DEPARTMENT OF SOCIAL OUTREACH

UPES, DEHRADUN

THE ROOTS OF UPES

A Field Record of the Trees of the Bidholi and Kandoli Campuses



73 Documented Trees | 55 Species | Two Campuses

Tree Records Shared by

Mr. Michael William, Admin (Horticulture) Department, UPES

Presented by the Department of Social Outreach, UPES

UPES and the Environment

UPES sits in the Doon Valley, at the point where the Himalayan foothills meet the plains — a setting where the trees on a campus are never merely decoration. This report records 73 of them, across our Bidholi and Kandoli campuses, as a documented, tree-by-tree account of the canopy that shades our students and supports the wildlife around us.

The records were shared by Mr. Michael William of the Admin (Horticulture) Department. They span century-old natives like the Sal and the Peepal, fruit and medicinal trees like the Mango, Neem, Amla and Jamun, and ornamental and avenue plantings gathered from across the world — each with its photograph, scientific identity, family, native origin, typical height and an estimate of the carbon it draws down each year.

The Department of Social Outreach is presenting this work because a university's responsibility to its environment shows up in what actually grows on its land. We share this record with government departments, conservation bodies, and partner organisations as an open, evidence-based contribution to documenting the green cover of the Doon Valley — and as an invitation to collaborate with us in expanding it.

This is one part of UPES's broader, ongoing engagement with environmental stewardship — alongside our sustainability initiatives, our academic programmes in environment and energy, and our outreach work across the communities we operate in.

Department of Social Outreach, UPES

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About the Documentation

This record documents the university's tree cover across the Bidholi and Kandoli campuses, surveyed and photographed tree by tree, recording location, scientific identity, family, geographic origin, and typical mature height for 73 individual trees representing 55 distinct species.

73	55	4.51 t
Trees catalogued across both campuses	Distinct tree species	Estimated CO_2 sequestered per year (indicative)

Trees are presented campus by campus, each with a photograph, a written profile covering appearance, native range, growth habit, and practical or cultural significance, and an estimated annual carbon sequestration figure. A closing summary page consolidates those estimates, with the methodology and its limits stated plainly.

THE ROOTS OF UPES · CAMPUS

Bidholi Campus

50 Trees Across the Main Campus

The Bidholi campus grounds host a wide mix of native and ornamental species, from palms at the main gate to century-tall Sal trees behind the academic blocks.





Hyophorbe lagenicaulis

Family: Arecaceae (Palm family)
Native to: Round Island, Mauritius
Height: 10-12 feet (3-3.6 meters)
Location: Main gate
Est. CO_2 sequestration: ~10 kg / year

1. Bottle Palm

The Bottle Palm is a slow-growing, solitary palm known for the swollen, bottle-shaped base of its grey trunk, which tapers upward to a slender green crownshaft topped by a modest crown of stiff, arching fronds. Adults rarely exceed 10 to 12 feet, making it one of the most compact ornamental palms in cultivation.

Native to the tiny Round Island off Mauritius, the species is classified as endangered in the wild, where feral goats and rabbits once devastated its native population before conservation efforts intervened. In gardens and campuses across the tropics and subtropics, it is prized precisely for the trunk shape that made it vulnerable in nature, and is typically planted as a specimen tree near entrances and gateways.



Magnolia grandiflora

Family: Magnoliaceae
Native to: Southeastern United States
Height: 60-80 feet (18-24 meters)
Location: Main gate
Est. CO_2 sequestration: ~90 kg / year

2. White Magnolia

The Southern Magnolia, known here as White Magnolia, is a large evergreen tree with glossy, dark green leaves that often carry a rust-brown, felted underside. Its large, creamy-white, lemon-scented flowers open through the summer months and are among the most recognisable blooms of any cultivated tree.

Native to the southeastern United States, it has been widely planted worldwide as a specimen and avenue tree for its year-round foliage and long flowering season. Mature trees can reach 60 to 80 feet, developing a dense, pyramidal to rounded crown that provides substantial shade once established.



Grevillea robusta

Family: Proteaceae
Native to: Australia
Height: 60-100 feet (18-30 meters)
Location: Main gate
Est. CO_2 sequestration: ~90 kg / year

3. Silver Oak

The Silver Oak is a fast-growing evergreen tree named for its fern-like, silvery-green foliage rather than any relation to true oaks. In spring it produces striking one-sided clusters of orange to golden flowers that are rich in nectar and popular with birds and pollinating insects.

Native to eastern Australia, it has been planted extensively across the tropics and subtropics — historically as a shade tree in tea and coffee plantations, and today as a fast-growing avenue and shade tree on campuses and along roadsides. It can reach 60 to 100 feet at maturity and is valued for its light, attractively grained timber as well as its ornamental value.



Elaeocarpus ganitrus

Family: Elaeocarpaceae
Native to: Himalayan region, India, Nepal, Indonesia, and Southeast Asia
Height: 50-80 feet (15-25 meters)
Location: Main gate
Est. CO_2 sequestration: ~90 kg / year

4. Rudraksha

The Rudraksha tree is a broadleaved evergreen best known for the hard, ridged seeds it produces inside a blue-skinned fruit — the beads traditionally strung into malas used in prayer and meditation across Hindu and Buddhist practice. The tree itself carries simple, glossy, serrated leaves and small white bell-shaped flowers.

Native to the Himalayan foothills and parts of Nepal, India, and Southeast Asia, it grows into a substantial tree of 50 to 80 feet under favourable conditions. Beyond its religious and cultural significance, the tree is valued as a shade and avenue planting, and mature specimens are often treated as landmark trees in the grounds where they stand.



Ficus benjamina

Family: Moraceae
Native to: Asia and Australia
Height: 50-60 feet (15-18 meters)
Location: Main gate
Est. CO_2 sequestration: ~45 kg / year

5. Weeping Fig

The Weeping Fig is an evergreen tree with slender, drooping branchlets and small, glossy, pointed-oval leaves that give the crown a soft, cascading appearance — the trait that gives the tree its common name. Left unpruned, it develops a broad, dense canopy and can send down aerial roots from its branches.

Native to South and Southeast Asia and northern Australia, it is one of the most widely planted ornamental fig species in the world, valued equally as a large avenue and shade tree and, in its dwarf cultivars, as an indoor pot plant. Mature outdoor specimens can reach 50 to 60 feet and are attractive to fig wasps and fruit-eating birds.



Dypsis lutescens

Family: Arecaceae (Palm family)
Native to: Madagascar
Height: 20-30 feet (6-9 meters)
Location: Hubble
Est. CO_2 sequestration: ~22 kg / year

6. Areca Palm

The Areca Palm, also called the Golden Cane Palm, is a clustering palm that sends up multiple slender, yellow-green canes from a single base, each topped with gracefully arching, feathery fronds. The clumping habit makes it useful both as a hedge-like screen and as an ornamental accent.

Native to Madagascar, it has become one of the most widely cultivated palms worldwide, equally common as a landscape planting in tropical gardens and as an air-purifying indoor plant. Outdoors it typically reaches 20 to 30 feet, forming a dense clump that is often used to soften walls, fences, and building corners.



Araucaria columnaris

Family: Araucariaceae
Native to: New Caledonia
Height: 30-60 feet (9-18 meters)
Location: Enrollment
Est. CO_2 sequestration: ~45 kg / year

7. Cook Pine

The Cook Pine is a striking coniferous tree with a narrow, columnar form and a distinctive lean toward the equator, a trait that has made it the subject of considerable botanical curiosity. Its branches are arranged in tight, symmetrical whorls of short, awl-shaped leaves, giving mature trees a slender, spire-like silhouette.

Native to New Caledonia in the South Pacific, it is now planted as an ornamental and avenue conifer across the tropics and subtropics, prized for its formal, architectural shape. Trees can reach 30 to 60 feet in cultivation, and are often used as single specimen plantings where their distinctive form can be appreciated from a distance.



