THE - Impact Rankings 2026



PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

15.2.3 Maintain and extend current ecosystems' biodiversity

Conservation and Restoration of Land

KARE is committed in conserving the existing land resources through sustainable production system and restoring the uncultivable waste lands to cultivated land. In recent in and around KARE campus the waste land is restored by removal of high evaporative demand invasive tree spices of *Neltuma juliflora*. The permanent fallow land of KARE is restored and planted with high value forest tree species for sustainable production.









Figure: 1 Fallow land is planted with dryland horticultural fruit trees with drip irrigation system

Alien species Impact reduction

In the agricultural fields and other natural vegetation of KARE is infected with Parthenium (*Parthenium hysterophorus* L.) also known as star weed, carrot weed, white cap, white top, etc. Due to its wider adaptation character it was available to all the agricultural eco-systems like Wet land, Garden land and Dry land. The best studied methods of Biological control and Cultural methods of impact reduction strategies were adapted in KARE. The cultural method of uprooting before flowering techniques were adopted for better management.



Figure: 2 Manual uprooting of parthenium infected fields

Sustainable Management for Land for Agriculture (Education and Outreach)

As part of the Agricultural course curriculum KARE students were involved in seed to seed production of various crops in the different farm ecosystems. The farm is divided in three categories as wetland, garden land and dry land according to soil type. In this student are performing their regular field class. The same local farmers are also educated about the recent advances in crop cultivation.





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Maintaining ecosystem with green

Sustainable Management for Land for Agriculture (Education and Outreach)

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Educational Programmes on ecosystem

Agriculture eco-system is classified as Wetland, Garden land and Dryland ecosystem. According to the ecosystems the KARE farm is divided as Crop Cafeteria, Wet land, Garden land and dry land for the purpose of Land Management and Students activity. The farm which getting irrigation water from well and percolation ponds. The pipelines were laid for ease irrigation and for Improving the irrigation efficiency. For the regular class activities students are involved in all ecosystem to study the characterizes and crops of the ecosystem

Extend current Ecosystem Biodiversity

The KARE campus is located in the foothills of one world's tested biodiversity hot spot Western ghats. It has huge flora and fauna in the western ghats. KARE committed to maintaining biodiversity, established a crop cafeteria with more than hundered local cultivable crop varieties and different cultivars of crops. Every year KARE increases their species collection, by which it can be helpful to local farming communities. This year also KARE collected a wild cotton cultivar from nisarga paritranah which is available in western ghats and conserved in the farm. The local traditional paddy cultivars of "Thooyamalli" are collected and cultivated in farms. The seeds of the cultivars were also made available to farmers through university sale counters. KARE farm unit is producing the native tree saplings and it was supplied to local people through the retail shops. The cattle breed and Indian honey bees are also reared in the KARE farm.

Maintain land Management system

The design was that of a Saw-Tooth model of poly house and construed two units of Polyhouses namely Unit I (Natural ventilated type) and Unit II (Hi-Tech type). In Unit I polyhouse was constructed with galvanized steel poles an area of 2112 sq.m, covered with poly sheet and fixed slide door was arranged to enter in polyhouse. Where as in Polyhouse Unit II was construed with galvanized steel poles an area of 1008 sq.m and big six exhaust fans were arranged to send the inside air from polyhouse. The evaporative cooling pads was arranged to cool the inside system of both polyhouses. Finally, the micro irrigation system such as drip irrigation and fogger irrigation system were set in both Unit I and Unit II.





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Common name	Wild castor
Botanical name	Baliospermum montanum
Family	Euphorbiaceae
Tamil name	Pey-amanakku - காட்டு ஆமணக்கு
Medicinal uses	The roots are used in dropsy, anascara, and jaundice. Decoction of leaves is used for treating asthma. Seeds are purgative, used externally as stimulant, and are rubifacient. The oil from the seeds is hydrogogue, cathartic, and used for external application in rheumatism.
Alkaloids content	flavonoids (35.63-43.33%), Saponins (9.9 to 13.2%), phenolics (38.43 to 43.44%), tannins (13.26 to 18.3%), terpenoids (25.36 to 33.4%).





