *Casuarina equisetifolia* Forst.

Family: Casuarinaceae

**Common Name:** Beefwood tree, Australian oak, Ironwood, Oak

**Vernacular Name:** Suru

**Casuarina:** Cassowary (bird) : from Casuarius (Latin); **Equisetifolia:** acuss (Latin) equal, alike in number. The name refers to long weeping leafless branches which resemble the drooping feathers of the Cassowary bird and to almost equally divided branchlets. It is native to Australia, Malaysia and the Pacific Islands.

### **Morphology**

**Habit:** A tall straight slimmed tree reaching a height of 30 meter or more. The ends of branches, thickly set with numerous long, slender dropping branchlets, mostly deciduous, performing the function of leaves, branchlets jointed, internodes ribbed, from a distance branchlet look like a needle of pine

**Bark:** Blackish grey, smooth lenticels elevated and pointed

**Inflorescence:** Male flowers appears in terminal spikes, numerous at the end of branches, at the base of which female cones are borne on comparatively thicker twig

**Flower color:** Pinkish, inconspicuous

**Flower:** Male flowers in spikes, female cone very short and stalked, male and female flowers are usually borne on the same tree or sometimes on the same branch, in some born on separate plant

**Flowering period:** Aug - Nov. monoecious

**Methods of cultivation:** From seeds

**Uses:** Decoction of bark is given to treat nervous disorders, diarrhoea, gonorrhoea, cough, bleeding piles, dysuria, menorrhagia, asthma, diabetes, colic, and stomatitis. It is very useful for preventing soil erosion. Also makes good fire: wood. Dye from the bark is used to colour fishermen's nets.

**Ecological importance:** Brahminy Kite, Black Kite, Grey Hornbill, Jungle Crow, White bellied Sea Eagle use branches for nesting and shelter

***Cedrela toona*** Roxb. Syn. ***Toona ciliate*** Roem.

Family: Meliaceae

**Common Name:** Indian Mahogany tree; **Vernacular Name:** Mahanim, tuni, kudak

***Cedrela:*** Cedrella (Latin) diminutive of cedrus, cedar tree.

***Toona:*** Tun Hindi name of the tree. It is native to lower Himalayan region and subtropical regions of Burma, Malaysia and Australia.

**MORPHOLOGY**

Habit: A large handsome tree

Leaves: Abruptly pinnate, leaflets oblique, long, petiolate, ovate, lanceolate

Inflorescence: Large drooping panicles

Flower color: White

Flower: Scented. Calyx short, 5: partite, petals broadly elliptic, keeled stamens 5, disc hairy, orange colored, no staminodes, anthers versatile

Flowering period: Jan

Fruit: capsule, oblong septifragal, seeds winged

Methods of cultivation: By seeds

**Uses:** The wood is valuable in furniture making, flowers yield a dye and the bark is used in medicine for diarrhoea and dysentery



## *Ceiba pentandra*

Family: Bombacaceae

**Common Name:** White silk cotton tree, True kapok tree; **Vernacular Name:** Savar

**Ceiba:** is an aboriginal name of Central America; **Pentandra:** With 5 stamens. It is native to Andaman, Malaysia and Tropical America.

### **Morphology**

**Habit:** A tall deciduous tree reaching 20cm trunk straight, prickly and greenish when young, turning to brownish white to with age, lower part of the stem of grown up trees buttressed. Branches in whorls spreading horizontally at the right angle to the trunk

**Bark:** Off white with green patches, alternate bands of green and grey, eye like deep cut.

**Leaves:** Alternate, compound, digitately arranged, leaflets 5-8 ,entire, lanceolate,

**Inflorescence:** Flowers in axillary clusters

**Flower color:** Creamy white or light pink

**Flower:** Near the end of branches, calyx green, bell shaped, persistent, petals 5, creamy inside and wooly outside,

**Flowering period:** Jan-March

**Fruit:** is spindle shaped, leathery capsule, 5 celled, containing quantity of creamy white floss, consisting lustrous, unicellular hairs, closely packed around the glabrous closely packed around the back, small pea like seeds

**Methods of cultivation:** By seeds, cutting

**Uses:** Roots are useful in gonorrhoea, dysuria, and intermittent fevers. Bark is useful in abdominal complaints, tumors, constipation flatulence, hepatopathy, splenopathy Leaves are used as an emollient and the decoction of the flowers as a laxative in constipation.

**Ecological importance:** Purplerumped sunbird, Ashy Prinia, Tailor bird, Little Brown Dove, Jungle Crow, Red: vented Bulbul, Indian Myna and Crimson backed Sunbird feed on flowers and use branches for nesting.



## *Chrysalidocarpus lutescens* Wendl.

Family: Arecaceae

**Common Name:** Areca palm; **Vernacular Name:** Areca palm

**Chrysalidocarpus:** From the Greek for golden Fruits. One or 2 species of feather leaved palm from Madagascar. It is native to Madagascar.

### **Morphology**

**Habit:** A very handsome palm growing always in clumps of 3-4 or more. Stem slender about 3 inches with annual, distinct bamboo like rings about 4 inches apart

**Leaves:** Pinnate, segments many narrowly lanceolate, unequally bifid perianth 3+3, stamens 6, ovary 3 celled ,

**Inflorescence:** Flowers dioecious in drooping spadix.

**Flower color:** White

**Flowering period:** Sept-Oct

**Fruit:** drupe small, violet black.

**Methods of cultivation:** By seeds, division of clumps.

**Uses:** Ornamental



## *Chrysophyllum cainito*

Family: Sapotaceae

**Common name:** Star Apple, **Vernacular name:** Tarsiphala

Native to West Indies, Panama, and Central America.

### **Morphology:-**

Habit: Moderate-sized evergreen tree

Leaves: Leaves 3-4.5 X 2-2.5 in, oval or oblong with a silky-golden underside.

Flower Color: Whitish yellowish greenish

Fruit: Fruit is round in shape, smooth and firm with white to purple color. A cross section shows the star-like core.

Flowering season: July-August

**Uses:** grown as a roadside tree for its fruits.



***Cicca acida*** Merr.Syn. ***Phyllanthus distichus*** Mueli

Family: Euphorbiaceae

**Common Name:** Gooseberry; **Vernacular Name:** Rai avala

***Cicca*:** Refers to name of scientist; ***Acida*:** Sour. The name refers to taste of the fruit.

**Morphology**

Habit: A small deciduous tree.

Bark: Smooth, cream, lenticels brown, eye like at the center, traversed by vertical lines

Leaves: Alternate, pinnately distichous, ovate, acute, and oblique. Male flowers: sepals 4, disc of large glands, stamens free. Female flowers: sepals 4, disc annular, ovary 3 celled, styles 3-4, reflexed bifid.

Inflorescence: Flowers on large branches in clusters

Fruiting: March: April.

Flower color: Reddish small.

Flowering period: March –April, Aug –Sept.

Fruit: Berry globose, fleshy, lobed and grooved.

Methods of cultivation: Seeds

**Uses:** Fruits are edible and rich in Vit c



***Citrus medica*** Linn.

Family: Rutaceae

**Common Name:** Lemon; **Vernacular Name:** Limbu

**Citrus:** Kitron (Greek) citron, a town in Juda; **Medica:** medicus (Latin) curative.

The name refers to the medicinal properties of the fruit

**Morphology**

Habit: A Small tree, young shoots purple

Bark: Smooth yellowish brown bark

Leaves: Unifoliate, petiole very slightly winged, calyx cupular, petals 4: 8 stamens: 20, filaments variously connate, anthers oblong, disc large, ovary many celled stigma capitates

Inflorescence: Axillary, flowers unisexual.

Flower color: White

Flowering period: Throughout the year

Fruit: Ovoid, oblong, bright yellow, thick rind, pulp arid.

Methods of cultivation: By seeds and cuttings.

**Uses:** Roots are useful in constipation, colic, flatulence, strangury, renal and vesicle calculi, tumors, vomiting, and dental caries. Buds and flowers are useful in vomiting, tumors, abdominal disorders, asthma, cough and hicough. Fruits are recommended in hyperdipsia, dyspepsia, cholera, cough, asthma, vomiting, flatulence, dysentery, leprosy, skin diseases, epilepsy, worms, and toothache. Seeds are useful in inflammations, skin diseases, dysmenorrhoea and haemorrhoids. Fruit used in preparation of lemonade squash and made sherbet.

## ***Citrus sinensis***

Family: Rutaceae

**Common Name:** Sweet orange; **Vernacular Name:** Mosambi

***Citrus***– Kitron (Greek) citron, a town in Juda.

### **Morphology**

Habit: A small tree, young shoots greenish white.

Inflorescence: Cymose

Leaves: unifoliolate with oil glands, petioles winged, stamens 20-30, polyadelphous

Flower color: Purple white

Flowering period: Jan-June

Fruit: globose rounded at the apex, golden yellow or orange, when rind thick lightly adherent pulp, yellow, fairly sweet.

Methods of cultivation:

**Uses:** Fruit juice is given in thirst, fatigue, typhoid, depression, epilepsy, insanity, cancer, jaundice, general debility, fevers, vomiting, diarrhoea, cholera, acidity, anorexia, dyspepsia, worms etc. Fruit is highly nutritious, contain vit: c, and purifies blood, alloys thrust in fevers and improve appetite.

## *Cocos nucifera*

Family: Arecaceae

**Common Name:** Coconut; **Vernacular Name:** Naral

**Cocos:** Kokkos: Coccus (Greek) berry; **Nucifera:** nux (Latin) a nut, fero (Latin) bear. The name refers to plant which bears hard kernel nuts.

### **Morphology**

Habit: A handsome, tall palm upto 25m high trunk with circular markings straight or gently curved surrounded at the base by a mass of roots.

Inflorescence: Spadix.

Flower color: Yellow or orange male flowers

Leaves: Forming a crown on the top, very large pinnate, leaflets many linear, lanceolate,

Flowers: Spadix with numerous, small male flowers above & a few globular large female flowers below, spathe boat shaped, splitting above.

Flowering period: All the year round.

Fruit: Drupe, fibrous large obovoid, seed with white endosperm, brown testa & full of liquid, endosperm: coconut milk.

Method of cultivation: By seeds.

**Use:** Every part of this plants is useful in one way or the other as an article of food, drink, oil, fibers etc.roots are useful in uterine disorders, bronchitis, hepatopathy, strangury and helimentiasis. Juice of the young spadix is useful in dyspepsia, diarrhoea, diabetes, leprosy and general diability. Kernel is useful in bronchitis, tumors, skin diseases, eruptive fevers. Water is useful in hyperdipsia, exhaustion, dysentery, diarrhoea and dehydration. Oil is used in diabetes, bronchitis, cough, and consumption and graying off hair.

## ***Cordia dichotoma*** Forst

Family: Boraginaceae

**Common Name:** Sebesten plum, Losora; **Vernacular Name:** Bhokara

***Cordia*:** Refer to name of scientist E. Cordus and his son Valerius Cordus German Botanists of 16<sup>th</sup> century; **Cordate:** (Latin) heart shaped.

### **Morphology**

Habit: A big deciduous tree with crooked trunk

Bark: Brown superficial striations, can't easily removed, fissured.

Inflorescence: Cymose panicles.

Leaves: Alternate, ovate, obtuse, entire, cordate, flowers bisexual, drupe ovoid, pale yellow.

Flower color: White.

Flowering period: Feb-April.

Method of cultivation: By seeds and cuttings.

**Use:** Bark is useful in dyspepsia, fever, diarrhoea, burning sensations, and leprosy, skin diseases. Leaves are useful in gonorrhoea, sexual disability etc. Fruits are used as pickled, ulcers, leprosy, hyperdipsia, bronchitis, dry cough, chronic fever and ring worm.



***Cordia macleodii*** Griff

Family: Boraginaceae

**Common Name:** Dahipalas; **Vernacular Name:** Dahivan

***Cordia:*** Refer to name of scientist E. Cordus and his son Valerius Cordus German Botanists of 16<sup>th</sup> century; macleodii

**Morphology**

Habit: Trees, 8-10m high

Leaves: 5-15 cm as long as broad, ovate, scabrous, base cordate, margins crenate: dentate

Inflorescence: Short terminal and axillary corymbs

Flowering period: Feb-Aug

Flower color: White

Method of cultivation: Seeds

**Use:** Wood used as a timber. Wood is used for carts and their parts, agricultural implements, furniture, fishing rods, carving, turning and other ornamental works. Leaves and young shoots are fodder for buffoles.

## ***Cordia sebestina*** Linn.

Family: Boraginaceae

**Common Name:** Scarlet cordia, Aloe wood, Sebesten plum, Geiger tree.

**Vernacular Name:** Ghondan

***Cordia:*** Refer to name of scientist E. Cordus and his son Valerius Cordus German Botanists of 16<sup>th</sup> century. ***Sebestina:*** derived from Persian species, sapistan, grown around the town of Sebesta. It is native of Peru.

### **Morphology**

**Habit:** A small evergreen tree or large shrub reaching a height of 5: 8 m, often with a straight trunk but branching sometimes from the base.

**Bark:** Bark dark grey, rough & marked with deep longitudinal furrows, lenticels dotted, slightly elevated.

**Leaves:** Alternate, large, oval or elliptic, blunt or apex, rough, much wrinkled or wavy, calyx tubular, 4 or more lobed, ribbed, corolla funnel shaped, petals 5: 6, rounded & much crumpled or wrinkled

**Inflorescence:** Flowers in loose terminal racemes at the tip of the branches.

**Flower color:** Scarlet or orange red.

**Flowering period:** Flowers appear throughout the year, but profusely during Jan.: March.

**Fruit:** Drupe, pure white enclosed in persistent calyx.

**Method of cultivation:** Readily multiplies from seeds, cuttings & layering the plant is quick growing & seedling come to the flowering in 2 years, it grows in dry areas & under humid condition.

**Use:** Ornamental tree



***Cordia rothii*** Roem & Sohul Syn. ***C. sinensis***

Family: Boraginaceae

**Common Name:** Gondon; **Vernacular Name:** Gundi

***Cordia*:** Refer to name of scientist E. Cordus and his son Valerius Cordus German Botanists of 16<sup>th</sup> century; ***Rothii*:** In memory of Dr. A. W. Roth, a German Botanist

**Morphology**

Habit: A small deciduous tree.

Leaves: Sub opposite, entire oblanceolate, apex rounded, mucronate, base tapering into petiole,

Inflorescence: Cymes.

Flower color: White.

Flower: Calyx 4: 5 lobed, silky inside, corolla lobes 4, oblong, reflexed, stamens 4, filaments not hairy, ovary 4 celled, style terminal,

Flowering period: March-June.

Fruit: Drupe, ovoid, small yellow or reddish brown when ripe.

Method of cultivation: By seeds and cuttings

**Use:** The wood is used for making carriage, poles, combs, bowls and other utensils. The pulp of the fruit is eaten.

## *Couroupita guianensis*

Family: Lecythidaceae

**Common name:** Cannon Ball Tree    **Vernacular name:** Shivalingam

It is indigenous to the Amazon rainforest and is listed as a rare tree and flower in India.

### **Morphology:-**

Habit: It is a large deciduous tropical tree.

Leaves: The leaves, up to 6" long, are simple with serrate margin

Flowers: It flowers in racemes which is cauliflorous; the yellow, reddish and pink flowers are stunning fragrant

Fruits: The tree bears, directly on the trunk and main branches, large globose woody fruits; they look like big rusty cannonballs hanging in clusters, like balls on a string.

**Uses:** The hard shells are used to make containers and utensils. Cannon ball flowers are considered of special significance in Buddhist culture in Sri Lanka. In Tamil Nadu, it is called Nagalingam flower. The sivalingam shape is visible at the center of the flower and snake shaped pollen is the specialty of this flower and it has very good fragrance. This rare flower can be used for Shiva Pooja

## *Cycas circinalis*

Family: Cycadaceae

**Common Name:** Fern Palm; **Vernacular Name:** Jungli Madan-mast

### **Morphology**

Habit: A palm like evergreen slow growing tree with stout cylindrical trunk. The trunk is unbranched and rough. It is Native of tropical Africa, South India and Sri-Lanka.

Bark: Blackish, rough bark with the scar of fallen leaves.

Leaves: Scaly, sometimes produce small bulbils, leaves forming a crown, pinnate,

Inflorescence: A woody cone.

Flower color: Male and Female cones brown

Flower: Dioecious, male cone erect formed by many microsporophyll, female megasporophylls with 5: 8 mega sporangia, ovule spear shaped, dentate green: brown, seeds large yellowish red, size of a hen's egg.

Flowering period: Dec-Jan.

Method of cultivation: Bulbils, seeds, it is slow growing.

**Use:** Yield large, starch of good quantity, the pollens have unpleasant smell & many initiate sneezing in some people.



## *Cycas revoluta*

Family: Cycadaceae

**Common name:** Sago palm

Native to Southern Japan.

### **Morphology:-**

Bark : erect, sturdy trunks that are typically about one to two feet in diameter,

Leaves : leaves are a dark olive green and about three to four feet long when the plants are of a reproductive age

**Uses:** used for landscaping in gardens



***Dalbergia lanceolaria*** Linn.

Family: Fabaceae

***Dalbergia*:** In memory of Nicholas Dalberg a Swedish Botanist 1720: 1830.

***Lanceolaria*:** Lancea (Latin a lance, shaped like a lance: head, narrower than oblong, tapering at both ends, broader near the laria (Latin) like. The name refers to lance shaped, narrow leaves having prominent parallel nerves. It is native of Sikkim, Bihar and Western Peninsular India.

**Vernacular Name:** Phashi

**MORPHOLOGY**

Habit: A big tree.

Bark: Creamish yellow, rounded bark peels off in circular patches

Leaves: Imparipinnate, rachis straight, leaflets 5-7, elliptic or oblong, base connect with lower pale surface,

Inflorescence: Axillary or extra axillary panicles.

Flowering period: Mar-May.

Flower color: Greenish or yellowish white.

Flower: Bracts & bracteole, calyx silky hairy, petals with long claws, standard broad, stamens 10, diadelphous, ovary stalked,

Fruit: Pod broad, 1: 3 seeded.

Method of cultivation: Seeds, cuttings.

**Use:** Hard Blackwood used in making furniture. A decoction of the bark is used in dyspepsia. The seed oil is applied for rheumatic affections.

## *Dalbergia melanoxylon* G. & P.

Family: Fabaceae

***Dalbergia*:** In memory of Nicholas Dalberg a Swedish Botanist 1720: 1830.

**Melanaxylon:** mela: melan: melano (Greek) black. Xylon (Greek) wood. The name is given on the basis of black colored wood called as Chinese Blackwood.

**Common Name:** Chinese black wood, Sensar, Ebony; **Vernacular Name:** Dalbergia

### MORPHOLOGY

Habit: A small tree, branches more or less armed with short spines.

Bark: Off white, black dots, easily shifts off in the form of big pieces.

Leaves: 4: 5 inch long, stipules very caducous, leaflets subcoriaceous, petioles long,

Inflorescence: Axillary panicles about equaling the leaves

Flowering period: April: June

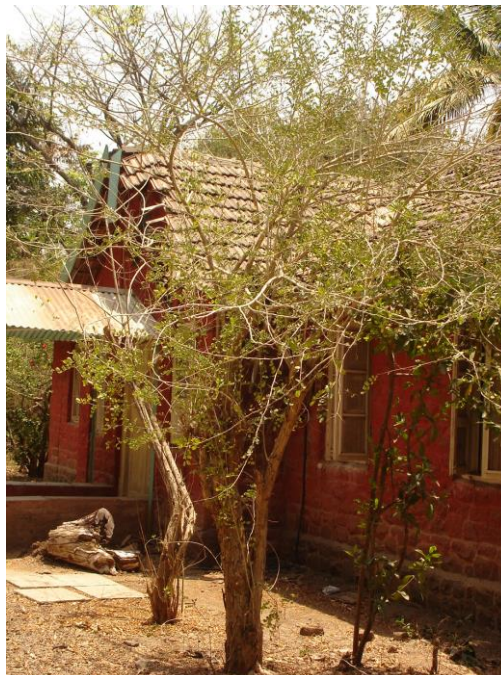
Flower color: Yellow.