Caryota mitis

Family: Arecaceae (Palm family)
Native to: Southeast Asia, India, and Australia
Height: 10-25 feet (3-7.6 meters)
Location: MAC
Est. CO_2 sequestration: ~10 kg / year

8. Fishtail Palm

The Fishtail Palm takes its name from its unusual bipinnate fronds, whose ragged, triangular leaflets resemble the tail of a fish — a leaf shape unique among palms grown as ornamentals. It typically grows in dense, multi-stemmed clusters rather than as a single trunk.

Native to Southeast Asia, India, and northern Australia, it thrives in shaded, humid conditions and is a popular understorey and courtyard planting on campuses across South and Southeast Asia. Each individual stem flowers and fruits once, from the top of the trunk downward, before that stem eventually dies back, while new suckers continue to rise from the base of the clump.



Cassia fistula

Family: Fabaceae (Legume family)

Native to: Indian subcontinent and Southeast Asia

Height: 20-40 feet (6-12 meters)

Location: MAc

Est. CO_2 sequestration: ~22 kg / year

9. Amaltas

The Amaltas, or Golden Shower Tree, is best known for its long, pendulous clusters of bright yellow flowers that cover the canopy in late spring and early summer, followed by long, cylindrical dark brown seed pods that persist on the tree well into the following season.

Native to the Indian subcontinent and Southeast Asia, it is the national tree of Thailand and the state flower of Kerala, and is widely planted as an avenue and ornamental tree for its dramatic flowering display. It typically reaches 20 to 40 feet, and various parts of the tree have a long history of use in traditional medicine, particularly the pulp of its seed pods.



Shorea robusta

Family: Dipterocarpaceae

Native to: India, Nepal, Bangladesh , and Southeast Asia

Height: 100-130 feet (30-40 meters)

Location: MAC

Est. CO_2 sequestration: ~150 kg / year

10. Sal Tree

The Sal Tree is a large, long-lived deciduous hardwood that dominates much of the moist deciduous forest across the Indian subcontinent, prized for its durable, heavy timber and broad, leathery leaves. Mature trees develop a tall, straight trunk and can live for several centuries.

Its range runs across India, Nepal, Bangladesh, and parts of Southeast Asia, where Sal forests form some of the most extensive and ecologically significant forest ecosystems in the region, supporting substantial wildlife populations. Reaching 100 to 130 feet at full maturity, it is among the tallest trees documented on campus, and its leaves and resin have long-standing uses in traditional practice, from disposable plates to incense.



Neolamarckia cadamba

Family: Rubiaceae (Coffee family)
Native to: South and Southeast Asia
Height: 45-90 feet (14-27 meters)
Location: MAC
Est. CO_2 sequestration: ~90 kg / year

11. Kadamba

The Kadamba is a fast-growing evergreen tree with a distinctive, symmetrical, umbrella-shaped crown and large, glossy leaves. Its most recognisable feature is its flower — a dense, fragrant, orange-yellow sphere of tiny florets that gives the tree strong cultural and ornamental value.

Native to South and Southeast Asia, the Kadamba holds particular significance in Indian mythology and devotional literature, where it is associated with Krishna, and it is commonly planted near temples as well as on campuses for shade. It grows quickly to 45 to 90 feet and is often used in reforestation and agroforestry programmes for its rapid growth and soil-improving qualities.



Aegle marmelos

Family: Rutaceae (Citrus family)
Native to: India and Southeast Asia
Height: 30-50 feet (9-15 meters)
Location: MAC
Est. CO_2 sequestration: ~45 kg / year

12. Bel Tree

The Bel Tree is a slow-growing, aromatic tree with trifoliate leaves and sharp thorns, best known for its hard-shelled, fragrant fruit, which ripens to a yellow-grey colour and encloses a sweet, orange pulp used across South Asia in beverages and traditional preparations.

Native to India and Southeast Asia, the Bel is regarded as sacred in Hindu tradition, where its leaves are offered in worship of Shiva, and it is frequently planted in temple grounds and institutional campuses for this reason. Reaching 30 to 50 feet at maturity, nearly every part of the tree — bark, leaf, fruit, and root — has a documented use in traditional Ayurvedic medicine.



Bauhinia variegata

Family: Fabaceae (Legume family)
Native to: India, China, and Southeast Asia
Height: 20-40 feet (6-12 meters)
Location: MAC
Est. CO_2 sequestration: ~22 kg / year

13. Kachnar

The Kachnar is a small to medium deciduous tree instantly recognisable by its distinctive two-lobed, butterfly-shaped leaves and its showy orchid-like flowers, which range from white through pink to deep purple depending on the variety, blooming heavily in late winter and early spring before the leaves emerge.

Native to India, China, and Southeast Asia, it is widely planted as an avenue and ornamental tree for its flowering display, and its unopened flower buds are used as a vegetable in parts of the Indian subcontinent. Growing to 20 to 40 feet, it is fast-establishing and tolerant of a wide range of soils, making it a common early-flowering feature of campus landscaping.



Peltophorum pterocarpum

Family: Fabaceae (Legume family)
Native to: Southeast Asia, India, and Australia
Height: 30-50 feet (9-15 meters)
Location: Flag Area
Est. CO_2 sequestration: ~45 kg / year

14. Yellow Gulmohar

The Yellow Gulmohar, also called the Copperpod, is a medium to large deciduous tree with fine, fern-like compound leaves and upright spikes of bright yellow, crinkled flowers that appear in flushes through the warmer months, followed by flattened, copper-coloured seed pods that give the tree its alternative name.

Native to Southeast Asia, India, and northern Australia, it is a popular avenue and shade tree throughout the tropics for its rapid growth and reliable flowering. Mature trees reach 30 to 50 feet with a broad, spreading crown, and the tree is commonly planted along roads and in campus flag or assembly areas where its flowering display is a seasonal landmark.



Magnolia × alba

Family: Magnoliaceae

Native to: Southeast Asia (China, Indonesia, and surrounding regions)

Height: 98 feet (30 meters)

Location: Divider

Est. CO_2 sequestration: ~150 kg / year

15. White Champa

The White Champa is a hybrid magnolia grown almost entirely for its intensely fragrant, ivory-white flowers, which open in flushes through the warmer months and are prized in South and Southeast Asia for temple offerings, garlands, and perfumery. Its leaves are large, glossy, and dark green.

A long-cultivated hybrid believed to have originated in Southeast Asia, including China and Indonesia, it does not set viable seed and is propagated entirely by cuttings and grafting, a testament to how long it has been valued for its scent alone. It can grow to a substantial size, and mature specimens on campus grounds are typically maintained as flowering shade and avenue trees.



Spathodea campanulata

Family: Bignoniaceae

Native to: Africa

Height: 82 feet (25 meters)

Location: Container

Est. CO_2 sequestration: ~90 kg / year

16. The African Tulip

The African Tulip Tree is named for its large, bright orange-red, tulip-shaped flowers, borne in dense clusters at the branch tips and visited heavily by nectar-feeding birds and insects. Its compound leaves are large and glossy, giving the tree a lush, tropical appearance year-round.

Native to tropical Africa, it has been planted widely across the tropics as a striking ornamental and shade tree, reaching around 82 feet at maturity. In several regions outside its native range it has also become naturalised and, in some island ecosystems, is considered invasive — a reminder that its vigorous growth and prolific seed production, so useful in an ornamental planting, can behave very differently once outside cultivation.



Prosopis cineraria

Family: Fabaceae
Native to: Indian subcontinent, Middle East
Height: 10-16 feet (3-5 meters)
Location: Library Backside
Est. CO_2 sequestration: ~10 kg / year

17. Shami

The Shami is a slow-growing, thorny, deeply rooted tree adapted to arid and semi-arid conditions, with small, feathery, grey-green leaflets that provide light shade rather than dense cover — a useful trait in the dry landscapes it typically inhabits. Its pods, known as sangri, are used as a vegetable in traditional desert cuisine.