Common name	Sessile joyweed / Brazilian spinach
Botanical name	Alternanthera sessilis
Family	Amaranthaceae
Tamil name	Ponnankanni - பொன்னாங்காணி
Medicinal uses	sessilis is recommended as an herbal remedy to treat wounds , flatulence , nausea , vomiting , cough , bronchitis , diarrhea , dysentery and diabetes . Its root can relieve inflamed wounds.
Alkaloids content	Sessilis contains alkaloids, terpenoids, flavonoids, tannins, saponins, polyphenols, cardiac glycosides and quinones.



Common name	African thyme, French thyme, Indian mint
Botanical name	Coleus Ambonicus
Family	Lamiaceae
Tamil name	Karpooravalliகற்பூரவல்லி
Medicinal uses	This plant ought to be developed in homes where there are kids. It is called as Karpuravalli on the grounds that it conveys the kind of camphor. In Tamil karpuram implies camphor.
Alkaloids content	Amboinicus extract contains flavonoids, terpenes, saponins, polyphenols <i>and alkaloids</i> . carvacrol (28.65%), thymol (21.66%), α-humulene (9.67%)





Common name	Aloe vera
Botanical name	Aloe barbadensis
Family	Liliaceae
Tamil name	Burn Plant – Kattralai - கற்றாழை
Medicinal uses	Aloe vera is a medicinal plant with antioxidant and antibacterial properties. Aloe vera benefits can include reducing dental plaque, accelerating wound healing, preventing wrinkles, and managing blood sugar. Aloe vera, or Aloe barbadensis, is a thick, short-stemmed plant that stores water in its leaves.
Alkaloids content	Alkaloids of Aloe Species. Several alkaloids have been isolated from several Aloe species. N-methyltyramine and O,N-dimethyltyramine have been reported as being the most common Aloe alkaloids, whereas γ-coniceine was only found in a few species. Aloe vera and Aloe ferox contain unique phytoconstituents including <i>anthraquinones</i> , <i>flavonoids</i> , <i>tannins</i> , <i>sterols</i> , <i>alkaloids</i> , <i>and volatile oils</i> .



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Common name	Wild sage
Botanical name	Lantana camara
Family	Verbenaceae
Tamil name	Unni chedi - உன்னிச்செடி
Medicinal uses	camara leaves is mostly used in herbal medicine for wound healing, fever treatment, cough treatment, influenza treatment, stomach ache, malaria, etc. [8]. It has also been recorded that can be used for the treatment of cancers, chickenpox, measles rheumatism, and ulcer
Alkaloids	T.he plant contained alkaloids, glycosides, steroids, saponins, flavanoids,
content	coumarins, tannins, carbohydrates, hydroxy anthraquinones, anthraquinone.





Common name	Indian long pepper or pippali
Botanical name	Piper longum
Family	Piperaceae
Tamil name	Thippili -திப்பிலி
Medicinal uses	It is most commonly used to treat chronic bronchitis, asthma, constipation, gonorrhea, paralysis of the tongue, diarrhea, cholera, chronic malaria, viral hepatitis, respiratory infections, stomachache, bronchitis, diseases of the spleen, cough, and tumors.
Alkaloids	Fruits contain about 20 % dry matter, volatile oil, resin, alkaloids (4-5%
content	piperine) and a terpenoid substance. Root contains piperlon gumine as major alkaloid in addition to piperine.





Common name	Rabbit-ear leaf/ rabbit ears plant or jammy mouth
Botanical name	Stachys byzantina
Family	Lamiaceae
Tamil name	MUYALKATHU ILAI - முயல்காது இலை
Medicinal uses	In traditional medicine, the aerial parts of S. byzantina are used for the treatment of infections, wounds, asthma, dysentery, epilepsy, digestive disorders, common cold, rheumatic disorders, and neuropathy
Alkaloids content	The main components were <i>germacrene D</i> (9.6%), <i>Menthone</i> (6.9%), 1,8-cineole (14.8%), α-terpineol (7.8%), cubenol (9.9%), α-cadinol (6.8%) and Linalool.





