

Catalog of plants Japanese garden and plaza Techos Verdes

Plants identified by: Annina Springer



Introduction

I am Annina Springer, a horticulture student from Germany and in my third semester at the University of applied science Erfurt. During my internship here at Plaza Comercial Bioclimatica Techo Verdes, located at San Pedro Sula, Honduras I created this catalog. It contains all the plants growing in the plaza and the japanese garden until the end of April 2022. I have got the opportunity to work here, by the owner and architect of this place Angela M. Stassano, R. She accepts volunteers and students from all over the world, to work with her and do their research and thesis in San Pedro Sula. She offers as well free accommodation in the openminded VeGa Community led by her son Gabriel Aguilar. It is an awesome place where foreigners and locals can connect and exchange their knowledge and skills.

Working here, I gained a lot of knowledge about the local flora and was surprised several times. In identifying the plants, I noticed that about half of the species are non-native and come from either Asia, Oceania, or Africa. Almost all of them are edible or have other useful properties.

This catalog forms the basis for further projects. It makes it possible to keep track of the plants and adjust the planting. Especially in the Japanese garden, which was designed and built by the japanese landscape architect Tamotsu Tongu, built between 2019 and 2021, as the first stage of the first japanese garden in Honduras and like an integral part of the Osho Meditation Center located at the Plaza Complex. The intention is to continue the design and construction to expand it to the whole complex. More students and expert volunteers are expected to make possible the expansion of the gardens as well as its educational role in the community. The catalog could also serve as a basis for plant tours around the plaza. The catalog contains a lot of interesting and surprising information about the species that grow there. It is an opportunity to educate people about the richness of nature around them and to create awareness of this diversity.

Sources:

Most of the plants were identified using the "PlantNet" app and the "plants of the world online" website (<https://powo.science.kew.org/>) of the KEW Royal Botanical Gardens. The information about the description and the uses are mostly from the website "useful tropical plants" (<https://tropical.theferns.info/>) and the Wikipedia page of the respective plant.

Caution!

Plant identification can sometimes be difficult. Although I have done my best, I may have misidentified some of the species. If you want to use a listed plant, please check to make sure it is the correct one. Some of these plants are poisonous or even deadly. I assume no liability for the information contained in this catalog.



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Annina Springer
San Pedro Sula/Honduras
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Japanese garden

Small plants and perennials

1. Scientific name: *Dracaena aubryana* Brongn. ex É.MORREN



Common names:

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Family:

Asparagaceae

Origin:

West and Central Africa

Description:

Dracaena aubryana is an evergreen shrub with erect, mostly unbranched and often spirally twisted stems. It grows to about 0.5 - 2.5 m tall. Leaves are distichous, ovate to narrowly ovate and grow up to 60 cm long and 5 - 10 cm wide. The flowers usually grow in a spike of greenish-white to white color, each lobe often with a purple-reddish band.

Uses:

An alcoholic stimulating drink can be made from the root. The plant is traditionally used in the treatment of venereal diseases.

2. Scientific name: *Tradescantia psathacea* Sw.



Common names:

boat lily, Magueyito morado, Hierba del cáncer, Maguey, Maguey blanco, Maguey morado, Magueyito morado, Reo, Roeo, Zebrina, Zopiloteria

Family:

Commelinaceae

Origin:

Central America

Description:

Tradescantia psathacea is a perennial that grows up to 0.3 m to 0.5 m. It is a semi-epiphytic herbaceous shrub with underground rhizomes.

The leaves are long and sword-shaped, dark teal green on top, vivid purple on underside, waxy and fleshy. Stems are trunk-like, short and stout, nearly hidden by overlapping leaves.

The flowers are small, white, nestled in purple boat-shaped bracts and produced the whole year round at leaf axils. The fruits are capsules with 2 seeds.

Use:

The plant is believed to possess anti-microbial, insecticidal, anti-inflammatory and anti-cancer properties. Leaves boiled and made into a purple-coloured herbal tea to relieve body heatiness is used in Thailand to treat fever, cough and bronchitis. It is also used as remedy for amenorrhea, headache, sprains and rheumatism. Caution: Astringent sap may cause stinging and itching in susceptible individuals and animals. Do not eat plant raw, as sap can cause pain in mouth and throat.

3. Scientific name: *Pilea nummulariifolia* (Sw.) Wedd.



Common names:

creeping charlie, centavito

Family:

Urticaceae

Origin:

South America



Description:

Pilea nummulariifolia is a low-growing perennial herb that creeps and forms mats. The leaves appear in different shades of green up to red, are round to oval and deeply wrinkled with notched tips. The flowers are white, green yellowish and inconspicuous. This fast-growing species grows best in bright, indirect light. It will burn under intense sun or be sparser under shade. It grows best in a humid environment with consistently moist soil.

Use:

The leaves are edible and can be used in teas.

4. Scientific name: *Pilea microphylla* (L.) LIEBM**Common names:**

artillery plant/fern, helecho
arroz, helecho artillería,
espumilla

Family:

Urticaceae

Origin:**Description:**

Pilea microphylla is an evergreen, ground-covering annual to short-lived perennial plant forming a dense mat of growth around 30cm high and up to 60cm wide. The plant prefers a semi-shaded location. It requires moist but well-drained soil and will tolerate short periods of soil flooding. It is tolerant to a range of soil types.

Male flowers explosively emit pollen into the air, hence the common name "artillery plant".

Use:

An infusion of the entire plant is used as a diuretic. The crushed leaves are applied commonly to sores and bruises to heal them. It is also used against rheumatism, skin diseases, stomach and intestinal complaints, inflammation, as a uterine cleaner, antioxidant, radiation protection, hepatic and urinary tract inflammation, diarrhoea.

5. Scientific name: *Selaginella hoffmannii* HIERON.**Common names:**

Spikemoss, lesser clubmoss,
helecho musgo

Family:

Selaginellaceae

Origin:

Central America

Description:

Selaginella hoffmannii is a creeping plant with simple, scale-like leaves on branching stems from which roots also arise. The stems are aerial, horizontally creeping on the substratum.

Use:

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6. Scientific name: *Dieffenbachia nitidipetiolata* CROAT & GRAYUM**Common names:**

dumb cane, mother-in-law's tongue, leopard lily, pita/pito, lotería, galatea

Family:

Araceae

Origin:

Colombia and Panamá

Description:

Dieffenbachia nitidipetiolata grows up to 120 cm tall, the stems are erect or partially reclining. The leaves are very glossy dark green and erected spreading, clustered at apex of stem. The petioles are 13 - 44 cm long. When cut, they give off a strong and foul-smelling odor. The inflorescences are 15-36 cm long and uniformly pale green to greenish white.

Use:

The sap is milky and, in some cases, can cause severe irritation on skin contact.

7. Scientific name: *Ophiopogon jaburan* (SIEBOLD) LODD.**Common names:**

variegated mondo grass, jaburan lilyturf, variegated lilyturf, aztec grass

Family:

Asparagaceae

Origin:

Japan and Korea

Description:

Ophiopogon jaburan is an evergreen perennial plant that grows about 30cm tall and spreading at the roots to form dense clumps. Despite its grasslike appearance, it is not closely related to the true

grasses, the Poaceae. It grows from short rhizomes, and bear tufts of leaves, from which flowers emerge in racemes held on short stems above the leaves.

Use:

The root is antitussive, aphrodisiac, expectorant, pectoral, sedative, sialagogue, stomachic and tonic. It is also said to have anticancer activity. The root is used internally in the treatment of a variety of conditions, including dry coughs, fevers, thirst, sore throats, tuberculosis, dry constipation, insomnia, anxiety and palpitations. It is also frequently used in polyherbal treatments of diabetes mellitus. The roots have been shown to have an antibacterial action, inhibiting the growth of *Staphylococcus*, *E. coli*, *Bacillus subtilis*, *B. typhi* etc. The plant is antipyretic, antiscrofulatic, antitussive, emollient, expectorant and tonic. It also lowers blood pressure.

8. Scientific name: *Aglaonema commutatum* SCHOTT



Common names: poison dart plant

Family:
Araceae

Origin:
Philippines

Description:

The leaves are thick, elliptic to lance-shaped, dark green with silver-gray blotches on erect, sometimes branched stems. The plants reach heights of growth between 40 cm and 120 cm. It thrives in shady locations.

Use:

To humans and animals, it is poisonous if ingested (or if the juice from the plant is touched). Possible symptoms include a rash, pain where the rash is, and mucous membranes irritated.

9. Scientific name: *Trimezia martinicensis* (JACQ.) HERB.



Common names:

yellow walking iris, forenoon
yellow flag, iris amarillo, lirio
amarillo, trimesia, lirio de jardín

Family:

Iridaceae

Origin:

Central and South America

Description:

Trimezia martinicensis is an evergreen, stemless, perennial plant with a cluster of leaves arising from small fibrous-coated corms. The flowering stems, which can be 30 - 80cm tall, produce viviparous plantlets at their joints which root and produce new plants when the stem bends over. It prefers a position in light shade and grows best in a well-drained soil.

Use:

A decoction of the root is administered as a domestic remedy for chills.
The plant is also an effective purgative.

10. Scientific name: *Callisia repens* (JACQ.) L.



Common names:

creeping inchplant, Bolivian Jew
or turtle vine

Family:

Commelinaceae

Origin:

Central and South America

Description:

The perennial plant forms creeping mats. The flowering shoots are ascending. The fleshy, delicate leaves grow smaller towards the tip of the shoot. The leaf blade is oval to lanceolate, 1-3.5 cm long and 0.6-1 cm wide. In the distal leaves, the blades are narrower than the open, spread leaf sheaths. It grows quickly, multiplies easily by long, creeping shoots that root in each node, as soon as it is on the ground. Its flowers are borne in cluster in the leaf axils, small and white.

Use:

-

11. Scientific name: *Alocasia macrorrhizos* (L.) G. DON**Common names:**

giant taro, ape, giant alocasia, biga, pia

Family:

Araceae

Origin:

rainforests of Island Southeast Asia

Description:

Alocasia macrorrhizos is a large, evergreen, herbaceous perennial plant, usually growing 2 - 4 m tall, occasionally to 5 metres. It has thickened stems that can be 3 metres or more in height and 20cm in diameter, topped with leaves up to 1 m long. It grows best in a position in some shade, but tolerant of full sun and of deep shade. Prefers a well-drained, humus-rich, fertile loam.

Use:

The corm needs to be thoroughly cooked before being eaten in order to destroy the calcium oxalate crystals. When prepared for consumption in Guam, a stick is thrust into the tuber to avoid touching the plant - the tuber is then peeled, sliced, soaked and boiled with coconut milk in order to produce an edible starch food. The basal part of the stem is peeled and used as a cooked vegetable. It can be added to soups and stews. A very easily digested starch can be obtained from the stem. The leaves and stalks of some cultivars are edible.

All parts of the plant are medicinally used. The sap of the stem is used to treat earache or boils in the ear. Applied externally, it is used to treat cuts. In New Guinea, headaches are treated with the sap and the leaves. The leaves are said to be antimicrobial, antifungal, antioxidant, hepatoprotective, antidiarrheal, and antiprotozoal. The leaves and the rhizome are used in the treatment of impetigo, furunculosis, phlegmon and snake bite in the form of a liquid extract for administration by mouth, and their residue is used for poulticing. They are also used in treating colic and vomiting, in a daily dose of 10 to 20g of dried rhizome in the form of a decoction. The rhizome is used to make a plaster that is applied topically and is said to be effective against furunculosis. Sexual insufficiency is treated by eating the leaves cooked in coconut milk. The roots are used to treat swollen lymph glands. The wood is used to treat stomach-ache and diarrhoea. The leaves and rhizomes are collected throughout the year. The leaves are used fresh. The rhizomes are boiled hard to reduce itching compounds, then sun dried, or heat dried.

12. Scientific name: *Stromanthe thalia* (VELL.) J.M.A. BRAGA



Common names:
Never-Never Plant

Family:
Marantaceae

Origin:
Brazilian rainforest

Description:

It is an herbaceous plant growing to about 1.5 m tall. Its leaves are oblong to lanceolate. The upper surface of the leaf blade is variegated with shades of red, green and white, while the underside is burgundy, pink. It prefers to grow in semi up to full shade in well-drained and moist soils.

Use:

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13. Scientific name: *Cyperus alternifolius* subsp. *flabelliformis* Kük.



Common names:
umbrella sedge, umbrella
papyrus, paragüita

Family:
Cyperaceae

Origin:
Tropical Africa

Description:

Cyperus alternifolius is a robust perennial with a 2–10 mm thick creeping woody rhizome and several stems usually placed in a straight row. The culms are blunt triangular and smooth or slightly rough with a diameter of 1.5 to 7 mm. At the bottom they are surrounded by up to 30 cm long, leathery leaf sheaths, which are reddish to blackish-brown in the lower area and yellowish to gray towards the top and end obliquely. The inflorescences are surrounded by 15 to 25 spirally arranged, green, leaf-like bracts. These are flat, pointed, with slightly curved leaf edges and reach a length of 10 to 35 cm and a width of 3 to 20 mm. The inflorescences are compound spirals from 3 to 25 cm in diameter. Their main axes are up to 10 cm long, smooth or slightly rough and carry 10 to 30 mm long secondary

spirals with about 5 mm long bracts and 15 to 30 spirally arranged brownish spikelets. The flowers are in threes. There are three stamens and three stigmas present.

Use:

Cyperus alternifolius (part not specified) can be dried and burnt. A solution of the ash is used in cooking the leaves of other vegetables. The inner base of the young stems of all species in this genus can be eaten raw. The rhizome is given to children as a remedy for stomachache.

The plant (part not specified) is also used as a treatment for malarial fevers. The dried ash of the plant can be applied to fresh wounds as a disinfectant.

Culms and leaves are often used in weaving for making mats, baskets, fans and paintbrushes.

14. Scientific name: *Adiantum trapeziforme* L.



Common names:

giant maidenhair, diamond maidenhair

Family:

Pteridaceae

Origin:

tropical rainforests of Central and South America

Description:

The perennials have a stemless growth and reach heights of 1.8 to 2 metres. *Adiantum trapeziforme* is evergreen. The middle-green, tripinnate leaves are basal. The foliage is trapezoidal in shape, so two parallel sides and two not. The soil needs to be moist humus rich and well drained.

Use:

Maidenhair fern is used for bronchitis, coughs, whooping cough, and heavy menstruation with cramps. It is also used to loosen chest congestion. Some people apply maidenhair fern directly to the scalp for hair loss and to make hair darker.