Native to the Indian subcontinent and the Middle East, it holds deep cultural and religious significance, particularly in Rajasthan, where it is considered sacred and associated with the festival of Dussehra. Though modest in height at 10 to 16 feet, it is exceptionally hardy, capable of surviving in poor, dry soils where few other trees establish, and its deep root system makes it valuable for stabilising arid land.



Cinnamomum verum

Family: Lauraceae
Native to: Sri Lanka and southern India
Height: 33-49 feet (10-15 meters)
Location: AB-1 Backside
Est. CO_2 sequestration: ~45 kg / year

18. Dalchini

The Dalchini, or true cinnamon tree, is an evergreen tree with aromatic, leathery leaves that release a distinctive spicy scent when crushed. Its inner bark, harvested and dried into curled quills, is the source of true cinnamon spice, distinguishing it from the more commonly traded cassia varieties.

Native to Sri Lanka and southern India, it has been cultivated and traded for its bark for thousands of years, historically counted among the most valuable spices in the world. Growing to 33 to 49 feet, the tree also produces small, pale flowers with a notably strong odour, followed by dark purple berry-like fruit.



Magnolia Champaca

Family: Magnoliaceae
Native to: South and Southeast Asia
Height: 98-164 feet (30-50)
Location: AB-2 Backside
Est. CO_2 sequestration: ~150 kg / year

19. Son Champa

The Son Champa, or Champak, is a tall evergreen tree celebrated for its intensely fragrant, orange-yellow flowers, which are strung into garlands and used in perfumery across South and Southeast Asia. Its leaves are long, glossy, and pointed, giving the crown a dense, lustrous appearance.

Native to the Indian subcontinent and Southeast Asia, the Champak holds cultural and religious significance across the region and is frequently planted near temples, gardens, and institutional campuses both for its scent and for the shade of its substantial crown. It is among the taller trees in this record, capable of reaching 98 to 164 feet under favourable conditions.



Saraca asoca

Family: Fabaceae (Leguminosae)
Native to: Indian subcontinent and Southeast Asia
Height: 23-33 feet (7-10 meters)
Location: Library
Est. CO_2 sequestration: ~22 kg / year

20. Ashoka Tree

The Ashoka tree is a slow-growing evergreen best known for its dense clusters of small, fragrant orange-to-red flowers that emerge directly from the trunk and branches, a flowering habit known as cauliflory. Its young leaves emerge a soft, drooping pink-red before maturing to dark green.

Native to the Indian subcontinent and Southeast Asia, it carries deep significance in Buddhist and Hindu tradition and is commonly planted near temples and institutional grounds for this reason, in addition to its ornamental value. Reaching 23 to 33 feet at maturity, the species is considered vulnerable in parts of its native range due to habitat loss and unregulated harvesting of its bark for traditional medicine, making cultivated specimens like these an important part of its continued presence.



Tecoma stans

Family: Bignoniaceae
Native to: The Americas
Height: 6.5-13 feet (2-4 meters)
Location: Library
Est. CO_2 sequestration: ~10 kg / year

21. Tecoma Gori Chori

Tecoma Gori Chori, more widely known as Yellow Bells or Tecoma stans, is a fast-growing shrub or small tree with bright, trumpet-shaped yellow flowers borne in profuse clusters through much of the year, followed by long, slender seed pods.

Native to the Americas, from the southern United States through Mexico and into South America, it has been planted extensively as an ornamental hedge and border shrub across the tropics for its near-continuous flowering and low maintenance needs. It rarely exceeds 13 feet in height, making it a compact accent planting in contrast to the taller trees around it.



Ravenea rivularis

Family: Arecaceae (Palm family)
Native to: Madagascar
Height: 40–60 feet (12–18 meters)
Location: AB-4 Backside
Est. CO_2 sequestration: ~45 kg / year

22. Majesty Palm

The Majesty Palm is a solitary, elegant palm with a smooth, grey trunk and a full, rounded crown of dark green, arching pinnate fronds. Its refined, symmetrical form has made it one of the most popular ornamental palms for both landscape and indoor use.

Native to riverbanks in Madagascar, where it is now considered vulnerable in the wild due to habitat degradation, it has become widely cultivated elsewhere and is no longer dependent on wild collection for the horticultural trade. In cultivation it typically reaches 40 to 60 feet, thriving with regular moisture reminiscent of its native riverine habitat.



Livistona chinensis

Family: Arecaceae (Palm family)
Native to: China, Taiwan, and southern Japan
Height: 33–50 feet (10–15 meters)
Location: MDC
Est. CO_2 sequestration: ~45 kg / year

23. Chinese Fan Palm

The Chinese Fan Palm, also planted here as the Fountain Palm, is a slow-growing palm named for its large, rounded, pleated leaves whose drooping leaf-tips give the crown a distinctive fountain-like cascade. A solitary grey trunk supports the dense, arching crown.

Native to southern Japan, Taiwan, and southern China, it has long been cultivated as an ornamental and avenue palm across East and South Asia for its graceful form and tolerance of a range of conditions. Mature specimens reach 33 to 50 feet, and the species is notably slow-growing, meaning established trees on campus represent many years of growth.



Azadirachta indica

Family: Meliaceae
Native to: India, Myanmar, and Bangladesh
Height: 49 to 66 feet (15 to 20 meters)
Location: AB-1 Backside
Est. CO_2 sequestration: ~45 kg / year

24. Neem Tree

The Neem tree is a fast-growing, evergreen tree with finely toothed, dark green pinnate leaves and small, fragrant white flowers, followed by olive-like fruit. It is one of the most widely recognised trees of the Indian subcontinent, valued for uses that extend from shade to medicine to pest control.

Native to India, Myanmar, and Bangladesh, nearly every part of the Neem tree — leaf, bark, seed, and oil — has a long-documented history in traditional medicine and organic pest management, and it remains one of the most extensively researched trees in modern ethnobotany. Reaching 49 to 66 feet, it tolerates poor soils and drought well, making it a common and resilient presence in campus and roadside plantings across the region.



Cinnamomum camphora

Family: Lauraceae

Native to: China, Japan, Korea, Taiwan, and Vietnam

Height: 65–98 feet (20–30 meters)

Location: Hubble Backside

Est. CO_2 sequestration: ~90 kg / year

25. Kapoor Tree

The Kapoor, or Camphor Tree, is a dense, evergreen tree with glossy, aromatic leaves that release a distinctive camphor scent when crushed. Small, pale flowers give way to small black berries, and mature trees develop a broad, rounded, heavily branched crown.

Native to China, Japan, Korea, Taiwan, and Vietnam, the tree has historically been the primary commercial source of camphor, extracted from its wood and leaves through steam distillation for use in medicine, insect repellents, and ritual purposes. It can grow to a substantial 65 to 98 feet, and its dense canopy makes it a valued shade tree independent of its aromatic properties.



Melaleuca bracteata

Family: Myrtaceae

Native to: Australia

Height: 20–33 feet (6–10 meters)

Location: Hubble Backside

Est. CO_2 sequestration: ~22 kg / year

26. Golden Bottlebrush

The Golden Bottlebrush is a fast-growing, small evergreen tree or large shrub with fine, needle-like golden-yellow to lime-green foliage that gives the whole canopy a striking colour year-round, distinct from the more typically green-leaved bottlebrush relatives. Small cream to yellowish flower spikes appear intermittently.

Native to Australia, it is widely planted across warm climates as an accent and hedging plant, valued chiefly for its unusual foliage colour rather than its flowers. Reaching 20 to 33 feet, it tolerates pruning well and is frequently shaped into hedges, screens, or ornamental accent plantings on campus grounds.



Phoenix dactylifera

Family: Arecaceae (Palm family)
Native to: Middle East and North Africa
Height: 49–82 feet (15–25 meters)
Location: Food Court
Est. CO_2 sequestration: ~90 kg / year

27. Date Palm

The Date Palm is a tall, solitary palm with a thick, rough trunk marked by old leaf-base scars and a crown of long, grey-green pinnate fronds. Female trees produce the familiar clusters of dates, one of the oldest cultivated fruits in human history.