Flower: Bracteates, bracteolate, corolla papilionaceous, stamens 9, monodelphous, the central stamens longer than the others,

Fruit: Pods ellipsoid: lanceolate, acute, reticulately veined, seeds 1: 2.

Method of cultivation: seeds

**Use:** Used in Senegal and Gambia for many of the purposes served by Ebony



## ***Dalbergia sisoo*** Roxb.

Family: Fabaceae

***Dalbergia*:** *Dalbergia*: In memory of Nicholas Dalberg a Swedish Botanist 1720: 1830.

***Sisoo*:** from Hindi name Siso which is derived from Sanskrit shish am. The name refers to corrupted Sanskrit name. It grows in sub-Himalayan tract from the Indus to Assam.

**Common Name:** Sisum; **Vernacular Name:** sisoo

### **MORPHOLOGY**

**Habit:** A large deciduous tree containing a height of 20 m or above.

**Bark:** Bark rough, grey & peels off in narrow longitudinal strips.

**Leaves:** Alternate, imparipinnate, leaf rachis zigzag,

**Inflorescence:** Axillary panicle.

**Flowering period:** Mar-June.

**Flower color:** Pale yellow, scented.

**Flower:** Sessile, calyx campanulate, corolla with a long claw, wings oblong, keel obtuse, stamens 9, monodelphous, ovary long, style incurved,

**Fruit:** Pod thin samara like, 1: 4 seeded.

**Method of cultivation:** Cutting & seeds.

**Use:** A valuable timber tree. Leaves are bitter & stimulant. A decoction of leaves in gonorrhoea.

***Delonix regia*** Raf. Syn ***Poinciana regia*** Bojer

Family: Caesalpiniaceae

**Delonix:** Delos (Greek evident, conspicuous on ux (Greek) a claw; **Regia:** royal. The name indicates flamboyant, conspicuous royal tree and to a claw shaped petal. It is native of Madagascar

**Common Name:** Peacock flower, flame tree, The Royal Gulmohar; **Vernacular Name:** Gulmohar

**MORPHOLOGY**

Habit: A large tree, deciduos quick growing, open branched, spreading tree, reaching up to 15: 20m

Bark: Bark slightly rough, grayish brown. Lenticels in the form of yellowish dot, in vertical lines, soft.

Leaves: Bipinnately compound, pinnae 8-20 pairs, leaflets 15-20 pairs,

Inflorescence: Corymbose racemes

Flowering period: April-July.

Flower color: Red.

Flower: Bracteate, bracts small, caducous, calyx deeply cleft, petals 5 wavy clawed, scarlet, Stamens10, free exerted, filaments hairy at base. Ovary flat monocarpellary,

Fruit:: Pod big flat, many seeded, seeds oblong variegated

Methods of cultivation: By seeds & cutting seedlings grows very fast, reaching about 3m in the same year &producing flowers when about 3 years old.

**Uses:** Wood is soft and is used for making ornaments and can be very highly polished. The flowers and buds are used for flavorings food.



## *Dendrocalamus giganteus*

Family: Graminae

Common name: Dragon bamboo

Native to Southeast Asia

### **Morphology:-**

Habit: A very tall, large-culmed, grayish-green bamboo, it grows in clumps consisting of a large number of closely growing culms, and typically reaches a height of 30 meters (98 feet), but one clump in Arunachal Pradesh, India reached a height of 42 meters.

Morphology: Culms are straight and grayish green with a powdery appearance, becoming brownish green on drying, with a smooth surface. Young shoots are blackish purple.

Internode length is 25–40 cm, and diameter is 10–35 cm. Culm walls are thin, branching only at the top. Aerial roots occur up to the eighth node. The rootstock is stout, the culm sheath is greenish when young, becoming dark brown when mature. Sheaths are large and broad, length of sheath proper 24–30 cm, and width is 40–60 cm. The blade is triangular, 7–10 cm long. The top of the sheath is rounded. Auricles are small, equal, and crisped. The upper surface of the sheath is covered with stiff, gold and brownish hairs.

The under surface is glossy, and not hairy. Sheath fall off is early.

**Uses**: In India, it is popular for bridge construction, used in house frames walls, reinforcement of concrete, ladders, scaffolding, tiles, and floor coverings, and the leaves are used for thatching.

***Dendrocalamus strictus*** Nees.

Family: Gramineae

**Dendrocalamus:** Dendron (Greek) tree, kalamos (Greek) reed

**Strictus:** (Latin) drawn together, straight or nearly so, close or narrow rigid.

The name refers to reed like appearance of the plant and to its rigid and solid fibre.

**Common Name** –Bamboo; **Vernacular Name:** Bamboo

**MORPHOLOGY**

Habit: A tall deciduous densely tufted bamboo with strong stems. Stem solid, dull green or yellowish, nodes, swollen; stem sheaths variable covered on the base with golden brown stiff hairs, ligules narrow

Leaves: Petiolate, base rounded, gradually narrowed upward in to a twisted tip, rough, hairy above, spikelets hairy, spiny, and fertile inter-mixed with sterile smaller one with 2-3 fertile florets, floral glumes ovate.

Inflorescence: Panicles of dense globular head flowering.

Flowering period: October-March

Flower colour: Brown

Flower: Small in clusters, rather rare. Flowering of Bamboo takes place after a certain number of years of vegetative growth. After the flowering is over the clump usually dies.

Fruit: Rather rare, ranging the size of wheat grain chaff to the size of a fist. The rapid regeneration from seed is proverbial.

Methods of cultivation: By seeds and division of clumps.

**Uses:** Young shoots used in pickles, white substances from hollow nodes is useful in T.B. Stem yields fibre suitable for paper manufacture.



## ***Derris pinnata***

Family: Fabaceae

***Derris***: (Greek) a leather covering or skin; ***Pinnata***: Pinnately compound leaves.

Native to India, Srilanka, South China and Malayan.

**Common Name**: Indian beech (in February and March the new leaves unfold and look like the European beech), poonga oil plant; **Vernacular Name**: Karanj

### **MORPHOLOGY**

Habit: A tree.

Bark: Blackish brown, smooth vertical rays, transverse light brown, circular lines.

Inflorescence: Axillary racemose

Flowering period: April-June

Flower color: White or purplish

Leaves: Alternate, imparipinnate leaflets 5-9, opposite, ovate, oblong, bitterish smell when rubbed between fingers, stipules oblong,

Flower: calyx campanulate, purplish, corolla papilionaceous, stamens 10, monadelphous,

Fruit: Pod obliquely oblong.

Methods of cultivation: By seeds

**Uses**: The seed yield oil used in skin diseases, burning in lamps and making soap

**Ecological importance**: Indian Myna, Ashy Prinia, Little Brown Dove, Large Grey Babbler, House crow use branches and leaves for nesting

***Diospyros embryopteris*** Pers. Syn. ***D. malabarica*** (Desr.) Kostel.

Family: Ebenaceae

***Diospyros***: Dios: Divine Pyros: pear; ***Embryopteris***: em () Greek in, bruon (Greek) shoot i.e. embryo pterus (Greek) wing; ***Malabarica***: of or from Malabar (India).

The name alludes to somewhat pear shaped fruits.

**Common Name:** Riber Ebony, Wild mangosteen; **Vernacular Name:** Timburni

### **MORPHOLOGY**

**Habit:** Small or middle size tree 8: 15m tall. Branches numerous, spread, forming dense shady head.

**Leaves:** Oblong to lanceolate,

**Inflorescence:** Racemose axillary

**Flowering period:** March-may

**Flower color:** Creamish yellow

**Flower:** Male flower: shortly peduncled, fulvous, pubescent. Female flower: large than the male, calyx glabrous or pubescent. Corolla ovoid or oblong, shortly lobed, stamens 40 or more.

**Fruit:** Large, solitary, subglobose, yellow.

**Methods of cultivation:** By seeds

**Bark:** Brownish black, irregular shape, bark peel off easily

**Uses:** The fruits yield a resinous gummy substance. It is used in caulking small boats and for colouring fishing nets to protect them from wear and tear.

## *Dracaena fragrans*

Family: Dracaenaceae

**Dracaena:** The generic name is derived from Greek word drakaina ‘dragon blood, a red color used in the varnish industry is obtained from *D. draco*.

**Common Name:** Dragon plant; **Vernacular Name:** Dracaena

### **MORPHOLOGY**

Habit: Grow tall 4: 5 m in open & form a definite stem with a tuft of leaves on the top.

Common & hardy species branched or unbranched

Inflorescence: Long panicles.

Flower color: Yellowish.

Leaves: Large 50-60cm long, 5: 7cm wide, oblanceolate, recurved.

Methods of cultivation: It prefer warm condition & plenty of light ,but exposure to direct sun particularly in summer months, will result in scorching of leaves they are propagated by cutting of old stem into short pieces & planting in moist peat or sand.

**Uses:** Ornamental



## *Dypsis decaryi*

Family: Araceaceae

**Common name:** Triangle palm

It is indigenous to the Madagascan rainforest.

### **Morphology**

Leaves: The leaves are about 2.5 metres (8 ft 2 in) in length, growing almost upright from the trunk and arching gracefully outward about a metre from their tips. The leaf bases are arranged in three vertical columns set about 120 degrees apart on the main stem, forming a triangular shape in cross section. This shape has given rise to the palm's common name.

Infloroscence: The inflorescences branch out from the axils of the lower leaves. They produce yellow and green flowers that later produce round black fruit about 25 millimetres (0.98 in) in diameter.

**Uses:** The palm is a fine ornamental plant and is most valuable as a specimen tree or accent plant



## *Ehretia aspera* Roxb.

Family: Boraginaceae

**Ehretia:** In memory of G.D. Ehret, a German artist and botanist.

**Aspera:** asper (Latin) uneven, rough to the touch. The name alludes to scabrous leaves.

**Vernacular Name:** Datrang

### **MORPHOLOGY**

Habit: A small tree.

Bark: Brown, bark separates in the form of squarish pieces, smooth.

Inflorescence: Flowers in much branched corymbose cymes.

Flowering period: Jan –June.

Flower color: White.

Leaves: variable, elliptic oblong, oblique, obtuse, emarginated, entire.

Flower: Calyx ovate, 5 partite, corolla lobes 5, spreading, imbricate, stamens 5, exerted, ovary 2celled, style terminal, stout, bifid, stigma capitate,

Fruit: Drupe, 2 lobed, red black.

Methods of cultivation: By seeds.

**Uses:** A decoction of the fresh roots is given in renal diseases.



## *Elaeis guinensis* Jacq.

Family: Aracaceae

**Elaeis:** Elaica (Greek) olive; **Guineensis:** from Guinea or of Guinea.

The name refers to Guinean extract oil from the fruits Greeks used to do from their olives. It is native to South America and West Africa.

**Common Name:** African oil palm, Red oil palm

### MORPHOLOGY

Habit: A tall palm. It is well shaped, showy palm at the early stage of growth, stem stout, 10 m high.

Bark: Black smooth, no lenticels, small superficial pores, irregular patches.

Leaves: Pinnately compound, 3-4 m long, leaflets 50-60, linear lanceolate.

Inflorescence: Spadix interfoliar

Flowering period: January

Flower colour:

Fruits: Deep violet or red

Method of cultivation: By seeds or division of clumps. The seeds are germinated in a propagator in warm and moist condition at a temperature between 24°C and 30°C. Seeds germinate in 4-6 weeks.

**Uses:** The oil of the mesocarp of the fruit is very nutritious, used as food by the natives. Oil is extracted from outer covering of the fruit, used for cooking and to some extent for burning, in manufacture of soap. The residual cake is good for cattle.



***Elaeocarpus ganitrus* Roxb. *E. sphaericus* K.Sc.**

Family: Elaeocarpaceae

**Elaeocarpus:** Elaia or Elaios (Greek) wild olive tree, Karpos (Greek) fruit;

**Ganitrus:** Malayan name of the tree.

The name refers to drupe which resembles olive fruit.

**Common Name:**

**Vernacular Name:** Rudhraksha

**MORPHOLOGY**

Habit: A tree

Bark: Smooth, greenish brown, thorns at lower part, lenticels dotted, cream color, irregularly distributed

Inflorescence: Raceme

Leaves: Oblong, lanceolate, acute, serrate, decurrent into the petiole,

Flowering period: January-February

Flower: Sepals 4-5 valvate, oblong hairy petals oblong, lacinate, ciliolate, stamens about 40, in groups opposite each petal, anthers linear, one valve tipped at the apex with a small tuft of hairs ovary 5 celled.

Fruit: Drupe globose purple, stone tubercle, 5 seeds.

Methods of cultivation: By seeds

**Uses:** The tubercled stones are made into rosaries and bracelet which are worn by Brahmins, sadhus & fakirs. The flesh is sour and is considered useful in epileptic fits.

*Elaeodendron glaucum* Sensu *E. paniculatum* Wight&Arn. *Cassine*

*paniculata* Wight & Arn.

Family: Celastraceae

***Elaeodendron*:** Elaia (Greek) an olive dendron (Greek) a tree; ***glaucum*:** Glaucus (Latin) bluish grey; ***Cassine*:** North American name. The name alludes to olive fruit and to its yellowish green colour.

**Common Name:** Bakri Jamrasi; **Vernacular Name:** Bhutaker

### **MORPHOLOGY**

**Habit:** A Graceful moderate sized deciduous tree.

**Bark:** Grey or blackish colour, rough, fissured.

**Inflorescence:** Axillary or extra axillary dichotomous cymes

**Flowering period:** January-June

**Flower color:** Yellowish: Brown

**Leaves:** Opposite, elliptic and coriaceous,

**Fruit:** Drupes, obovoid, glabrous.

**Methods of cultivation:** By Seeds

**Uses:** The leaves have a sternulatory action and are used as snuff to relieve headache, diarrhoea and as fumigatory in hysteria. The fresh root bark is rushed into a paste with water and applied to swellings, diarrhea.

***Emblica officinalis*** Gaertn.

Family: Euphorbiaceae

**Emblica:** Aembelia. The Ceylonese (Shri Lankan) name of the plant.

**Common Name:** Amla Emblic myrobalan, avla; **Vernacular Name:** Avala

**MORPHOLOGY**

Habit: A small deciduous tree.

Bark: Whitish: grey, lenticels dotted, smooth, at surface level leaf scars present in a row.

Leaves: Small, distichous, linear, obtuse, appear like pinnate leaves.

Inflorescence: Axillary fascicles

Flowering period: February-May

Flower color: Greenish-Yellow

Flower: On leaf bearing branches, often on the naked portion below the leaves with fimbriate bracts at base, male flowers many on short slender pedicels. Sepals 6, stamen 3 on a short central column. female flowers few sub sessile sepals 6, disc cup like, ovary 3 celled, style 3.

Fruit: Fleshy, globose with 6 obscure, vertical furrows, pale yellow, of three : 2 seeded crustaceous cocci

Methods of cultivation: By seed

**Uses:** Richest sources of Vit: C, used in trefala churana

## *Erythrina indica* Lam.

Family: Fabaceae

***Erythrina***: Erythros (Greek) red; ***Indica***: of India. The name refers to red coloured flowers and to its origin. It is native of tropics and sub-tropics of both the Hemispheres

**Common Name**: Indian coral tree, Armed tree; **Vernacular Name**: Pangara

### **MORPHOLOGY**

**Habit**: A soft wooded, deciduous, quick growing, medium sized, spreading tree, stem & branches armed with prickle

**Bark**: Bark greenish grey, smooth & peels off in thin papery flakes, vertical wavy linings reaching 8-12m when grown in the open & above 15m in the forest.

**Leaves**: 3 foliate, pinnate, deciduous leaflets rhomboid, ovate, acute, stipels gland like,

**Inflorescence**: Raceme.

**Flowering period**: February-March

**Flower color**: Bright red

**Flower**: Calyx campanulate, velvety hairy, keel semicircular beaked, stamens 10, diadelphous, ovary stalked, style is curved, pods black moniliform, 4-8 seeded.

**Methods of cultivation**: By seeds and large woody cuttings, cuttings should be planted after the rains to avoid rotting.

**Uses**: New leaves are made into curries. Soft wood is used for making small boats and carving ornaments. Roots have nitrogen fixing bacteria to increase the nitrogen in the soil. Leaves are useful for feeding cattle. Seeds are poisonous.

**Ecological importance**: **Purple**: rumped Sunbird, Golden Oriole, Indian Myna, Brahminy Starling, Parrot, Crimsonbreasted Barbet or Coppersmith, Redvented Bulbul, Common Tailorbird, Greater Racket: tailed Drongo, Great Tit, House Crow, Jungle Crow feed on nectar and petals.

## *Eucalyptus globulus* Lab.

Family: Myrtaceae

***Eucalyptus***: Eu (Greek) well, Kalypto (Greek) to cover having a lid; ***Globulus***: globus (Latin) a ball, nearly spherical. The name refers to united calyx lobes and petals forming a lid or a cap which is shed when the flower opens and to inflorescence appearing in heads. It is native of Victoria and Tasmania

**Common Name:** Tasmanian blue gum; **Vernacular Name:** Nilgiri

### **MORPHOLOGY**

Habit: A highly aromatic leafy tree reaching nearly 40m

Bark: Grayish or bluish white, smooth, at maturity peels off in the form of flakes.

Inflorescence: Solitary or 2-3 together

Flowering period: January-February

Flower colour : White

Leaves: Lanolate, sickle shaped, thick white,

Flower: Calyx tube bell shaped obconical, oblong adnate to the ovary at the base to form a conical hard woody mass which is roofed over at the top by the sepals which form a cup, calyx tube covered with bluish white wax. Petals episealous, forming a cap or lid, caducous, stamens many & are borne on the margin of receptacle, anthers small

Fruit: Capsule dehisces transversely.

Methods of cultivation: By seeds

**Uses**: In cold & chest diseases & as an antiseptic. Its large scale plantation is for the production of biomass at an astonishingly faster rate. The wood is used as poles, timber, fire wood and for paper pulp. The essential oil is used by cosmetic and pharmaceutical industries.

***Eugenia jambolica*** Lam. Syn. ***Syzygium cumini*** Linn.

Family: Myrtaceae

***Eugenia***: In honor of Prince Eugene of Savoy, a Patron of Botany; ***jambolana***: Derived from Sanskrit jambu name for the plant; ***Syzygium***: Suzugos (Greek) joined with reference to the paired leaves and branch lets of a Jamaican species for which the name was used originally. The name refers to native name of the plant.

**Common Name:** Black plum, java apple; **Vernacular Name:** Jamul

**MORPHOLOGY**

Habit: A big tree

Bark: White exfoliates bark, no lenticels and smooth

Inflorescence: Cross panicle cymes

Flowering period: February-April

Flower color: White Fragrant

Leaves: Opposite, gland dotted, coriaceous, oval or elliptic oblong and acute intra-marginal nerve present.

Flower: Calyx limb cup shaped, teeth 4, petals 4, forming a calyptra, deciduous. Stamens indefinite, many seriate, filamentous and filiform, ovary inferior and

Fruit: Juicy purple berry with calyx remain at the apex, 1 seeded.

Methods of cultivation: By seeds

**Uses**: Fruit edible, seed powder in diabetes.

**Ecological importance**: Crimsonbreasted Barbet or Coppersmith, Grey Hornbill, Redvented Bulbul, Koel, Golden Oriole, Brown: checked Fulvetta, Blue Rock Pigeon use branches and leaves for nesting and resting and feed on fruits.