Common name	Purple fruited pea egg plant - Red Pea Eggplant
Botanical name	Solanum trilobatum
Family	Solanaceae
Tamil name	Thoothuvalai - தூதுவளை
Medicinal uses	Solanum trilobatum is frequently used to treat respiratory issues such as chest congestion , sinusitis , bronchial asthma , and tuberculosis . It provides asthma patients with a new lease on life.
Alkaloids content	The analysis of the crude aqueous and ethanolic extracts showed an alkaloid content of 0.42% and the presence of tannins, saponins, flavonoids, steroids, terpenoids and cardiac glycosides (data not included). The immunomodulatory and anti-inflammatory properties of S.





Common name	Asthma Plant/ Snakeweed.
Botanical name	Euphorbia hirta
Family	Euphorbiaceae
Tamil name	Amman pacharichi - ிம்மான் பச்சரிசி
Medicinal uses	India is known worldwide for its Ayurvedic treatment. Euphorbia hirta is often used traditionally for female disorders, respiratory ailments (cough, coryza, bronchitis, and asthma), worm infestations in children, dysentery, jaundice, pimples, gonorrhea, digestive problems, and tumors.
Alkaloids	It is reported to contain alkanes, triterpenes, phytosterols, tannins,
content	polyphenols, and flavanoids.





Common name	Indian Copperleaf/
Botanical name	Acalypha indica
Family	Euphorbiaceae
Tamil name	Kuppameni - ക്രப്വൈധേങ്ങി
Medicinal uses	Acalypha indica has the capability to serve as anthelmintic, anti-inflammation, anti-bacterial, anti-cancer, anti-diabetes, anti-hyperlipidemic, anti-obesity, anti-venom, hepatoprotective, hypoxia, and wound healing medicine.
Alkaloids content	Major chemical constituents obtained from Acalypha indica are <i>alkaloids</i> , <i>catechols</i> , <i>flavonoids</i> , <i>phenolic compounds</i> , <i>saponins</i> , <i>and steroids</i>





Common name	Indian ginseng/ winter cherry
Botanical name	Withania somnifera
Family	Solanaceae
Tamil name	Aswagandha/அமுக்கிரா
Medicinal uses	Withania somnifera, commonly called ashwagandha, is a winter cherry tropical to the Solanaceae family that is used in treating a wide variety of illnesses including asthma, diabetes, hypertension, stress, arthritic diseases, and cancer.
Alkaloids content	It contains a series of different phytochemicals and has a wide range of biological significance. More than 12 alkaloids , 40 withanolides and several sitoindosides have been isolated and reported from the plant





	Υ
Common name	Indian Birthwort and Snakeroot
Botanical name	Aristolochia bracteata
Family	Aristolochiaceae
Tamil name	Aadu Thinna Paalai
Medicinal uses	The root is used in skin diseases and heals wounds and destroys the
	toxic effect of all poisons. In the olden days, it was used against snake-
	bites in Southern India. The plant possesses emmenagogue, abortifacient,
	antiarthritic, anti-inflammatory, antiperiodic, diuretic and antibilious
	properties.
Alkaloids content	Diverse chemical compounds including <i>aristolochic</i> acids, aristolactam,
	Phenanthrenes, <i>alkaloids</i> , lignans, steroids and terpenes





Common name	Spade Flower
Botanical name	Hybanthus Enneaspermus
Family	Violaceae
Tamil name	Orital tamarai / ஓரிதழ் தாமரை
Medicinal uses	H. enneaspermus is used for the treatment of diarrhoea , urinary
	infections, leucorrhoea, dysuria, inflammation, cholera and sterility
	[6]. The whole plant is used as a general tonic for pregnant women. The
	root infusion is used as a diuretic for gonorrhoea and urinary infections.
Alkaloids content	Plant is reported to possess antidiabetic, antiplasmodial, antimicrobial,
	anticonvulsant, nephroprotective,





Common name	Chinese chaste tree, five-leaved chaste tree, or horseshoe vitex, or
	nisinda
Botanical name	Vitex negundo
Family	Lamiaceae
Tamil name	Karunotchi/ நொச்சி
Medicinal uses	Leaf smoke is inhaled to get rid of cough; in case of diarrhoea flowers are used; extract of the plant is taken as a diuretic. 'Muscle & joint rub', is a highly effective medicine for backache, muscular sprain and joint pain.
Alkaloids content	Leaves contain Alkaloids such as Nishindine,. Hydrocotylene,
	Glyoflavonoids, Orientin, Isoorientin