Native to the Middle East and North Africa, the Date Palm has been cultivated for thousands of years both for its fruit and as an iconic desert and oasis tree, and it remains a staple crop across arid regions of the world. On campus, mature specimens reaching 49 to 82 feet serve primarily as ornamental and avenue plantings, valued for their commanding height and classic silhouette.



Dypsis decaryi

Family: Arecaceae (Palm family)
Native to: Madagascar
Height: 15–30 feet (4.5–9 meters)
Location: Food Court
Est. CO_2 sequestration: ~22 kg / year

28. Triangle Palm

The Triangle Palm is instantly recognisable for the distinctive three-sided arrangement of its leaf bases, which stack directly above one another to form a clear triangular cross-section at the base of the crown — a trait unique among commonly cultivated palms.

Native to a small area of southern Madagascar, where it is now considered vulnerable due to habitat loss from agricultural clearing, it has become popular worldwide as an ornamental specimen palm precisely because of its unusual geometric form. Typically reaching 15 to 30 feet, it is drought-tolerant once established and is often planted as a stand-alone accent rather than in groups.



Toona ciliata

Family: Meliaceae (Mahogany family)

Native to: South and Southeast Asia

Height: 98–130 feet (30–40 meters)

Location: Canteen Backside

Est. CO_2 sequestration: ~150 kg / year

29. Toon Tree

The Toon Tree, sometimes called Indian Mahogany, is a tall, fast-growing deciduous tree with large, compound leaves and small, fragrant flowers borne in drooping clusters. Its reddish timber has long been valued as a substitute for true mahogany in furniture-making.

Native to South and Southeast Asia, it is among the largest trees recorded in this survey, capable of reaching 98 to 130 feet at maturity. Beyond its timber value, the tree is frequently planted for shade along avenues and in mixed plantations, and its young, tender leaves are used as a vegetable in parts of its native range.



Bombax ceiba

Family: Malvaceae

Native to: India, Southeast Asia, Africa and Australia

Height: 65–98 feet (20–30 meters)

Location: AB-8

Est. CO_2 sequestration: ~90 kg / year

30. Semal

The Semal, or Red Silk Cotton Tree, is a tall deciduous tree with a distinctive straight, thorny trunk and large, striking red flowers that bloom on bare branches before the leaves emerge — a dramatic seasonal display followed by pods full of silky white floss.

Native to India, Southeast Asia, Africa, and Australia, the Semal is an ecologically important tree, its nectar-rich flowers a major food source for birds and its floss traditionally used as a cotton-like stuffing fibre. Reaching 65 to 98 feet, it is one of the tallest and most visually dramatic flowering trees recorded on campus.



Nyctanthes arbor-tristis

Family: Oleaceae (Jasmine family)
Native to: South Asia and Southeast Asia
Height: 10–33 feet (3–10 meters)
Location: Mig Area
Est. CO_2 sequestration: ~22 kg / year

31. Harsingar

The Harsingar, or Night-flowering Jasmine, is a shrub or small tree named for its small, intensely fragrant white flowers with orange centres, which open only after dusk and drop to the ground by morning, carpeting the soil beneath the tree.

Native to South and Southeast Asia, it carries considerable significance in Hindu tradition and mythology, and its flowers are commonly collected for worship. Typically reaching 10 to 33 feet, it is planted as much for its nightly fragrance and cultural value as for its modest ornamental form, and its flowers are also used as a traditional source of natural yellow-orange dye.



Phoenix roebelenii

Family: Arecaceae
Native to: Southeast Asia (Laos, Vietnam, China)
Height: 5–10 feet (1.5–3 meters)0
Location: New MP theatre
Est. CO_2 sequestration: ~10 kg / year

32. Pygmy Date Palm

The Pygmy Date Palm is a compact, slow-growing palm with a slender, curved trunk and a graceful crown of fine, dark green, arching fronds — a miniature echo of its larger relative, the Date Palm, at a fraction of the size.

Native to Southeast Asia, particularly Laos, Vietnam, and southern China, it is one of the most popular small ornamental palms worldwide, equally suited to garden borders, containers, and indoor cultivation. Rarely exceeding 5 to 10 feet, it is often planted in clusters along pathways and building entrances where a full-sized palm would be impractical.



Callistemon spp

Family: Myrtaceae
Native to: Australia
Height: 10–20 feet (3–6 meters)
Location: Tatra
Est. CO_2 sequestration: ~10 kg / year

33. Bottlebrush

Bottlebrush trees are small to medium evergreens named for their distinctive cylindrical flower spikes, made up of dense clusters of long stamens, most commonly in vivid red, that resemble a bottle-cleaning brush. Their narrow, leathery leaves give the tree a fine, textured appearance.

Native to Australia, bottlebrushes are now planted worldwide as ornamental and hedging trees, valued for their long flowering season and the nectar-rich blooms that attract sunbirds and other pollinators. Typically reaching 10 to 20 feet, they tolerate a wide range of soils and are commonly used as accent or screening plants along campus pathways.



Yucca gigantea

Family: Asparagaceae
Native to: Mexico and Central America
Height: 15-30 feet (4.5-9 meters)
Location: Tatra
Est. CO_2 sequestration: ~22 kg / year

34. Spineless Yucca

The Spineless Yucca is a tree-like succulent with a thick, often branching trunk topped by rosettes of long, sword-shaped, soft-tipped leaves — a softer-leaved alternative to the sharply spined yuccas more commonly associated with the genus, making it safer for planting near walkways.

Native to Mexico and Central America, it is widely grown as an architectural accent plant for its bold, sculptural form and low water requirements once established. Reaching 15 to 30 feet over time, it is slow-growing and long-lived, and mature specimens develop a distinctly gnarled, characterful trunk.



Agathis spp

Family: Araucariaceae

Native to: Australia, New Zealand, Malaysia, Indonesia, and the Pacific Island

Height: 98–197 feet (30–60 meters)

Location: Tatra

Est. CO_2 sequestration: ~150 kg / year

35. Agathis Tree

Agathis, commonly known as Kauri pine, is a genus of large, long-lived coniferous trees with broad, leathery leaves quite unlike the needles of most conifers, and a tall, straight trunk that has historically made these trees prized for high-quality timber and resin.

Species in this genus are native to Australia, New Zealand, Malaysia, Indonesia, and the wider Pacific, where some of the oldest individual trees recorded are Agathis specimens many centuries old. Capable of reaching 98 to 197 feet in favourable native conditions, cultivated specimens are typically slower-growing and are valued on campus grounds chiefly as striking, architectural specimen trees.



Erythrina crista-galli

Family: Fabaceae (Legume family)

Native to: South America, Argentina, Brazil, Uruguay, and Paraguay

Height: 16–33 feet (5–10 meters)

Location: MDC

Est. CO_2 sequestration: ~22 kg / year

36. Cockspur Coral Tree

The Cockspur Coral Tree is a small deciduous tree named for its curved, waxy, deep-red flowers, shaped somewhat like a rooster's spur, borne in upright clusters at the branch tips through the warmer months. Its compound leaves and often thorny stems complete a distinctive silhouette.

Native to South America — particularly Argentina, Brazil, Uruguay, and Paraguay, where it serves as the national flower of both Argentina and Uruguay — it has been planted widely elsewhere as an ornamental flowering tree. Reaching 16 to 33 feet, it is valued for the vividness of its blooms, which stand out strongly against its otherwise modest, twisting form.



Senna spp

Family: Fabaceae (Legume family)
Native to: India, Africa, and South America
Height: 3–50 feet (1–15 meters)
Location: MDC
Est. CO_2 sequestration: ~22 kg / year

37. Senna

Senna is a large genus of shrubs and small trees known for their bright yellow, five-petalled flowers and characteristic pinnate leaves, several species of which have a long history of medicinal use as a natural laxative through their leaves and pods.