15. Scientific name: *Chlorophytum comosum* (THUNB.) JACQUES



Common names:

spider plant, spider ivy, ribbon plant, hen and chickens, cinta, malamadre, papito corazón, araña, lazo de amor

Family:

Asparagaceae

Origin:

Africa

Description:

Chlorophytum comosum grows to about 60 cm tall, though as a hanging plant it can descend longer. It has fleshy, tuberous roots, each about 5–10 cm (2–4 in) long. The long narrow leaves reach a length of 20–45 cm and are around 6–25 mm wide. The leaves are green in the wild form and, depending on the cultivar, can be completely green or have green-white to green-yellow stripes. Flowers are produced in a long and branched inflorescence. At their ends is an offshoot which, due to its weight, bends the inflorescence downwards and then roots. Flowers initially occur in clusters of 1–6 at intervals along the stem of the inflorescence. Individual flowers are greenish-white.

Use:

Chlorophytum comosum is a very common indoor plant. Studies have shown that the plant is quite effective in cleaning indoor air by absorbing chemicals including formaldehyde, xylene, benzene, and carbon monoxide in homes or offices. The thick, fleshy roots allow it to tolerate inconsistent watering. Young leaves can be eaten. They are rich in micronutrients, vitamins and minerals.

16. Scientific name: *Liriope spicata* LOUR.



Common names:

creeping lilyturf, creeping liriope, lilyturf, and monkey grass

Family:

Asparagaceae

Origin:

China

Description:

Liriope spicata is a rhizomatous, grass-like perennial which forms clusters of narrow, arching, glossy, dark green, white striped leaves 1-2 cm wide typically growing 25 to 50 cm high. Erect flower spikes

with small, white to pale lavender flowers arise, somewhat hidden, among the leaves in late summer. It is easily grown in average, medium, well-drained soils in full sun to part shade. Moist, fertile soils with partial shade are ideal, but it also tolerates wide range of light and soil conditions. Creeping lilyturf also tolerates heat, humidity, and drought. Blackish berries develop in fall and often persist through winter. The roots have prominent rhizomes and frequent tubers. A cultivar exists with variegated leaves.

Use:

-

17. Scientific name: *Dichondra micrantha* URB.



Common names:

kidney weed

Family:

Convolvuaceae

Origin:

Central America

Description:

Dichondra micrantha is very low-growing groundcover that spreads by rooting at the nodes. It has small soft dark green leaves that are kidney shaped. The flowers are white, greenish or yellowish, 2–3 mm diameter. It prefers shady, damp places.

Use:

The Plant has diuretic, febrifuge and styptic properties. The whole plant is used for treating diarrhoea.

18. Scientific name: *Alocasia cucullata* (LOUR.) G.DON



Common names:

Chinese taro, Chinese ape, Buddha's hand, hooded dwarf elephant ear

Family:

Araceae

Origin:

South Asia

Description:

Alocasia cucullata is an evergreen herbaceous plant that produces thick, erect stems up to 6 cm wide that branch from the bases and grow up to a meter tall. It produces bunches of leaves on long, sheathed petioles which are generally up to about 30 cm long but are known to reach 80 cm. The wide, roughly heart-shaped leaf blade is up to 40 by 28 cm and has 4 main veins running from the centre to the edge on each side. The plant rarely flowers. Prefers a well-drained, humus-rich soil and a position in semi-shade.

Use:

It is applied externally to treat snakebite, abscesses, rheumatism, and arthritis. It is poisonous due to the presence of calcium oxalate crystals.

19. Scientific name: *Pityrogramma calomelanos* (L.) LINK**Common names:**

silverback fern

Family:

Pteridaceae

Origin:

Central and South America

Description:

The erect rhizome, which is covered with scales, upright fronds, can reach up to about 30 - 45 cm tall. Stipes measuring to about 20 - 30 cm long, fronds oblong, acuminate apex, bipinnate and fern blade measuring about 15 - 30 cm long and 10 - 15 cm wide. The underside is white floury with few scales, the tip is pinnate, reduced. The petiole is furrowed, shiny, and brown on top.

Use:

The leaves are used externally to heal wounds and stop bleeding. An infusion of the whole plant is used to increase male sexual stamina, and to treat female haemorrhaging. An aqueous extract is drunk or applied locally to treat venereal disease in Guyana. It is also used for asthma, cough, cold, pneumonia, tuberculosis, and whooping cough. The root is bechic. An infusion is used to treat pulmonary conditions. An infusion of the leaves is used in the treatment of bronchitis, colds and stomach pains. The leaves are crushed and used as a poultice to promote the healing of ulcers, wounds and cuts. They are also placed on wounds to stop bleeding. The plant contains the sesquiterpene lactones pterosin (which is reportedly antibiotic).

20. Scientific name: *Cymbopogon citratus* (DC.) STAPF



Common names:

lemon grass, West Indian lemon grass, hierba limón, toronjil de caña, citronela, limonaria, limoncillo, zacate el limón, pajete, caña de limón, caña santa, hierba de la calentura, paja de limón, malojillo,

Family:

Poaceae

Origin:

India

Description:

Cymbopogon citratus is an aromatic, evergreen, densely clump-forming, perennial grass producing numerous stiff stems arising from a short rhizomatous rootstock. It can grow up to 1.2 m tall or 2 m tall when in flower. The leaf blades are light green and strap-shaped (up to 0.9 m long, 2.5 cm wide). Crushed leaves exude a lemony scent. A pseudo stem formed from tightly overlapping leaf sheaths on non-flowering shoots is 12-25 cm long and 1-2 cm across, bulbous and thickening towards base of plant. It is fragrant when crushed and yellowish-brown or reddish. Numerous brownish florets held on compound drooping panicles up to 0.5 m across, rarely produced in cultivation. Prefers a moisture-retentive soil in full sun.

Use:

The heart of the young shoots is eaten as a vegetable with rice. The basal portions of the leafy shoots have a delicious lemon-like aroma and are used as a flavouring in soups, sauces and curries. A refreshing tea can be brewed from the leaves.

Lemon grass is a bitter, aromatic, cooling herb that increases perspiration and relieves spasms. The essential oil obtained from the plant is an effective antifungal and antibacterial. The essential oil contains about 70% citral, plus citronellal, both are markedly sedative. Internally, the plant is used principally as a tea in the treatment of digestive problems, where it relaxes the muscles of the stomach and gut, relieving cramping pains and flatulence. It is particularly useful for children, for whom it is also used to treat minor feverish illnesses. Externally, especially in the form of the extracted essential oil, the plant is a very effective treatment for a range of skin conditions including athlete's foot, ringworm, lice and scabies. It is also applied to ease the pain of arthritic joints.

21. Scientific name: *Eryngium foetidum* L.



Common names:

spirit weed, cilantro, recaio, shadow beni, Mexican coriander, bhandhania, long coriander, sawtooth coriander

Family:

Apiaceae

Origin:

Central and South America

Description:

Eryngium foetidum is a tap-rooted biennial herb with long, evenly branched roots. The oblanceolate leaves, arranged spirally around the short thick stem, form a basal rosette and are as much as 30 cm long and 4 cm broad. The leaf margin is serrated, each tooth of the margin containing a small yellow spine. The plant produces a well-branched cluster of flower heads in spikes forming the characteristic umbel inflorescence on a long stalk arising from the centre of the leaf rosette. The calyx is green while the corolla is creamy white in colour.

Use:

Eryngium foetidum is widely used in seasoning, marinating and garnishing in the Caribbean. It dries well, retaining good color and flavor, making it valuable in the dried herb industry. It is sometimes used as a substitute for coriander leaves but has a much stronger taste.

The plant has been used in traditional medicine in tropical regions for burns, earache, fevers, hypertension, constipation, fits, asthma, stomachache, worms, infertility complications, snake bites, diarrhea, and malaria. It is also known as *E. anti-hysteri-cum*. The specific name *anti-hysteri-cum* reflects the fact that this plant has traditionally been used for epilepsy. The plant is said to calm a person's 'spirit' and thus prevents epileptic 'fits', so is known by the common names spiritweed and fitweed. The anticonvulsant properties of this plant have been scientifically investigated. A decoction of the leaves has been shown to exhibit anti-inflammatory and analgesic effects in rats.

22. Scientific name: *Gymnocarpium dryopteris* (L.) NEWMAN



Common names:

estern oakfern, common oak fern , oak fern, northern oak fern

Family:

Aspleniaceae

Origin:

Northern hemisphere

Description:

Gymnocarpium dryopteris is a perennial herb with a long, thin, and creeping rhizome. The plant reaches a height of 10 to 40 cm. The petiole and the leaf spindle are glandless. The leaf blade is light green, thin and glabrous or sparsely hairy glandular. The blade consists of three to five main feathers.

Use:

23. Scientific name: *Nephrolepis biserrata* (Sw.) SCHOTT



Common names:

broad sword fern, paku larat, giant sword fern, sword fern

Family:

Nephrolepidaceae

Origin:

tropical regions all over the world

Description:

The fronds of *Nephrolepis biserrata* reach 2.5 m tall. The petioles are sparse to moderate with reddish to light brown hair-like scales. It grows best in rich, moist to wet soil in partial or full shade.

Use:

Nephrolepis biserrata helps against cough. In Ivory Coast, it is applied to stop wounds bleeding. It is also considered to be antimicrobial, hepatoprotective and an antioxidant.

Shrubs

24. Scientific name: *Alternanthera brasiliana* (L.) KUNTZE

**Common names:**

large purple alternanthera, metal weed, bloodleaf, parrot leaf, ruby leaf, Brazilian joyweed, purple alternanthera, purple joyweed

Family:

Amaranthaceae

Origin:

forests of Central and South America

Description:

Alternanthera brasiliana is an erect, herbaceous plant that can grow up to 3 m tall. The plant's stems, which range between red, green and purple, are delicately hirsute when juvenile. The leaves, which are 1–10 cm long and 0.7–5 cm wide, are usually coloured purple-speckled or luminous reddish-purple. Its vanilla-coloured, pom-pom flowers are ordered in compact clusters (7–20 mm long) in the top leaf branching and are small in shape.

Use:

The leaves cooked can be used as a vegetable. The plant is said to be aphrodisiac. The plant could be useful as an antiviral agent. The leaf juice is squeezed into vinegar and drunk as a refreshing, antidiarrhoeic infusion.

25. Scientific name: *Dracaena fragrans* (L.) KER GAWL.

**Common names:**

cornstalk dracaena, striped dracaena, compact dracaena, corn plant, Tronco del Brasil, Palo de Brasil, Palo de Agua

Family:

Asparagaceae

Origin:

tropical Africa

Description:

The evergreen plant forms a trunk that grows up to 6 meters high in its natural habitat. In indoor culture, *Dracaena fragrans* rarely gets higher than 1.50 to 2 m. The sessile, narrow, lanceolate leaves

are 45 to 50 cm long and up to 5 cm wide. The leaves are dark green in the wild species and can be variegated depending on the variety.

Use:

Dracaena fragrans has been used for inducing labor, treating malnutrition and fighting illness.

26. Scientific name: *Euphorbia tithymaloides* L.



Common names:

redbird flower, devil's-backbone, redbird cactus, Jewbush, buck-thorn, cimora misha, fiddle flower, ipecacuahana, Jacob's ladder, Japanese poinsettia, Jew's slipper, milk-hedge, Padus-leaved clipper plant, red slipper spurge, slipper flower, slipper plant, slipper spurge, timora misha, zigzag plant, sapatinho do diabo, ítamo real, zapatilla del diablo

Family:

Euphorbiaceae

Origin:

Central America

Description:

Euphorbia tithymaloides is a succulent perennial with erect growth form. The leaves are smooth, glossy and ovate with entire to slightly wavy leaf margins. They are alternately arranged with one leaf per point along the stem on alternating sides. The round, green stem grows in a zigzag shape, that's the reason why one of its common names is also zigzag plant. The red, bird-shaped flowers occur in a cluster at the stem tips.

Use:

The latex has been used to treat calluses, earache, insect stings, ringworm, skin cancer, toothache, umbilical hernias, and warts. The roots, stems, and leaves of the plant are known to be toxic.

27. Scientific name: *Dracaena braunii* ENGL.



Common names:

lucky bamboo, belgian evergreen, ribbon plant, sander's dracaena

Family:

Asparagaceae

Origin:

tropical West Central Africa

Description:

Its leaves are ovate-lanceolate. They grow up to 20 cm long and 3 cm wide. The leaves are strikingly variegated, green with contrasting white, yellow and silver-grey border stripes. *Dracaena braunii* is used as an ornamental plant and is also offered commercially under the botanically misleading registered trademark name "lucky bamboo", but as a dragon tree it is plant-systematically far removed from bamboo.

Use:

There is no known medical use but according to Asian tradition, some people believe this plant brings good fortune. The number of stems and the shape in which the stems are woven together signify various meanings of prosperity and good health. Popular shapes include pineapples, pears, trellises, towers and ladders.

28. Scientific name: *Ixora coccinea* L.



Common names:

jungle geranium, flame of the woods or jungle flame, pendkuli, geranio de la jungla, llama de los bosques, coral, llama de la jungla

Family:

Rubiaceae

Origin:

Southern India, Bangladesh, and Sri Lanka

Description:

Ixora coccinea is a densely branched, evergreen shrub growing up to 2.5 metres tall. It prefers a partially shaded position and grows best in a fertile, moist but well-drained soil. It is commonly grown as an ornamental and as a hedge, valued especially for its floral display. The plant usually flowers continually throughout the year.

Use:

The leaves and bark are used as a remedy for diarrhea. The leaves are used externally to treat sores, ulcers etc. The roots are said to be analgesic, antiseptic, astringent, diuretic, sedative and stomachic. They are used in the treatment of hiccups, fever, gonorrhoea, loss of appetite, nausea, diarrhea and dysentery. The roots are applied externally to treat sores and chronic ulcers, and also to treat headache. A decoction or infusion of the roots is administered to clear the urine. The flowers are said to have properties similar to the roots, but in a milder form. They are said to be analgesic, astringent, cholagogue, diuretic and sedative; and are also used to stimulate digestive enzyme secretion. They are used in the treatment of dysentery, leucorrhoea and dysmenorrhoea. A decoction is prescribed to treat haemoptysis and catarrhal bronchitis. A decoction of the flowers or the bark is employed as a lotion against eye troubles, sores and ulcers. The plant is occasionally used to treat fevers. The fruits can be eaten raw if they are ripe.

29. Scientific name: *Plinia cauliflora* (MART.) KAUSEL**Common names:**

brazilian grapetree, jaboticaba

Family:

Myrtaceae

Origin:

Brazil, Argentina, Paraguay, Peru and Bolivia

Description:

Jaboticaba is a very slow-growing ornamental evergreen shrub or small tree with a dense crown, that can grow from 3 - 10 m tall. It has one or more trunks, and the branches emerge close to the ground and spread to give a dense, wide, round and symmetrical crown. The flowers and fruits are formed on the trunk and branches. The globose fruit is shining-black, is up to 35mm in diameter and rich in vitamin C.