Common name	Crepe Ginger
Botanical name	Costus speciosus
Family	Costaceae
Tamil name	Kostam / வெண்கோஷ்டம் /கோஷ்டம்
Medicinal uses	Kemukha is primarily used by Ayurveda in the treatment of disturbances
	in lipid metabolism like obesity, hyperlipidaemia. It is also considered
	useful in the management of diabetes. It is thought to cause contraction in
	the uterine muscles.
Alkaloids content	Speciosus was done using UV–Visible spectrophotometry which evidently
	revealed the gratification of the plant with phenolic compounds (25.4 \pm 0.4
	mg/g of dry material) followed by tannin (20.3 \pm 0.62 mg/g of dry
	material), saponin (18.3 \pm 0.66 mg/g of dry material), flavonoid (13 \pm 0.79
	mg/g of dry material), terpenoid





Common name	butterfly pea/ cordofan pea /Darwin pea
Botanical name	Clitoria Ternatea
Family	Fabaceae
Tamil name	சங்கு கன்னிக்கொடி / Kannikkodi
Medicinal uses	A traditional Ayurvedic medicine, has been used for centuries as a memory enhancer, nootropic, antistress, anxiolytic, antidepressant, anticonvulsant, tranquilizing and sedative agent.
Alkaloids content	It contains many bioactive compounds, such as <i>alkaloids</i> , <i>tannins</i> , <i>glycosides</i> , <i>resins</i> , <i>steroids</i> , <i>saponins</i> , <i>flavonoids</i> , <i>and phenol</i> .





Common name	Holy Basil
Botanical name	Ocimum sanctum/ Ocimum tenuiflorum
Family	Lamiaceae
Tamil name	Tulsi /
Medicinal uses	This plant is well known for its medicinal and spiritual properties in
	Ayurveda which includes aiding cough, asthma, diarrhea, fever,
	dysentery, arthritis, eye diseases, indigestion, gastric ailments, etc.
Alkaloids content	Consequently the amount of alkaloid and flavonoids ranged from 0.91 to
	1.28 and 1.56 to 2.24 percentages respectively. The leaves of Ocimum
	sanctum contain 0.7% volatile oil comprising about 71% eugenol and 20%



methyl eugenol.



Common name	Four-angled vine, Veldt Grape/ winged treebine or adamant creeper
Botanical name	Cissus quadrangularis
Family	Vitaceae
Tamil name	பிரண்டை / Pirantai
Medicinal uses	Cissus quadrangularis might have antioxidant, pain-relieving, and anti- inflammatory effects. It <i>might also help stimulate bone growth</i> . Cissus quadrangularis is used for <i>diabetes</i> , <i>obesity</i> , <i>high cholesterol</i> , <i>bone</i> <i>fractures</i> , <i>allergies</i> , <i>cancer</i> , <i>stomach upset</i> , <i>painful</i> menstrual periods, asthma.



Alkaloids content	It is used for diabetes, obesity, high cholesterol, bone fractures, allergies,
	cancer, stomach upset, painful menstrual periods.



Common name	Australian cowplant / sugar destroyer
Botanical name	Gymnema sylvestre
Family	Apocynaceae
Tamil name	சிறுகுறிஞ்சா / cirukurinca/ கோகிலம் / kokilam
Medicinal uses	It may help you fight sugar cravings and lower high blood sugar levels. The plant may also play a <i>beneficial role in diabetes</i> . gymnema is used <i>for diabetes, metabolic syndrome, weight loss, and cough</i> . It is also used for malaria and as a snake bite antidote, digestive stimulant.
Alkaloids content	The major biologically active plant molecules are gymnemic acids, a class



of triterpenoid saponins, which have the effect of suppressing the taste of sweetness on the tongue from sucrose (sugar), stevia, xylitol, and artificial sweeteners such as aspartame.