## *Euphorbia antiquorum* Linn

Family: Euphorbiaceae

***Euphorbia*:** In memory of Euphorbus, a physician to Juba, king of Mauritania

***Antiquorum*:** anti (Greek), opposite against of the ancient. The name refers to use of plant since ancient times. Species are found in India, Srilanka, South Africa, Madagascar, East Africa.

**Common Name:** Cactus; **Vernacular Name:** Thor

### **MORPHOLOGY**

**Habit:** A large much branches shrub, fleshy green, jointed with 3: 5 wings

**Leaves:** Small, obovate, fleshy deciduous, stipular spines, short sharp, divaricated, persistent.

**Inflorescence:** Cymes

**Flowering period:** June-Aug

**Flower color:**

**Flower:** cymes with central female flowers, glands 5, stamens many, ovary 3 celled, stigma bifid.

**Methods of cultivation:** By seeds and cuttings

**Uses:** Ornamental. Wood is used in making toys and other fancy articles. Plant used as hedge

***Euphorbia nerifolia*** Boiss.

Family: Euphorbiaceae

**Euphorbia:** In memory of Euphorbus, a physician to Juba, king of Mauritania

**Nerifolia:** Nerium (Latin) Leander, Phullon (Greek) a leaf.

The name alludes to oleander leaves or Nerium leaves and strap shape at the base.

**Common Name::** Neewdung, nurang

**Vernacular Name: :** Nivdung, sabar, sabarkandi

**Morphology**

Habit: Shrubs or a small tree, succulent, 4 m in high, much branched.

Inflorescence: Small solitary or dichotomous cyme

Flowering period: : Nov : April

Flower color: Red or pale yellow

Jointed cylindrical or obscurely 5 angled branches bearing short stipular thorns more or less confluent in vertical or slightly spiral lines. Leaves:: fleshy, deciduous, obovate, oblong, 6: 12 inch long, terminal on the branches. Leaves:: obovate: oblong, acute, base narrowed into short petioles. Involucres red or pale yellow, 3: nate.

**Methods of cultivation:** By cutting

Bark: Grey and brown bark with at alternate wavy bands. Grey part smooth and dark brown traversed by light orange line.

**Uses:** Juice is employed in earache, in ophthalmia.

***Euphorbia tirucalli*** Linn.

Family: Euphorbiaceae

**Euphorbia:** In memory of Euphorbus, a physician to Juba, king of Mauritania

**Tirucalli:** (Malayalam) false tree i.e. leaves are absent.

The name refers to leafless.

**Common Name:** Milk bush, Sher

**Vernacular Name:** Tridhari

**Morphology**

Habit: A small unmarked much branched tree. Stems green articulated, succulent.

Leaves: Linear: oblong, only at end of branches, deciduous, sap milky.

Inflorescence: Cyathia few, terminal.

Flowering period: February

Flower color: :

Branches profuse, thin, cylindrical, smooth green an almost leafless Leaves: Small, linear oblong, deciduous.

Bark: Smooth reddish brown, hard, papery, and wavy, off white bands runs throughout the length.

Methods of cultivation: By cutting, seeds

**Uses:** Planted as a hedge plant. The wood is soft and used for toy making.

***Ferronia elephantum*** Correa Syn. ***Ferronia limonia*** corr. *limonia*  
***acidissima*** L. ***Schinus limonia*** L.

Family: Rutaceae

**Ferronia:** Ferox (Latin) fierce, much armed with spines or prickles. Ferronia the goddess of the forests; **Ferollius:** (Latin) related to the dead; **Elephantum:** (Latin) pertaining to or eaten by elephants; **Limonia:** limus (Latin) mire, growing in mud, muddy, marshy or muddy places. The name refers to strong, straight, axillary spines & to its affinity for forests. The plantation is near tombs or grave yards, fruits are relished by elephants.

**Common Name:** Elephant apple, wood apple

**Vernacular Name:** Kavath

### MORPHOLOGY

Habit: A big tree armed with spines

Bark:

Inflorescence: Lateral or terminal hairy panicles with male and female flowers

Flowering period: March - August

Flower color: Red

Leaves: Imparipinnate, petiole and rachis flat, narrowly winged, leaflets 3-9, opposite, obovate or wedge shaped. Calyx small, 5-6 triangular lobes, stamens 10-12.

Fruit: A berry amphisarca, globose hard many seeded, rough, grey colored.

Methods of cultivation: By seeds.

**Uses:** Ripe fruits used for chutneys or jellies. Good tonic for liver and lungs stomites and sore throat.



## *Ficus Amplissima*

Family: Moraceae

**Common Name:** Indian Bat tree, **Vernacular Name:** Pipar

### **Morphology:-**

Habit: Deciduous/ Semi evergreen tree

Inflorescence: Syconium

Flowering Period: September to December

Fruit: Small, stalkless figs, initially light green ripening to red or purple

Bark: Greenish grey, yellow reflection blaze, with milky latex

**Uses:** Ornamental tree, common as bonsai or house plant



## *Ficus benghalensis* Linn.

Family: Moraceae

**Ficus:** (Latin) fig, the exact derivation is not known; **Benghalensis:** pertaining to Bengal. The name alludes to the origin of the species. It is indigenous to the sub Himalayan track and the eastern peninsula. Tree grows widely all over India.

**Common Name:** Banyan tree

**Vernacular Name:** Vad

### **MORPHOLOGY**

Habit: A huge spreading tree with a large number of hanging or column like roots which extent the growth of tree indefinitely. Branches and trunk smooth and milky.

Bark: Greenishblack patch not easily removed forming even stem surface.

Leaves: Simple alternate, ovate, obtuse, wavy

Flowering period: Nov-Jan

Inflorescence: Hypanthodium

Flower color: Red.

Flower: Male flowers monandrous, in the same receptacle with female and gall flowers, receptacle sessile.

Fruit: Syconus

Methods of cultivation: By seed

**Uses:** Aerial roots are strong and are used to make tent poles. Rope is made from the bark and young aerial roots. Leaves are used as plates and many parts of the tree are used in local medicine. This is also sacred tree to the Hindus. It is a great boon to weary travel during the summer heat for shade.

**Ecological importance:** Indian Myna, Crimsonbreasted Barbet or Coppersmith, Spotted Owllet, House Crow, Common Pariah Kite, Koel, Redvented Bulbul, Golden Oriole , Common Grey Hornbill feed on the fruits and use branches and trunk for nesting.

***Ficus benjamina*** Linn var. Comosa Syn ***F. comosa*** Roxb.

Family: Moraceae

**Ficus:** (Latin) fig, the exact derivation is not known; **Benjamina:** Probably refers to the supposed relation of the tree to the source of a resin or benzoin. It is native to Malayan and different parts of India in the wet regions.

**Common Name:** Java fig, Java willow, willow fig

### MORPHOLOGY

Habit: A large graceful broad headed evergreen tree reaching 15: 20 m height with spreading limbs and drooping branches that nearly touch the ground along the periphery.

Bark: Smooth, yellowish grey, yellow with dark brown transverse lenticels horizontally placed

Inflorescence: Female and gall flowers in the same receptacle. Hypanthodium

Flowering period: April - May

Flower color: Figs on ripening yellow to orange and dark red.

A few aerial roots develop from thick branches, Leaves: small, 5: 8 cm long, shining green, leathery ovate to elliptic. Fruit:s or receptacles in sessile, axillary pairs, globular or ovoid 1 cm diameter, Fruit:s orange color.

Methods of cultivation: By seeds or by large thick or small tip cutting.

**Uses:** It is cultivated as an avenue tree. It is also fancied by bonsai enthusiasts in the tropics as a suitable plant for their artistic pursuit.



## ***Ficus diversifolia***

Family: Moraceae

**Ficus:** (Latin) fig, the exact derivation is not known

**Common Name:** Mistletoe fig

### **MORPHOLOGY**

Habit: A woody shrub.

Leaves: Two lobed, obovate, hard

Leaves:: 5cm long, dark green with brown specks above, pale beneath,

Fruit: small yellowish with gray.

Method of cultivation: By seeds.

## *Ficus elastica*

Family: Moraceae

**Ficus:** (Latin) fig, the exact derivation is not known; **elastic:** Derived from elastic referring to property of Indian rubber which is manufactured from latex of the tree. It grows in Himalaya from East Nepal, Assam, Kashi hills and upper Burma.

**Common Name:** Rubber

**Vernacular Name:** Rubber

### **MORPHOLOGY**

Habit: A huge handsome glabrous quick growing tree with height upto 30 m. Aerial roots hang from the branches, trunk supported by high branching buttresses.

Bark: Brownish gray lenticel black horizontal elongated, sharply distributed

Inflorescence: Hypanthodium

Flowering period:

Flower color: Pinkish yellow or reddish Receptacle in pair on old axil inclosed.

Leaves: Simple alternate, thick, shining green or variegated or coppery pink nearly one third or more broad, oblong or elliptic

Fruit: Sessile oblong male, female and gall flowers within the same receptacle.

Methods of cultivation: Seed

**Uses:** Used for rubber manufacturing, ornamental.



***Ficus glomerata*** Roxb. Syn. ***Ficus racemosa*** Linn.

Family: Moraceae

***Ficus***: (Latin) fig, the exact derivation is not known; ***Glomerata***: glomus (Latin) a ball glomero (Latin), form into a sphere compactly clustered into round heap or head.

***Racemosa***: racemes (Latin) a cluster of grapes. The name refers to round receptacles appearing in clusters.

**Common Name:** Fig

**Vernacular Name:** Umbar

**MORPHOLOGY**

Habit: A large evergreen tree.

Bark: Yellowish white with grey patches soft, patches superficial.

Inflorescence: Hypanthodium

Flowering period: Receptacles February-June

Flower color: Receptacles pale green to red to purplish on ripening.

Leaves: ovate: oblong point blunt entire, slightly reddish, stipules ovate, scarious. Receptacles with short peduncles on trunks and branches, subglobose red when ripe. Male flowers: bracteates, sepals 3, stamen1, gall flowers sessile sepals 3 style short. Female flowers are sessile, sepals3.ovary superior, style short, stigma cup shaped.

Fruits: Clusters of figs on the trunk and main branches, reddish when ripe, infested with insects

Method of cultivation: By seeds.

**Use:** Bark considered useful in indeginous medicine.



***Ficus maclellandii***

Family: Moraceae

**Common name:** Banana-Leaf Fig

Native to India, Southeast Asia and China.

## *Ficus microcarpa*

Family: Moraceae

**Common Name:** Laurel fig; **Vernacular Name:** Nandrukh

Native to India

### **Morphology:-**

Habit: Evergreen tree

Inflorescence: Syconium

Flowering Period: March to May

Flower Color: White

Leaves: Alternate, Leathery, deep glossy green

Bark: Smooth and grey, milky sap, aerial roots

Fruit: Smooth pink with yellowish achnes

**Uses:** Ornamental plant, indoor plant. Bark used as pain relief



***Ficus religiosa*** Linn.

Family: Moraceae

**Ficus:** (Latin) fig, the exact derivation is not known; **Religosa:** pertaining to religion. The name denotes importance of the tree in the Hindu religion. It is native to Bengal and Burma.

**Common Name:** Peepal tree

**Vernacular Name:** Pimpal

**MORPHOLOGY**

Habit: A large glabrous branched tree 15-20 m height, branched, cracked horizontal. Also grows in gutter or crevices in the walls. The water and carbon di oxide is taken from the air.

Bark:

Inflorescence: Receptacles axillary, paired sessile,

Flowering period: March: August.

Flower color: Red

Leaves: coriaceous, ovate: rotund, base truncate, apex caudate, acuminate, margins often sinuous, lateral veins 6: 9 pairs, petiole long. Receptacles pink purple or black when ripens, basal bracts 3, silky, male flowers sessile in 1 ring, tepals 2, red free, ovate – lanceolate. Galls and females sessile, tepals 3-4, free.

smooth, pale greenish, bark full of perpendicular ridges knobles and hollows

Methods of cultivation: seed are distributed by birds at the end of Fruit: ripening

**Uses:** From the bark reddish dye is taken out. The leaves are used to feed camels and elephants. Leaves are dried and are used for decoration and often painted on. Wood is used for building small boats nearly every part of the tree can be used as medicine.

**Ecological importance:** Redvented Bulbul, Indian Myna, Crimsonbreasted Barbet or Coppersmith, Common Grey Hornbill, Black: crowed Night Heron, Little Cormorant, Woolly necked Stork, Common Pariah Kite use trunk for nesting and feed on fruits.

*Filicium decipiens* Wight & Arn. *Rhus decipiens* Wight

Family: Sapindaceae

**Common Name:** Tree fern

**MORPHOLOGY**

Habit: .Slow growing evergreen plant tree of compact growth and blackish stem.

Inflorescence: Axillary panicles

Flowering period: January-February

Flower colour:. Greenish white

Leaves: paripinnate, leaflet 12: 16 narrow elliptical shiny 10: 15cm long opposite, rachis broadly winged between each pair of leaflets, wing narrowing towards base, all these features giving a resemblance to the leaf of a fern. Flowers numerous, minute, unisexual, pentamerous.

Fruits: Ovoid, shining, purple when ripe, containing one seed.

Bark: .white gray rough bark easily removed no lenticels

Methods of cultivation: By cuttings, seeds.

**Uses:** Ornamental

## *Gardenia jasminoides* Elis.

Family: Rubiaceae

**Gardenia:** In honour of Alexander Garen, medical doctor and correspondent of Linnaeus.

**Jasminoides:** Resemblance with jasmine. It is native to China.

**Common Name:** Cape jasmine; **Vernacular Name:** Gandharaj

### MORPHOLOGY

Habit: A small shrub.

Inflorescence: Solitary.

Flowering period: July: Sept.

Flower color: White.

Leaves: opposite or alternate, oblong, elliptic, narrowed at both ends, shining, short: petioled, stipules acute, membranous.

Flower: Very fragrant, arranged on 6 winged peduncles, calyx persistent, corolla doubled, stamens 6.

Fruit: Berry.

Method of cultivation: By cutting and air layering

**Use:** Roots used in headache, hysteria & fevers. Flowers contain an essential oil used in perfumery. Plant is reputed to possess antiseptic and anthelmintic properties.



## *Gardenia latifolia* Ait

Family: Rubiaceae

**Gardenia:** In honour of Alexander Garen; **Latifolia:** Latus (Latin) broad, pullon (Greek) a leaf. It is Indeginous to India, particularly in Bihar and foothills of the Himalays.

The name refers to broadly ovate or obovate leaves.

**Common Name:** Cape jasmine; **Vernacular Name:** Dikamali

### MORPHOLOGY

Habit: A small deciduous tree, 5-6 m high.

Bark: Low, globular, crown & grey bark peeling off in flakes.

Inflorescence: Solitary

Flowering period: April

Flower color: White highly scented.

Leaves: opposite, large & half as broad, not shining.

Flower: stalked with a tube up to 7 cm long & 5: 9 corolla lobes.

Fruit: A fleshy berry, not ribbed containing many rather large seeds.

Method of cultivation: Cutting & air: layering

**Use:** The flowers make the night atmosphere charming with their fragrance during summer.



## *Gliricidia sepium* Walp

Family: Fabaceae

**Gliricidia:** Glis (Latin) a dormouse, Caedo (Latin) to kill; **Sepium:** growing in hedges or used for hedging. The name refers to the use of seeds & bark to poison rats and mice. It is now browsed by animals therefore, it is used for hedging. It is native of Central America and Columbia. It is introduced in Sri-Lanka, West-Indies and India.

**Common Name:** Giripushp the Madre tree of South America, Mata Raton, cacao

**Vernacular Name:** Saranga

### **MORPHOLOGY**

Habit: A quick growing deciduous tree, 15-20 cm high.

Bark: Short trunk covered with soft grey bark marked by longitudinal cracks, long, straight, slender branches, first rise vertically, many from thicker old branches but later bending to arch down.

Inflorescence: Racemose.

Flowering period: Feb-April.

Flower color: Pea shaped, pink, white purplish

Leaves: Imparipinnate, leaflets oblong, blunt at apex covered with fine hairs, black spotted below, deciduous in winter when the tree flowers. Calyx lobed, corolla with large erect backward curving standard, 2 sickle shaped wings and an incurving keel petal

Fruit: Pod long, flat.

Method of cultivation: seeds, large cuttings.

**Use:** Leaves are rich in nitrogen and serve as good manure. The fallen leaves enrich soil fertility of plantation crops. Powered seeds, leaves and bark are mixed with rice to make pallets of rat poison. The flowers are edible.

***Gmelina arborea*** Roxb.

Family: Verbenaceae

***Gmelina*:** In honor of John Gmelin, a naturalist.

***Arborea*:** arbor (Latin) a tree, of the garden or woods. It is native to Eastern Asia and Northern Australia. The name refers to affinity of the plants for woods.

**Common Name:**

**Vernacular Name:** Shivan

**MORPHOLOGY**

Habit: A moderate size, deciduous, unarmed, very fast growing tree.

Leaves: Simple, opposite, large, broadly, ovate, acuminate, cordate at base, hairy below.

Inflorescence: Small cymes of 1-3 flowers arranged in hairy panicle.

Flowering period: Feb-April.

Flower color: Yellowish

Flower: Bracteate, bracts caducous. Calyx bell-shaped. Corolla 2 lipped, densely hairy, 5 lobed with wavy margin, stamens 4, didynamous,

Fruit: drupe, ovoid, orange yellow.

Bark: Greenish white, it peels off in the form of quills.

Method of cultivation: By seeds.

**Use:** The timber is very hard & used for furniture work.

## *Grevillea robusta*

Family: Proteaceae

**Grevillea:** named after Charles F. Griville once vice president of Royal society of England and a patron of Botany; **Robusta:** (Latin) big or strong. Native of New South Whales and Quensland of Australia. Introduced in Sri-Lanka and India.

**Common Name:** Australian oak, silver oak; **Vernacular Name:** Rupasi (beautiful) name given for silvery: white colour of lower surface of the leaves and the showy golden yellow flowers.

### **MORPHOLOGY**

**Habit:** A tall narrow graceful tree with 20 m in the plains & taller in higher elevation. Branches, short, young ones, rusty tomentose.

**Bark:** Rough, brown.

**Leaves:** Spirally arranged bi: pinnate, secondary lobes entire or again lobed, lanceolate, dull green above and silvery beneath divided into 5-11 pairs of segments.

**Inflorescence:** One sided raceme. Flowers are Solitary or several together.

**Flowering period:** March-April.

**Flower color:** Orange

**Flower:** Set on short leafless branches of the old wood.

**Fruit:** oblong, compressed, leathery follicle, very oblique, seeds winged.

**Method of cultivation:** By seeds, seedling is quick growing.

**Use:** Ornamental. Wood is used for making decorative paneling, floors, furniture, spinning mill bobbins, violine, tennis and badminton rackets. Source of cellulosic raw material for pulp and paper industry. The bark is rich in lignin and lignin compounds and had many industrial Uses for binders, bark boards and soil stabilizers.



***Grewia tiliaefolia*** Vahl.

Family: Tiliaceae

***Grewia***: The name refers to Nehemiah Graw, M.D. an Anatomist; ***Tiliaefolia***: Tilia (Dutch) Linden lime tree, phulon (Greek) a leaf. The name refers to Linden tree leaves.

**Vernacular Name:** Dhaman

**MORPHOLOGY**

Habit: A hairy tree. Young parts covered by star shaped hairy scales

Inflorescence: Small umbellate peduncle, 3 or more, axillary, thick pedicel, 3: 5 divergent.

Flowering period: Mar.: Aug.

Flower color: Yellow.

Leaves: 3: 5 by 2: 3 inches, ovate, acuminate, lobed at the apex, crenate: dentate, hairy cordate & in equilateral at base, stipules leafy.

Flower: Bracteate, sepals & petals oblong or spatulate, gland present, torus, 5 teathed, stamens many.

Fruits: Drupes of pea size black, globose, 2 lobed.

Bark: Soft aggregated, blackish dots at certain place.

Method of cultivation: By seeds.