Use:

The fruit can be eaten raw, made into jellies, syrups and preserves or fermented into wine. The purplish, grape-like fruit has a thick skin with a translucent, juicy pulp and a pleasant vinous flavour. The jam is marketed in Brazil as 'Brazilian Grape Jelly'. the tree is also often used as a bonsai.

30. Scientific name: *Duranta erecta* L.



Common names:

duranta

Family:

Verbenaceae

Origin:

Central America

Description:

Duranta erecta is a usually thorny, evergreen shrub or small tree, sometimes with a weeping habit. It usually grows around 4 - 6 m tall. It prefers a position in full sun, growing well in a moist, fertile, well-drained soil. The plant is amenable to trimming and is often grown as a hedge. It is considered to be invasive in many Pacific Islands

Use:

The plant is used in the treatment of fevers, skin itches and as an insect repellent. The fruits are poisonous. You can get sick or even die by eating them.

31. Scientific name: *Schefflera arboricola* (HAYATA) MERR.



Common names:

dwarf umbrella tree, cheflera

Family:

Araliaceae

Origin:

Taiwan, China

Description:

Schefflera arboricola is an evergreen shrub, sometimes adopting a more climbing habit, with stems up to 6 metres long. The plant sometimes grows as an epiphyte in the branches of trees. The leaves are long, shiny, oval that droop gracefully from a central stalk, resembling an umbrella. Prefers a position in light shade, but also succeeds in full sun and in deep shade. Succeeds in a range of well-drained soils, from sandy to loamy and from acid to slightly alkaline. Prefers a soil on the drier side. Established plants are very drought tolerant. The plant produces aerial roots from the lower stems which root into the ground.

Use:

Schefflera is said to remove benzene (a carcinogenic substance) from the air.

It is used as a treatment of rheumatoid arthritis, numbness in the limbs, abdominal pain, headaches, arthralgia, and sore and/or swollen throat. It can also help to relieve asthma.

Externally, it can be ground into a paste to treat injuries and stop bleeding.

It can be toxic to pets and children.

32. Scientific name: *Heliconia bihai* (L.) L.**Common names:**

macawflower, red palulu, bijao, plátano silvestre de Cuba, giant lobster claw

Family:

Heliconiaceae

Origin:

Central and South America

Description:

Heliconia bihai is an erect herb typically growing taller than 1.5 m. It has dark green leaves that are large, oval, and pointed at the end. The bracts, which contain the flowers inside, have a beak shape. They appear in the bright colours red, yellow and green. The plant likes it warm and moist and grows best in partial shade.

Use:

Tuber is edible roasted or boiled. The leaf is used as a wrapper for tamales or juane.

33. Scientific name: *Heliconia latispatha* BENTH.**Common names:**

orange gyro

Family:

Heliconiaceae

Origin:

Central and South America

Description:

Heliconia latispatha is an erect herb typically growing 2 to 4 m tall. It has dark green leaves that are large, oval, and pointed at the end. The bracts, which contain the flowers inside, have a beak shape. Each coil consists of 10 to 15 flowers, the perianth is green, yellow or orange, the sepal edges dark green and bare, occasionally slightly downy hairy. The plant likes it warm and moist and grows best in partial shade.

Use:

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34. Scientific name: *Cordyline fruticosa* (L.) A. CHEV.**Common names:**

ti plant, palm lily, cabbage palm

Family:

Asparagaceae

Origin:

Australia, Papua New Guinea, Indonesia

Description:

Cordyline fruticosa is a woody evergreen shrub or small tree, up to 4 m tall, with leaves 3-6 dm (rarely 8 dm) long and 5-10 cm wide at the top of a woody stem. It forms 4-6 dm long panicles with aromatic, yellowish to reddish flowers that ripen into wine-colored drupes or berries.

Use:

The root contains a high proportion of sugars. When baked, it has a flavour not unlike molasses and is eaten like this or used as a sweetener in puddings and other foods. The root is baked for up to four days in earthen ovens to be consumed as food, sweets, refreshment, or confectionery. A fermented drink can be made from the sweet roots. Young leaves are cooked and eaten as a potherb. They are free of any pronounced flavour and can also be used to wrap around other foods whilst they are baked.

An infusion of the leaves is used as a remedy for swellings, inflammations and for dry fevers. The juice of the leaves is used to treat colds, coughs, stomach-ache, eczema, gastritis, high blood pressure, earache and infected eyes. Liquid from the stem is used to treat sickness after childbirth and also to help expel the afterbirth. The root is used to treat inflammations, baldness, toothache and laryngitis.

35. Scientific name: *Anthurium schlechtendalii* KUNTH



Common names:

pheasant's tail, cola de fasian

Family:

Araceae

Origin:

Central America

Description:

Anthurium schlechtendalii is a large herbaceous plant with white aerial roots, dark green leaves, and a dark purple bract. It has a long, slender brown spadix that grows to about 70 cm long. The spadix produces small flowers which, after being fertilized, develop into red berry-like fruits. The plant lives in wet forests, rocky hillsides or outcrops on trees.

Use:

For most treatments, three leaves of the plant are plucked, boiled in 2 gallons of water for 10 minutes, and used in a warm bath. It can help against swollen tonsils, cramps, muscle spasms or paralysis, reduce swelling and inflammation, such as swollen breasts, back pain or joint pain and urinary infection. The plant is also used as a chilillo (when a dog is out of control): a handful of the roots is boiled in one quart of water for 10 minutes. One-half pint of the liquid is then fed to the dog three times a day until symptoms abate.

Climbing plants

36. Scientific name: *Lygodium venustum* Sw.



Common names:

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Family:

Schizaeaceae

Origin:

Central and South America

Description:

Lygodium venustum is a climbing fern with divided leaves. The leaflets are lanceolate in shape with many hairs. On the back they have lines where the seeds (spores) are located.

Use:

Lygodium venustum is used against viper bites and scorpion stings, while the leaf is taken orally. A tea is prepared from a powder of the ground root, stem and leaves and applied locally to the affected area. The tea also helps against diarrhea, dysentery and nausea. Combined with Matlalina (*Commelina erecta*) and White Musutl (*Bidens pilosa*), the plant is used as a fever reducer.

37. Scientific name: *Syngonium podophyllum* SCHOTT



Common names:

arrowhead vine, American evergreen, goosefoot, planta de punta de flecha, vid punta de flecha, pata de gallo, árbol de hoja perenne de África

Family:

Araceae

Origin:

Central and South America

Description:

Syngonium podophyllum is an evergreen climbing plant producing stems 10 - 20 metres long that support themselves on tree trunks by means of adventitious roots. The leaves vary greatly as the

plant ages. When young they have the shape of an arrowhead, but as they mature these changes and lobes develop at the base of the leaves. The older the plant is, the more lobes the full-sized leaves will have.

Use:

A decoction of the crushed and boiled leaf is used as a wash to treat stomachache. The milky-white sap from a broken stem is applied topically as a remedy for the bite of paraponera ants. The sap is swabbed into the cavity of an aching tooth in order to relieve the pain. The roots and bark are antibacterial and antiinflammatory. They are used in the treatment of superficial and deep wound, and various skin disorders. Extracts of the leaves and bark have been shown to have a dose-dependent effect upon treating oedema, showing they are potential sources of principles with high anti-inflammatory activity.

38. Scientific name: *Bougainvillea spectabilis* WILD.



Common names:

great bougainvillea, bouganvilia

Family:

Nyctaginaceae

Origin:

Brazil

Description:

Bougainvillea is an evergreen, climbing shrub producing stems up to 10 metres long. It has heart-shaped leaves and a thorny, pubescent stems. The flowers are generally small, white, and inconspicuous, highlighted by several brightly colored modified leaves called bracts. It is adapted to climates with a distinct dry season and does not flower well in perpetually humid conditions. Prefers a sunny position in a rich, well-drained soil.

Use:

The flower bracts are used for making an attractive, violet-coloured drink, known as 'Agua de Baganvilia'. The plant contains pinitol, which is considered to be helpful in the treatment of non-insulin diabetes.

Trees

39. Scientific name: *Plumeria rubra* L.



Common names:

frangipani, red paucipan, red-jasmine, red frangipani, common frangipani, temple tree, plumeria, franchipán, frangipani, cacalosúchil

Family:

Apocynaceae

Origin:

Central America

Description:

Plumeria rubra is a deciduous, semi-succulent shrub or small tree with a broad crown that is often as wide as the tree is tall; it can grow up to 12 metres tall in the wild but is usually smaller in cultivation. The boles of wild trees can be 25cm in diameter. It is one of the most common and best-known ornamental trees cultivated in the tropics, because of its fragrant flowers. They are terminal, appearing at the ends of branches over the summer. Often profuse and very prominent, they are strongly fragrant, and have five petals. The flowers give off their fragrance in the morning and in the evening. This fragrance is like that of rose, citrus, and cinnamon. The colours range from the common pink to white with shades of yellow in the centre of the flower.

Use:

Frangipani contains several medically active constituents and has been shown to be uterine stimulant, antifungal, antibacterial, antitumor, antiviral, analgesic, antispasmodic, and hypoglycaemic. The plant contains fulvoplumierin, which has antibiotic activity and inhibits the growth of *Mycobacterium tuberculosis*. The bark is abortifacient and purgative. The juice of the bark is considered an effective treatment for gonorrhoea and venereal sores. The scraped bark is used to treat scabies and wounds from poisonous fish. The juice of the bark is also used to treat amoebic dysentery. A poultice of the leaves is used to treat muscular swellings. The milky juice (latex) is used to treat boils and rheumatic pain. It is also applied to remove worms or germs from wounds. It is used to treat the pain of toothache. The sap is used to treat stings of wasps and bees, as well as centipede bites. A decoction of the flowers is used in treating cough, constipation, acute enteritis, dysentery and haemophilia.

An essential oil is obtained from the flowers. The flowers are also used to scent coconut oil. All parts of the plant yield a milky latex, which is used to produce a rubber. The latex found in the stems of the plant is toxic but not deadly unless taken in large quantities.

40. Scientific name: *Cecropia peltata* L.



Common names:

trumpet tree, snake wood, pop-a-gun, guarumo, wild pawpaw, yagrumo, yarumo, guarumo, guarumbo

Family:

Urticaceae

Origin:

Central America

Description:

Cecropia peltata is a 5 to 30 m tall tree with a straight, hollow trunk that over time forms long-legged roots or buttresses. The bark is smooth and covered in light gray with large circular stigmas. The leaves are pinnate, rounded, leathery, 30-40 cm in diameter and divided into 7-11 lobes. They have a rough surface and a white felty underside, with the rib protruding underneath.

Use:

The bark and leaves are anticoagulant, antiinflammatory, antitumor, astringent, cardiogenic, diuretic, hypotensive and vasodilator. A decoction of the young leaves is used to treat liver ailments and dropsy. A tea or decoction of the dried leaves or inner stem-bark is used to treat hypertension, Bright's disease, blennorrhagia, albuminuria, kidney infections, heart conditions and nervous diseases, and to promote good kidney function. A tea prepared from the dried leaves is used as a treatment for back pain. An infusion of the leaves is sometimes injected vaginally after childbirth. A hot poultice of the young shoots is used as a dressing for ulcers, abscesses, wounds, cuts and bush sores. The dried leaves are smoked to alleviate asthma. The juice of the plant is used as a caustic to remove warts. The sap is used to treat fresh cuts. A decoction of the inner bark is used in the treatment of dysentery.

41. Scientific name: *Synsepalum dulcificum* (SCHUMACH. & THONN.) DANIELL



Common names:

miracle fruit, miracle berry, miraculous berry, sweet berry, fruta milagrosa, baya mágica

Family:

Sapotaceae

Origin:

West Africa

Description:

The miracle fruit plant grows as a dense shrub or small tree, usually not more than 5.5 m in height in the wild. The simple leaves are oval and tapering at the base with smooth margins and feature a waxy underside. They grow in spirelike clusters at the ends of small branches. The small white flowers give rise to red drupe fruits that are about 2–3 cm in length. Plants typically begin producing fruit after three or four years and require acidic soil.

Use:

Synsepalum dulcificum is grown for its mild fruits that make subsequently eaten sour foods taste sweet. Therefore, it is used for diabetes, obesity and taste disturbances.

The flavour-altering mechanism of miracle fruit is due to a glycoprotein named miraculin, which was first isolated by Japanese researcher Kenzo Kurihara in 1968. Although miraculin itself is not sweet, it binds to receptors on the taste buds and causes acidic foods to be perceived as sweet. The effect typically lasts from a half hour to two hours, with the intensity declining over time.

42. Scientific name: *Andira inermis* (W. WRIGHT) KUNTH EX DC.**Common names:**

brown heart, cabbage tree, bastard mahogany, bay seed, cabbage bark, crown heart, partridge wood, pig's turd, angelin, river almond, almendro, ajunado, manteco, cocu, macayo, moca

Family:

Fabaceae

Origin:

Central and South America

Description:

Andira inermis is a tall evergreen tree with a luxuriant, spreading canopy of large, glossy, rich green leaves and attractively scented small flowers. It grows up to 30 metres tall and, when in flower, attracts a host of pollinating insects. The bole can be straight and cylindrical but is often not of good form. It is usually 50 - 70cm in diameter, exceptionally to 150cm.

Use:

The fruits are edible. Some caution should be employed here, the seeds are toxic.

The bark is a powerful anthelmintic, narcotic, purgative and vermifuge. The inner bark is used to treat snake bites. The seeds are bitter, emetic, purgative, vermifuge and have narcotic properties. The tree yields the alkaloids berberine and angelin.

43. Scientific name: *Ailanthus altissima* (MILL.) SWINGLE



Common names:

tree of heaven, ailanthus, varnish tree, ailanto, árbol del cielo, árbol de los dioses, malhuele, falso zumaque

Family:

Simaroubaceae

Origin:

China

Description:

The tree of heaven is a medium-sized, deciduous tree with a richly branched and rounded crown, which grows to a height of 27 to 30 m. Young shoots with leaves are greenish and have short hairs. Older twigs are reddish or brownish and hairless. The trunk is relatively smooth, has a grey-brown and sometimes slightly cracked to slightly furrowed bark. The large, alternate and unpaired, stalked leaflets are often 40 to 90 cm long.

Use:

The leaves have a weak poisonous effect. The bark is said to have a cooling and astringent effect. It is used particularly often for diarrheal diseases. In China, the leaves are used to feed the silkworms

44. Scientific name: *Piper auritum* KUNTH



Common names:

hoja santa, yerba santa, hierba santa, Mexican pepperleaf, acuyo, tlanepa, anisillo, root beer plant, Vera Cruz pepper, sacred pepper

Family:

Piperaceae

Origin:

Central America

Description:

Piper auritum is a shrub or tree up to meters high with approximately 30 cm large, heart-shaped leaves, which are slightly hairy on the underside and often secrete small droplets of resin. The tiny creamy-white flowers are crowded in 20 cm long, upright spikes. The plant reproduces mainly by offshoots.