Species in this genus are native across India, Africa, and South America, and are commonly planted as ornamental flowering shrubs for their reliable, cheerful blooms and undemanding care. Sizes vary considerably by species, from compact shrubs to small trees of up to 50 feet, making the genus a flexible choice for varied landscaping needs across a campus.



Livistona chinensis

Family: Arecaceae (Palm family)
Native to: China, Taiwan, and southern Japan
Height: 30–50 feet (9–15 meters)
Location: IT
Est. CO_2 sequestration: ~45 kg / year

38. Fountain Palm

The Chinese Fan Palm, also planted here as the Fountain Palm, is a slow-growing palm named for its large, rounded, pleated leaves whose drooping leaf-tips give the crown a distinctive fountain-like cascade. A solitary grey trunk supports the dense, arching crown.

Native to southern Japan, Taiwan, and southern China, it has long been cultivated as an ornamental and avenue palm across East and South Asia for its graceful form and tolerance of a range of conditions. Mature specimens reach 33 to 50 feet, and the species is notably slow-growing, meaning established trees on campus represent many years of growth.



Melaleuca linariifolia

Family: Myrtaceae (Myrtle family)
Native to: Australia
Height: 16–33 feet (5–10 meters)
Location: MDC
Est. CO_2 sequestration: ~22 kg / year

39. Green Paradise Melaleuca

The Green Paradise Melaleuca, sometimes called Snow-in-Summer, is a small, dense evergreen tree with fine, narrow leaves and papery, peeling bark typical of the melaleuca family. In season it produces masses of small, fluffy white flower clusters that can make the entire canopy appear snow-covered.

Native to Australia, it is planted widely for its ornamental bark, fine-textured foliage, and profuse white flowering, which attracts bees and nectar-feeding birds. Typically reaching 16 to 33 feet, it tolerates a range of soil conditions and is commonly used as a specimen or screening tree in campus landscaping.



Ficus microcarpa

Family: Moraceae (Mulberry family)
Native to: Southeast Asia, Australia, and the Pacific Islands
Height: 50–65 feet (15–20 meters)
Location: MDC
Est. CO_2 sequestration: ~45 kg / year

40. Ficus Long Island

Ficus Long Island, a cultivar of the Chinese Banyan, is a dense, evergreen fig tree with small, glossy, dark green leaves and a naturally rounded, tidy crown that responds well to shaping and pruning. Like other figs, it can develop aerial roots from its branches over time.

Native to Southeast Asia, Australia, and the Pacific Islands, this species and its cultivars are among the most commonly planted ornamental and avenue trees throughout the tropics and subtropics, valued for dense shade and tolerance of urban conditions including pollution and compacted soil. Mature trees reach 50 to 65 feet, forming a substantial canopy well suited to campus walkways and courtyards.



Phyllanthus emblica

Family: Phyllanthaceae

Native to: India, Southeast Asia and China

Height: 26–60 feet (8–18 meters)

Location: MDC

Est. CO_2 sequestration: ~45 kg / year

41. Amla

The Amla, or Indian Gooseberry, is a medium-sized deciduous tree with delicate, feathery foliage and small, round, translucent green fruit renowned for one of the highest natural vitamin C contents of any commonly eaten fruit.

Native to India, Southeast Asia, and China, the Amla holds a central place in Ayurvedic medicine, where its fruit is used fresh, dried, and processed into oils, preserves, and tonics. Growing to 26 to 60 feet, it is a common feature of both orchards and ornamental plantings, valued as much for its nutritional and medicinal reputation as for its light, graceful canopy.



Sapindus mukorossi

Family: Sapindaceae

Native to: India, Nepal, China, and southeast Asia

Height: 40–82 feet (12–25 meters)

Location: MDC

Est. CO_2 sequestration: ~45 kg / year

42. Reetha

The Reetha, or Soapnut tree, is a tall deciduous tree bearing round, leathery fruit whose pulp contains natural saponins — compounds that lather in water and have been used for centuries as a natural soap, shampoo, and detergent across South Asia.

Native to India, Nepal, China, and Southeast Asia, the Reetha remains commercially harvested today for natural and Ayurvedic personal-care products, offering a chemical-free alternative to synthetic detergents. Reaching 40 to 82 feet, it is a substantial shade tree in addition to its practical value, with compound leaves and small greenish-white flowers preceding its distinctive fruit.



Syzygium cumini

Family: Myrtaceae (Myrtle family)
Native to: India, Southeast Asia and Australia
Height: 33–98 feet (10–30 meters)
Location: MDC Backside
Est. CO_2 sequestration: ~90 kg / year

43. Jamun

The Jamun, or Java Plum, is a large, evergreen tree with a dense, spreading crown and glossy, leathery leaves. It produces oval, dark purple to black fruit with a distinctive tart-sweet flavour that stains the mouth and hands a deep purple when eaten.

Native to India, Southeast Asia, and Australia, the Jamun is both a valued fruit tree and a favoured shade tree, its fruit traditionally used in South Asian cooking, vinegar-making, and folk medicine, particularly in connection with blood sugar management. Reaching 33 to 98 feet at maturity, it also provides an important food source for birds and fruit bats during its fruiting season.



Tectona grandis

Family: Lamiaceae (Mint family)
Native to: South and Southeast Asia
Height: 65–100 feet (20–30 meters)
Location: MDC Backside
Est. CO_2 sequestration: ~90 kg / year

44. Sagwan

The Sagwan, or Teak, is a large deciduous tree with big, papery leaves and small, fragrant white flowers, but it is best known worldwide for its exceptionally durable, water-resistant timber, historically prized for shipbuilding and now for high-quality furniture and outdoor construction.

Native to South and Southeast Asia, teak plantations are cultivated extensively across the region for commercial timber production, and naturally growing specimens are found across a wide range of forest types. Reaching 65 to 100 feet, mature teak trees on campus stand as both a shade tree and a living example of one of the world's most economically significant hardwoods.



Butea monosperma

Family: Fabaceae (Legume family)

Native to: India, Southeast Asia, and the Indian subcontinent

Height: 33–50 feet (10–15 meters)

Location: PO Office Backside

Est. CO_2 sequestration: ~45 kg / year

45. Palash

The Palash, or Flame of the Forest, is a medium-sized deciduous tree renowned for its brilliant, densely clustered orange-red flowers, which cover the bare branches in late winter and early spring in a display vivid enough to have earned the tree its common English name.

Native to India, Southeast Asia, and the wider Indian subcontinent, the Palash carries strong cultural and religious associations, particularly with the festival of Holi, where its flowers were traditionally used to prepare natural coloured dye. Reaching 33 to 50 feet, it is widely planted both for its seasonal flowering spectacle and for the practical uses of its gum, leaves, and flowers in traditional practice.



Roystonea regia

Family: Arecaceae (Palm family)

Native to: Cuba, Mexico, Central America, and the Caribbean

Height: 65–100 feet (20–30 meters)

Location: PO Office Backside

Est. CO_2 sequestration: ~90 kg / year

46. Royal Palm

The Royal Palm is a tall, stately palm with a smooth, pale grey trunk that often bulges slightly at the base and a striking, glossy green crownshaft beneath its crown of large, arching pinnate fronds — a combination that gives the tree an unmistakably formal, ceremonial presence.

Native to Cuba, Mexico, Central America, and the Caribbean, it is one of the most widely planted avenue palms in the tropics, commonly lining driveways, boulevards, and institutional entrances for its uniform height and commanding silhouette. Reaching 65 to 100 feet, mature Royal Palms are often planted in symmetrical rows to frame important buildings and gateways.



Ceiba speciosa

Family: Malvaceae (Mallow family)

Native to: South America (Brazil, Argentina, Paraguay)

Height: 33–82 feet (10–25 meters)

Location: Tatra

Est. CO_2 sequestration: ~45 kg / year

47. Chorisia Tree

The Chorisia, or Floss Silk Tree, is best known for its swollen, green, spine-covered trunk and its large, showy pink to magenta flowers, which bloom in autumn after the tree sheds its leaves, followed by pods filled with a silky, cotton-like floss.