**Use**: Fiber of good quality and used for rope & strings. Wood is very hard and used for cart axis, fruits edible.

## *Guzuma tomentosa*

Family: Malvaceae

**Common Name:** Bastard cedar

**Vernacular:** Rudrakshi

### **Morphology:-**

Habit: A small tree

Bark: Soft grey, brown ray running throughout the length.

Inflorescence: Terminal and axillary panicle

Flower color: Yellow

Flowering season: Aug-Sept

Method of cultivation: By seeds

Leaves: Simple, tomentose,

Flower: Buds globose, calyx bell-shaped, hairy, sepals reflexed, petals bigger than sepals, stamens 10, connate into a column which is tubular below and consists of two fertile, 3 entomophilous filaments opposite the petals and five lanceolate staminodes opposite the sepals. Style connate,

Fruits: Capsule, oblong, woody. Tubercled

**Uses:** The inner bark of straight, luxuriant young branches, yield a fibre found to be of considerable strength, suitable for rope making

***Hamelia patens*** Jacq.

Family: Rubiaceae

**Hamelia:** In memory of French writer Louis Hamel; **Patens:** Latin open, wide, widely spreading diffuse. The name refers to spreading branch lets. Native of the West-Indies and Southern Florida.

**Common Name:** Scarlet Bush, Fire Bush; **Vernacular Name:** Hamelia

**MORPHOLOGY**

Habit: A handsome, perpetual flowering shrub growing up to 2.5 m high. Stem reddish, hairy, square.

Inflorescence: Helicoids cymes, pedicels short.

Flowering period: June-Sept.

Flower color: Orange red.

Leaves: Elliptic or oblong, narrow at both ends, green above pale below, opposite or in whorls of 3 nerves prominent & tinged with red beneath, petioles reddish, hairy, Stipules broad at base.

Flower: Bracteolate, calyx tube adnate to the ovary, campanulate, reddish, teeth 5, hairy. Corolla tubular, tube cylindrical lobes 5, short, stamens 5.

Fruits: Berry, blood red.

Method of cultivation: Seeds & cuttings

**Use:** Berries are edible and a syrup prepared from this is useful in dysentery.

## *Hardwickia binata*

Family: Caesalpiniaceae

**Common name:** Anjan; **Vernacular name:** Kamara

Native to India.

### **Morphology:-**

Habit : Medium or large deciduous ornamental tree

Bark : Silvery white and smooth, gradually changing as the tree gets older to dark grey and rough with irregular vertical cracks.

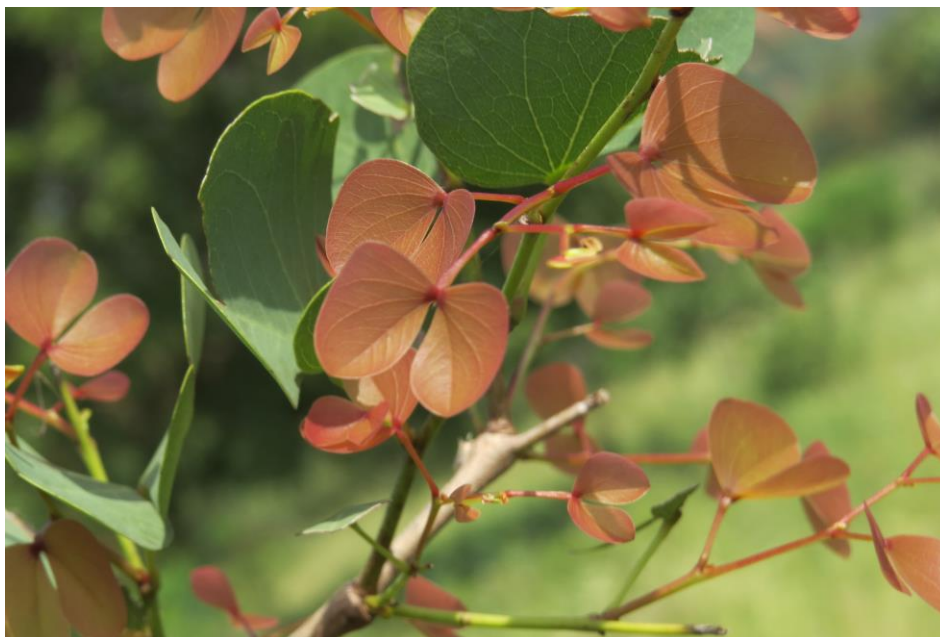
Leaves: Leaves small, 2-6 cm long by 2-3 cm wide, alternate, pinnate, almost kidney shaped and greyish-green.

Inflorescence: Panicked racemes

Color: Pale yellowish-green

Fruit: Pod flat and samaroid, 5-7.6 x 1-1.5 cm, oblong lanceolate, coriaceous, narrowed at both ends, with parallel longitudinal veins, containing 1 seed near the apex.

Flowering season: June-April



## *Heterophragma quadriloculare*

Family: Bignoniaceae

**Common name:** Waras; **Vernacular name:** Waras

### **Morphology:-**

Habit: Large deciduous tree

Bark: Brown bark

Leaves: Compound leaves are 1-2 ft long, crowded near the end of branches. Each leaf has 3-5 pairs of leaflets, and a terminal one. The elliptic leaflets are 5-12 cm long, unequal sided at the base.

Infloroscence: Panicle

Color: White with a rosy tinge

Fruit: Fruit is 20-30 cm long, and 3-5 cm broad, pointed.

Flowering season: February



## *Hibiscus rosa sinensis* Linn.

Family: Malvaceae

**Hibiscus:** The Greek name ebiskos used by Dioscorides for the marsh mallow.

**Rosa sinensis:** Refers to its common English name China rose or rose of china. It is native to tropics and a few from temperate regions. It is native to china.

**Common Name:** China rose, shoe flowers (flowers used in making shoe polish)

**Vernacular Name:** Jasvand

### MORPHOLOGY

Habit: An evergreen shrub.

Bark: Cream, lenticels are dotted, elevated, pointed black.

Inflorescence: Solitary, axillary.

Flowering period: July-Dec.

Flower color: Red.

Leaves: Ovate, acuminate, serrate, stipules lanceolate and deciduous.

Flower: Epicalyx of 5-7, lanceolate bracts. Calyx 5 lobed and tubular. Petals 5, tubular or united below with staminal tube which is much exerted. Ovary 5 celled, style long passes through the hollow staminal tube & divides into 5 branches with capitate stigmas.

Method of cultivation: By semi hard wood cuttings, layering, budding & grafting.

**Use:** The buds are cooling removes seminal weakness. The petals are used to blacken the shoes. A dark purplish dye is used in making shoe polish. Decoctions of flowers are used in bronchial catarrh. Green leaves are used as laxative. The root bark is prescribed in cough, fever and venereal diseases.



## *Hibiscus rosa sinensis* var “Juno”

Family: Malvaceae

**Hibiscus:** the Greek name ebiskos used by Dioscorides for the marsh mallow. It is native to china.

**Common Name:** China rose; **Vernacular Name:** Jasvand

### **MORPHOLOGY**

Habit: A dwarf bush, native of china.

Bark: Cream, lenticels are dotted, elevated, pointed black.

Leaves: Ovate, acuminate, serrate, stipules lanceolate and deciduous.

Inflorescence: Flowers double, compact in Solitary axillary.

Flowering period: July-Dec.

Flower color: Cherry red.

Flower: Epicalyx of 5-7 lanceolate bracts. Calyx 5 lobed, tubular, petals 5, tubular or united below with staminal tube which is much exerted. Ovary 5 celled styles long, passes through the hollow staminal tube & divides into 5 branches with capitate stigmas.

Method of cultivation: By semi hard wood cuttings, layering, budding & grafting.

**Use:** The buds are cooling to remove seminal weakness. The petals are used to blacken the shoes.

## *Hibiscus rosa sinensis* var 'snow flake'

Family: Malvaceae

**Hibiscus:** the Greek name ebiskos used by Dioscorides for the marsh mallow. It is native to china.

**Common Name:** China rose; **Vernacular Name:** Jasvand

### **MORPHOLOGY**

Habit: A medium sized shrub.

Inflorescence: Solitary, axillary.

Leaves: Ovate, variegated with irregular patches and strips of greenish green and cream white, acuminate, serrate, stipules lanceolate, deciduous,

Flowering period: July-Dec.

Flower color: Scarlet.

Flower: Small, epicalyx of 5-7 lanceolate bracts, Calyx 5 lobed, tubular or united below with staminal tube which is much exerted. Ovary 5 celled style long passes through the hollow staminal tube & divides into 5 branches with capitate stigmas.

Bark: Cream, lenticels are dotted, elevated, pointed black.

Method of cultivation: By semi hard wood cuttings, layering, budding & grafting.

**Use:** The buds are cooking to remove seminal weakness. The petals are used to blacken the shoes.

## *Hibiscus rosa sinensis* var 'variegated'

Family: Malvaceae

**Hibiscus:** the Greek name ebiskos used by Dioscorides for the marsh mallow. It is native to China.

**Common Name:** China rose; **Vernacular Name:** Jasvand

### **MORPHOLOGY**

Habit: An evergreen shrub.

Bark: Cream, lenticels are dotted, elevated, pointed black.

Leaves: ovate, variegated with irregular patches and strips of greenish green and cream white, acuminate, serrate, stipules lanceolate, deciduous,

Inflorescence: Solitary, axillary.

Flowering period: July-Dec.

Flower color: Red.

Flower: Epicalyx of 5: 7 lanceolate bracts. Flowers small, Calyx 5 lobed, tubular or united below with staminal tube which is much exerted. Ovary 5 celled style long, passes through the hollow staminal tube & divides into 5 branches with capitate stigmas.

Method of cultivation: By semi wood, hard wood cuttings, layering, budding & grafting.

**Use:** The buds are cooking to remove seminal weakness. The petals are used to blacken the shoes.

## ***Holarrhena antidysenterica*** Wall.

Family: Apocynaceae

**Holarrhena:** Holos (Greek) entire arrhen; **Antidysenterica:** (Greek) against dysentery.

The name refers to entire anthers and to use of the plant as an antidote for dysentery.

Indigenous to India.

**Common Name:** Easter tree, Ivory tree

**Vernacular Name:** Pandhara kuda

### **MORPHOLOGY**

Habit: A small deciduous tree of 6-7cm.

Bark: Cream coloured, somewhat rough, pale and brownish, lenticels cream, dotted

Inflorescence: Terminal Corymbose cymes

Flowering period: Feb-June

Flower color: White scentless

Leaves: Opposite, ovate oblong, thin obtuse, pointed, sub sessile, flower bracteate, calyx lobe 5, corolla salver shaped, tube as long as lobes, hairy outside, lobe oblong, rounded, mouth without a hairy ring, stamens 5, carpel 2, free, style filiform, stigma thick,

Fruit: A pair or follicle, 15 inch long seeds many.

Methods of cultivation: Root suckers, cuttings, seedlings are easily raised from seeds.

**Uses:** Seeds are used in Dysentery, diarrhoea and asthma. The dried bark constitutes 'kurchi' the trade name of the drug. The wood is used for shoe: heels, pen: holders, combs, toys, spoons, engravings, forks and small furnitures. The leaves are eaten by cattle. Seed floss is used for stuffing purposes.

***Holoptelea integrifolia*** Planch.

Family: Ulmaceae

***Holoptelea***: Holos (Greek) entire, ptelea (Greek) elm. Derived from ptao to fly;

***Integrifolia***: integer (Latin) entire folium (Latin) a leaf. The name refers to entire leaves and to samara fruit.

**Common Name:** Indian elm-kanju tree; **Vernacular Name:** Waval

**MORPHOLOGY**

Habit: A large deciduous tree, branches spreading sometimes with buttressed base.

Bark: Mixture of brown and white, lenticels red colour, evenly distributed.

Inflorescence: Short racemes or fascicles at the scars of fallen leaves

Flowering period: Feb-Mar

Flower color: Brownish

Leaves: Elliptic, acuminate, entire cordate

Flower: male and female flowers mixed. Sepals 4, hairy .Stamens 4: 8 (often 7) erect.

Ovary superior, 1: celled, style short,

Fruit: samara orbicular with reticulately veined wings.

Methods of cultivation: By seeds.

**Uses**: Children eat seeds

**Ecological importance**: Jungle Crow, Brahminy Kite use branches for nesting.

## *Ixora coccinea* Linn.

Family: Rubiaceae

***Ixora*** : Ishwara (Sanskrit) God, appreciated or loved by God; ***Coccinea***: Coccum (Latin) berry of the scarlet oak, scarlet or bright red. The name refers to bright red flowers which are sometimes used as offerings to deities.

**Common Name:** Scarlet Ixora, flame tree of woods, Bakora; **Vernacular Name:** Ixora

### **MORPHOLOGY**

Habit: A small shrub.

Inflorescence: Corymbs

Flowering period: Throughout the year

Flower color: Scarlet

Leaves: Sessile, opposite, elliptic, ovate or obovate with a sharp point cordate at base, coriaceous, stipules interpetiolar, triangular. Flowers with 2 small leaf like bracts & 2 bracteoles, sepals 4, reddish at the tips, corolla salver shaped with a slender tube, petals 4, spreading, ovate, stamens 4 alternipetalous,

Fruit: Globose berry.

Bark: Black, forming parallel horizontal ray like structures.

Method of cultivation: Root suckers.

**Uses:** Roots are sedative, used in diarrhoea and dysentery. Flowers are used for treating catarrhal bronchitis.

## *Ixora nigricans* Br.

Family: Rubiaceae

**Ixora:** Ishwara (Sanskrit) God, appreciated or loved by God; **Nigricans:** niger (Latin) black, nearly black, turning black. The name refers to flowers which are sometimes used in offerings to deities and branches somewhat alternately disposed in pairs. The leaves turn black when dry.

**Common Name:** Ixora; **Vernacular Name:** Ixora

Habit: A large evergreen shrub small, tree

Inflorescence: Corymbose cyme, turning black in drying

Flowering period: More or less through out the year

Flower color: off white

Leaves: membranous, elliptic, oblong, elliptic lanceolate, glabrous, flowers with glabrous sepals & petal,

Fruit: Globose.

Bark: Brown, smooth, bark concave.

Methods of cultivation: By seeds and root suckers.

**Uses:** Ornamental



*Ixora arborea* Roxb. Ex. Seems. Syn *Ixora parviflora* Vahl.

Family: Rubiaceae

***Ixora*** : Ishwara (Sanskrit) God, appreciated or loved by God; ***Arborea***: arbor (Latin) a tree, is relating to garden; ***Parviflora***: Parvus (Latin) small flora (Latin) flowers. The name refers to small flowers which are sometimes used as offering to deities.

**Common Name:** Raikuda, torch tree; **Vernacular Name:** Raikuda

### **MORPHOLOGY**

Habit: Woody, shrubs

Bark: Rough, dark brown which peels off in irregular rounded scales.

Leaves: opposite or alternate, coriaceous, elliptic, oblong or ovate, base cordate, stipules interpetiolar.

Inflorescence: dense terminal corymbose cymes.

Flowering period: : Throughout the year

Flower color: : White

Flower: buds ellipsoid, lower bract broad and pointed, upper ones lanceolate, connected by a stipule like membrane across the nodes, bracteoles minute. Calyx tube oblong, ovoid, small teeth 4 triangular, corolla salver shaped, slender, lobes 4, stamens 4, epipetalous

Fruit: of 2 pyrenes.

Methods of cultivation: Suckers

**Uses:** Branches are made into torches. Leaves are sometimes given as substitute fodder for domestic fodder.

***Jacaranda mimosifolia*** D. Don. Syn. ***J. ovalifolia***

Family: Bignoniaceae

**Jacaranda:** Latinized Brazilian name; **Mimosifolia:** Mimos (Greek) a mimic, phulon (Greek) a leaf; **Ovalifolia:** Oval shaped leaf. The name refers to mimosa leaves. It is native of Tropical America.

**Common Name:** Mimosea leaved Jacaranda; **Vernacular Name:** Nilmohar

**MORPHOLOGY**

Habit: A medium sized, graceful, deciduous tree reaching 8: 10m in height with an open, rather, straggling habit of growth.

Bark: Many grayish black lenticels. When lenticels removed leave creamy spots.

Inflorescence: Terminal panicles.

Leaves: Simple opposite, distant, bipinnate, leaflets oblong and rhomboid.

Flowering period: Mar: Apr.

Flower color: Violet blue.

Flower: Calyx 5, small, toothed corolla campanulate, tube slender & curved below, inflated above, 2 lipped. Stamens 4, didynamous, staminodes as long as the stamens, club shaped at the apex. Ovary superior, style short stigma bilobed,

Fruit: capsule, oblong, ovate or rounded & woody.

Methods of cultivation: Seeds or cutting

**Uses:** The leaf and stem bark are reported to have medicinal properties, given orally for the treatment of syphilis. An infusion of the bark is used for the lotion to wash ulcers.

***Jatropha curcas*** Linn.

Family: Euphorbiaceae

**Jatropha:** Jat or latros (Greek) Physician or healing trophe (Greek) food, having medicinal properties; **Curcas:** Tropical name of the plant. The name refers to medicinal properties of the plant.

**Common Name:** Physic nut purging nut; **Vernacular Name:** Mogali errand

**MORPHOLOGY**

Habit: A small tree.

Bark: Bark is in the form of yellowish green papery covering, lenticels dotted cream colored.

Inflorescence: Axillary cyme.

Flowering period: Sept-Nov.

Flower color: greenish yellow.

Flower: Bracteate, sepals 5, free disc with 5 glands, rudimentary, ovary 3 lobed ,style short ,stigma 3,capsule large, oblong, 3 lobed with 3 seeds each with a caruncle.

Methods of cultivation: By seeds.

**Uses:** Biodisel. The latex is said to blind the eyes. Children play with the juice to make beautiful bubbles.

## *Khaya senegalensis*

Family: Meliaceae

**Common name:** African mahogany

Native to Africa.

### **Morphology**

Habit: It is a tree with shining leaves, up to 100 ft tall, with wide dense crown and thick trunk.

Leaves: Leaves are compound, with leaflets usually drying pale glaucous green, 3-4 pairs, oblong or oblong-elliptic, more than twice as long as broad, rounded or blunt or sometimes pointed at the tip, 6-12 cm long, 2-5 cm broad.

Flowers: Flowers normally have parts in fours. Sepals are pale green; petals and staminal tube are cream colored, the latter pinkish below.

Fruit: Fruit is normally 4-valved, 4-6 cm in diameter.



## *Kigelia africana*

Family: Bignoniaceae

**Common name:** Sausage Tree

Occurs throughout tropical Africa, from Eritrea and Chad south to northern South Africa, and west to Senegal and Namibia.

### **Morphology**

Habit: It is a tree growing up to 20 m (66 feet) tall and it typically has spreading branches.

Bark: The bark is grey and smooth at first, peeling on older trees. It can be as thick as 6 mm (1/4 inch) on a 15-centimetre (5.9 in) diameter branch. The wood is pale brown or yellowish, undifferentiated and not prone to cracking.

Leaves: The leaves are opposite or in whorls of three, 30 to 51 cm (12 to 20 inches) long, pinnate, with six to ten oval leaflets up to 20 cm (8 inches) long and 5.7 cm (2 1/4 inches) broad; the terminal leaflet can be either present or absent.

Flowers: The flowers (and later the fruit) hang down from branches on long flexible stems (2–6 m [6 ft 7 in–19 ft 8 in] long). Flowers are produced in panicles; they are bell-shaped (similar to those of the African tulip tree but broader and much darker and more waxy), orange to maroon or purplish green, and about 10 cm (4 inches) wide. Individual flowers do not hang down but are oriented horizontally.

Fruit: The fruit is a woody berry from 30 to 99 cm (12 to 39 inches) long and up to 18 cm (7 inches) broad, but 20 cm (8 inches) has been reported. Typically it weighs between 5 and 10 kg (11 and 22 pounds) but occasionally up to 12 kg (26 pounds), and hangs down on long, rope-like peduncles. The fruit pulp is fibrous, containing many seeds.