Use:

The leaves are an ancient mesoamerican medicinal and spice herb. They were also used in the form of incense for Aztec rites, from which the current Mexican name *hoja santa* (holy leaf) derives. In Mexican folk medicine, the leaves are used externally to treat wounds and internally as a remedy for fever and diarrhea. It is common to wrap pieces of meat or cornmeal dumplings (tamales) in the leaves and braise or steam them. The leaves give off their aroma to the food. In Oaxaca, sauces are also made from pureed pepper leaves (*mole verde*).

45. Scientific name: *Piper dilatatum* RICH.**Common names:**

cordoncillo

Family:

Piperaceae

Origin:

South America

Description:

Piper dilatatum is a shrub that can grow up to 3m tall. The leaves are glossy dark green, oval, tapering to a point and about 20 cm long. The inflorescences are thin, white and about 10 cm long. They stand straight up.

Use:

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46. Scientific name: *Hamelia patens* JACQ.**Common names:**

fire bush, scarlet bush, coloradillo, hummingbird bush, firecracker bush

Family:

Rubiaceae

Origin:

Central and South America

Description:

Hamelia patens is an evergreen shrub, usually growing 1.8 - 3 m tall, though sometimes becoming a tree up to 5 m tall with a short bole around 8 cm in diameter. It has whorled leaves, usually with three but occasionally as many as seven at each node. The leaves are elliptic to oval, about 6 in (15 cm) long, and gray-pubescent underneath with reddish veins and petioles. The plant has orangish-red tubular flowers, which recruit hummingbirds and butterflies for pollination. The juicy, elliptic berries are 6 - 9mm long, containing many, minute seeds.

Use:

The fruits and leaves have served for home remedies in some countries. The leaves and young shoots are taken in order to procure an abortion up to the third or fourth month of pregnancy. It is reported that the sour fruits are edible as well as medicinal. The pulp is eaten. An extract of the leaves and stems is used to treat all kinds of skin diseases including rashes, skin fungus, sores and insect stings.

47. Scientific name: *Tabernaemontana alba* MILL.**Common names:**

white milkwood

Family:

Apocynaceae

Origin:

Central America

Description:

Tabernaemontana alba is a large shrub or a tree with a dense, spreading crown; it can grow up to 15 metres tall. The bole is round or somewhat fluted, up to 45cm in diameter but usually smaller. The leaves are evergreen versus 3-25 cm long. The flowers are fragrant, white, 1-5 cm in diameter.

Use:

The fruit yields a large amount of white latex that coagulates readily when rubbed between the hands. It is reported to be used sometime for adulterating chicle and is chewed locally like that substance.

48. Scientific name: *Ficus microcarpa* L.F.



Common names:

Chinese banyan, Malayan banyan, Indian laurel, curtain fig, gajumaru, laurel de Indias

Family:

Moraceae

Origin:

Southeast Asia

Description:

It is a latex-containing, evergreen tree up to 30 m tall, with a rounded or flattened crown shape and numerous, slender aerial roots hanging down from the branches, and twigs. These roots eventually develop into stout, pillar roots. It is one type of strangler fig and may begin life as an epiphyte.

Use:

The bark is used therapeutically in the treatment of ulcers, skin diseases, burning sensation, inflammation and oedema. *Ficus microcarpa* is cooling, astringent, and anti-bilious. It is found to have good healing property, and is used in preparation of oils, and ointments for external application in the treatment of ulcers.

A fibre from the bark is made into cloth. The latex is used for caulking boats and waterproofing. The wood, including the aerial roots, is used locally in light construction, tool making etc.

49. Scientific name: *Bauhinia monandra* KURZ



Common names:

pink bauhinia, orchid tree, Napoleon's plume,

Family:

Leguminosae

Origin:

Madagascar

Description:

Bauhinia monandra is an evergreen shrub or a tree with a rounded crown. It can grow 3 - 15 metres tall. The bole can be 50cm in diameter. Its smooth, gray bark can become scaly and red brown on older trees. The leaves of are shaped like butterfly wings, rounded, and split 1/3 to 1/2 their length, forming two equal lobes. It is commonly planted for its showy flowers and ornamental foliage. The large, 5-petaled orchid-like flowers occur in short racemes; four of the spoon-shaped petals are pink and dotted with red or purple markings, while the fifth petal is mostly red or purple. The flowers range from 6.4 to 10.2 cm in diameter. The fruits are dark, dehiscent pods that are 2.5 cm wide, 15.2 to 30.5 cm long, and pointed at the apex. The Plant prefers a sunny position in a fertile, well-drained soils and grows well on drier, poorer sites.

Use:

The young leaves and seedpods cooked can be eaten as a vegetable.

The pods are pounded and boiled in water to provide a laxative drink. They are used as an astringent for treating diarrhoea and dysentery and are also used as a remedy for fevers. A decoction of the root and bark is used in the treatment of leprosy and smallpox. An anti-inflammatory ointment is made from the bark. The leaves have been used in the treatment of diabetes. Leaf extracts are used in the treatment of eye ailments.

50. Scientific name: *Dracaena reflexa* var. *angustifolia* BAKER



Common names:

silhouette plant, rainbow tree, madagascar dragon tree

Family:

Asparagaceae

Origin:

Madagascar

Description:

Dracaena reflexa can reach a height of 4–5 m usually it is much smaller, especially when grown as a houseplant. It is slow-growing and upright in habit, tending to an oval shape with an open crown. The lanceolate leaves are simple, spirally arranged, 5–20 cm long and 1.5–5 cm broad at the base, with a parallel venation and entire margin. They grow in tight whorls and are a uniform dark green. The flowers are small, clustered, usually white and extremely fragrant, appearing in mid-winter. Neither the flowers nor the fruit are especially showy. *D. reflexa* var. *angustifolia* differs in having a magenta tint to its flowers, a shrubby habit, and olive-green leaves.

Use:

Very young leaves - cooked and eaten as a side dish with rice. The leaves can be pounded then mixed with water to give a green juice that is used for colouring an Indian pastry made of glutinous rice.

The juice squeezed from the boiled leaves is drunk as a remedy for asthma and shortness of breath.

A decoction of the leaves is given to people suffering weight loss and poor appetite.

Rest of the placa

Small plants and perennials

51. **Scientific name:** *Etlingera elatior* (JACK) R.M. SM.



Common names:

torch ginger, ginger flower, red ginger lily, torch lily, wild ginger, combrang, bunga kantan, Philippine wax flower, Indonesian tall ginger, boca de dragón, rose de porcelaine, bastón de emperador

Family:

Zingiberaceae

Origin:

Borneo, Jawa, Lesser Sunda Is., Malaya, Sumatera, Thailand

Description:

Etlingera elatior is a large, evergreen, herbaceous, perennial plant growing in large clumps of erect, leafy stems up to 6 metres tall and flowering stems about 60 to 100cm tall. It prefers a position in full sun or partial shade and succeeds in a moist, fertile, but well-drained soil.

Use:

The Leaves can be cooked with rice. The young flower shoots and half-ripe fruiting shoots are used locally as a substitute for tamarind and as a condiment in curries. The stalks of the inflorescence are chopped and added to laksa pots (various curries or soups made with rice noodles). The fruits can be candied. Half-ripe fruits are eaten in soups and stews. The ripe seeds are eaten raw.

52. **Scientific name:** *Hedychium coronarium* J. KOENIG



Common names:

white garland-lily, white ginger lily, butterfly lily, fragrant garland flower, Indian garland flower, white butterfly ginger lily

Family:

Zingiberaceae

Origin:

Southeast Asia

Description:

Hedychium coronarium is a stout, strongly aromatic, perennial plant growing 1 - 2.5 metres tall from a fleshy rhizome that is 25 - 50mm in diameter. The large oblong to lanceolate leaves are 16 - 60cm long by 5 - 10cm wide. The white flowers have a delicious perfume which is most pronounced towards evening. It prefers to grow at moist places along streams and on forest edges.

Use:

Young buds and flowers are steamed and eaten or used as a flavouring. The seed is aromatic, carminative and stomachic. The root is antirheumatic, excitant and tonic. The ground rhizome is used as a febrifuge. A decoction is used to treat pain in the chest and arms. An essential oil from the roots is carminative and has anthelmintic indications. A decoction of the basal part of the stem is gargled in the treatment of tonsillitis, or alternatively a part of the stem may be chewed. The chewed stem is applied to infected nostrils. An infusion of the leaves is used to treat abdominal complaints. Combined with the leaves of *Lantana camara*, it is used as a febrifuge. The boiled leaves are applied to stiff and sore joints.

53. Scientific name: *Coleus amboinicus* LOUR.



Common names:

Indian borage, country borage, French thyme, Indian mint, Mexican mint, soup mint, Spanish thyme, orégano cubano, tomillo español, menta mexicana, oreganón, orégano brujo, orégano orejón, orégano poleo, borraja india

Family:

Lamiaceae

Origin:

South Africa and India

Description:

Coleus amboinicus grows up to 1 m tall. The stem is fleshy, about 30–90 cm, either with long rigid hairs (hispidly villous) or densely covered with soft, short and erect hairs (tomentose). Old stems are smooth. The lower parts of the stems become more or less woody. Leaves are 5–7 cm by 4–6 cm fleshy, undivided, broad, egg/oval-shaped with a tapering tip.

Use:

The leaves can be eaten raw or cooked. They have an oregano or sage like aroma. They are commonly used as a flavouring in recipes that call for mixed herbs or oregano, and to spice dishes containing tomato sauces. The leaves can be chopped, made into flour balls and fried in oil. A very strong, aromatic flavour, so it should be used sparingly. It is known to reduce inflammation, though little else is known of its effects. The antibacterial and antiseptic properties of the plant have been attributed to the presence of several compounds in the plant, including carvacrol, codeine, flavones, phenols, tannins and aromatic acids. The leaves have been found to have bronchodilator activity and anti-*Mycobacterium tuberculosis* activity. The plant has been shown to have antimicrobial activity and is reported to have antiviral activity against Herpes simplex and anti-HIV inhibition activity. The leaves are said to be antibacterial, antitussive and febrifuge. They are taken internally in the treatment of a range of digestive problems such as dyspepsia, indigestion, diarrhoea and wind. An infusion or syrup made from the aromatic leaves is prescribed to treat coughs. The leaves are also used to treat a wide range of other complaints including epilepsy, convulsions, meningitis, congestive heart failure, fevers, colds, bronchitis, asthma, cholera, menstrual pains, labour pains, delayed

labour, post-partum pain and to aid expulsion of the afterbirth. The leaves are frequently utilized in the treatment of urinary diseases in the Amazon and India. This species is also reported to relieve kidney troubles, treat vaginal discharges and is drunk after childbirth. Applied externally, the leaves are used to treat headaches, inflammations, skin allergies, wounds, burns, sores and ulcers. When rubbed on the skin, they will quickly bring relief to bites and stings. The leaves are harvested as required and used fresh. The plant has cytotoxic and anti-tumour promoting activity and can be used in the treatment of cancer.

54. Scientific name: *Kalanchoe laetivirens* DESC.



Common names:

Family:
Crassulaceae

Origin:
Madagascar

Description:

Kalanchoe laetivirens is a very unusual succulent with large bluish-green leaves with baby plantlets all around the serrated edges, giving them a dainty unique appearance. The leaves are up to 20 cm long and 7 cm wide. It often sends up a tall spike of bell-shaped, pinkish flowers.

Use:

-

55. Scientific name: *Tradescantia zebrina* var. *zebrina*.



Common names:

silver inch plant, wandering Jew

Family:

Origin:
Central America

Description:

Tradescantia zebrina has attractive zebra-patterned leaves, the upper surface showing purple new growth and green older growth parallel to the central axis, as well as two broad silver-coloured stripes on the outer edges, with the lower leaf surface presenting a deep uniform magenta. The leaves are bluish green and usually have two longitudinal stripes that are silvery on the surface and

purple on the underside. The leaf sheaths are thin and translucent, 8 to 12 mm long and 5 to 8 mm wide, at the mouth they are long, otherwise glabrous or slightly hairy. It is classified as a category 1b invasive species in South Africa and the Galápagos Island.

Use:

Skin irritation may result from repeated contact with or prolonged handling of the plant, particularly from the clear, watery sap. The plant has also significant medical activities such as anticancer, antioxidant and antibacterial.

56. Scientific name: *Spathiphyllum wendlandii* SCHOTT



Common names:

spath, peace lilies, cuna de moisés

Family:

Araceae

Origin:

Central America

Description:

Spathiphyllum wendlandii is an evergreen herbaceous perennial plant with large leaves 12–65 cm long and 3–25 cm broad. The flowers are produced in a spadix, surrounded by a 10–30 cm long, white spathe. The plant does not need large amounts of light or water to survive. As a young plant, its leaves start out heart-shaped, then gradually become arrowhead shaped as it matures.

Use:

The plant can cleanse the air and act as anti-pollutants. They also reduce airborne microbes and increase humidity.

57. Scientific name: *Barleria cristata* L.



Common names:

Philippine violet, bluebell barleria, crested Philippine violet, violeta filipina

Family:

Acantheaceae

Origin:

Southeast Asia

Description:

It grows as a shrub 60 –100 cm tall. The leaves are dark green on the upper surface and pale green on the lower surface. They are elliptic to narrowly ovate. The flowers are about 5 cm long, funnel-shaped in violet, pink, or white colour. The fruits are about 1.5 cm long ellipsoid capsules. They become glabrous and glossy at maturity.

Use:

The bitter juice of the leaves or roots is antibacterial, diaphoretic and expectorant. It is used in the treatment of serious catarrhal infections. An infusion of the roots and leaves is applied to boils and sores to reduce swellings. The seeds are used as an antidote for snake bites. Tests have shown that a methanol extract of the leaves possesses significant anti-inflammatory activity.

58. Scientific name: *Alpinia purpurata* (VIEILL.) K. SCHUM.



Common names:

red ginger, platanillo

Family:

Zingiberaceae

Origin:

New Guinea

Description:

Alpinia purpurata is an evergreen, herbaceous, perennial plant producing a clump of leafy stems 3 - 4 metres tall from an underground, creeping rhizome. The alternately arranged leaves are short-stalked. The glossy green, simple leaf blade is lanceolate with a length of usually 30 to 70, rarely up to 80 cm and a width of 10 to 22 cm. The terminal, up to 30 cm long inflorescences usually wear red (occasionally pink or white in cultivated forms), with a length of up to 3 cm ovate or broadly ovate bracts. In the axils of the bracts are one or two, rarely up to five flowers over reddish bracts. The plant prefers a position in light shade. It requires a moist and fertile soil.

Use:

The fruit is used to treat sores. A decoction of the leaves is used in the treatment of stomach complaints.