Native to South America — Brazil, Argentina, and Paraguay — it has been planted widely elsewhere as a striking ornamental flowering tree, its thorny trunk and dramatic blooms making it a distinctive specimen wherever it is grown. Reaching 33 to 82 feet, it is typically planted as a stand-alone feature tree rather than in avenue rows, allowing its unusual trunk and flowering display to be appreciated fully.



Hevea brasiliensis

Family: Euphorbiaceae (Spurge family)

Native to: Brazil, Peru, Venezuela and Colombia

Height: 33–50 feet (10–15 meters)

Location: AB-9

Est. CO_2 sequestration: ~45 kg / year

48. Rubber Tree

The Rubber Tree is a tall, fast-growing tree with large, glossy, three-lobed leaves, cultivated worldwide for the latex tapped from cuts made in its bark — the raw material behind the global natural rubber industry for over a century.

Native to the Amazon basin, spanning Brazil, Peru, Venezuela, and Colombia, it was transplanted to plantations across South and Southeast Asia in the colonial era and remains a major commercial crop in the region today. Reaching 33 to 50 feet in cultivation, the tree also serves as a shade and specimen planting outside plantation contexts, valued for its handsome, glossy foliage.



Mangifera indica

Family: Anacardiaceae (Cashew family)

Native to: India, Bangladesh, Myanmar, and Pakistan

Height: 33–100 feet (10–30 meters)

Location: R&D backside

Est. CO_2 sequestration: ~90 kg / year

49. Mango

The Mango is a large, long-lived evergreen tree with a dense, rounded crown of glossy, leathery leaves, cultivated across the tropics for its sweet, fragrant fruit — one of the most widely consumed fruits in the world and a fixture of South Asian orchards and gardens alike.

Native to India, Bangladesh, Myanmar, and Pakistan, the Mango carries deep cultural significance across South Asia, appearing in literature, festivals, and everyday life, in addition to its economic importance as a commercial fruit crop. Reaching 33 to 100 feet at full maturity, mature mango trees are frequently among the oldest and largest specimens found on any established campus.



Ficus religiosa

Family: Moraceae (Mulberry family)

Native to: India, Nepal, Sri Lanka, and Southeast Asia

Height: 65–100 feet (20–30 meters)

Location: AB-11

Est. CO_2 sequestration: ~90 kg / year

50. Peepal

The Peepal, or Sacred Fig, is a large, long-lived tree with distinctive heart-shaped leaves that taper to a long, slender drip-tip, and a smooth grey bark that can develop substantial buttress roots with age. Like other figs, it can begin life as an epiphyte before establishing its own root system.

Native to India, Nepal, Sri Lanka, and Southeast Asia, the Peepal holds profound religious significance in Buddhism and Hinduism alike — it is the species under which the Buddha is said to have attained enlightenment — and it is one of the most commonly protected and revered trees across South Asia. Reaching 65 to 100 feet, mature Peepal trees are frequently the oldest and most ecologically significant trees in any landscape they inhabit, supporting a wide range of birds, bats, and insects.

THE ROOTS OF UPES · CAMPUS

Kandoli Campus

23 Trees Across the Newer Campus

The Kandoli campus, developed more recently, already carries a rich and deliberately varied tree cover — from Himalayan pines to flowering ornamentals.





Magnolia Champaca

Family: Magnoliaceae
Native to: South and Southeast Asia
Height: 98-164 feet (30-50 meters)
Est. CO_2 sequestration: ~150 kg / year

51. Son Champa

The Son Champa, or Champak, is a tall evergreen tree celebrated for its intensely fragrant, orange-yellow flowers, which are strung into garlands and used in perfumery across South and Southeast Asia. Its leaves are long, glossy, and pointed, giving the crown a dense, lustrous appearance.

Native to the Indian subcontinent and Southeast Asia, the Champak holds cultural and religious significance across the region and is frequently planted near temples, gardens, and institutional campuses both for its scent and for the shade of its substantial crown. It is among the taller trees in this record, capable of reaching 98 to 164 feet under favourable conditions.



Mammea siamensis

Family: Calophyllaceae
Native to: Thailand and Southeast Asia
Height: 33 to 82 feet (10-25 meters)
Est. CO_2 sequestration: ~45 kg / year

52. Mammea Siamensis

The Saraphi is a small to medium evergreen tree with dark, cracked bark and simple, glossy leaves, best known for its clusters of intensely fragrant white to yellow flowers, which open briefly and are prized in Thai and Southeast Asian tradition for their distinctive, sweet scent.

Native to Thailand, Laos, Cambodia, Vietnam, and parts of peninsular Malaysia, it typically grows in lowland and montane moist forest and is cultivated as an ornamental and fragrant flowering tree elsewhere in the region. Reaching 8 to 20 metres, its flowers have long been valued in traditional Thai perfumery and are still collected commercially for that purpose today.



Putranjiva roxburghii

Family: Putranjivaceae

Native to: India, Sri Lanka, and Southeast Asia

Height: 33-60 feet (10-18 meters)

Est. CO_2 sequestration: ~45 kg / year

53. Putranjiva

The Putranjiva, sometimes called the Lucky Bean Tree, is an evergreen tree with gracefully drooping branches and glossy, dark green, finely serrated leaves. Its small, hard, white seeds are traditionally threaded into necklaces and rosaries, believed in parts of South Asia to protect the wearer from illness.

Native to India and cultivated across much of the subcontinent, it is grown both as an ornamental garden tree, for its attractive pendant form, and for its seeds, bark, and leaves, all of which carry a long history of use in traditional medicine. Growing to around 12 metres, it is a slow but steady grower, and mature specimens are valued as much for their graceful shape as for their cultural associations.



Ceiba speciosa

Family: Malvaceae (Mallow family)

Native to: South America (Brazil, Argentina, Paraguay)

Height: 33–82 feet (10–25 meters)

Est. CO_2 sequestration: ~45 kg / year

54. Chorisia Tree

The Chorisia, or Floss Silk Tree, is best known for its swollen, green, spine-covered trunk and its large, showy pink to magenta flowers, which bloom in autumn after the tree sheds its leaves, followed by pods filled with a silky, cotton-like floss.

Native to South America — Brazil, Argentina, and Paraguay — it has been planted widely elsewhere as a striking ornamental flowering tree, its thorny trunk and dramatic blooms making it a distinctive specimen wherever it is grown. Reaching 33 to 82 feet, it is typically planted as a stand-alone feature tree rather than in avenue rows, allowing its unusual trunk and flowering display to be appreciated fully.



Melaleuca linariifolia

Family: Myrtaceae (Myrtle family)
Native to: Australia
Height: 16–33 feet (5–10 meters)
Est. CO_2 sequestration: ~22 kg / year

55. Green Paradise Melaleuca

The Green Paradise Melaleuca, sometimes called Snow-in-Summer, is a small, dense evergreen tree with fine, narrow leaves and papery, peeling bark typical of the melaleuca family. In season it produces masses of small, fluffy white flower clusters that can make the entire canopy appear snow-covered.

Native to Australia, it is planted widely for its ornamental bark, fine-textured foliage, and profuse white flowering, which attracts bees and nectar-feeding birds. Typically reaching 16 to 33 feet, it tolerates a range of soil conditions and is commonly used as a specimen or screening tree in campus landscaping.



Magnolia grandiflora

Family: Magnoliaceae
Native to: Southeastern United States
Height: 60-80 feet (18-24 meters)
Est. CO_2 sequestration: ~90 kg / year

56. White Magnolia

The Southern Magnolia, known here as White Magnolia, is a large evergreen tree with glossy, dark green leaves that often carry a rust-brown, felted underside. Its large, creamy-white, lemon-scented flowers open through the summer months and are among the most recognisable blooms of any cultivated tree.

Native to the southeastern United States, it has been widely planted worldwide as a specimen and avenue tree for its year-round foliage and long flowering season. Mature trees can reach 60 to 80 feet, developing a dense, pyramidal to rounded crown that provides substantial shade once established.