**Uses**: The tree is widely grown as an ornamental tree in tropical regions for its decorative flowers and unusual fruit.

***Kleinhovia hospita* Linn (Syn) *Grewia meyenana* Walp.**

Family: Sterculiaceae

***Kleinhovia***: In memory of C. Kleinhoff Director of Botanical gardens of Batavia in Java; ***Hospita***: (Latin) comes from Latin hospes meaning guest. This name is believed to be used in reference to Kleinhoffs well known hospitality. The name refers to its exotic origin. Indigenous in tropical East Africa and Australia.

**Common Name:** Tree antigonon; **Vernacular Name:** Bhola

**MORPHOLOGY**

Habit: A medium size tree up to 15m with roundish crown & straggling branches.

Bark: Bark pale brown & often bear a number of knobby excrescences, long deep striations, bark corky, bark remove in the form of superficial peels.

Inflorescence: Terminal panicle

Leaves: Broadly ovate, cordate, acuminate, long, and glabrous.

Flowering period: Aug: Sept occasionally flowering is almost through out the year.

Flower color: Rosy.

Flower: Bracteate, sepals 5, deciduos, petals 5, unequal, shorter than sepals, the upper with longer claws margin involute. Staminal column elongate adnate to the gynophore, dilated above in to a 5 fid, bell shaped cap ovary inserted with in the dilated apex of the staminal coloumn, 5 celled, 5 lobed,

Fruit: capsules membranous, inflated.

Methods of cultivation: By seeds, cutting or air layering.

**Uses**: The wood is used in the preparation of handles for tools, knives etc. The bark yields strong fiber used for rope making. The bark and leaves are used as hair wash to destroy lice. The decoction of the leaves is externally used in skin eruptions and scabies.

***Lagerstroemia indica*** Linn

Family: Lythraceae

***Lagerstroemia***: In honour of Magnus Lagerstroem, Director of Swedish East India Company; ***Indica***: Of India or of East. The name refers to its origin China.

**Common Name:** Crape myrtle; **Vernacular Name:** Taman or motha bondara

**MORPHOLOGY**

Habit: A small deciduous shrub.

Inflorescence: Terminal panicle.

Flowering period: May-July.

Flower color: Purple

Leaves: alternate or sub opposite, oblong or ovate, entire, calyx bell shaped, petals 6 inserted at the top of the calyx tube between the teeth, crumpled clawed, stamens many, 6 longer than the rest, ovary superior, style incurved, stigma capitate, capsule tipped with style base, seeds many.

Bark: Smooth, reddish yellow and bark papery.

Method of cultivation: By seeds.

**Use:** Wood of the tree is very hard and used for boat building, house construction, railway sleepers, flooring, tool handles etc. Parts of the tree are medicinally important. The bark and leaves have purgative properties, while the root is astringent and stimulant.

## *Lannea coromandelica*

Family: Anacardiaceae

**Common name:** Indian Ash Tree **Vernacular name:** Shemat

### **Morphology**

Habit: Indian Ash Tree is a deciduous tree, growing up to 14 m tall.

Leaves: Alternately arranged leaves are pinnate, with a single terminal leaflet (pinnae) at the end. The spine carrying the leaflets is up to 7 cm long. Leaflets are usually 5, each laterals opposite, ovate, base rounded, densely velvet-hairy when young.

Flowers: Flowers are unisexual, greenish, the male in compound and female in simple racemes.

Fruit: Fruit is ovoid, compressed, in panicles, at the end of leafless branches.

Flowering: January-March.



## *Leucaena leucocephala* Linn.

Family: Mimosaceae

**Leucaena** is from the Greek leukainein to whiten

**Common Name:** Horse tamarind; **Vernacular Name:** Subabul

### **MORPHOLOGY**

Habit: A medium sized tree reaching 8 m or more in height, branches slender arising from close to the ground level.

Bark: Smooth, light brownish grey, lenticels orange color, arranged very closely, horizontally, groove is present in the centre of the lenticels.

Leaves: bipinnate, main rachis slender, channeled, hairy, ending in a weak spine, pinnae 3-6 pairs, leaflets 10-15 pairs, sea green, base oblique,

Inflorescence: Globose axillary heads.

Flowering period: Mar.: April & Aug.: Oct.

Flower color: White.

Flower: Calyx bell shaped, membranous, teeth short, triangular, petals spatulates, hardened at the tip, stamens 10, pods straight, flat.

Method of cultivation: Seeds, seedling grows very quickly reaching full height almost in 3 years.

**Uses:** Young pods and seeds are edible. Leaves are used as good fodder for cattle. In some places the bark is eaten to relieve internal pains.



***Livistona rotundifolia*** Mart.

Family: Arecaceae

***Rotundifolia:*** Leaves rounded

**Common Name:** Fan leaved palm

**MORPHOLOGY**

Habit: A tall handsome palm.

Inflorescence: Flowers in compound spadix.

Flowering period: Feb.: April.

Flower color: Greenish, small male & female.

Leaves: Rounded, palmately on very long spinous petioles, segments short and don't droop or curve downwards remain straight & stiff with the blade, petiole the double size of the blade and armed with recurved spines

Fruit: drupe, spherical, reddish, orange or black when ripe,

Method of cultivation: By seeds, seeds germinated in propagator in warm & moist condition at a temp between 24 & 30 oC

**Use:** Ornamental

## ***Magnolia grandiflora* Linn.**

Family: Magnoliaceae

**Magnolia:** In memory of Pierre Mango, France; **Grandiflora:** grandis (Latin) large, flora (Latin) the Goddess of flowers. The name refers to largest flowers. It is native of North America and East Asia.

**Common Name:** Lily tree, laurel magnolia, Bull Bay; **Vernacular Name:** Kavati chapha

### **MORPHOLOGY**

Habit: An evergreen pyramidal tree.

Bark: Grey, lenticels creamy, horizontally elongated, sparsely distributed, 3mm long, circular rings at certain intervals.

Leaves: evergreen, simple, alternate, obovate or oblong, long tapered to both ends, shiny above, rusty, pubescent beneath, leathery, thick and firm.

Inflorescence: Flower buds egg shaped borne singly at the tips of twigs and coated with silky white hairs.

Flowering period: Beginning of summer

Flower color: White, fragrant

Flower: Buds cup shaped when open, sweet scented, white petals 6: 12, oval fleshy, stamens numerous, purple,

Fruit: an etario of follicles, seeds red, pendulous by long cord.

Method of cultivation: By cuttings and layering

**Use:** The leaves and flowers are extensively used in flower arrangement and bouquets. The bark is said to be stimulant, aromatic and tonic, used in malaria and rheumatism. The wood may be transformed into unbleached pulp for making toys, masks etc.

## ***Mallotus Philippinensis*** Muell.

Family: Euphorbiaceae

***Mallotus***: *Mallata* (Nepalese) name of the plant. *Mallotos* (Greek) fleecy, dawny (Latin) white; ***Philippinensis***: of Philippines. The name refers to its local name to its origin and to capsule covered with red powder.

**Common Name:** Monkey face tree, Kalama; **Vernacular Name:** Shendri, Kapilo

### **MORPHOLOGY**

Habit: A small tree, all parts rusty, hairy.

Bark: Grey, brown rays running through out the length.

Leaves: alternate, ovate, lanceolate, lower surface hairy with many red glands,

Inflorescence: Male flowers in terminal spikes, female flowers in short spikes.

Flowering period: Nov-Jan

Flower color: Red

Flower: Small, dioecious, several male flowers together, sepals 4: 5, stamens many, in female flowers sepals 3: 4 ovary 3 celled with red glands, styles 3, capsules 3 lobed, covered with bright red powder consisting of minute stellate hairs & fine grains of red, resinous substance.

Methods of cultivation: By seeds

**Uses**: The red powder kamla is used as a vermifuge for round and ring worms. The powder covering the fruit is used as a dye.

## ***Mangifera indica*** Linn.

Family: Anacardiaceae

***Mangifera***: Mango (Quasi: Latin) fera (Latin) bear Mangi South Indian; ***Indica***: Of India. Native to Indo-Malaysian region.

**Common Name:** Mango; **Vernacular Name:** Amba

### **MORPHOLOGY**

Habit: Evergreen tree.

Bark: Thick rough, brownish, superficial yellow striations, cracking when old.

Leaves: Simple, crowded at the end of the branches, lanceolate or elliptic: lanceolate, narrow ending in a sharp point & often with wavy edges, young leaves often pink, coppery red or bronze, hanging vertically downwards, gradually turn green with age

Inflorescence: Flowers small, polygamous in large, many flowered, panicles.

Flowering period: Jan-Feb.

Flower color: Yellowish pink,

Flower: Unisexual or bisexually, sepals ovate, concave, petals oblong, reflexed with 3 strong orange colored ridges on the inner surface, disc globular, large fleshy, 5 lobed between corolla & stamens, stamens 1-5, but only 1 fertile & much longer than the others, purple,

Fruit: drupe.

Method of cultivation: By seeds and vegetative propagation.

**Use**: Fruits edible. Wood is used for making furniture and boats. Leaves used for decoration on festival occasions.

**Ecological importance**: Spotted owlet, Parrot, Indian Myna, Golden Oriole, Shikra, Iora, Red: necked Falcon, Black Dronge or King Crow, Large Grey Babbler, White throated Fantail use the tree as hiding place, branches and trunk for nest.



***Manilkera hexandra*** Roxb. Dub.

Family: Sapotaceae

***Manilkera***: Malabar (South Indian) vernacular name; ***Hexandra***: hexa (Greek) a male

**Common Name:** Rayan; **Vernacular Name:** Khirni

**MORPHOLOGY**

Habit: A large evergreen, slow growing tree

Bark: Blackish brown, hard wavy off white bands run throughout the length.

Leaves: obovate, oblong, emarginate, dark green, coriaceous,

Inflorescence: Flowers in solitary, or in fascicles of 2: 6.

Flowering period: Sept-Nov.

Flower color: White.

Flower: Petioles grooved, calyx segments hairy, reflexed, ovate, corolla lobes nearly 18, in 2 series of 6 and 12. Stamens 6, staminods 6, alternate with the stamens, bifid.

Fruit: berry, 1-2 seeded

Method of cultivation: seeds

**Uses** : The fruits are edible. The wood is hard and tough much used for making sugar mills and oil presses and excellent for turning

## *Markhamia platycalyx*

Family: Bignoniaceae

**Markhamia:** named after C.R. Markham, who introduced cinchona into India.

**Platycalyx:** A native of Uganda.

### **MORPHOLOGY**

Habit: A tall evergreen tree up to 15m high.

Bark: Smooth, brown, transverse light circular lines.

Inflorescence: Large clusters

Flowering period: Feb: may

Flower color: Yellow with red lines

Leaves: 40-50cm long, leaflets 5-9, elliptic, oblong to obovate, 15: 20cm long, glossy green. Flowers trumpet shaped with spreading lobes, 6cm in diameters, Fruit:s linear capsules, 30cm long, seeds winged at ends.

Methods of cultivation: seeds

**Uses:** Ornamental



***Melia azadirachta*** Linn.

Family: Meliaceae

***Melia***: (Greek) the ash tree azad (Persian) free, excellent; ***Azadirachta***: darakht (Persian) tree. Native to Sub-Himalayan and Siwalik tracks of India. Also common in Burma, China and Persia.

**Common Name:** Bead tree, Persian lilac, bastard cedar, China berry;

**Vernacular Name:** Bakana nimb

**MORPHOLOGY**

Habit: a medium sized, fast growing, handsome deciduous tree reaches about 8: 12m height with a spreading crown.

Bark: Greenish brown, marked with long shallow vertical fissures

Leaves: Imparipinnate, leaflets 3-11, ovate, acute, serrate, oblique,

Inflorescence: Axillary panicle.

Flowering period: April-May

Flower color: Bluish white

Flower: Elongate, fragrant, staminal tube purple, 20 toothed, anthers 10 sessile one between each pair of teeth,

Fruit: Drupe.

Methods of cultivation: By seeds

**Uses**: Fruit stones are termed in to beads for rosary, wood used in making boxes used in making boxes.

## *Mesua ferrea*

Family: Clusiaceae

**Common name:** Cobra saffron tree; **Vernacular name:** Nag keshar, Thorla champa

Native to wet tropical parks of South Asia.

### **Morphology:-**

Habit: Evergreen tree

Bark: Brown with flaky peelings

Leaves: Simple, narrow, oblong, young leaves are red to yellowish pink

Infloroscence: Solitary cyme

Color: White petals with yellow center

Fruit: Ovoid, globose berry

**Uses:** Leaves are used against severe cold, oil for skin problems and rheumatism. Roots used as antidote against snake poison



## ***Michelia champaca*** Linn.

Family: Magnoliaceae

***Michelia***: Italian Botanist Michele; ***Champaca***: Sanskrit name of the plant. The name refers to Sanskrit name. Native of India, Burma and Malaysia

**Common Name:** Champak; **Vernacular Name:** Sonchapha

### **MORPHOLOGY**

**Habit:** A small handsome evergreen tree

**Bark:** Greenish brown

**Leaves:** Smooth and leathery, lanceolate, acute or acuminate, entire, slightly hairy below with bud scale stipules.

**Inflorescence:** Axillary, solitary

**Flowering period:** April-Sept.

**Flower color:** Bright yellow

**Flower:** very fragrant (hairy), deciduous bracts,

**Fruits:** Follicles oblong, grey with brownish spots, seeds orbicular, reddish: brown.

**Methods of cultivation:** By Seeds

**Uses:** Bark is stimulant and astringent. Root and root bark have purgative and healing properties. Flowers and fruits are stimulant, antiseptic, tonic, bitter and cooling. Flowers are used in religious ceremony & also by ladies for ornamenting their hairs. Seeds and fruits are used for healing cracks in feet. The fruits are edible. An essential oil from the flower is used in perfumery. Ornamental tree

**Ecological importance:** Jungle Crow, Indian Myna, Koel feed on fruits and use branches for nesting.

## ***Millingtonia hortensis*** L.f.

Family: Bignoniaceae

***Millingtonia***: In memory of Thomas Millington, an English botanist of 18<sup>th</sup> century;

***Hortensis***: (Latin) a garden. The name alludes to preference given to the tree in gardens. It is a native of Burma.

**Common Name:** Indian cork, Jasmine tree; **Vernacular Name:** Buch, akasnim

### **MORPHOLOGY**

**Habit:** A large, straight evergreen tree.

**Bark:** Hard, cream yellow, longitudinal striations.

**Inflorescence:** panicles of racemes.

**Flowering period:** Sept-Dec.

**Flower colour:** White.

**Flower:** Scented calyx small, bell shaped, corolla tubular, long, lobes 5, slightly bilabiate, and stamens 4: 5, didynamous,

**Fruit:** capsule.

**Method of cultivation:** By seeds.

**Use:** Bark of the tree which can be easily pulled off in chunks is used to make a rather poor type of cork. Wood used in furniture

**Ecological importance:** Shikra, Kite, Oriental Magpie Robin use branches and canopy for nesting and resting.

## *Mimusops elengi* Linn.

Family: Sapotaceae

***Mimusops***: Mimos (Greek) an ape, ops (Greek) a face; ***Elengi***: llanniyi (Malayalam) name of the tree. The name alludes to the flowers which may be fancied to resemble the face of a monkey. It is native to Malbar.

**Common Name:** Indian medlar; **Vernacular Name:** Bakul

### **MORPHOLOGY**

Habit: A small evergreen tree with a compact leafy head.

Bark: Soft, blackish brown, reddish elongated striations.

Leaves: Elliptic, acute.

Inflorescence: Flowers in solitary, or in fascicles of 2: 6.

Flowering period: Jan-Apr

Flower color: White

Flower: Fragrant. calyx hairy, segments 8, corolla longer than calyx, lobes 24, in 2 series, the inner series of 8, the outer of 16, stamens 8, staminodes 8, alternate with the stamens, lanceolate, hairs white

Fruit: berry

Method of cultivation: By seeds.

**Use**: Fruits are edible. The flowers are used for making garlands and much used by Indian ladies to wear in hairs. A delightful perfume is distilled from the flowers. Bark is used as astringent, tonic and diseases of the gums.

*Mitragyana parvifolia* Korth. Syn. *Stephegyne parvifolia* Korth.

Family: Rubiaceae

**Vernacular Name:** Kalamb

### **MORPHOLOGY**

Habit: A big deciduous tree.

Bark: Smooth yellow, grey patch, yellow part is smooth & grey get separated and falls off at maturity.

Inflorescence: Globose heads, peduncle with 2 small leaves at the base.

Flowering period: May-Aug.

Flowering colour: Greenish yellow.

Leaves: opposite, elliptic, obovate, or apex rounded or acute, stipules large, interpetiolar, pink, cauducous, flowers fragrant, calyx, corolla funnel shaped, lobes 5, stamens 5,

Fruits: capsule.

Method of cultivation: Seeds.

**Use:** Wood used in bobbins and house building.

**Ecological importance:** Jungle crow, Crested Serpent Eagle use branches for nesting sites

***Morinda citrifolia*** Linn.

Family: Rubiaceae

***Morinda*:** Morus: Mor (Celtic) mulberry, black indica of India; ***Citrifolia*:** Citrus (Latin) a lemon, folium (Latin) a leaf. The name refers to mulberry fruits, its origin and to citrus leaves.

**Vernacular Name:** Bartondi

**MORPHOLOGY**

Habit: A small shrubs.

Bark: Yellowish white, typical arrangement of bark in squarish patches.

Inflorescence: ovoid heads.

Flowering period: May-June.

Flower color: White.

Leaves: 5-8 by 3-4 inches, broadly elliptic, acute or obtuse, bright green, shining, stipules interpetiolar, connate, leaves opposite, calyx truncate, corolla funnel shaped, mouth hairy, stamens 5,

Fruit: A sorosis, white when ripe containing a number of hard, cartilaginous, 1 seeded, pyrenes.

Method of cultivation: Seeds.

**Use:** Dye from roots.



***Morinda tinctoria*** Roxb.Syn. ***M. coreia*** Bneh.Ham.

Family: Rubiaceae

***Morinda***: Morus: Mor (Celtic) mulberry, black indica of India; ***Tinctoria***: tingo (Latin) colour, relating to dyeing; ***Coreia***: thick, tough like leather. The name refers to mulberry fruits, its origin and to red yellow obtained from the bark. The leaves are coriaceous.

**Common Name:** Anishi, Alleri

**Vernacular Name:** Aseti, nagkara, Alainshi

**MORPHOLOGY**

Habit: A small tree.

Inflorescence: Globose heads.

Flowering period: Apr.: July.

Flowering color: Pure white.

Leaves: 4: 6 by 2: 3 inches, elliptic or oblong, lanceolate, acuminate, hairy, dull, interpetiolar stipules, leaves: opposite, pyrenes same as citrifolia.

Method of cultivation: By seeds.

**Use:** Leaves are eaten by cattle and used as timber.

***Moringa Oleifera pterygosperma*** Gaertn. Syn. ***M. Oleifera*** Lamk.

Family: Moringaceae

***Moringa***: Muringo name of the plant in Malayalam; ***Pterygosperma***: Petron: pteropetro (Greek) a wing. Sperma (Greek) a seed: ***Oleifera***: Oil bearing. The name refers to its local name and winged seeds. Ben: oil is obtained from the plant.

**Common Name:** Drum stick

**Vernacular Name:** Shevga

### **MORPHOLOGY**

Habit: Unarmed, deciduous trees with soft wood and gummy bark.

Bark: Yellowish grey, soft, lenticels in the form of dot, greenish, elongated lines latter turning creamy.

Inflorescence: Axillary panicles.

Flowering period: Sept : Dec

Flower color: White with red.