59. Scientific name: *Philodendron bipinnatifidum* SCHOTT EX ENDL.



Common names:

split-leaf philodendron, lacy tree philodendron, selloum, horsehead, güembé

Family:

Araceae

Origin:

South America

Description:

Philodendron bipinnatifidum is an evergreen shrub producing stems up to 2 metres tall and 10cm thick at the base. The plant tends to be more upright when young but becomes more prostrate as it gets older. The leaves are simple, large, deeply lobed, and are usually drooping. These can grow up to 1.5 m long, and are attached to long, smooth petioles. They are a deep green color. The small, petal less flowers are on a spadix that is enclosed within a spathe. They are usually white or inflorescent.

Use:

The cooked fruit is used in compotes, but the roots are used as a drastic purgative. The sap may cause skin irritation.

60. Scientific name: *Tradescantia pallida* (ROSE) D.R. HUNT



Common names:

purple secretia, purple-heart, purple queen, purpurina, amor de hombre, pollo morado, niña en barco, carne de perro

Family:

Commelinaceae

Origin:

Central America

Description:

Tradescantia pallida is a perennial herbaceous plant that grows to a height of up to 40 cm and has an irregular growth habit. The stems and, in some varieties, the leaves are tinted purplish violet. The alternate and spirally arranged leaves are sessile. The plant produces terminal pink-white inflorescences throughout the growing season. It grows well in dry and sunny locations.

Use:

Tradescantia species generally regarded as nontoxic but handling the plant can cause rare mild skin irritation from. Studies have shown phytoremediative, air-purifying, antioxidant, antibacterial, anti-

inflammatory, apoptotic properties. The plant is used by the Ayta communities from Porac, Pampanga, for sore eyes.

61. Scientific name: *Aloe maculata* ALL.



Common names:

soap aloe, zebra aloe, sábila
cebra

Family:

Asphodelaceae

Origin:

South Africa

Description:

Aloe maculata grows stemless or short stem-forming, is solitary or sprouts and then forms dense groups. The trunks are up to 50 cm long. The twelve to 20 lanceolate leaves form dense rosettes. The green leaf blade is 25 to 30 cm long and 8 to 12 cm wide. There are numerous oblongs, cloudy white spots on the leaf surface. The lined underside usually has no stains. The brown, stinging teeth on the edge of the leaf are 3 to 5 mm long and are about 10 mm apart. The flowers are similarly variable in colour, ranging from bright red to yellow, but are always bunched in a distinctively flat-topped raceme. The inflorescence is borne on the top of a tall, multi-branched stalk and the seeds are reputedly poisonous.

Use:

This plant gel is used traditionally as a remedy for many medicinal properties by local people like: skin complains, inflammation, respiratory system, muscular-skeletal system, poisoning, circulation and endocrine system diseases. It is also used for cosmetic reasons to help tissue regeneration, healing, toning, as well as for wrinkles, stretch marks and hair blemishes.

62. Scientific name: *Kalanchoe pinnata* (LAM.) PERS.



Common names:

air plant, cathedral bells, life plant, miracle leaf, hoja del aire, siempreviva

Family:

Crassulaceae

Origin:

Madagascar

Description:

This strong, mostly upright, often branched, perennial, succulent plant reaches a height of 0.3 to 2 m. The opposite, stalked leaves are succulent, leathery, fleshy, 5 to 20 cm long and 2.5 to 12 cm wide; the lower ones are simple and ovate, the upper ones are pinnate and up to 13 cm long. Brood buds often form on the indentations of the notched to serrated leaf edges. The petiole is 2 to 10 cm long.

Use:

The leaves are astringent, antibacterial, antiseptic, demulcent, diuretic and febrifuge. They are also used as a counterirritant against poisonous insect bites. The juice, used on its own or mixed with lard, is used in the treatment of bilious diarrhoea, diarrhoea, dysentery, cholera, acute nephritis, lithiasis and phthisis. The leaf-juice, combined with salt, is used as a treatment for colds, coughs, grippe, loose bowels and teething babies. Applied externally, the fresh leaves are pounded and then applied to burns; are used as poultices on boils and ulcers; as a treatment for headaches; as a remedy for ringworm; or are placed on the soles of the feet in order to stop haemorrhages. They are used as a topical application in the treatment of dislocations, equimosis, callosities, etc. Mixed with salt, they are applied as a plaster to the abdomen to relieve enuresis. The leaves can be made pliable by being held over fire, and are then applied as a treatment on wounds, bruises, and boils. The dried leaves can be applied as a powder on bad ulcers. The juice is applied topically in the treatment of earache, conjunctivitis and ophthalmia. The leaves and leaf-juice are mixed with coconut oil and Carapa oil and then rubbed on the head to treat violent and persistent headache. A cough medicine is made from the roots. The leaves contain malic acid. The plant contains fumaric acid, and saponins that have cicatrizant properties.

63. Scientific name: *Asystasia gangetica* (L.) T.ANDERSON



Common names:

coromandel, chinese violet, creeping foxglove, ganges primrose, violetas, campanitas de jardín

Family:

Acanthaceae

Origin:

Southeast Asia, Australia

Description:

Asystasia gangetica is an often short and creeping perennial herb that is also sometimes erect bushy and sometimes slightly woody. The irregularly pressed downy hairy stems are overhanging to erect. This plant reaches 60 cm in height or up to 1 m if supported. The leaves are simple and opposite. The fruit is an explosive capsule which starts out green in colour but dries to brown after opening.

Use:

The leaf extract has been shown to relax histamine-precontracted tracheal strips and to exhibit anti-inflammatory activity. The study justified its use in Nigerian folk medicine as a treatment for asthma. Another study suggests that the leaves provide benefit through a broncho spasmolytic effect of the terpenoid compounds. The juice of the plant, combined with lime and onion juice, is recommended for dry coughs with an irritated throat and discomfort in the chest. The sap of the plant is used as a vermifuge and is applied externally to swellings and rheumatic joints. Sap of the leaf is put up the nostrils to stop a nosebleed and is also used as an embrocation on a sore neck. A leaf-decoction is used in the treatment of fever-aches, epilepsy, stomach-pains, heart-pains and urethral discharge. The pulped leaf is used as a suppository for piles. The leaves and flowers are used as intestinal astringent. The leaves are used in the treatment of asthma. The plant is popularly used in many parts of Africa to ease childbirth. It is boiled and the infusion mixed with peppers then used as a syringe during the later months of pregnancy in order to ease childbirth pains. The infusion is also drunk for the same purpose. In Congo leaf-sap is placed on the stomach of women in childbirth to facilitate labour. The powdered roots are a general remedy for stomach-pains and are used as an emetic in treating snakebite.

64. Scientific name: *Stachytarpheta jamaicensis* (L.) VAHL



Common names:

blue porterweed, blue snake weed, bastard vervain, Brazilian tea, Jamaica vervain, light-blue snakeweed, hoja de corrimiento

Family:

Verbenaceae

Origin:

South America

Description:

Stachytarpheta jamaicensis is a well-branched, erect, perennial herb growing up to 1 metre tall. The stems become woody at the base. The inflorescences are 10–45 cm long and 3–4.5 mm wide. The flowers are mostly purple or blue, rarely white and attract many butterflies.

Use:

The tips of the twigs are used as a pot herb and condiment. The green leaves are chopped and cooked alone or can be mixed with other vegetables. Coconut milk or pounded groundnuts are added and the whole is then served with a staple food such as ugali or rice. The leaves have been used as an adulterant for tea. The dried leaves are used on their own as a tea or are used to adulterate China tea.

The plant is reputed to have emetic, expectorant, sudorific and tonic. It has been utilized locally in treating malaria, yellow fever, amenorrhea, syphilis, and gonorrhoea. The whole plant is used in preparations for treating diarrhoea, dysentery, diabetes, low blood pressure and fractures. A decoction of the whole plant is used as a bath to remedy gripe and headache. A tincture of the plant in rum is employed as a lotion to relieve nervous pains. The seedling is a mild purgative. The root is depurative. The leaves are astringent, cholagogue, hypotensive and purgative. An infusion is used to treat high blood pressure. The juice of the leaves is used for treating colic and the pain of dysentery. A stew made from the crushed leaves is used against gonorrhoea and to retard perspiration. A decoction, combined with sodium sulphate, is drunk to remedy cutaneous eruptions. The leaves are used externally as a resolute cataplasm and for treating skin burns. The juice of the leaves is placed in the ears to relieve earache. The plant contains the iridoid ipolamiide, as well as tarphetalin, stachytarphine and dopamine, the latter being active on the central nervous system. The leaves contain flavone pigments and choline. The leaves also yield gamma-amino butyric acid, a hypertensive.

65. Scientific name: *Dracaena pearsonii* (N.E.BR.) BYNG & CHRISTENH.



Common names:
horse tail

Family:
Asparagaceae

Origin:
South Africa

Description:

Sansevieria pearsonii is a stemless evergreen perennial plant, producing succulent, erect, rigid leaves from 45 - 120cm long and 45 - 60mm wide from a spreading, rhizomatous rootstock. The three to seven cylindrical leaves are arranged in two rows. They stand erect, gradually spreading slightly at the apex. They are slightly compressed at the sides and have a groove on the top. The leaves are green or slightly bluish green. Young fresh leaves initially have faint pale green bands. The margins are greenish white turning reddish brown with a whitish edge. The leaf surface is smooth.

Use:

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66. Scientific name: *Dracaena trifasciata* (PRAIN) MABB.



Common names:
snake plant, Saint George's sword, mother-in-law's tongue, viper's bowstring hemp,

Family:
Asparagaceae

Origin:
Central Africa

Description:

Dracaena trifasciata is an evergreen perennial plant

forming dense stands, spreading by way of its creeping rhizome, which is sometimes above ground, sometimes underground. Its stiff leaves grow vertically from a basal rosette. Mature leaves are dark green with light gray-green cross-banding and usually range from 70–90 cm long and 5–6 cm wide, though it can reach heights above 2 m in optimal conditions.

Use:

The plant is used to treat ringworm and fungal diseases. The leaf sap is applied directly on infected sores, cuts and grazes, it is also used to treat fungal and scabies infections.

67. Scientific name: *Talinum fruticosum* (L.) JUSS.



Common names:

ceylon spinach, waterleaf, cariru, gbure, Surinam purslane, Philippine spinach, Florida spinach, potherb fameflower, Lagos bologi, sweetheart, Kutu bataw, hoja de agua, cariru, verdolaga cambia, espinaca de Filipinas, espinaca de Ceylan, espinaca de Florida, beldroega grauda, Lagos bologi, maria gorda, vicho, bolló

Family:

Talinaceae

Origin:

Central and South America

Description:

Waterleaf is a short-lived, erect, strongly branched, perennial plant with succulent stems 30 - 100cm tall growing from swollen, fleshy roots. Its flowers are small and pink, and it has large, fleshy leaves. Grows best in the moist humid conditions of lowland tropical areas.

Use:

The leaves and flowers can be eaten raw in salads or cooked. Young shoots are used in making soups, stews etc. Combined with the leaves of eru (*Gnetum* species) and fufu (a starchy dish), it is considered a delicacy. The tender shoots of waterleaf acting to soften the tough leaves of eru. Best lightly steamed, they should not be overcooked, or they will become excessively soft and mucilaginous. The leaves are used as a colouring agent in okra soup. The leaves have a slightly sour taste, they can be finely chopped and added to salads. Many forms of this plant have a high concentration of calcium oxalate, though this is easily destroyed on cooking.

68. Scientific name: *Aloe vera* (L.) BURM.F.



Common names:

Aloe vera

Family:

Asphodelaceae

Origin:

Oman

Description:

Aloe vera is a succulent, evergreen perennial herb that can be stemless or with a short stem up to 30cm long. It can produce a flowering stem up to 160cm tall. Freely suckering, it produces dense rosettes of 16 - 20 long pointed leaves from shortly branched creeping rhizomes.

Use:

The gel in the leaves is sometimes used as an ingredient of commercial jellies, drinks and ice cream. As a food supplement, the leaf gel is said to facilitate digestion, and to improve blood and lymphatic circulation, as well as kidney, liver and gall bladder functions. The exudate from the base of the leaves is used as a bittering agent for food and beer.

Due to its soothing, moisturizing, and cooling properties, aloe vera is often used to treat burns, sunburns and insect bites. The juice of the plant is said to increase the flow of menstruation in low doses. Since the substances it contains can stimulate uterine reactions and accumulate in breast milk, it should be avoided during pregnancy and breastfeeding.

69. Scientific name: *Cyperus papyrus* L.



Common names:

papyrus, papyrus sedge, paper reed, Indian matting plant, or Nile grass, papiro

Family:

Cyperaceae

Origin:

Africa

Description:

Cyperus papyrus is a vigorous, grass-like, clump-forming, perennial plant with a spreading root system, growing up to 5 metres tall. Each stem is topped by a dense cluster of thin, bright green, thread-like rays around 10 to 30 cm in length, resembling a feather duster when the plant is young. Greenish-brown flower clusters eventually appear at the ends of the rays, giving way to brown, nut-like fruits. In nature, it grows in full sun, in flooded swamps and on lake margins.

Use:

The pith of the stem was recommended for food in ancient Egypt. The rhizomes and lowermost parts of the stems - raw or cooked. They can also be chewed, sucked, and spat out, much as sugar cane is done.

Papyrus had several medicinal applications in the past, though it is little, if at all, used nowadays. The main use seems to have been confined to burnt papyrus sheets, the ash of which was reputed to have the action of pulverised charcoal and was used in the treatment of certain eye diseases. The ash was also said to check malignant ulcers from spreading in the mouth or elsewhere. It was also said that, if macerated in vinegar and then burnt, the ash would heal wounds.

The fibrous pith of the stems has been utilized for making paper. For making paper, the fibrous covering is stripped off the stem and the inner pith is split into wafer-like strips. These strips are then laid side by side, with others placed crosswise on top; the strips are dampened then pressed so that their glue-like sap cements them together. They are then dried into a sheet. The plant was also traditionally used to make formal bouquets funeral garlands, boats, cordage, fans, sandals, matting, corkage and boxes.

70. Scientific name: *Heliconia stricta* HUBER



Common names:

bucky, dwarf Jamaican, fire bird, Iris Bannochie, Oliveira's Sharonii, tagami

Family:

Heliconiaceae

Origin:

South America

Description:

Heliconia stricta is an evergreen

plant. The simple, dark green leaves are basal. They are elliptical, entire and stalked. The flowers are bright yellow orange red, tubular and arranged in racemes.

The young leaves and bracts retain water, forming pools called phytotelmata, which provide habitat for diverse invertebrates.

Use:

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71. Scientific name: *Lilium 'Dizzy'* (Oriental) Tourn. ex L.