Melaleuca bracteata

Family: Myrtaceae
Native to: Australia
Height: 20–33 feet (6–10 meters)
Est. CO_2 sequestration: ~22 kg / year

57. Golden Bottlebrush

The Golden Bottlebrush is a fast-growing, small evergreen tree or large shrub with fine, needle-like golden-yellow to lime-green foliage that gives the whole canopy a striking colour year-round, distinct from the more typically green-leaved bottlebrush relatives. Small cream to yellowish flower spikes appear intermittently.

Native to Australia, it is widely planted across warm climates as an accent and hedging plant, valued chiefly for its unusual foliage colour rather than its flowers. Reaching 20 to 33 feet, it tolerates pruning well and is frequently shaped into hedges, screens, or ornamental accent plantings on campus grounds.



Ravenea rivularis

Family: Arecaceae (Palm family)
Native to: Madagascar
Height: 40–60 feet (12–18 meters)
Est. CO_2 sequestration: ~45 kg / year

58. Majesty Palm

The Majesty Palm is a solitary, elegant palm with a smooth, grey trunk and a full, rounded crown of dark green, arching pinnate fronds. Its refined, symmetrical form has made it one of the most popular ornamental palms for both landscape and indoor use.

Native to riverbanks in Madagascar, where it is now considered vulnerable in the wild due to habitat degradation, it has become widely cultivated elsewhere and is no longer dependent on wild collection for the horticultural trade. In cultivation it typically reaches 40 to 60 feet, thriving with regular moisture reminiscent of its native riverine habitat.



Butea monosperma

Family: Fabaceae (Legume family)

Native to: India, Southeast Asia, and the Indian subcontinent

Height: 33–50 feet (10–15 meters)

Est. CO_2 sequestration: ~45 kg / year

59. Palash

The Palash, or Flame of the Forest, is a medium-sized deciduous tree renowned for its brilliant, densely clustered orange-red flowers, which cover the bare branches in late winter and early spring in a display vivid enough to have earned the tree its common English name.

Native to India, Southeast Asia, and the wider Indian subcontinent, the Palash carries strong cultural and religious associations, particularly with the festival of Holi, where its flowers were traditionally used to prepare natural coloured dye. Reaching 33 to 50 feet, it is widely planted both for its seasonal flowering spectacle and for the practical uses of its gum, leaves, and flowers in traditional practice.



Saraca asoca

Family: Fabaceae (Leguminosae)

Native to: Indian subcontinent and Southeast Asia

Height: 23-33 feet (7-10 meters)

Est. CO_2 sequestration: ~22 kg / year

60. Ashoka Tree

The Ashoka tree is a slow-growing evergreen best known for its dense clusters of small, fragrant orange-to-red flowers that emerge directly from the trunk and branches, a flowering habit known as cauliflory. Its young leaves emerge a soft, drooping pink-red before maturing to dark green.

Native to the Indian subcontinent and Southeast Asia, it carries deep significance in Buddhist and Hindu tradition and is commonly planted near temples and institutional grounds for this reason, in addition to its ornamental value. Reaching 23 to 33 feet at maturity, the species is considered vulnerable in parts of its native range due to habitat loss and unregulated harvesting of its bark for traditional medicine, making cultivated specimens like these an important part of its continued presence.



Caryota mitis

Family: Arecaceae (Palm family)
Native to: Southeast Asia, India, and Australia
Height: 10-25 feet (3-7.6 meters)
Est. CO_2 sequestration: ~10 kg / year

61. Fishtail Palm

The Fishtail Palm takes its name from its unusual bipinnate fronds, whose ragged, triangular leaflets resemble the tail of a fish — a leaf shape unique among palms grown as ornamentals. It typically grows in dense, multi-stemmed clusters rather than as a single trunk.

Native to Southeast Asia, India, and northern Australia, it thrives in shaded, humid conditions and is a popular understorey and courtyard planting on campuses across South and Southeast Asia. Each individual stem flowers and fruits once, from the top of the trunk downward, before that stem eventually dies back, while new suckers continue to rise from the base of the clump.



Callistemon spp

Family: Myrtaceae
Native to: Australia
Height: 10–20 feet (3–6 meters)
Est. CO_2 sequestration: ~10 kg / year

62. Bottlebrush

Bottlebrush trees are small to medium evergreens named for their distinctive cylindrical flower spikes, made up of dense clusters of long stamens, most commonly in vivid red, that resemble a bottle-cleaning brush. Their narrow, leathery leaves give the tree a fine, textured appearance.

Native to Australia, bottlebrushes are now planted worldwide as ornamental and hedging trees, valued for their long flowering season and the nectar-rich blooms that attract sunbirds and other pollinators. Typically reaching 10 to 20 feet, they tolerate a wide range of soils and are commonly used as accent or screening plants along campus pathways.



Neolamarckia cadamba

Family: Rubiaceae (Coffee family)
Native to: South and Southeast Asia
Height: 45-90 feet (14-27 meters)
Est. CO_2 sequestration: ~90 kg / year

63. Kadamba

The Kadamba is a fast-growing evergreen tree with a distinctive, symmetrical, umbrella-shaped crown and large, glossy leaves. Its most recognisable feature is its flower — a dense, fragrant, orange-yellow sphere of tiny florets that gives the tree strong cultural and ornamental value.

Native to South and Southeast Asia, the Kadamba holds particular significance in Indian mythology and devotional literature, where it is associated with Krishna, and it is commonly planted near temples as well as on campuses for shade. It grows quickly to 45 to 90 feet and is often used in reforestation and agroforestry programmes for its rapid growth and soil-improving qualities.



Ficus virens

Family: Moraceae (Mulberry family)
Native to: India, Southeast Asia, and Australia
Height: 98 feet (30 meters)
Est. CO_2 sequestration: ~150 kg / year

64. Pilkhan

The Pilkhan is a large, fast-growing deciduous to semi-evergreen fig tree with a broad, spreading crown and smooth, pale grey bark. Like many figs, it can develop substantial aerial and buttress roots as it matures, and its young leaves often emerge in a distinctive coppery-pink flush before turning green.

Native to India, Southeast Asia, and Australia, it is commonly planted as a shade and avenue tree across South Asia, and its fruit — small figs that ripen in clusters along the branches — provides an important food source for birds. Reaching around 98 feet at maturity, the Pilkhan is among the larger canopy trees recorded on campus.



Livistona chinensis

Family: Arecaceae (Palm family)

Native to: China, Taiwan, and southern Japan

Height: 30–50 feet (9–15 meters)

Est. CO_2 sequestration: ~45 kg / year

65. Fountain Palm

The Chinese Fan Palm, also planted here as the Fountain Palm, is a slow-growing palm named for its large, rounded, pleated leaves whose drooping leaf-tips give the crown a distinctive fountain-like cascade. A solitary grey trunk supports the dense, arching crown.

Native to southern Japan, Taiwan, and southern China, it has long been cultivated as an ornamental and avenue palm across East and South Asia for its graceful form and tolerance of a range of conditions. Mature specimens reach 33 to 50 feet, and the species is notably slow-growing, meaning established trees on campus represent many years of growth.



Schleichera oleosa

Family: Sapindaceae (Soapberry family)

Native to: India, Nepal, Sri Lanka, and Southeast Asia

Height: 115 feet (35 meters)

Est. CO_2 sequestration: ~150 kg / year

66. Kusum

The Kusum is a medium to large deciduous tree with a dense, rounded crown, valued historically both for the oil pressed from its seeds and as the preferred host tree for lac insects, from which traditional lac dye and shellac are harvested.

Native to India, Nepal, Sri Lanka, and Southeast Asia, the Kusum has long played a role in rural economies across the subcontinent, supporting lac cultivation as well as providing timber, oil, and fodder. Capable of reaching 115 feet, it is one of the taller trees recorded on the Kandoli campus, with young leaves that emerge in a striking reddish flush before maturing to dark green.