Leaves: alternate, pinnate, opposite, entire, obovate, gland at the base, deciduous stipules oblique, calyx cuplike, veined, unequal, stamen fertile, staminodes, present, filament hairy at the base,

Fruit: capsule, slightly twisted.

Method of cultivation: Seeds

**Use**: Fruits are used as a vegetable. and roots as horse: radish. From the seeds, oil of Ben used by watchmakers is produced. The decoction of root bark is used as a fomentation to relieve pain of spasm. The root and bark are used to produce abortion.

***Morus alba*** Linn.

Family: Moraceae

***Morus*** : Mulberry; ***Alba***: albus (Latin) white. The name refers to white mulberry tree.

**Common Name:** White mulberry

**Vernacular Name:** Tuti, shetu

**MORPHOLOGY**

Habit: A large deciduous shrub.

Bark: Brownish black, lenticels orange, vertical, horizontal, soft

Inflorescence: Male flowers in spikes.

Flowering period: Feb-March.

Flower color: Red.

Leaves: ovate, thin, cordate, acute serrate, lobed, stipules small, flowers monoecious, in male & female flowers sepals 4, stamens 4, female flower becoming fleshy Fruit: sorosis, small, oblong, red formed of fleshy calycis.

Method of cultivation: Cutting.

## *Muntingia calabura* L.

Family: Elaeocarpaceae

The name refers to white mulberry tree. It is native to Tropical America.

**Common Name:** Singapore cherry

### **MORPHOLOGY**

Habit: A tree, 4m tall.

Bark:

Inflorescence: solitary or in pairs.

Flowering period: Throughout the year.

Flower color: White.

Branches hairy. Leaves: oblong: lanceolate, acuminate at apex, obliquely rounded at base, serrate at margins, 3: 5 nerved, hairy on upper surface, wooly below.

Fruit: berries, glabrous, ripens pinkish red seeds numerours

Method of cultivation: By seeds.

**Use:**

**Ecological importance:** Red Whiskered Bulbul, Redvented Bulbul, Koel, Pale: billed Flower pecker, Yellow footed Green Pigeon, Purple Rumped Sunbird

Plant parts used: Fruit:s, nectar

***Murraya koenigii*** Spring.

Family: Rutaceae

***Murraya***: In memory of Johann Andreas Murray; ***Koenigii***: In honor of Samuel Koenig, a Swiss Mathematician. It is native to tropical Asia.

**Common Name:** Curry leaf

**Vernacular Name:** Kadinimb

Habit: A small tree.

Inflorescence: Panicles.

Flowering period: Feb.: April.

Flower color: White.

**MORPHOLOGY:** Leaves: very strong smelling, leaflets 11: 25 ovate, serrate shining, flowers small, calyx hairy, petals linear oblong, gland dotted, stamens 10, Fruit:s in close cluster, dark red berries.

Bark: Yellowish black, alternate bands, lenticels white, smooth, form vertical rays.

Method of cultivation: By seeds.

**Use:** Leaves aromatic, used to flavor curries.

***Murraya exotica*** Linn Syn. ***M. paniculata***

Family – Rutaceae

***Murraya*** : In memory of Johann Andreas Murray

***Exotica***: Exotikos (Greek) foreign.

The name refers to its alien origin. It is native to Tropical Asia, Indo-Malaysia and Wet Austrilia

**Common Name:** Indian box tree

**Vernacular Name:** Kunti

Habit: A small tree.

Inflorescence: Solitary or in terminal & axillary corymbs.

Flowering period: June: Oct.

Flower color: White.

**MORPHOLOGY:** Leaves:: imparipinnate, leaflets 3: 7, alternate, ovate, elliptic, glabrous & oblique, shining, flowers very fragrant, sepals small, petals 5, oblong: lanceolate, stamens 10 free, disc present, Fruit: berry, red when ripe.

Bark: Brown, rough, rectangular pieces run vertically.

Method of cultivation: By air layering, cutting, seeds.

**Use:** The bark is used in the preparation of cosmetics. Wood is used for walking sticks and engraving work. Fruits are edible. Leaves are said to be stimulant, astringent and used against diarrhoea and dysentery.

*Nerium indicum* Linn.

Family: Apocynaceae

**Nerium:** Nerion (Greek) the oleander, scented flowers, Neros (Greek) humid, Nenion old name of the plant; **Oleander:** oleo (Latin) to smell having good smell.

The name refers to its affinity for water courses and to sweet smelling flowers.

**Common Name:** Oleander rose: bay

**Vernacular Name:** Kaner

**MORPHOLOGY**

Habit: A small shrub, milky juice present.

Bark : Greenish, grey, glabrous surface, lenticels dotted, few irregularly distributed.

Inflorescence: Terminal panicles of cymes

Flower period: All the year round

Flower color: Pink, red, white

Leaves: Verticillate in 3 or 2 opposite, linear lanceolate, narrow at both ends. Flowers single or double, fragrant, bracts small. Calyx divided to the base, lobes 5, corolla campanulate, petals 5, rounded overlapping, corona of 5 scales present in the throat of the corolla, each scale divides into 2: 7 free segments, anthers convenient into a cone and adherent to the stigma, connective produced into a feathery appendage. Stigma dumbbell shaped. Fruit: a pair of follicles.

Method of cultivation: Cutting

**Use:** The whole plant is extremely poisonous particularly roots and bark. Tender

Leaves:: are said to be cardiac stimulant. Leaves::, bark, root and latex used in various preparations in ringworm, piles and leprosy. Bark of the root relieves excessive sneezing.

## *Nyctanthes arbor-tristis* Linn.

Family: Oleaceae

**Nyctanthes:** Nux: Nutos (Greek) night, anthos (Greek) flower; **arbor tristis:** arbor (Latin) a tree, tristis (Latin) sad. It is indigenous in North-East and central India.

**Common Name:** Night jasmine, Coral jasmine

**Vernacular Name:** Prajakta

### **MORPHOLOGY**

**Habit:** Trees or shrubs upto 10m high. Trunk grey or greenish white. Branches quadrangular, covered with stiff white hair.

**Bark:** Cream colored surface with blackish dots, lenticels dot like, elevated, big forming rough surface.

**Inflorescence:** Terminal cymes

**Flowering period:** Almost throughout the year

**Flower color:** White

**Leaves:** Ovate, acute to acuminate at apex, cuneate to rounded at base, margins entire or distantly dentate.

**Fruit:** capsules as broad as long, obcordate, flattened.

**Method of cultivation:** By seeds

**Use:** A dye extracted from corolla tube is used in dyeing cotton and silk cloths. The wood used for poles or batton based for thatching roofs. The bark is used as a tanning material. The leaves used as laxative, diuretic, fever, rheumatism and to children for expulsion of round and thread worms. Seeds are prescribed in scurfy infections of the scalp

**Ecological importance:** House sparrow, Tailor Bird use branches for roosting and nesting

***Opuntia dillenii*** (Ker Gasl) ***O. stricta*** (Haw).

Family: Cactaceae

***Opuntia***: Opus is a city in Greece where the plant occurs (Latin) name of the plant.

***Dillenii***: In honour of J.J. Dillenius. The name refers to origin.

**Common Name:** Cactus

**Vernacular Name:** Chapal

**MORPHOLOGY**

**Habit:** Shrubs up to 2m tall, Areoles raised densely elongate bristly, glochidiolate. Spines 5: 7 per areole, hellow, 0.7: 4.5 cm long.

**Inflorescence:** Flowers 5cm across

**Flowering period:** December-January

**Flower color:** Yellow

**Leaves:** deciduous. Perianth many.

**Method of cultivation:** Stem cutting.

**Ecological importance:** Little brown dove, Great Grey Shrike use branches for nesting



## *Parkia biglandulosa*

Family: Mimosaceae

**Common name:** Badminton Ball Tree    **Vernacular name:** Chendu phul

It is a native of W. Africa.

### **Morphology**

Habit: Perennial deciduous tree

Leaves: Bipinnate with very numerous leaflets; rachis of leaf downy, 1 ft. or more long; pinnae 20-30 pair, 60 to 100 pairs leaflets, rigid, 1/4 in. long.

Fruits: The pods of the tree, commonly referred to as locust beans, are pink in the beginning and turn dark brown when fully mature. They are 30-40 centimetres long on average, with some reaching lengths of about 45 centimetres. Each pod can contain up to 30 seeds; the seeds are embedded in a sweet, powdery yellow pulp.

Flowering: December-January

**Uses:** Ornamental



## *Parmentiera cereifera*

Family: Bignoniaceae

**Common name:** Candle Tree

Native to Central America.

### **Morphology: -**

Leaves: The oppositely-arranged leaves are each made up of three leaflets. They are borne on winged petioles up to 5 centimeters long.

Infloriscence: Solitary

Color: Greenish white

Fruit: Fruit is a taper-shaped berry It is green, ripening yellow, and waxy in texture.

**Uses:** It is also grown as an ornamental for its flowers and unusual appearance when the fruits are ripening.



***Peltaphorum pterocarpum*** Backer.

Family: Caesalpiaceae

***Peltaphorum***: Pelta (Latin) a shield Phroein (Greek) bear

***Pterocarpum***: Petron (Greek) a wing. Karpos: (Greek) a Fruit.

The name refers to the shape of a stigma. It is native of Sri-Lanka, Andaman, North Australia and Malaysia

**Common Name:** Rusty shield bearer (shape and colour of the seed cases look like shield), braziletto wood

**Vernacular Name:** Sonmohar

**Morphology:-**

Habit: A big tree, young branches, rusty, hairy with spreading crown and fine graceful feathery foliage. It is fairly fast growing tree.

Bark: Light brown, smooth, lenticels in scalariform manner, lip like lenticels in transverse rows.

Inflorescence: In terminal, racemose panicles.

Flowering period: Sept.: Nov. & March: May.

Flower color: Yellow.

Leaves:: abruptly bipinnate, leaflets 8: 10 pairs, oblique base, calyx cup like, corolla ovate, hairy at base, stamens 10, free,

Fruit: pods, flat, rusty red, oblong.

Method of cultivation: By seeds.

**Uses**: As an ornamental plant. Wood used for making furniture.

***Phoenix sylvestris*** Roxb.

Family: Aracaceae

***Phoenix***: The Greek name of the Date, or very purple.

***Sylvestris***: silva (Latin) a wood, growing in woods, wild.

The name alludes to affinity of the plant for woods or its occurrence in woods.

**Common Name:** Date palm, toddy palm

**Vernacular Name:** Shindi

Habit: A tall palm, unbranched.

Inflorescence: Compound spadix with boat shaped, brown or reddish patch, peduncle much flattened.

Flowering period: Jan.: March.

Flowering color: Male & female flowers white, fragrant.

**MORPHOLOGY:** Stem rough with scars of petioles of old fallen Leaves:. Leaves: forming a crown on the top, pinnate, leaflets 2: 4 at a point, linear, pointed in several planes, lower leaflets modified into spines, Leaves: are borne in a dense crown at the apex, in female flower staminodes 3: 4, carpels 3, stigmas sessile, hooked,

Fruit: is berry, orange or brown.

Method of cultivation: By seeds, division of clumps.

**Uses:** The Fruit: is edible but not very tasty; the juice is used as cooling beverages.

***Pithecolobium dulce*** Benth.

Family: Mimosaceae

***Pithecolobium***: Pithekos (Greek) ape, monkey ellobion.

***Dulce***: (Latin) sweet, agreeable to sight or taste.

The name refers to twisted pods resembling monkey's ear lobe and to white sweet & edible pulp which surrounds the seeds.

**Common Name:** Manila tamarind

**Vernacular Name:** Vilayati chinch

**MORPHOLOGY**

Habit: A small armed tree.

Bark: Background grey, brown rays, cushion of spines forming circular rings in the stem.

Inflorescence: Terminal racemose, panicle.

Flowering period: Jan-March.

Flower color: White.

Leaves: bipinnate, stipules modified into spines, calyx small, corolla tubular, stigma capitate, stamens monadelphous,

Fruit: pods, fleshy, twisted seeds.

Method of cultivation: Seeds.

**Uses**: Sweet, red, pulpy aril.

**Ecological importance**: Rose: ringed Parakeet, Indian Myna, Red Whiskered Bulbul, House crow, Grey Hornbill, Large Grey Babler

Plant parts used: Fruit:s, Branches for nesting

## ***Plumeria acutifolia*** Poir.

Family: Apocynaceae

**Plumeria:** French Botanist C. Plumier; **Acutifolia:** acutus (Latin) pointed folium (Latin) a leaf.

The name refers to pointed leaves. It is native to tropical America

**Vernacular Name:** Pandhara chapha

### **MORPHOLOGY**

Habit: A small deciduous tree with milky latex.

Inflorescence: Terminal cymose panicles.

Flowering period: Feb.: Oct.

Flowering color: White with golden center.

Leaves: alternate, oblong, large, acute at both ends, intramarginal veins present, flowers large, waxy, fragrant, calyx lobes 5, corolla funnel shaped with 5 spreading petals, faintly tinged with pink below the left margin of each petal slightly curl over, Fruit: follicle.

Bark: Green, corky at some places, irregular shape, removed in the form of pieces.

Method of cultivation: Cutting.

**Uses:** The white sap is used for treating rheumatism. Ornamental tree and flowers are used in pooja.



## *Plumeria lutea*

Family: Apocynaceae

**Plumeria:** French Botanist C. Plumier. **Lutea:** *Flowers yellow* It is native to tropical America

**Vernacular Name:** Pivala chapha

Habit: A small deciduous tree with milky latex.

Inflorescence: Terminal cymose panicles.

Flowering period: Feb.: Oct.

Flower color: Colors of the flowers predominantly yellow, white also occurs, no pink or rose on the upper surface.

**MORPHOLOGY:** Leaves with intramarginal veins, flowers large, waxy, fragrant, calyx lobes 5, corolla funnel shaped with 5 spreading petals,

Fruit: follicle.

Bark: Green, corky at some places, irregular shape, removed in the form of pieces.

Method of cultivation: Cutting.

**Use:** Ornamental



## *Plumeria rubra* Linn.

Family: Apocynaceae

**Plumeria:** French Botanist C. Plumier; **Rubra:** Red colour of the flowers

It is native to tropical America

**Common Name:** Crimson temple tree, red frangielni, pagoda tree, red jasmine tree

**Vernacular Name:** Lal chapha, Khair champa, son champha, gobar champa

### MORPHOLOGY

Habit: Smaller than acutifolia tree.

Inflorescence: Terminal cymose panicles.

Flowering period: Feb-Oct.

Flower color: Flowers purple, red rose or crimson in various shades with or without white & different shades of orange or yellow at the throat.

Leaves:: intramarginal veins present, Leaves:: small, flowers large, waxy, fragrant, calyx lobes 5, corolla funnel shaped with 5 spreading petals, Fruit: follicle.

Bark: Green, corky at some places, irregular shape, removed in the form of pieces.

Method of cultivation: Cutting.

**Use:** The Leaves:: are used as a poultice to cure swellings. The milky latex is a remedy for rheumatism, and is applied in tooth ache, applied with coconut oil it cures skin troubles. The root bark has drastic purgative action. Wood is used for making musical instruments.



***Polyalthia longifolia*** Bth. HK. F.

Family: Annonaceae

***Polyalthia***: Polus (Greek) many, althmai (Greek) to become sound, althaino to heat.

***Longifolia***: (Latin) elongated Leaves:

The name refers to many medicinal properties of the plant and to narrow lanceolate pointed Leaves: It is native os Sri-lanka

**Common Name:** Ashok

**Vernacular Name:** Ashok

Habit: A tall handsome tree.

Inflorescence: A fascicle or shortly peduncled, umbel pedicels slender with a small deciduous bract about the middle.

Flowering period: April: June.

Flower color: Yellowish green.

**MORPHOLOGY:** Leaves: membranous, lanceolate, tapering to a fine point, shining, glabrous, margin undulate or wavy, gland dotted,

Flower; Inconspicuous in bunches of 5-6 with 3 sepals, triangular, pubescent, tips reflexed, petals 6, sub equal, tapering to a point, stamens many, connective truncately dilated beyond the cells,

Fruit: an etario of berries.

Bark: Brown, rough, rectangular bark forming furrows or ridges.

Method of cultivation: By fresh seeds.

**Uses:** Leaves:: used for decorative purpose to ran on auspicious occasions, straight long stem used for ship mast. Wood used for making matches and pencils

**Ecological importance:** Spotted Munia, Little Brown Dove, House sparrow

Plant parts used: Branches and Leaves: for nesting

## *Prosopis juliflora*

Family: Mimosaceae

**Prosopis:** Prosopon (Greek) a mask, burdock. It is native of Western-north America, Argentina and South Chile.

**Common Name:** Algotoba bean, mesquite

**Vernacular Name:** Shami

### **MORPHOLOGY:**

Habit: A deciduous tree armed with spines.

Inflorescence: Cylindrical spikes.

Flowering period: April: May.

Flower color: Greenish turning yellow with age.

Leaves: bipinnate with 2 pinnae , 7: 13 cm long with 8: 15 pairs, leaflets linear oblong, flowers fragrant, small, anthers densely crowded, pods turgid.

Bark: Soft, reddish brown at upper part & lower part is rough with blackish brown striations.

Method of cultivation: Seeds.



***Psidium guayava*** Linn

Family- Myrtaceae

***Psidium***: Psidion (Greek) a pomegranate

***Guayava***: West Indian name to the tree.

The name refers to edible Fruit: and to its local name.

Family: Myrtaceae

**Common Name**: Guava

**Vernacular Name**: Peru

Habit: A small tree.

Inflorescence: Axillary solitary.

Flowering period: Apr.: May.

Flowering color: White.

**MORPHOLOGY**: Leaves:: opposite, elliptic, acute, calyx tube ellipsoid, green limb undivided when young stamens many, free, inserted on the calyx limb, Fruit: fleshy berry, many seeded.

Bark: Bark white, thin peeling off.

Method of cultivation: Cutting, seeds.

**Use**: Fruit:s edible from which jam, jellies etc. are prepared.

**Ecological importance**: Rose: ringed Parakeet, Koel, Crimsonbreasted Barbet or Coppersmith

Plant parts used: Fruit:s

***Pterospermum suberifolium*** Lam.

Family: Sterculiaceae

***Pterospermum***: Pter, ptero, pteron (Greek) a wing. Sperma (Greek) a seed.

***Suberifolium***: suber (Latin) the cork tree, folium (Latin) a leaf.

The name refers to winged seeds and to cork tree leaves. It is native of tropical Asia

**Common Name:** Bayur tree

**Vernacular Name:** Muchkund

Habit: A large tree.

Inflorescence: Axillary, solitary or in pairs.

Flowering period: Jan.: April.

Flowering color: White.

**MORPHOLOGY:** Leaves: variable in shape & size, 10: 14 by 6: 12 inches, entire or variously lobed, glabrous above but white hairs below, petioles long, stipules multiple, caducous, flowers fragrant, large, long, petals obliquely wedge shaped, staminodes 5, club shaped, fertile stamens 15 in groups of 3 between the staminodes, Fruit: capsule, seeds winged.

Bark: Off white bark, brown to off: white striations.

Method of cultivation: By seeds.

**Uses:** The wood is used for making packing cases, turnery articles and plywood. The flowers are good repellent and disinfectant for insects and bugs. Flowers are also used as general tonic and in the treatment of inflammation, blood diseases, tumours, ulcers and leprosy.

## *Pterygota alata*

Family: Sterculiaceae

**Common name:** Buddha Coconut

Native to India, and found variously in S.E. Asia.

### **Morphology:-**

Habit: Tree

Leaves: Leaves are blade broadly ovate-heartshaped, 10-25 cm long, 7-15 cm broad, wavy, smooth, pointed or tapering.

Infloroscence: Raceme

Color: Velvet-hairy and purple with red streaks within.

Fruit: Large, woody, 7-12 cm in diameter, obliquely round.