Common names:

Lirio

Family:

Liliaceae

Origin:

Southeast Asia

Description:

Lilium 'Dizzy' is a tall, flowering perennial growing up to 60-80 cm in height. It grows as a single, unbranched stem from a bulb with narrow, pointed leaves. The flowers are large and often fragrant, and in a range of colours. Flowers have six petals and prominent stamens. Oriental lilies are tall plants with highly fragrant trumpet-shaped flowers in reds, pinks, whites, and bi-colours. 'Dizzy' has pale pink petals with a deep red stripe, and deep red speckles. The petals are recurved.

Use:

Lilies are also used to treat skin ulcers, inflammation, burns and rashes as well. The roots can be formed into an ointment that aids in preventing the formation of scar tissue. You can apply the lily root ointment directly to the burned spot.

Shrubs

72. Scientific name: *Codiaeum variegatum* (L.) RUMPH. EX A. JUSS



Common names:

fire croton, garden croton,
variegated croton, buena vista
de Filipinas, crotón

Family:

Euphorbiaceae

Origin:

Oceania

Description:

Codiaeum variegatum is an evergreen shrub or a small tree branching from low down; it can grow up to 3 metres tall but is usually smaller in cultivation. The alternate leaves are divided into petiole and leaf blade. The petiole has a length of 0.2 to 2.5 cm. The thin, leathery, bare leaf blade is shaped and colored very differently depending on the variety. With a length of 5 to 30 cm and a width of (0.3 to) 0.5 to 8 cm, the leaf blade can be simple to divided. The leaf colors range from green to yellow to crimson and very different patterns are possible.

Use:

The bark, roots, latex and leaves are poisonous, containing the toxin called 5-deoxyingenol. Chewing the bark and roots is said to cause burning of the mouth. The latex has caused eczema in some gardeners after repeated exposure. Despite this, the plant is used internally and externally for medicinal purposes. The leaves are abortifacient, antiamebic, antibacterial, anticancer, antifungal, antioxidant, emmenagogue, purgative and sedative. A decoction of the crushed leaves is used in the treatment of diarrhoea. Chewing three leaves and then swallowing the juice is used to stimulate menstrual flow, to induce an abortion or to facilitate parturition. The leafsap is drunk and applied topically to treat a snake bite. The sap of the leaves, combined with coconut milk, is used in the treatment of syphilitic lesions. The young leaves, combined with *Pandanus macrocarpa*, coconut milk and the root sap of *Areca catechu*, is used in the treatment of gonorrhoea. The green liquid from boiled leaves is used as a wash to ease fevers. The sap from the leaves or the bark is used to treat sores and fungal infections. A decoction of the root is used in the treatment of gastric ulcers. The root, combined with betel nut (*Areca catechu*) is chewed as a treatment for stomachache and to give temporary relief from toothache. Studies have shown the leaves and shoots to be rich in alkaloids (most abundant), cardiac glycosides, saponins, tannins, cardenolides, flavenoids, steroids and phyllates.

73. Scientific name: *Jatropha multifida* L.



Common names:

coral plant, coralbush, physic nut, planta de coral

Family:

Euphorbiaceae

Origin:

Mexico

Description:

Physic nut is an evergreen or semi-deciduous, slightly succulent shrub or a tree with a loose, spreading crown. It can grow up to 6 metres tall. The leaves are particularly distinctive as they are large whorls, with deeply dissected lobes, jagged edges and dark green. The inflorescences arise year-round, above the leaves, on long stalks, coral-like structures. The colour of the flower is red and it appears as a small flower with a yellow centre. The following fruits are yellow.

Use:

The seed oil is sometimes used as a cathartic, although it may cause strong irritation and even poisoning. The oil is applied both internally and externally as an abortifacient. Seeds are used fresh as a purgative and emetic. A very powerful purgative, their use has been almost abandoned in traditional medicine in Mexico, although they are officinal in the Mexican Pharmacopoeia. The latex is used externally in the treatment of infected wounds, ulcers, skin infections and scabies. In Indo-China, dried roots are given as a decoction against indigestion and colic. They are also prescribed as a tonic to treat orchitis and oedemas. The leaves contain saponins. They are used as a purgative, and in the treatment of dysentery and scabies.

74. Scientific name: *Murraya paniculata* (L.) JACK



Common names:

orange jasmine, orange jessamine, china box, mock orange

Family:

Rutaceae

Origin:

Southeast Asia, Australia

Description:

Murraya paniculata is a slow-growing, evergreen shrub or small tree with a fine-textured, compact crown. It grows from 1.8 - 12 metres tall with a clear bole that can be 2.5 metres long and 60cm in

diameter. The alternate and short-stalked leaves are alternately pinnate. When crushed, the leaves develop a citrusy odor. The flowers are white and have a pleasant scent. The small fruits are ovoid and dark orange to vermillion in colour.

Use:

Murraya paniculata is a commonly used traditional medicine through most of its native range. A mildly bitter-minty tasting plant, it is warming in effect. It is considered to be analgesic, to activate blood circulation and relieve contusions. The leaves are astringent, stimulant and tonic. They are used in the treatment of dropsy, diarrhoea and dysentery. A decoction of the leaves is used as mouthwash for toothaches. The powdered leaves are applied externally to fresh cuts. A poultice of the fresh leaves is used to treat swellings due to sprain and contusions, poisonous snake bites. The bark of the stems and roots is astringent. It is used in the treatment of diarrhoea. The ground-up bark of the roots is both eaten and applied externally in the treatment of body aches. The flowers are stomachic and tonic. An essential oil is obtained from the flowers. It is used in perfumery.

75. Scientific name: *Nerium oleander* L.



Common names:

oleander, nerium, aladre, llorer rosa, adelfa

Family:

Apocynaceae

Origin:

around the Mediterranean Sea and South Asia

Description:

Nerium oleander is an evergreen shrub or small tree with thin, erect branches. It can grow to a height of 4 - 8 metres. It is tolerant to both drought and inundation, but not to prolonged frost. White, pink or red five-lobed flowers grow in clusters year-round, peaking during the summer. The fruit is a long narrow pair of follicles. The leaves are in pairs or whorls of three, thick and leathery, dark-green, narrow lanceolate, 5–21 cm long and 1–3.5 cm broad.

Use:

Oleander is a very poisonous plant, containing a powerful cardiac toxin and should only be used with extreme caution. The leaves and the flowers are cardiotoxic, diaphoretic, diuretic, emetic, expectorant and sternutatory. A decoction of the leaves has been applied externally in the treatment of scabies and parasitic skin worms and to reduce swellings. The root is powerfully resolvent. Because of its poisonous nature it is only used externally. It is beaten into a paste with water and applied to chancres and ulcers on the penis. An oil prepared from the root bark is used in the treatment of leprosy and skin diseases of a scaly nature. Oleandrin (neriolin), a cardiotoxic glucosides extracted from the leaves, has a salutary effect when used in the treatment of heart failure. It is more quickly absorbed by mouth and is less cumulative than digitoxin (obtained from *Digitalis* species). The whole plant is said to have anticancer properties.

76. Scientific name: *Polyscias fruticosa* (L.) HARMS



Common names:

ming aralia, aralia poliscia, aralia ming

Family:

Araliaceae

Origin:

Oceania

Description:

Polyscias fruticosa is a slow-growing, evergreen shrub with spreading branches, eventually reaching a height of around 2.5 - 5 m. The leaves are of a dark green pigment, glossy in texture, and are tripinnate and appear divided. Individual leaves vary from narrowly ovate to lanceolate and are about 10 cm long.

Use:

The plant has been used for centuries in traditional medicine, where it is seen as being analgesic, febrifuge and diuretic. The roots have an agreeable and strongly aromatic smell, they taste like parsley, and are used as a diuretic. They are well known for their reconstituent properties and are used for treating general debility, fatigue, dyspepsia, fever, headache, mastitis, hypogalactia, cough, haemoptysis, oliguria, rheumatism and lumbago. They improve the resistance of the body to various noxious agents. A gruel made with 50 to 100g of fresh leaves is galactagogic. A poultice of pounded fresh leaves is effective in helping to heal wounds, furunculosis, phlegmon and mastitis. The roots are harvested at the end of the growing season from plants that are over 3 years old. They are washed and then dried for later use. The leaves can be harvested all the year round and are used fresh. The roots contain triterpenoid saponins.

77. Scientific name: *Rauvolfia tetraphylla* L.



Common names:

be still tree, devil-pepper, palo boniato, palo moniato

Family:

Apocynaceae

Origin:

Central America

Description:

Rauvolfia tetraphylla is usually a much-branched shrub growing up to 1 m tall, but sometimes becoming a small tree up to 4 m tall. The plant contains a copious white latex. The leaves are in whorl arrangement of 3 - 5, ovate to oblong, measuring about 1 - 15 cm long by 1 - 4 cm wide, petiole measuring about 2 - 5 mm long. The flowers are small, white and measure about 5 mm. The fruit is a red drupe, turns black when ripen and measuring about 5 - 10 mm wide.

Use:

The latex, roots, leaves, bark and fruits are all used in traditional medicine in Central America. The roots are frequently used in India as a substitute of *Rauvolfia serpentina* for medicinal purposes. The latex in the plant is said to be cathartic, diuretic, emetic and expectorant. It is used for treating dropsy and various other diseases. It is applied to granulated eyelids. The plant is commonly used in the treatment of malaria in Guatemala, where it is also one of the reputed remedies for snake bites. The plant is a good source of the alkaloid reserpine, which is used in making allopathic medicines. It is harvested commercially for this purpose. The roots yield the alkaloid deserpidine, which is an antihypertensive and tranquilizer.

78. Scientific name: *Portulacaria afra* JACQ.

**Common names:**

elephant bush, dwarf jade plant, porkbush, purslane tree, spekboom, árbol de la abundancia, arbusto elefante, arbusto japonés, planta de jade enana, planta del dinero, monedita

Family:

Didiereaceae

Origin:

South Africa

Description:

The plants grow as evergreen and bare subshrubs or small trees and reach heights of up to 4 m. They form a smooth, peeling bark. Entire and succulent leaves are arranged decussately on the shoots, which are divided into segments. The small flowers are star-shaped and pink. The plant prefers to grow in warm regions on rocky slopes and dry river valleys in rocky areas.

Use:

The leaves can be eaten raw. They are pleasantly acid and used to add a tart flavour to mixed salads. Crushed leaves can be rubbed on blisters and corns on the feet to provide relief. The leaves are chewed as a treatment for sore throat and mouth infections while the astringent juice is used for soothing ailments of the skin such as pimples, rashes and insect stings. The juice is also used as an antiseptic and as a treatment for sunburn.

79. Scientific name: *Cnidoscolus aconitifolius* (MILL.) I.M. JOHNST.



Common names:

chaya, tree spinach, spinach tree, árbol espinaca, chiscasquil

Family:

Euphorbiaceae

Origin:

Central America

Description:

Cnidoscolus aconitifolius is a monoecious, much branched, shrub or small tree with a thick pale bole, growing up to 6 metres tall. The plant contains a white latex, wild forms are usually armed with stinging hairs, but cultivated forms are unarmed. The almost bare to bristly, entire, broadly heart-shaped to arrow-shaped in outline, about 15-30 cm large, papery leaf blade is more or less 3-7 times palmately lobed to dissected. White flowers are born on a terminal panicle held high above the foliage.

Use:

The young leaves and shoots, detoxified by cooking, are eaten as a vegetable. A good flavour, they are boiled and used as a spinach. Rich in protein, calcium, iron, carotene, riboflavin, niacin and ascorbic acid. They can be eaten alone or in combination with other vegetables in stews and soups. They are only rarely eaten raw as fresh greens. The leaves contain about 25% protein. The raw leaves contain potentially harmful cyanogenic glycosides which can break down to produce hydrogen cyanide upon tissue damage. Cooking breaks down the glycosides, the time required to lower them to safe levels is about 15 minutes.

The plant is said to have many medicinal benefits, ranging from the ability to strengthen fingernails and darken greying hair. It is also used to cure alcoholism, diabetes, insomnia, skin disorders, venereal diseases, gout, scorpion stings and to improve brain function and memory. Numerous flavonoid compounds have been isolated from the leaves - most are kaempferol and quercetin glycosides.

80. Scientific name: *Rhododendron simsii* PLANCH.



Common names:

Indian azalea, azalea india

Family:

Ericaceae

Origin:

Southeast Asia

Description:

It is a twiggy evergreen or semi-evergreen shrub growing to 2 m in height, with leaves that are ovate, elliptic-ovate or obovate to oblanceolate, 1.5–5 by 0.5–3 cm in size. The flowers range from white to dark red. Some varieties of *Rhododendron simsii* are poisonous due to the presence of grayanotoxin.

Use:

The flowers are used to harmonise blood, regulate menstruation, suppress cough, dispel wind-dampness, expel toxin and heal furuncles. The roots can also be used to harmonise blood, stanch bleeding, dispel wind, resolve swelling and relieve pain. The fruits activate blood and relieve pain. Symptoms of poisoning by this plant are hypotension, bradycardia, nausea, vomiting, sweating, dizziness, blurred vision and confusion. Even respiratory depression and arrhythmias in severe cases.

81. Scientific name: *Polyscias scutellaria* (BURM.F.) FOSBERG



Common names:

shield aralia, plum aralia

Family:

Araliaceae

Origin:

New Guinea

Description:

Polyscias scutellaria is a much-branched evergreen shrub or small tree growing from 2 - 6 metres tall. The pinnately divided leaves are alternate or spirally arranged on stems and tend to be clustered at the tips of branches. The flowers are small, delicate and white, they lead onto small purple-black berry fruits. The plant succeeds in full sun to partial shade and is adaptable to most soils so long as they are well-drained.

Use:

The cooked leaves can be eaten as greens. The leaves and the roots, combined with parsley, are used as a diuretic. The juice of the leaves has been used to relieve stomach aches and facilitate childbirth. The leaves and roots also can be used as an antiseptic and deodorant.

82. Scientific name: *Leea guineensis* G. DON**Common names:**

Santo Domingo, San Miguel, ink

Family:

Vitaceae

Origin:

Africa and Southeast Asia

Description:

Leea guineensis is a very variable, erect or suberect, evergreen shrub or small tree growing 5 - 10 metres tall. The plant sometimes has a creeping rootstock. The leaves are pinnately compound and have obovate stipules. The young leaves are reddish green in colour and turn to green as the leaves mature. The leaflets are elliptic to lance shaped and have a rounded base with a caudate apex and a dentate margin. The flowers are borne on a cyme and are red to reddish orange in colour. The fruits come in the form of red berries when mature. It prefers a position in part-shade and succeeds in any moderately fertile, well-drained but moisture-retentive soil.

Use:

A decoction of the roots, twigs and leaves is considered vulnerary. The pounded root is applied externally to rheumatism, localised oedema, as well as to abscesses and furuncles, to mature them, and to wounds as a haemostatic and to promote healing. The leaves are used in the treatment of colic. They are applied externally as poultices on muscular pains, arthritis and rheumatism. Roasted, they are applied to the head for vertigo. Essential oils, consisting of complex mixtures, are obtained from both the wood and the leaves.