Magnolia × alba

Family: Magnoliaceae

Native to: Southeast Asia (China, Indonesia, and surrounding regions)

Height: 98 feet (30 meters)

Est. CO_2 sequestration: ~150 kg / year

67. White Champa

The White Champa is a hybrid magnolia grown almost entirely for its intensely fragrant, ivory-white flowers, which open in flushes through the warmer months and are prized in South and Southeast Asia for temple offerings, garlands, and perfumery. Its leaves are large, glossy, and dark green.

A long-cultivated hybrid believed to have originated in Southeast Asia, including China and Indonesia, it does not set viable seed and is propagated entirely by cuttings and grafting, a testament to how long it has been valued for its scent alone. It can grow to a substantial size, and mature specimens on campus grounds are typically maintained as flowering shade and avenue trees.



Podocarpus spp.

Family: Podocarpaceae

Native to: Asia, Africa, South America and Australia

Height: 130 feet (40 meters)

Est. CO_2 sequestration: ~150 kg / year

68. Podocarpus

Podocarpus is a genus of evergreen conifers with flattened, leathery, needle-like leaves quite different in appearance from more familiar pines and firs, giving these trees a soft, almost broadleaf-like texture despite being true conifers. Many species produce small, fleshy, berry-like seed cones rather than woody cones.

Species in this genus are native across Asia, Africa, South America, and Australia, and are widely planted as ornamental and hedging trees for their dense, fine foliage and tolerance of pruning and shade. Capable of reaching around 130 feet in favourable conditions, cultivated specimens are typically maintained at a more modest height as clipped screens or specimen trees.



Pinus roxburghii

Family: Pinaceae (Pine family)
Native to: India, Nepal, Bhutan, and Pakistan
Height: 98-164 feet (30-50 meters)
Est. CO_2 sequestration: ~150 kg / year

69. Chir Pine

The Chir Pine is a tall, long-needled pine native to the lower and middle elevations of the Himalayas, with thick, deeply fissured, reddish-brown bark and long, drooping needles borne in bundles of three, characteristic of the species.

Native to India, Nepal, Bhutan, and Pakistan, it forms extensive forests across the Himalayan foothills and is economically significant as a source of resin, turpentine, and timber, in addition to its ecological role in erosion control on steep mountain slopes. Reaching 98 to 164 feet at maturity, it is among the tallest and most characteristic conifers of the Doon Valley region in which the Kandoli campus sits.



Dypsis lutescens

Family: Arecaceae (Palm family)
Native to: Madagascar
Height: 20-30 feet (6-9 meters)
Est. CO_2 sequestration: ~22 kg / year

70. Areca Palm

The Areca Palm, also called the Golden Cane Palm, is a clustering palm that sends up multiple slender, yellow-green canes from a single base, each topped with gracefully arching, feathery fronds. The clumping habit makes it useful both as a hedge-like screen and as an ornamental accent.

Native to Madagascar, it has become one of the most widely cultivated palms worldwide, equally common as a landscape planting in tropical gardens and as an air-purifying indoor plant. Outdoors it typically reaches 20 to 30 feet, forming a dense clump that is often used to soften walls, fences, and building corners.



Erythrina crista-galli

Family: Fabaceae (Legume family)

Native to: South America, Argentina, Brazil, Uruguay, and Paraguay

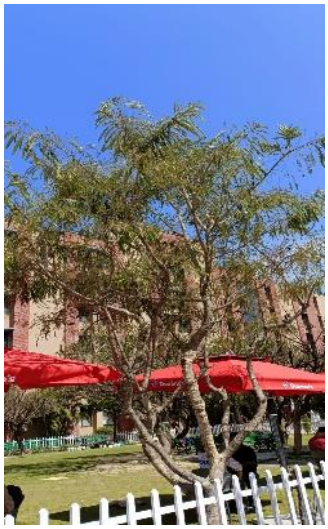
Height: 16–33 feet (5–10 meters)

Est. CO_2 sequestration: ~22 kg / year

71. Cockspur Coral Tree

The Cockspur Coral Tree is a small deciduous tree named for its curved, waxy, deep-red flowers, shaped somewhat like a rooster's spur, borne in upright clusters at the branch tips through the warmer months. Its compound leaves and often thorny stems complete a distinctive silhouette.

Native to South America — particularly Argentina, Brazil, Uruguay, and Paraguay, where it serves as the national flower of both Argentina and Uruguay — it has been planted widely elsewhere as an ornamental flowering tree. Reaching 16 to 33 feet, it is valued for the vividness of its blooms, which stand out strongly against its otherwise modest, twisting form.



Phyllanthus emblica

Family: Phyllanthaceae

Native to: India, Southeast Asia and China

Height: 26–60 feet (8–18 meters)

Est. CO_2 sequestration: ~45 kg / year

72. Amla

The Amla, or Indian Gooseberry, is a medium-sized deciduous tree with delicate, feathery foliage and small, round, translucent green fruit renowned for one of the highest natural vitamin C contents of any commonly eaten fruit.

Native to India, Southeast Asia, and China, the Amla holds a central place in Ayurvedic medicine, where its fruit is used fresh, dried, and processed into oils, preserves, and tonics. Growing to 26 to 60 feet, it is a common feature of both orchards and ornamental plantings, valued as much for its nutritional and medicinal reputation as for its light, graceful canopy.



Elaeocarpus ganitrus

Family: Elaeocarpaceae

Native to: Himalayan region, India, Nepal, Indonesia, and Southeast Asia

Height: 50-80 feet (15-25 meters)

Est. CO_2 sequestration: ~90 kg / year

73. Rudraksha

The Rudraksha tree is a broadleaved evergreen best known for the hard, ridged seeds it produces inside a blue-skinned fruit — the beads traditionally strung into malas used in prayer and meditation across Hindu and Buddhist practice. The tree itself carries simple, glossy, serrated leaves and small white bell-shaped flowers.

Native to the Himalayan foothills and parts of Nepal, India, and Southeast Asia, it grows into a substantial tree of 50 to 80 feet under favourable conditions. Beyond its religious and cultural significance, the tree is valued as a shade and avenue planting, and mature specimens are often treated as landmark trees in the grounds where they stand.

Estimated Carbon Sequestration Summary

Alongside each tree's profile, this report includes an estimated annual carbon dioxide sequestration figure, calculated from the species' typical mature height using standard, size-based benchmarks adapted from widely used urban-forestry references. Estimates rise with tree size: small palms and ornamentals sequester modestly, while large, long-lived canopy trees such as the Sal, Teak, and Peepal sequester considerably more per year as they approach full maturity.

4.51 t
Estimated CO_2 sequestered per year, across all 73 trees

2897 kg
From the 50 trees on Bidholi Campus

1615 kg
From the 23 trees on Kandoli Campus

Breakdown by Tree Size Category

Size Category	Count	Est. CO_2 / yr
Palms & Small Ornamentals	8 trees	**80 kg CO_2 / yr**
Small Trees	16 trees	**352 kg CO_2 / yr**
Medium Trees	22 trees	**990 kg CO_2 / yr**
Large Trees	16 trees	**1440 kg CO_2 / yr**
Very Large / Canopy Trees	11 trees	**1650 kg CO_2 / yr**

These figures are planning-level estimates of sequestration by trees that already exist. They are not a certified carbon audit and they are not carbon credits: credit schemes require new, additional, third-party-verified action, which this record does not claim to be. A precise measurement would require each tree's trunk diameter (DBH), age, health and canopy condition, assessed individually — typically through a professional survey using tools such as the U.S. Forest Service's i-Tree platform. What this summary offers is an honest, order-of-magnitude picture: a working campus canopy of 73 trees, across two sites, currently drawing down in the range of 4 to 5 tonnes of CO_2 every year, a figure that will grow as the younger trees in this record continue to mature.

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For queries, collaboration, or to discuss this documentation further, please reach out to the Department of Social Outreach, UPES, Dehradun.

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