***Punica granatum*** Linn.

Family: Punicaceae

***Punica***: Punious of Carthage near which city it is said to have been first found.

***Puniceus*** (Latin) scarlet.

***Granatum***: (Latin) filled with seed.

The name refers to its origin or scarlet flowers and to affluent seeds. It is native of East Mediterranean and Palestine

Family: Punicaceae

**Common Name:** Pomegranate

**Vernacular Name:** Dalimb

Habit: A small shrub.

Inflorescence: Solitary, axillary.

Flowering period: Throughout the year.

Flower color: Red crimson.

**MORPHOLOGY:** Leaves: opposite, entire, lanceolate, leaves: fall off from the young branches which are then modified into thorns, flowers with cup shaped calyx, petals with wavy margins, stamens many,

Fruit: brown crowned by the persistent calyx, seeds many, surrounded by pulpy juice, white pink or red aril.

Method of cultivation: Seeds, cutting.

**Uses:** Fruit is given in diarrhoea & dysentery. Juice of the Fruit is said to be stimulant and cooling and believed to cure various diseases of the liver, spleen, stomach and the circulatory and the nervous system. The stem and root bark are astringent. Stem bark contains high percentage of tannin.

**Ecological importance:** Indian Myna, Rose: ringed Parakeet, Red: vented Bulbul

Use branches for nesting and feed on fruits.

***Putranjiva roxburghii*** Wall. Syn. ***Drypetes roxburghii*** (Wall) Aery. Shaw.

Family: Euphorbiaceae

***Putranjiva***: Sanskrit. Son's life; ***Roxburghii***: Willian roxburgh; ***Drypetes***: Named by Vahl from drypto to lacerate spiny plant. It is believed that if a woman wears a rosary that if a rosary of fruit she begets son. It is native of Sri-lanka and India.

**Common Name:** Child life tree, lucky bean tree

**Vernacular Name:** Putravanti

Habit: A small evergreen tree with drooping branches.

Inflorescence: Male & female flowers in axillary.

Flowering period: Mar.: May.

Flower color: Creamish yellow

**MORPHOLOGY:** Leaves: alternate, elliptic, oblong, coriaceous, dark green, distantly serrulate, wavy, stipules small, flowers dioecious, male flowers crowded, female flowers concave, Fruit: drupe, white, hairy.

Bark: Soft, light brown, rough to touch, blackish, lenticels arranged closely & horizontally.

Method of cultivation: By seeds.

**Uses:** Fruit are used as charms to keep children in good health. Useful in indigenous medicine.



***Ricinus communis*** Linn.

Family- Euphorbiaceae

***Ricinus***: (Latin) a tick.

***Communis***: (Latin) common, general growing in company.

The name refers to spots on seeds which look like ticks and to its common occurrence.

Family: Euphorbiaceae

**Common Name:** Castor

**Vernacular Name:** Erand

Habit: A large annual or perennial shrub.

Inflorescence: Racemes.

Flowering period: Dec.: March.

Flower color: Green.

**MORPHOLOGY:** Leaves: peltate, deeply lobed , palmatifid, serrate, glandular, flowers monoecious, male on the upper & female on the lower part, often colored or green, in male flower stamens polyadelphous, jointed into several branched columns , anthers yellow, female flowers larger than male,

Fruit: regma, globose, surface rough with blunt spines, cocci, seed hard, oblong, brown shaded with light colors.

Bark: Greenish yellow, lenticels many in number & brownish, transverse circles.

Method of cultivation: By seeds.

**Use**: Castor oil is used for burning, lubricating & purgative.

***Roystonea regia*** Cook.Syn ***Oreodoxa regia*** Kunth

Family- Arecaceae

***Roystonea***: American army Engineer General Roy stone.

Native to Westindies

Family: Arecaceae

**Common Name:** Cuban Royal palm, bottle palm

**Vernacular Name:** Bottle palm. A trunk is straight and narrow from below to 4 of its length and then suddenly curiously swollen above & then again becoming narrow on above having an appearance of bottle.

**Habit:** A large tall & handsome palm reaching upto 20m in height. Trunk smooth light grey with ring like markings.

**Inflorescence:** flowers in spadix with large boat shaped spathe, drooping, male flowers larger than female.

Leaves: Feathery, 2-4m long, similar to those of coconut palm but the basal sheath is tubular and much larger, fully embracing the trunk below the crown

Flowers: in 3-4 clusters enclosed by two boot shaped spathes, whitish, male longer than the female.

Fruit: Spherical to egg shaped, about 1-14cm

**MORPHOLOGY:** Top of the stem is with crown of graceful pinnate Leaves::.

**Method of cultivation:** Seeds or division of clumps.

**Use:** Suitable for graceful avenue

***Samania saman*** Merr.Syn. ***Pithecolobium saman*** Linn.

Family: Mimosaceae

***Samania saman***: South American native name of the [lant.

The names refer to twisted pods resembling monkey's ear and to its native name. It is native of Brazil

Family: Mimosaceae

**Common Name:** Rain tree, Monkey pod

**Vernacular Name:** Rain tree

Habit: A big flat topped tree, unarmed.

Inflorescence: Solitary, globose heads.

Flowering period: Mar.: Oct

Flower color: Rose pink.

**MORPHOLOGY:** Leaves: bipinnate, leaflets oval, obtuse, oblique, calyx funnel shaped, corolla tubular, stamens 20, rose colored,

Fruit: Pod large, black thick.

Bark: Hard, brown, rectangular patches are small & typically arranged.

Method of cultivation: By seeds.

**Uses:** The popular name is due to the curious shower of moisture which occasionally drenches all beneath it, an exudation from thousands of minute insects. Ornamental shade giving tree. Pods when eaten by cows are said to increase the quality and quantity of milk.

**Ecological importance:** Jungle Crow, Blue Rock Pigeon, Indian Myna, Sunbird, Ashy Prinia, Shikra, Egret use leaves:: and Branches for nesting and feed on nectar

## *Santalum album* Linn.

### Family Santalaceae

**Santalum:** Chandan is Sanskrit name means fragrance, Arabs named it as sandal from chandan, Greeks adopted from Arabic name and named as santalon. It is native of India, Malaysia, Australia and Pacific Islands.

**Album:** albus (Latin) white.

The name refers to the classical name and to copious albumen in the seeds.

Family: Santalaceae

**Common Name:** Sandal wood

**Vernacular Name:** Chandan

Habit: A small evergreen tree.

Inflorescence: Terminal or lateral panicles.

Flowering period: Almost throughout the year.

Flower color: White.

**MORPHOLOGY:** Young shoots round & smooth, Leaves: simple, opposite, oblong, petioled, smooth, 5: 7 cm long, membranous, Fruit: a drupe.

Bark: Blackish brown, uniform, brownish black vertical lines.

Method of cultivation: By seeds.

**Imp:** : The young seedling are parasitic in nature, therefore the seeds should be sown near & host seedling & lantana is one of such host plant, seedlings developed its own root afterwards & can be transplanted when one year old.

**Uses :** The oil is used in making perfumes, soap, incense sticks and in cosmetics

**Ecological importance:** Red Whiskered Bulbul, Redwattled Lapwing, Indian Myna, Koel feed on fruits

## *Sapindus emarginatus*

Family: Sapindaceae

**Common name:** Notched Leaf Soapnut; **Vernacular name:** Reetha

Native to India.

### **Morphology:-**

Habit: Medium to large size deciduous tree

Bark: Grey, shiny, covered with rough falling scales.

Leaves: Leaves are pinnate, 12-30 cm long. Leaflets are 2-3 pairs, lance-shaped, elliptic or oblong, long pointed or with a notched tip, dull above.

Inflorescence: Panicles

Color: White

Fruit: Fruits are fleshy, 2-3 partially united, seeds pea-size, enclosed in a blackish, hard endocarp.

Flowering season: October-December

**Uses:** Fruits possess several medicinal properties and are widely used for example in the treatment of asthma, colic and dysentery, and during childbirth.



***Sapindus laurifolius*** Vahl.

Family: Sapindaceae

***Sapindus*:** Sapo (Latin) soap. Anagram of sapoindicus i. e. soap of India;

***Laurifolius*:** Laurus laurel folius a leaf. The name refers to seeds which are used as soap and to leaves which resemble Laurel leaves

**Common Name:** Soap nut; **Vernacular Name:** Ritha

**MORPHOLOGY**

Habit: A tree with abruptly pinnate leaves.

Bark: Hard, whitish cream colored rectangular patches of bark, corky.

Leaves: Leaflets sub-opposite, 2-3 pairs, lanceolate, acute, entire hairy below,

Inflorescence: Rusty hairy panicles.

Flowering period: Oct-Dec.

Flower color: Dull white.

Flower: Male flowers membranous, bisexual few, petals clawed, hairy, disc concave, stamens 8, filaments hairy,

Fruit: Berry.

Method of cultivation: By seeds.

**Use:** The fruit is used for washing purpose as a substitute for soap as it contained saponin & when made into a paste with vinegar is applied on bites of reptiles & venomous animals.

***Saraca indica*** Linn. Syn. ***S.asoka*** Roxb. De. Wilde.

Family: Caesalpiniaceae

***Saraca***: Ashoka (Sanskrit) a corrupt derivation of the Sanskrit name of the plant

***Indica***: Of India; ***Asoca***: Ashoka happiness. The names refer to classical name and to its origin. It is native to India, Burma and Malaysia.

**Common Name**: Asoka tree, sorrowless tree

**Vernacular Name**: Sitecha ashok

### **MORPHOLOGY**

**Habit**: A handsome medium sized spreading evergreen tree with rounded crown.

**Bark**: Black soft, bark forming irregular network on the surface.

**Inflorescence**: Corymb.

**Flowering period**: March-May.

**Flower color**: Orange red.

**Leaves**: alternate, paripinnate, leaflets opposite, 3-6 pairs, elliptic oblong glabrous, semi leathery, young leaves flaccid, grayish white quickly changing to purplish red, finally green and stiff.

**Flower**: in clusters, calyx petaloid at first orange, turning to scarlet afterwards. Petals absent. Stamens 6: 8, hairy, at first orange near base and scarlet upwards.

**Fruit**: Pod.

**Method of cultivation**: Seeds. Flowering when 4-6 years old.

**Uses**: Flowers are pulverized in water and are given in haemorrhagic dysentery. The bark is astringent and used in menstrual disorders and urinary infection. Bark is used as antidote in scorpion sting.

***Schleichera oleosa*** Oken Syn. ***S. trijuga*** Willd.

Family: Sapindaceae

***Schleichera***: Name of German Philologist August Schleicher and Swiss Botanist J.C. Schleicher; ***Oleosa***: olive like. ***trijuga***: Tres (Latin) treis (Greek) three: jugum (Latin) a yoke, with three pair of leaflets. The name refers to 2-3 paired leaflets and to olive tree. Indegenous to sub-Himalayan tracks, central India, western peninsula, Sri-lanka and Burma.

**Common Name:** The lac tree

**Vernacular Name:** Kosamb, kum

**MORPHOLOGY**

Habit: A large tree 30m in height

Bark: Grey, in irregular patches not easily separated, soft, reddish inside.

Leaves: abruptly pinnate with 2-4 or 3 pairs of oblong or lanceolate, entire colored leaflets.

Inflorescence: Racemes.

Flowering period: Feb-Mar.

Flower color: White.

Flower: Small, 2 or 3 together. Calyx small, 4-6 fid, stamens 5-8 inserted within the disc.

Fruit: about an inch long beetle shaped with blunt prickles, seeds enclosed in a pulpy edible aril.

Method of cultivation: By seeds or root suckers.

**Uses:** Superior quality of Lac is produced from this plant, wood hard and durable and oil obtained from seeds for the cure of itch and rheumatism.

## *Simarouba amara*

Family: Simaroubaceae

Native to South and Central America.

### **Morphology:-**

Habit: Evergreen tree

Leaves: It has compound leaves that are each around 60 cm long, the petioles are 4–7 cm long and each leaf has 9–16 leaflets. Each leaflet is 2.5–11 cm long and 12–45 mm wide, with those towards the end of the compound leaf tending to be smaller.

Infloroscence : Panicle

Color : Pale yellow

Fruit : The fruits are brightly colored green to purplish-black, approximately 17 mm long and contain large seeds (10–14 mm), they occur in groups of 3–5 drupes.

Flowering season: April-July



## *Simarouba glauca* DC

Family- Simaroubaceae

**Common name:** Paradise Tree

Native to Florida, South America, and the Lesser Antilles.

### **Morphology**

Habit: Paradise Tree is an evergreen, small to medium-sized tree growing up to 15 m in height, with a narrow crown.

Leaves: The leaves are arranged alternately, are odd pinnately compound, up to 40 cm long, with 10-20 leaflets. The leaflets are up to 10 cm in length, dark green above, lighter below, with an entire margin and rounded leaf tip.

Flowers: Flowers are arranged in at branch-ends and in leaf-axils, in panicles. The calyx has 5 unfused, greenish sepals. The flower has 5 free yellowish-white overlapping petals. Male flowers have 10 stamens and no ovaries. Female flowers have 10 nonfunctional stamens and 5 unfused ovaries each with a single locule and seed. Occasionally there are perfect flowers produced on either the staminate or carpellate trees

Fruits: The fruit is an oval purple/black drupe at maturity.

Uses: The seed produces edible oil used in the preparation of bakery products and for industrial purposes. Seed shells can be used in the manufacture of particle board, activated charcoal, or as fuel. The wood is used for interior construction, boxes and crates, furniture, veneer, etc. It is also used for fuel. The leaves and bark of Paradise Tree have a long history of medicinal use in the tropics, particularly in the treatment of malaria, fevers and dysentery; as an astringent to stop bleeding; and as a tonic. They are also used as a digestive, emmenagogue and to treat parasites both within and on the body. Research has discovered a range of medically active compounds in the plant. The main active compounds are a group of triterpenes called quassinoids.

***Spathodia campenulata*** Beau v. Eng.

Family: Bignoniaceae

***Spathodia***: Spathe (Greek) boat like odes (Greek) of the nature; ***Campenulata***: Campana (Latin) a bell. The name refers to curved calyx and to bell shaped flowers. It is native to tropical region, Asia and America.

**Common Name:** Scarlet bell tree, African tulip tree, syringe tree

**Vernacular Name:** Pichkary

**MORPHOLOGY**

Habit: A handsome evergreen or deciduous tree.

Bark: Rough, whitish gray with yellow patch.

Inflorescence: Terminal clusters.

Flowering period: Jan-Feb.

Flower color: Orange crimson.

Leaves:: densely arranged near tip of branches, opposite, odd pinnate, leaflets 9-17, oval, pointed with short stalk, sickle shaped buds filled with liquid, calyx boat shaped, corolla bell shaped with triangular lobes with yellow wrinkled margin

Fruit: pod, and seeds papery.

Method of cultivation: By root suckers & cutting.

**Use**: Ornamental tree. Flower buds when squeezed give out small fountain of water, thus children love to play with it

**Ecological importance**: Jungle crow, Indian Myna, Blue Rock Pigeon, Rose: ringed Parakeet, Large Grey Babbler, Purple: rumped Sunbird feed on watery natured flowers and fruits and also use branches for nesting and resting



## *Tecoma Stans* L (Syn) *Stenobilium stans*

Family: Bignoniaceae

**Tecoma:** Name of the genus refers to Maxican name tecomaxochitl; **stans:** Denotes its erect or upright habit

**Common Name:** Yellow elder, trumpet flower; **Vernacular Name:** Tecoma

### **MORPHOLOGY**

Habit: A large shrub

Inflorescence: Terminal panicle

Flowering period: sept : dec

Flower color: Bright yellow

Leaves: opposite imparipinnate leaflet 5-11 ovate oblong to lanceolate, acuminate serrate,

Flower: calyx cup shaped, 5 fid, corolla funnel shaped or bell shaped, lobes 5 wavy.

Stamens 4 didynamous, staminode present, stigma 2 lipped

Fruit: capsule long linear flat, seeds winged.

Bark: Yellowish, white, Circular lenticels.

Methods of cultivation: seeds

**Uses:** The root is considered to be a remedy for snake and rat bites and for scorpion sting



***Sterculia foetida*** Linn.

Family: sterculiaceae

***Sterculia*:** Named for Sterculus, Roman god of excrement. Stercus (Latin) dung. Stink.

***Foetida*:** Foetidus (Latin) foetid, with a strong unpleasant odor.

The name refers to stinking flowers.

**Common Name:** Dung tree, Bastard-poon tree

**Vernacular Name:** Goldaru

**MORPHOLOGY**

Habit: A large tree, dark white, whorled horizontal branches.

Inflorescence: Racemes panicles.

Flowering period: March-May

Flower color: Dull red

Leaves: Compound digitate, leaflets 5: 9 elliptic, lanceolate, stipules caducous, flowers foetid, male flowers are produced in great profusion and drop off, staminal column curved, hairy at base, coralline cup irregularly toothed, female flowers are few and are found at the ends of the racemes ovary of 5 hairy carpel on a short gynophore, with a ring of staminodes,

Fruits: tetra of follicle.

Methods of cultivation: By seeds

Bark: Grayish brown, lenticels uniform distinct, bark smooth, lenticels star like when removed leave reddish orange spots, leaf scars eye shape.

**Uses:** The tree exudes a gum resembling tragacanth.

## *Swietenia mahogoni*

Family: Meliaceae

It is native to tropical America

**Common Name:** Mahogani

**Vernacular Name:** Mahogani

Habit: A large tree with pinnate Leaves:

Inflorescence: Axillary panicles

Flowering period: April-May

Flower color: Greenish: yellow

**MORPHOLOGY:** Leaves: pinnately compound, leaflets four pairs, ovate: elliptic, flowers small, calyx teeth triangular, petals obovate, And staminal tube cup like, stamens inside the tube, below the disc, Fruit: capsule, and seed winged.

Methods of cultivation: By seeds

Bark: Upper part dark brown and lower part light brown deep longitudinal fissures.

**Uses:** Timber



## *Syzygium heyneanum*

Family: Myrtaceae

**Common name:** Kath Jamun    **Vernacular name:** Pan Jambhul

### **Morphology**

Habit: Kath Jamun is a large shrub or small tree, growing in the beds of rivers and streams. It is an evergreen tree around 3 to 4 meters high.

Bark:

Leaves: Leaves are opposite around 7 to 10 cm long.

Flowers:

Fruits:

***Tabebuia argentea*** Bur 7 Schum.

Family- Bignoniaceae

***Tabebuia***: from native Brazilian

***Argentea***: argentums (Latin) silver, silvery shining, grayish white.

It is native to Tropical and Sub-tropical central and south America

The name refers to brightly yellow colored flowers.

The name refers to brightly yellow colored flowers.

Family: Bignoniaceae

**Common Name:** Golden bell

**Vernacular Name:** Tabebuia

Habit: 8 meter tall

Inflorescence: Terminal Racemes

Flowering period: March: May

Flower color: Bright Yellow

**MORPHOLOGY:** : Leaves: opposite, digitate, leaflet 5, elliptic oblong, silver scaly above, calyx copular, corolla, infundibuliform, limb, irregularly lobed

Bark: Whitish brown, yellowish grooves in between

Methods of cultivation: **by seed**

**Uses:** Ornamental

***Tabebuia rosea*** (Bertol) DC.

Family- Bignoniaceae

***Tabebuia***: from native Brazilian

***Rosea***: rose color

The name refers to pink flowers.

Family: Bignoniaceae

It is native to Mexico

**Common Name:** Rosy trumpet tree

**Vernacular Name:** Tabebuia

Habit: . An ornamental trees, 15m tall, densely foliaceous.