83. Scientific name: *Musa velutina* H. WENDL. & DRUDE



Common names:

hairy banana, pink banana,
plátano peludo, plátano rosa

Family:

Musaceae

Origin:

Assam

Description:

Musa velutina is a perennial plant that grows 2-9 m tall. The above 'trunk' is called a pseudostem and consists of concentric layers of leaf sheaths rolled into a cylinder 20-50 cm diameter. The leaves emerge, tightly rolled, from the centre of the pseudostem in an anti-clockwise spiral manner. The fruits are around 8 cm long, pink, and fuzzy. They are borne on erect flower stalks with a pink inflorescence. *Musa velutina* flowers at a young age, doing so within a year. The fruits peel back when ripe.

Use:

It is often grown as an ornamental plant, but has soft, sweet flesh that can be eaten. Many nations in tropical areas use banana leaves to wrap and cook/steam food. In east Mexico and Central America, tamales are wrapped in banana leaves instead of the traditional corn husks used by west/central Mexico. *Musa velutina* is used to maintaining blood pressure, improve asthma symptoms, reduce the risk of developing leukemia, and support heart health.

84. Scientific name: *Lawsonia inermis* L.



Common names:

hina, henna tree, mignonette
tree, Egyptian privet, alheña,
arjeña, jena

Family:

Lythraceae

Origin:

middle East and India

Description:

Lawsonia inermis is a fragrant, deciduous, richly branched shrub or small tree with stiff, broadly spreading branches, reaching heights of 1.5 to 8 m. Sometimes there are short shoots with thorns on smaller branches, mostly the henna bush is unarmed. The thin bark is whitish to greyish brown in colour. The flower stalks are 2 to 3.5 mm long. The hermaphrodite, radially symmetrical, fourfold

henna flowers with a double perianth are only a few mm in size and they smell differently. The four triangular sepals are green reddish on a small flower cup.

Use:

Henna has at times been used in traditional medicine as a remedy against almost any disease, much of this probably being based on the high regard the plant is held in rather than any actual benefits. However, the plant does contain a range of medically active substances including coumarins, naphthaquinones (including lawsone), flavonoids, sterols and tannins, and is known to be of benefit in a range of conditions. It is an astringent herb with a tea-like aroma, that controls bleeding and is antibacterial. It is regarded as an alternative and nerve tonic in Ayurvedic medicine. The leaves are taken internally in the treatment of amoebic dysentery. They are also used in the treatment of diarrhoea and to promote menstrual flow. They are used as a gargle to treat sore throats. Extracts of the leaves have an astringent effect on the skin, making it somewhat hydrophobic. This effect, combined with a slight bactericidal and fungicidal action, makes it a useful medicine for external use against many skin and nail complaints. The leaves are, therefore, used externally in the treatment of various skin diseases (including leprosy), wounds, ulcers and herpes. An infusion of the leaves is mixed with tobacco and salt and used as a mouthwash. Dyeing the hair with henna effectively kills lice.

Climbing plants

85. Scientific name: *Monstera adansonii* SCHOTT

**Common names:**

Adanson's monstera, Swiss cheese plant, five holes plant

Family:

Araceae

Origin:

Central and South America

Description:

Monstera adansonii is an evergreen, climbing, epiphytic plant producing stems 2 - 4 m long, occasionally to 6 m. The seed germinates in the soil the plant creeping along the ground until it finds a woody plant that it can grow up - it then forms aerial roots and often loses the stem connection to its original roots. It is known for its beautiful heart-shaped leaves. The leaves contain large oval-shaped perforations.

Use:

The plant contains calcium oxalate crystals. This substance is toxic fresh and, if eaten, makes the mouth, tongue and throat feel as if hundreds of small needles are digging into them. However, calcium oxalate is easily broken down either by thoroughly cooking the plant or by fully drying it and, in either of these states, it is safe to eat the plant. The whole plant is used as a remedy for boils. A decoction of the crushed plant is applied topically. The stem is used as a remedy for scorpion and snake bites. The sap produces a burning sensation and is occasionally used to treat necrotic ulcers. The leaves are used as a treatment for abscesses and pain.

86. Scientific name: *Epipremnum aureum* (LINDEN & ANDRÉ) G.S.BUNTING

**Common names:**

golden pothos, Ceylon creeper, hunter's robe, ivy arum, house plant, money plant, silver vine, Solomon Islands ivy, marble queen, taro vine, called devil's vine, devil's ivy, potus, pothos, potos

Family:

Araceae

Origin:

Southeast Asia and Australia

Description:

Epipremnum aureum is an evergreen vine growing to 20 m tall, with stems up to 4 cm in diameter, climbing by means of aerial roots which adhere to surfaces. The leaves are alternate, heart-shaped, entire on juvenile plants, but irregularly pinnatifid on mature plants, up to 100 cm long and 45 cm broad. Juvenile leaves are much smaller, typically under 20 long. The older the plants get, the larger the leaves become. The flowers are produced in a spathe up to 23 cm long. This plant produces trailing stems when it climbs up trees and these take root when they reach the ground and grow along it.

Use:

It helps to remove harmful and often toxic pollutants in the air such as formaldehyde and high levels of dust. The plant is known to be toxic to humans and animals. It can damage the mouth and digestive tract, if ingested.

87. Scientific name: *Solandra guttata* D. DON**Common names:**

chalice vines, copa de oro

Family:

Solanaceae

Origin:

Mexico

Description:

Solandra guttata is a woody plant, reaching 7 to 30 m as a climbing shrub.

The leathery berries are flattened spherical, conical, pear-shaped or rounded ovoid with a length of 4 to 6 cm and a diameter of 5 to 6 cm. The leathery and shiny leaf blades are 7.5 to 17.5 cm long and 2 to 11 cm wide elliptical, elongated-elliptical, ovate-elliptical or nearly round. The berries are occasionally whitish, sweetish and edible when ripe.

Use:

Various tropane alkaloids occur in all parts of the plant, some of which have a highly delirious hallucinogenic effect.

88. Scientific name: *Jasminum sambac* (L.) AITON



Common names:

Arabian jasmine, Sambac
jasmine, sampaguita

Family:

Oleaceae

Origin:

India

Description:

Arabian jasmine is a straggling, erect or climbing, evergreen shrub with stems up to 3 metres long that root at the nodes. It succeeds in full sun and in partial shade. The plant requires a moist but well-drained soil.

Use:

The dried flowers are commonly used to scent tea, especially in China. They can be used in conjunction with the flowers of *Jasminum lanceolaria*, 30 kilos of the flowers are combined with 10 kilos of *Jasminum lanceolaria* flowers to scent 100 kilos of tea. An aromatic water prepared from the flowers is popular in Thai cookery, especially for making desserts.

Roots and leaves are an important Ayurvedic medicine. Both the leaves and flowers are used medicinally, although the leaves have a stronger action than the flowers. They are antiamoebic, astringent, febrifuge and galactofuge. A decoction is used internally as a treatment for fever. An infusion is employed in the treatment of pulmonary catarrh, bronchitis, and asthma. A poultice of the leaves is applied externally to treat skin complaints and wounds. The bruised leaves or flowers are applied as a poultice to the breasts of lactating women to discourage the production of breast milk. An infusion of the flowers is applied to the eyelids as a decongestant. The stems are employed as an antipyretic and in the treatment of abscesses. A tincture made from the root is said to have very strong sedative, anaesthetic and vulnerary properties. The root is given fresh to treat fevers and venereal diseases. A decoction is employed in the treatment of pulmonary catarrh, bronchitis, and asthma. The roots are used externally as poultices for sprains and fractures.

89. Scientific name: *Combretum indicum* (L.) DE FILIPPS



Common names:

Rangoon creeper, piscuala

Family:

Combretaceae

Origin:

Southeast Asia and Australia

Description:

Combretum indicum is a vigorous, fast-growing, climbing shrub growing up to 8 m tall. The much-branched stems can grow up to 20 m long in tropical climates. The hermaphrodite, fragrant flowers are fivefold. The petals are fused into a tube 5 to 9 cm long, their colour changes from initially white to yellow and then pink to red. There are ten stamens present. The ovary is under constant. The 30 to 35 mm long fruit is elliptical, is initially red, turning greenish black or brown when ripe, and has five protruding wings. The ripe fruit tastes like almonds.

Use:

The plant is widely used in traditional medicine, valued particularly for ridding the body of parasites. All parts of the plant are used. The fruits are anthelmintic, used particularly to treat ascarids. In large doses they cause nausea, vomiting, hiccough and even unconsciousness. A decoction of the fruit is used as a vermifuge. The fruits are used to alleviate nephritis. A concentrated decoction of the fruit is used as a gargle that is effective against toothache. The seeds are anthelmintic, used particularly to treat ascarids. In large doses they cause nausea, vomiting, hiccough and even unconsciousness. The seeds need to be stripped of their surrounding envelopes in order to eliminate their vomitive properties. A decoction of the seed is used as a vermifuge. The seeds are used to alleviate nephritis. A decoction of the seeds is given to children to stop diarrhoea. The seeds, macerated in oil, are applied to parasitic skin diseases, boils or sores on children's faces. A decoction of the root is used as a vermifuge and is also an effective treatment for rheumatism. In the Philippines, the plant is used as a pectoral. The juice of the leaves is considered a remedy for boils and ulcers and the leaves are applied to the head to relieve ache caused by jungle fever. The plants are eaten daily by men and women as a method of birth control.

Trees

90. **Scientific name:** *Crescentia cujete* L.



Common names:

calabash tree, higüero, güira, calabaza, taparo, mate, pilcher, huingo, cuite

Family:

Bignoniaceae

Origin:

Central America

Description:

The calabash tree is an approximately 8 to 10 m high tree with a short, straight trunk that reaches a diameter of 25 cm at breast height. The sessile, simple leaves are arranged in clusters in groups of three to six. The leaf shape is obovate to spatulate, sometimes the leaves are lobed. The many-seeded, smooth fruits, berries (branchberry) are roundish to elliptical. The fruits of the wild form have a size of about 10-12 cm, fruits of cultivated forms can reach a diameter of 20 to over 30 cm. They are initially green, later yellow and red-brown when mature. The shell is relatively thin, woody-leathery, hard and durable. The inedible flesh is white, juicy and contains many flat, beige seeds 6 to 8 mm long.

Use:

The young fruit is occasionally pickled. The seed can be eaten when cooked. It is also used to make a beverage. A syrup and a popular confection called 'carabobo' is made from the seed. To make the syrup, the seeds are ground finely, mixed with sugar and a little water then boiled. The roasted seeds, combined with roasted wheat, are used as an aromatic and flavourful coffee substitute. The leaves are sometimes cooked in soups.

The pulp is astringent, emollient, expectorant and laxative. It is used in domestic medicines. The fruit is abortifacient, emetic, emmenagogue, purgative and vermifuge. A syrup made from the pulp of the fruit is a popular remedy for colds. The juice of the fruit is used to treat diarrhoea, pneumonia and intestinal irregularity. It is made into a strong tea and drunk to procure an abortion, to ease childbirth, and is used in a mix to relieve severe menstrual pains by eliminating blood clots. A syrup made from the fruit is used to treat consumption. The leaves are astringent, cholagogue, emetic (in larger doses), and purgative. An infusion is sometimes administered for treating dysentery. It is boiled with sugar, soft grease or Buckley's white rub to make a syrup that is used to treat colds. Juice of young leaves is drunk to remedy colds and lung diseases. The leaf is chewed to treat toothache. A decoction of the bark is used to clean wounds. The ripe fruit-pulp contains crescentic, tartaric, citric, tannic, chlorogenic and hydrocyanic acids, and may cause abortion in cattle. The seed oil contains oleic acid. The stem-bark and leaf show antimicrobial activity.

91. Scientific name: *Theobroma cacao* L.



Common names:

cacao tree, cocoa tree, árbol del cacao, cacaotero

Family:

Malvaceae

Origin:

North of South America

Description:

Cacao is a small, evergreen tree with a globose crown; usually growing about 8 metres tall, though exceptionally it can reach 20 metres. The short bole is 20 - 30cm in diameter. The lanceolate, oblong and pointed leaves can measure up to 35 cm at the leaf vein. The small and white flowers are produced in clusters directly on the trunk and older branches, this is known as cauliflory. They are pollinated by tiny flies, called *Forcipomyia* midges. The fruit, called a cacao pod, is ovoid, 15–30 cm long and 8–10 cm wide, ripening yellow to orange, and weighs about 500 g when ripe. The pod contains 20 to 60 seeds, usually called "beans", embedded in a white pulp. It is a tree of the lowland tropics, usually found below 300 metres but occasionally found as high as 900 metres. It succeeds where the mean annual temperature is in the range 18 - 28.5°C with a maximum temperature of 30 - 33.5°C and a minimum 13 - 18°C.

Use:

The fermented, dried and roasted seeds of this plant, called cacao beans, are the source of cocoa, chocolate and cocoa butter. The fruit contains seeds surrounded by a thin, succulent pulp with a slightly sweet flavour. This pulp is sucked as a sweet snack. It can be made into juices and jellies. Although used mainly as a food, cacao does also have some therapeutic value. The seed contains a range of medically active constituents including xanthines, a fixed oil and endorphins. It is a bitter, stimulant, diuretic herb that stimulates the nervous system, lowers blood pressure and dilates the coronary arteries. Cacao powder and butter are nutritive, the latter also soothes and softens damaged skin. The seed is used in central America and the Caribbean as a heart and kidney tonic. An infusion of the baked seed-membranes is drunk as a remedy for anaemia. Combined with the stems of *Chromolaena odorata* and the wood of *Cecropia obtusa*, the seed is applied externally as an emollient in a remedy to extract splinters or prickles embedded in the skin. Cacao powder is taken internally in the treatment of angina and high blood pressure. The rural people in Amazonas State, Brazil, rub cocoa butter on bruises. It is often used to treat chapped skin and burns. Research has shown that it can help to counter the bacteria responsible for boils and septicaemia. The leaf contains genistic acid. This has been shown to be antirheumatic and analgesic. An infusion of the leaf buds is used with incense to treat diarrhoea. An infusion of the dry pods is used to decrease leprosy spots.

92. Scientific name: *Pinus oocarpa* SCHIEDE EX SCHLTDL.



Common names:

ocote, ocote chino, pino amarillo, pino avellano, Mexican yellow pine, egg-cone pine, hazelnut pine

Family:

Pinaceae

Origin:

Central America

Description:

Pinus oocarpa grows as an evergreen tree that reaches heights of 30 to 35 m. The upright trunk reaches a diameter of 100 to 130 cm at breast height. The stem bark is thick, rough, scaly and dark brown to gray, brown. The needles are glossy, yellowish green to green, straight, stiff or less often flexible, 14 to 25 centimeters and 0.8 to 1.6 mm thick. They stay on the tree for two to three years. The tree forms cones that are 3 to 10 cm long and 3 to 9 cm in diameter.

Use:

It is an important source of commercial timber in Honduras and Central America.

93. Scientific name: *Phoenix roebelenii* O'BRIEN



Common names:

dwarf date palm, pygmy date palm, miniature date palm, robellini palm

Family:

Arecaceae

Origin:

Southeast Asia

Description:

Phoenix roebelenii is a small to medium-sized, slow-growing slender tree growing to 2–7 m tall. The leaves are 60–120 cm long, pinnate, with around 100 leaflets arranged in a single plane. Each leaflet is 15–25 cm long and 1 cm wide, slightly drooping, and grey green in colour with scurfy pubescence below. The flowers are small, yellowish, produced on a 45 cm inflorescence. The fruit is an edible 1 cm drupe resembling a small, thin-fleshed date.

Use:

The plant cleans the air of formaldehyde, xylenes and toluene.

94. Scientific name: *Adonidia merrillii* BECC.



Common names:

Manila palm, palma de Manila, palma de Navidad, Christmas palm

Family:

Araceae

Origin:

Borneo, Philippines

Description:

Adonidia merrillii is an evergreen, single-stemmed palm tree that grows about 6 metres tall. The straight, cylindrical, unbranched stem is around 15 - 21cm in diameter, topped by a compact crown of about a dozen arched, pinnate leaves about 1.5 metres long. It is commonly known as the "Christmas palm" because its fruits become bright scarlet and tend to be that colour in winter. The palm prefers full sun but can withstand partial shade

Use:

The fleshy seed is used as a substitute for betel nut (*Areca catechu*) as a masticatory. It is considered to be somewhat inferior.

95. Scientific name: *Pandanus tectorius* PARKINSON EX DU ROI



Common names:

sanderi, hatch screwpine, Tahitian screwpine, hala tree, pandanus

Family:

Pandanaceae

Origin:

Oceania

Description:

Pandanus tectorius is a small tree that grows upright to reach 4–14 m in height. The single trunk is slender with brown ringed bark. It is spiny, grows to 4.5–11 m in width and forks at a height of 4–8 m. It is supported by aerial roots (prop roots) that firmly anchors the tree to the ground. Roots sometimes grow along the branch, and they grow at wide angles in proportion to the trunk. The leaves of this Plant are usually 90–150 cm in length and 5–7 cm in width. They possess saw-like margins. *Pandanus tectorius* is dioecious, meaning male and female flowers are borne on separate

trees, with very different male and female flowers. The female trees produce a segmented, large fruit. Although not closely related, the fruit resembles a pineapple.

Use:

The fruit of *Pandanus tectorius* is edible. Some varieties and cultivars contain significant amounts of calcium oxalate, so need thorough cooking before being consumed. Other cultivars contain very little to no calcium oxalate and can be eaten raw. The tree's leaves are often used as flavouring for sweet dishes such as kaya jam. It is also used in Sri Lankan cookery, where the leaves are used to flavour a variety of curries. Leaves were used by the Polynesians to make baskets, mats, outrigger canoe sails, thatch roofs, and grass skirts. The fragrant male flowers are used in perfumery and are also distilled to make Kewra.

96. Scientific name: *Styphnolobium japonicum* L.



Common names:

Japanese pagoda tree, Chinese scholar tree, pagoda tree, sófora, sofor, árbol de las pagodas, falsa acacia del Japón

Family:

Fabaceae

Origin:

China

Description:

The Japanese cord tree is a medium-sized, deciduous tree that reaches heights of growth of up to 30 meters. The crown of the tree is broad and round. The up to 25 cm long leaves are imparipinnate, usually 7 to 17 leaflets are formed. The leaflets are ovate to ovate-lanceolate, 2.5 to 5 cm long, pointed and with a broadly cuneate to rounded base. The upper surface is glossy dark green, the underside bluish and densely hairy. The leaves are like those of the black locust but turn bright yellow in autumn. The panicle-shaped inflorescence is up to 30 cm long. The five petals are creamy white. The 5 to 8 cm long, glabrous legumes contain 1 to 6 seeds separated by constrictions.

Use:

The flowers are used in Chinese cuisine and are prepared together with eggs and flour as an omelette. Dishes and tea made from fresh and dried flowers are used in traditional Chinese medicine. The flowers are said to have anti-hypertensive and anti-inflammatory effects. All other parts of the plant apart from the flowers are described as highly poisonous, especially the bark, seeds and the fruit skin.

97. Scientific name: *Citrus aurantium* L.



Common names:

bitter orange, Seville orange, bigarade orange, marmalade orange, naranjo agrio, naranjo amargo, naranja agria, naranja bigarade, naranja andaluza, naranja de Sevilla, naranja cajera, naranja cachorreña

Family:

Rutaceae

Origin:

East Asia and Australia

Description:

Citrus aurantium is an evergreen tree with very fragrant flowers and orange, acidic-tasting fruit. The tree is 3-10 m tall, much branched with a rounded crown. The leaves are simple, alternate, subcoriaceous and dotted with glands which are aromatic when bruised. The fruit peel is rich in essential oil, mostly composed of terpenes, with limonene as the main constituent. Bright, sunny and dry weather with mild temperatures is most suitable for flower production and harvesting.

Use:

Many varieties of *Citrus aurantium* are used for their essential oil, and are found in perfume, used as a flavoring or as a solvent and for consumption. The Seville orange variety is used in the production of marmalade and used to make French bigarade. Bitter orange is also employed in herbal medicine as a stimulant and appetite suppressant, due to its active ingredient, synephrine. Supplements of this plant have been linked to several serious side effects and deaths, and consumer groups advocate that people avoid using the fruit medically.

98. Scientific name: *Cojoba arborea* var. *arborea*



Common names:

frijolillo, coralillo, aguacillo

Family:

Leguminosae

Origin:

Central America

Description:

Tree to 35 m tall and the crown is sparse and sparse, with light green foliage. The bark is dark brown to greenish brown. The leaves are alternate and bipinnate and are characterized by having a small

gland between each pair of auricles. The leaves consist of 10 to 15 pairs of secondary leaves or primary leaflets, which in turn consist of 20 to 40 pairs of secondary leaflets. The leaves are entire and asymmetrical. The flowers are grouped in heads, heads are spherical in shape and measure 1.5 to 2 cm. The flowers are hermaphrodite, white to off-white, measuring 7 to 8 cm long, tubular and flared at the apex, with peduncles 5 to 10 cm long. The seeds are in a twisted red pod in the shape of a spiral.

Use:

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99. Scientific name: *Samanea saman* (JACQ.) MERR.



Common names:

rain tree, árbol de la lluvia, campano, cenízaro, cenícero, couji de Caracas, samán,

Family:

Fabaceae

Origin:

Central America

Description:

Samanea saman is an attractive, large, spreading deciduous tree with a low, dense, dome-shaped crown. It usually grows up to 30 m tall with occasional specimens to 60 m. It has a short, usually crooked bole that can be up to 2 m in diameter. The tree has pinkish flowers with white and red stamens, set on heads with around 12–25 flowers per head. These heads may number in the thousands, covering the whole tree. The seed pods of the tree contain sticky, and the flesh is edible.

Use:

Children eat the pods, which contain a brownish, sticky, liquorice-like, sweet-flavoured pulp. A lemon-like fruit drink is also made from the pulp. The tree yields a gum of inferior quality which could be used as a poor man's substitute for gum Arabic. A decoction of the inner bark and fresh leaves is used as a treatment for diarrhoea. A brew of small sections of the bark is taken to treat stomach-ache. A crude aqueous or alcoholic extract of the leaves is observed to have an inhibiting effect on *Mycobacterium tuberculosis*. The alkaloid fraction of the leaves is effective on the central nervous system (CNS) and the peripheral nervous system (PNS). An infusion of the leaves is used as a laxative. A decoction of the fresh material is used as a wash in the treatment of skin problems such as dermatitis, eczema and pruritus. The fruit decoction is used as a CNS-sedative. The seeds are chewed for treating a sore throat.

100. Scientific name: *Catalpa bignonioides* WALTER



Common names:

southern catalpa, cigartree,
Indian-bean-tree, catalpa
común, árbol Indio

Family:

Bignoniaceae

Origin:

USA

Description:

Catalpa bignonioides is a medium-sized deciduous tree growing to 15–18 m tall, with a trunk up to 1 m diameter, with brown to grey bark, maturing into hard plates or ridges. The short thick trunk supports long and straggling branches which form a broad and irregular head. The roots are fibrous, and branches are brittle, its juices are watery and bitter tasting. The leaves are large, bright green and heart shaped, being 20–30 cm long and 15–20 cm broad. The flowers are 2.5–4 cm across, trumpet shaped, white with yellow spots inside. They grow in panicles of 20–40. The fruit is a long, thin bean pod 20–40 cm long and 8–10 mm in diameter.

Use:

A tea made from the bark has been used as an antiseptic, antidote to snake bites, laxative, sedative and vermifuge. As well as having a sedative effect, the plant also has a mild narcotic action, though it never causes a dazed condition. It has therefore been used with advantage in preparations with other herbs for the treatment of whooping cough in children, it is also used to treat asthma and spasmodic coughs in children. The bark has been used as a substitute for quinine in treating malaria. The leaves are used as a poultice on wounds and abrasions. A tea made from the seeds is used in the treatment of asthma and bronchitis and is applied externally to wounds. The pods are sedative and are thought to have cardioactive properties. Distilled water made from the pods, mixed with eyebright (*Euphrasia officinalis*) and rue (*Ruta graveolens*) is a valuable eye lotion in the treatment of trachoma and conjunctivitis.

101. Scientific name: *Persea americana* Mill.



Common names:

avocado, aguacate, palto, aguacatero

Family:

Lauraceae

Origin:

Central America

Description:

The avocado tree is shrubby and fast-growing and, depending on the species, can reach a growth height of up to 20 m. The avocado tree has quite large, spirally arranged, dark green to green-brownish, elliptical, ovate to lanceolate, pointed to acuminate and shiny, leathery, thick leaves. The stem leaves are up to 45 cm long. The small, about 5-8 mm long, short-stalked, yellowish to greenish flowers are in panicle-like, terminal or axillary inflorescences. The avocado fruit is a single-seeded berry. It is usually pear-shaped, but there are also roundish and egg-shaped. It is between 7 and 20 cm long and about 5 to 9 cm wide and green.

Use:

The fruits are edible and lower cholesterol levels due to the monounsaturated fatty acids they contain. Besides the they are also healthy due to the other nutrients such as folic acid, vitamin K, potassium and vitamin E they contain.

102. Scientific name: *Bursera simaruba* (L.) SARG.



Common names:

gumbo-limbo, copperwood, chaca, West Indian birch, naked Indian, turpentine tree, chacaj, carate, indio desnudo, jiote, jiñocuabo, chaká, encuero, almácigo

Family:

Burseraceae

Origin:

Central and South America

Description:

Bursera simaruba is a broad-headed, aromatic tree. It generally grows to about 30 m tall. The bole is unbuttressed and can be 60cm in diameter, though it tends to split low down into secondary boles. Forest grown trees are usually tall and slender with a fairly straight bole when growing in open positions the trees are generally short and often crooked. The bark is shiny dark red, and the leaves are spirally arranged and pinnate with 7-11 leaflets, each leaflet broad ovate, 4–10 cm long and 2–5 cm broad.

Use:

The leaves can be used as a tea substitute. The resin obtained from the bark is diaphoretic, diuretic, purgative and vulnerary. It is used in the treatment of dropsy, dysentery and yellow fever.

103. Scientific name: *Grevillea robusta* A.CUNN.EX R.BR



Common names:

southern silky oak, silver oak, Australian silver oak, roble sedoso, roble australiano, roble plateado, árbol de fuego, pino de oro, grevillea

Family:

Proteaceae

Origin:

Australia

Description:

Grevillea robusta is a deciduous tree with a dense, conical crown. It can grow 12 - 25 m tall with exceptional specimens up to 40 m. The bole, which can be 80 - 120cm in diameter, is straight, unbuttressed, and can be free of branches for up to 15 m. The dark green leaves are doubly pinnate, finely toothed and reminiscent of fern fronds. The flowers are golden orange.

Use:

The flowers are one of the richest sources of nectar. This can be sucked directly from the flowers, shaken into a bowl or washed out in a small quantity of water. The nectar falls in showers when the flowers are shaken.

104. Scientific name: *Terminalia superba* ENGL. & DIELS



Common names:

superb terminalia, limba, afara, korina, frake, African limba wood, ofram

Family:

Combretaceae

Origin:

West Africa

Description:

Terminalia superba grows up to 60 m tall, with a domed or flat crown, and a trunk typically clear of branches for much of its height, buttressed at the base. The leaves are 10 cm long and 5 cm broad and are deciduous in the dry season. The flowers are produced at the end of the dry season just before the new leaves; they are small and whitish, growing in loose spikes 10–12 cm long. The fruit is a samara with two wings.

Use:

The wood is either a light (white limba or korina) or with dark stripes (black limba) hardwood. It is used for making furniture, table tennis blades (as outer ply), and musical instruments and prized for its workability and excellent colour and finish.

105. Scientific name: *Swietenia mahagoni* (L.) JACQ.



Common names:

American mahogany, Cuban mahogany, small-leaved mahogany, West Indian mahogany, caoba de las Indias occidentales o de Cuba, acajou, chiculte, mahogany, mogno, orura

Family:

Meliaceae

Origin:

Florida and the Caribic

Description:

Mahogany is an evergreen or briefly deciduous tree that can grow up to 30 m tall with a large, spherical crown and many heavy branches that cast a dense shade. The bole is often short and much-branched, up to 100cm in diameter, usually with a short, buttressing base up to 1 m in diameter. The tree is deciduous in areas where it is subject to drought. The leaves are pinnate, 12–25 cm long, with four to eight leaflets, each leaflet 5–6 cm long and 2–3 cm broad. There is no terminal leaflet. The

flowers are small, produced in panicles. The fruit is a woody capsule 5–10 cm long and 3–6 cm broad, containing numerous winged seeds.

Use:

Mahogany, obtained from several species in the genus *Swietenia*, is regarded as the world's finest timber for high-class furniture and cabinet work. This species was the first to be discovered by the Europeans and has been exported from Hispaniola since the 16th century. It has been widely over-exploited in the wild and is now cultivated in plantations in other areas of the tropics.

The stem bark is antiseptic, astringent and febrifuge. It is taken orally as a decoction for diarrhoea and dysentery, as a source of vitamins and iron, and as a medicine to induce haemorrhage. When the bark is steeped to a red liquid, it is taken to clear the blood, increase appetite, and restore strength in cases of tuberculosis. A decoction of the bark is used externally to dress wounds caused by firearms. Methanol extracts of the bark showed inhibitory activity on HIV-1 protease.