Inflorescence: Terminal panicles

Flowering period: December: April

Flower color: Pink

**MORPHOLOGY:** Leaves: digitate, leaflets 5 oblong obovate, calyx campanulate, bilabiate and corolla infundi buliform.

Methods of cultivation: By cutting

**Uses:** Ornamental

**Ecological importance:** Egret, Little Cormorant, Pond Heron uses branches for nesting



***Tabernaemontana coronaria* R.Br. (Syn) *Ervatamia coronaria* Stapf**

Family: Apocynaceae

**Common Name:** Crepe jasmine, wax flower, Nero's crown, East Indian rose bay

**Vernacular Name:** Chandini, Tagar

**MORPHOLOGY**

Inflorescence: Solitary or cymes in axils or terminal.

Flowering period: July: Sept.

Flower color: Snow white

Leaves: opposite, lanceolate or elliptic, oblong, acuminate, cuneate at base, dark green.

Flowers fragrant, double. Calyx campanulate, corolla salver shaped, tube dilated below the top, lobes 5, overlapping to the left. Stamens in the dilated portion of the tube. Stigma obovoid, Fruit: follicles.

Bark: Blackish brown, lenticels elevated form the surface, large lenticels tip like.

Method of cultivation: By cuttings

**Uses:** Wood used in perfumery. The red pulp around the seeds is used in dyeing fabrics.

The root is prescribed in paralysis and diseases of blood; it is chewed in tooth ache and applied on scorpion sting. The milky latex is applied on head to relieve pain in the eyes, and the juice of flower is said to be useful in healing eye soris.



***Tamarindus indica*** Linn.

Family- Caesalpinaceae

***Tamarindus***: Tamar: E: Hind (Arabic) date of India.

Tamarhindi is an Arabic name of the plant.

***Indica***: Of India.

The name refers to date like pods. It is indigenous to India.

Family: Caesalpinaceae

**Common Name:** Tamarind

**Vernacular Name:** Chinch

Habit: A large tree.

Inflorescence: Terminal racemes pedicel articulated below the calyx.

Flowering period: May: July.

Flower color: Yellow with pink red stripes.

**MORPHOLOGY:** Leaves: paripinnate, leaflets 10: 20 pairs, oblong, obtuse, stipules linear, caducous. Calyx and corolla unequal. Stamens 10, 3 fertile, united above half way up, the rest rudimentary, as small scales or bristles. Stigma capitate,

Fruit: pod curved.

Bark: Rough, longitudinal, deep fissures and crack, brown, no lenticels.

Method of cultivation: By seeds

**Uses:** Fruits riched in vit C are edible.

**Ecological importance:** Jungle Crow, Indian Peafowl, Egret, Grey Heron, Black Ibis, Brahminy Kite, Painted Stork

**Plant Parts used:** Branches for nesting, thick foliage for resting

## ***Tectona grandis***

Family: Verbenaceae

**Common name:** Teak; **Vernacular name:** Sagwan

Native to India and Burma to Java.

### **Morphology:-**

Habit: Deciduous tree

Leaves: Leaves of the tree are opposite, 30-60 cm long and 15-30 cm broad

Infloriscence: Panicles

Color: White

Fruit: The fruit is about 15 mm across, spongy, enclosed in the persistent calyx.

Flowering season: Monsoon

**Uses:** Teak is considered a good quality wood for furniture.



***Terminalia arjuna* W & A. *T. cuneata* Roth.**

Family- Combretaceae

***Terminalia*:** Terminus (Latin) the end or limit.

***Arjuna*:** arjun (Sanskrit) of Mahabharata epic.

The name refers to Leaves: borne at the end of the shoots and to its characteristic smooth white bark.

Family: Combretaceae

**Common Name:** White murdah

**Vernacular Name:** Arjuna sadada

Habit: A big tree

Inflorescence: Short terminal panicles.

Flowering period: April: May

Flower color: Yellowish white

**MORPHOLOGY:** Leaves: sub opposite, ovate, oblong, obtuse cordate oblique at base coriaceous, petioles with two glands at the top beneath the blade, calyx campanulate, teeth small, stamens exerted.

Fruit: Samara with thick narrow striated trunked wings

Bark: white

Method of cultivation: By seeds

**Uses:** Stem bark is used for dying and tanning purposes and the Leaves are fed to a species of silk worm. The wood is used for making boats, house buildings and agricultural implements. The juice of fresh Leaves: is used to relieve ear ache. The ashes of bark are prescribed in scorpion sting. The bark is used in heart disease and as cardiac stimulant. It has got tonic, astringent and diuretic properties, hypertension and cirrhosis of liver.

***Terminalia bellerica*** Roxb

Family: Combretaceae

***Terminalia*:** Terminus (Latin) the end or limit.

***Bellerica*:** Beley (Arabic) name of the tree.

The name refers to leaves borne at the end of the shoots.

**Common Name:** Beleric myrobalan

**Vernacular Name:** Behda

Habit: A big tree

Inflorescence: Axillary spike

Flowering period: March: may.

Flower color: pale greenish yellow

**MORPHOLOGY:** Leaves: alternate, coriaceous entire, elliptic obovate, apex rounded or acute base, tapering.

Flower: Fragrant, the upper flowers are male but the lowers are hermaphrodite. Sepals united, teeth 5, triangular, no petals, stamens 10, episepalous, 2 seriate the upper series alternate with and longer than the lower.

Fruit: drupe abruptly narrowed into a short stalk

Bark: whitish gray, rough, rectangular, longitudinal pieces of bark forming rough upper coating.

Method of cultivation: By seeds

Uses: Fruit used in dying and making ink and hair oil, used as laxative, in bronchitis and asthma

**Ecological importance:** Crested Serpent Eagle, Changeable Hawk Eagle, Oriental

Honey: buzzard, House Crow, Jungle Crow use branches as nesting sites

***Terminalia crenulata*** W. & A. Syn. ***T. tomentosa*** W.A.

Family: Combretaceae

***Terminalia***: Terminus (Latin) the end or limit.

***Crenulata***: tomentum (Latin) the stuffing of a cushion densely covered with short, soft tangled hair.

**Vernacular Name**: Ain, asna

**Habit**: A big tree

**Inflorescence**: Axillary spikes or terminal panicles.

**Flowering period**: April: June

**Flower color**: dull yellow

**MORPHOLOGY**: **Leaves**:: alternate or sub opposite, coriaceous ovate, oblong or elliptic oblong, 1: 2 glands are often found in the midrib, base cordate, calyx campanulate, teeth 5, triangular bracteoles present, no petals, and disc hairy, and

**Fruit**: samara with five wings, big and red brown.

**Bark**: blackish gray irregularly big rectangular patches running vertically, deeply cracked

Method of cultivation : By seeds

Uses: bark used for tanning, cardio tonic and diuretic properties in ulcers and fractures.

## *Terminalia cattapa* Linn.

Family: Combretaceae

**Terminalia:** Terminus (Latin) the end or limit. It is native to Malaysia

**Common Name:** Jangali badam

**Vernacular Name:** Badam

Inflorescence: Axillary solitary spikes.

Flowering period: Aug: Sept.

Flower color: Greenish white.

### **MORPHOLOGY:**

**Habit:** A tall deciduous tree, branches whorled and spreading horizontally from a straight trunk upto 15m height.

Leaves: alternate, 6: 12 inch long, obovate, pointed at apex, base rounded with a depressed gland on each side of the midrib, exstipulate, leaves turn a dull red colour in the cold season before falling off

Flowers small, bracteoles minute, the upper flowers male, the lower flowers are bisexual. Calyx tube triangular. No petals. Stamens 8: 10, episepalous. Style awl shaped.

Fruit: a fibrous drupe compressed with 2 elevated margins, convex on both sides. Green turning red when ripe. Pulp edible through fibrous

Bark:

**Methods of cultivation:** By seeds.

**Uses:** Fruit:s edible. Juice of the Leaves: used in headache and skin diseases. The Fruit: is cooling, astringent to bowels. Tasar silk worms feed on the Leaves: and weave their cocoons of silk thread which is then woven to make Tusar silk.

**Ecological importance:** Jungle crow, Tailor bird use leaves and branches for nesting

## *Thevetia peruvianaia*

***Thevetia*:** Named after Andre Thevet, a French monk

***Peruvianaia*:** Refers to Peru

It is native to Tropical America

Family: Apocynaceae

**Common Name:** Yellow oleander, Trumpet flower

**Vernacular Name :** Bitti

Habit: A small tree with milky juice

Inflorescence: Axillary or terminal cymes

Flowering period: throughout the year

Flower color: yellow

**MORPHOLOGY:** Leaves:: numerous, alternate close together, linear, acute, flowers fragrant ,calyx lobes 5, corolla campanulate, segments 5, stamens 5, in the throat of the corolla tube, filaments hairy at the base, disc angular stigma big, capitate,

Fruit: a fleshy drupe, 4 angled, compressed with two ridges.

Bark: Bark: soft, gray lenticels elevated on the surface, distribution of lenticels is sparse

Method of cultivation:By seeds

**Uses** –The milky latex is reported to be poisonous and the seeds contain acro: narcotic poisons. The bark used in different kinds of discontinuous fever. Plant is rarely eaten by cattle.

***Thrinax barbadensis*** Lodd. In Mart.

Family: Palmae

**MORPHOLOGY**

Habit: A medium sized hermaphrodite palms 10: 15 m tall.

Inflorescence: Spadix interfoliar in compound panicles.

Flowering period: Sept: Dec.

Flower color: White

Leaves: palmatifid, lanceolate,

Fruit: globose.

Method of cultivation: By division of clumps, seeds

**Uses:** Ornamental



## ***Thuja orientalis***

Family: Cupressaceae

It is indigenous to china

**Common Name:** Oriental arborvitae; **Vernacular Name:** Vidya

### MORPHOLOGY

Habit: A small compact evergreen tree, conical. Branch lets are thin. The branches are much ramified and end in many small green branch-lets which are flattened out in one plane so that branch lets on one twig appears like a single divided leaf.

Bark: flattened, reddish brown

Inflorescence: Solitary

Flower colour: Brown

Leaves: opposite decussate, small scale like, closely appressed, bright green with a small gland on back. flowers are monoecious, minute, globose, staminate yellow of 6-12 decussate stamens, pistillates with 8: 12 scales in opposite pairs with 2 ovules at base inside cone bluish green ovoid, oblong erect with erect with 6 woody scales the upper part sterile, seeds wingless.

Method of cultivation: By seeds

**Uses:** Ornamental



## ***Trema orientalis*** Bl.

Family: Urticaceae

**Trema:** Trema (Greek) a hole, indicating pitted seeds which can be pierced easily.

**Orientalis:** (Latin) Eastern countries. The name refers to soft wood to its origin.

**Common Name:** Charcoal tree, Nettle tree

**Vernacular Name:** Kargol, Karamatigol, Kapashi

### **MORPHOLOGY**

Habit: A fast growing small tree.

Inflorescence: Axillary, hairy cymes.

Flowering period: Sept: Nov

Flower color: Greenish yellow or creamy: white.

Leaves: obliquely ovate, acuminate, serrate, rough above white below with soft hairs, base rounded, unequal, male cymes more compact than female, usually on different trees.

Male sepals 4: 5, elliptic: lanceolate. Stamens 5, rudimentary.

Fruit: drupes ovoid or subglobose.

Method of cultivation: By seeds

**Uses:** The fibre used for making ropes, twinas and coarse cloth

## *Vitex negundo* Linn.

Family: Verbenaceae

***Vitex***: Vieo (Latin) to bind, flexible; ***Negundo***: nirgund (Sanskrit) name of the plant. The name refers to flexible branches used for tying and to water like juice obtained from the plant.

**Vernacular Name:** Nirgudi

### **MORPHOLOGY**

Habit: A small tree, stem square, white and hairy.

Inflorescence: Hairy cymes, forming a large in terminal panicle

Flowering period: More or less throughout the year

Flower color: Bluish purple

Leaves: opposite, 3: 5 foliate, leaflets petioled, lanceolate, acute terminal leaflet largest, white hairy below.

Flowers with caducous bracts. Calyx bell shaped, white, hairy, teeth 5 triangular, corolla bilipped, upper lip divided into two lobes, lower lip 3 lobed, stamens 4, didynamous,

Fruit: drupe

Method of cultivation: By seeds

**Uses** : The decoction of the Leaves: is used as a vapor bath after fever. It is very useful in dispersing swellings of joints from acute rheumatism. A pillow stuffed with Leaves: is placed under the head for relief of headache.

## *Washingtonia filifera*

Family: Aracaceae

**Common Name:** Fan palm

**Vernacular Name:** Fan palm

### **MORPHOLOGY**

Habit: stems 18-21 m high slightly thickened near base.

Inflorescence: Spadix, longer than leaves

Leaves: are 100 cm from apex of petiole to end of central segments, limb divided to the middle into 80 segment buds lanceolate, acuminate, obscurely angular, Fruit:s ovoid, black surmounted by permanent setiform long styles.

Methods of cultivation: By seeds, division of clumps

**Uses:** Ornamental



## *Wrightia arborea*

Family: Apocynaceae

**Common name:** Woolly Dyeing Rosebay    **Vernacular name:** Pandu kuda

### **Morphology**

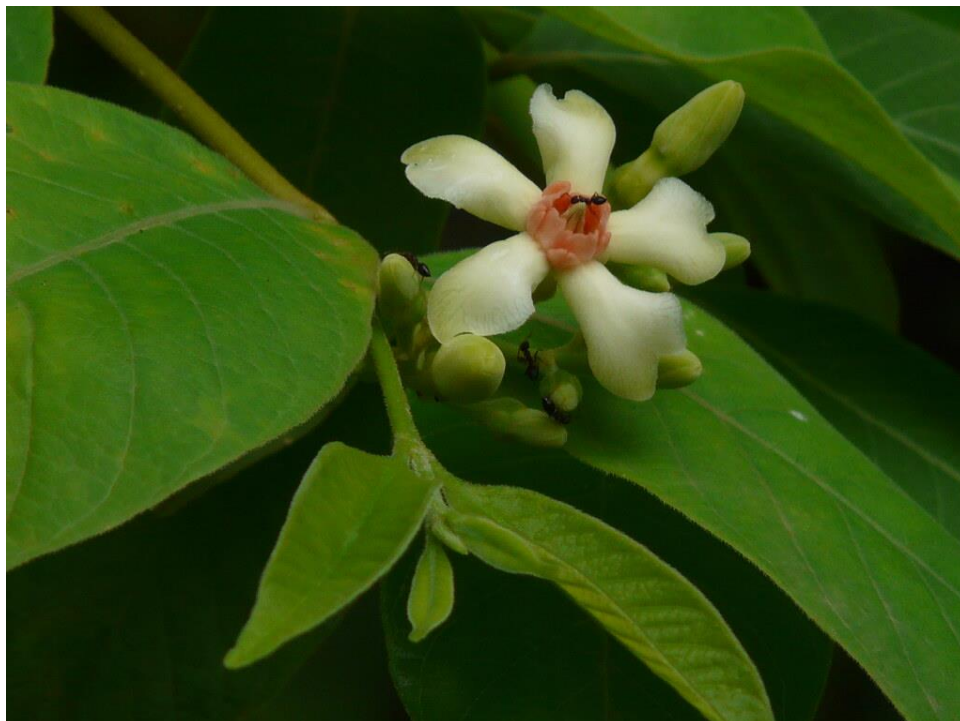
Habit: Woolly Dyeing Rosebay is a small deciduous tree with small branches and densely velvety leaves.

Bark: Bark is gray, thick and corky.

Leaves: Oppositely arranged elliptic or obovate leaves have fine tips

Flowers: 1 inch across, have an unpleasant smell, and are pale yellow or yellowish-brown, maturing into a dull purple. They are borne in many-flowered corymbose cymes at the end of branches. Flowers are pale yellow with a fleshy orange-coloured corona of scales at the center.

Fruits: Fruit are pods joined together, cylindric



## *Wrightia tinctoria*

Family: Apocynaceae

It is native to Tropical Asia, Australia and Africa

**Common Name:** Palaindigo

**Vernacular Name:** Kala kuda

### **MORPHOLOGY**

Habit: A deciduous tree of moderate size with an irregularly shaped trunk.

Bark: Smooth scaly bark

Inflorescence: Terminal cymes

Flowering period: Mar- July.

Flower color: White or pale yellow.

Leaves: opposite, variable, elliptic, lanceolate, 3: 8 inches long, and flowers scented, corolla salver shaped with a corona of many linear scales, stamens sagittate, spurred at the base.

Fruit: a pair of follicles.

**Uses:** Leaves are used for a blue dye or indigo which is extracted by boiling leaves in water for three hours.



*Ziziphus jujuba* Lamk Syn *Z. mauritina* Lamk.

Family: Rhamnaceae

***Ziziphus*:** Zisouf in Arabic the name is for the lotus; ***Jujuba*:** jujube (Arabic) name.

***Mauritina*:** Relating to Mauritius. The name refers to its Arabic name and its origin.

**Common Name:** Ber

**Vernacular Name:** Bor

**MORPHOLOGY**

**Habit:** A small thorny tree.

**Bark:** Brown, cracked and rough

**Inflorescence:** Axillary cymes

**Flowering period:** Sept: Oct

**Flower color:** Greenish yellow

**Leaves:** ovate or roundish, slightly oblique, glabrous above, buff hairy below, 3nerved, stipules spine one straight and other hooked, calyx 5fid petals hooked, disk with 10 grooved lobes.

**Fruit:** globose, smooth, yellow, red when ripe.

**Method of cultivation:** By seeds

**Uses:** The berries are eaten as Fruit. Thorny branches are used for making fences and the wood is made into agricultural tools and burnt as fuel.

**Ecological importance:** Great grey Shrike, Little Brown Dove, Yellow footed Green Pigeon, Red Whiskered Bulbul, Indian Myna, Red Collared Dove eat Fruit and use thorny branches for nesting

# The Fergusson College Botany Department Herbarium

- Small yet valuable collection
- About 150 herbarium sheets referred by Theodore Cooke for his monumental 1907 flora!
- Rest collection of Cooke is now at BSI, Pune
- Other notable collections by Woodrow, Parajape Kolhatkar, Apte
- Over 700 herbarium sheets by Dr. V. D. Vartak and colleagues
- Specimens served as material for several local floras
- FC is second college in Maharashtra to register in the portal the only college in Pune city. (for a map of all the registered herbaria, see the following link. Zoom into India and find all the herbaria:  
<http://sweetgum.nybg.org/science/ih/ihmap.php>)
- Index Herbariorum'- an online repository and portal for the world's herbaria  
(<http://sweetgum.nybg.org/science/ih/>) in January 2017.
- This prestigious global repository is hosted and managed by the New York Botanical Garden (NYBG)
- 2000 sheets
- The Fergusson herbarium has been given an acronym 'FCP' and more details can be found here:  
<http://sweetgum.nybg.org/science/ih/herbarium-details/?irn=248026>.
- Staff members include Dr. M. C. Mahajan of the Botany department who is the curator of the herbarium, Ashish Nerlekar, who is the correspondent and Akshay Onkar, a volunteer

- Glimpses of the herbarium
- Several rare specimens present
- Oldest specimen is from 1888





HERBARIUM.  
 COLLEGE OF SCIENCE, POONA.  
 NAT. ORDER *Rubiaceae*  
 GENUS *Cardenia*  
 SPECIES *tingida*, *Rub.* vs. *montana*  
 LOCALITY *Chaturshingi Hill Poona*  
 DATE *7-6-1932* COLLECTED BY *L. D. GARADE.*  
 No. *436*

# NYBG links

- Check this link for overview of FC herbarium on Index Herbarium portal: [http://sweetgum.nybg.org/science/ih/herbarium\\_details.php?irn=248026](http://sweetgum.nybg.org/science/ih/herbarium_details.php?irn=248026)
- Check this link for details of herbarium related staff that includes your

name: [http://sweetgum.nybg.org/science/ih/person\\_list.php?NamOrganisationAcronym=FCP](http://sweetgum.nybg.org/science/ih/person_list.php?NamOrganisationAcronym=FCP)

- Also check the word document attached submitted to NYBG