Common name	heart-leaved moonseed, amrita, gurbel or giloy
Botanical name	Tinospora cordifolia
Family	Menispermaceae
Tamil name	ஆகாசக்கருடன்/ Akaca-k-karutan / சீந்தில் - Chintil
Medicinal uses	Tinospora cordifolia has an importance in traditional ayurvedic medicine used for ages in the treatment of fever, jaundice, chronic diarrhea, cancer, dysentery, bone fracture, pain, asthuma, skin disease, poisonous insect, snake bite, eye disorders.



Alkaloids conten	Major constituent of Tinospora cordifolia: terpenoid, alkaloid, lignans,
	steroids. content, antipyretic, antileprotic, radioprotective. The plant
	extract chiefly contains glycosides, steroids, sesquiterpenoids, alkaloids,
	aliphatic compounds, fatty acids, essential oils, and polysaccharides.



Common name	China rose, Hawaiian hibiscus, rose mallow and shoeblack plant
Botanical name	Hibiscus rosa-sinensis
Family	Malvaceae.
Tamil name	செம்பருத்தி அல்லது செவ்வரத்தை / Rose mallow



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Medicinal uses	This plant has various important medicinal uses for treating wounds, inflamation, fever and coughs, diabetes, infections caused by bacteria and fungi, hair loss, and gastric ulcers in several tropical countries.
Alkaloids content	Rosa-sinensis (Yellow) contained $0.678\pm0.16\%$ phenols, $0.48\pm0.16\%$ alkaloids and $8.5\pm0.20\%$ tannins[64]. (FRP) of flowers was 4.0 ± 0.3 mg gallic acid equivalent /100g[65]. contents in methanol extract were 4104.0, 7.6, 361.9 and 50.7 µg/g respectively



Common name	India Abutilon,
Botanical name	Abutilon indicum
Family	Malvaceae
Tamil name	Monkey Bush / துத்திக்கீரை அல்லது வட்டத்துத்தி



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Medicinal uses	Atibala is considered balya in Ayurveda, which means that it increases	
	strength, vigor and vitality. It is used in facial paralysis and joint disorders.	
	It is also indicated as a uterine tonic as well as an aphrodisiac.	
Alkaloids content	Some important constituents reported in the plant are Beta-sitosterorls, vanillic acid, Para-coumaric acid, caffeic acid, fumaric acid, Abutilon-A,(R)-N-(1'-methoxycarbonyl-2'phenylethyl)-4-hydroxybenzamide, Para-hydroxybenzoic, galatonic, Para—Beta-D-glycosyloxybenzoic and amino acids.	



Common name	Thumba
Botanical name	Leucas aspera
Family	Lamiaceae.
Tamil name	தும்பை / Thumbai



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Medicinal uses	Leucas aspera is reported to have antifungal, prostaglandin inhibitory, antioxidant, antimicrobial, antinociceptive and cytotoxic activities. Leucas aspera is used in the traditional medicine of the Philippines to treat snake bites . It is also an antipyretic, it is a herb that has the ability to help reduce fevers.
Alkaloids content	The major good dary metabolites of these plants are phonolics, alkaloids
Alkaloids content	The major secondary metabolites of these plants are phenolics, alkaloids,
	glycosides, steroids, lignins, flavonoids, terpenoids, and <i>galactose</i> .



Common name	Pottakanchi
Botanical name	Dipteracanthus prostrates



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Family	Acanthaceae
Tamil name	Silanthi nayagam/
Medicinal uses	Bell weed (Dipteracanthus prostratus) is a medicinal herb, traditionally used
	in the treatment of wounds, anti-cancer, hypoglycemic, anti-
	inflammatory, anti-ulcer and anti-oxidant activities. Believed to be
	anticancer against the epidermis of the nasopharynx region and slightly
	hypoglycemic.
Alkaloids content	The well-recognized groups of secondary metabolites were <i>flavonoids</i> ,
	lignans, coumarins, alkaloids, triterpenes, sterols, phenolic glycosides,



Common name	Indian sarsaparilla
Botanical name	Hemidesmus indicus
Family	Apocynaceae



Tamil name	Nannari ver /நன்னாரி வேர்
Medicinal uses	The main pharmacological properties of H. indicus include hepatoprotective, anti-cancer, anti-diabetic, antioxidant, neuroprotective, anti-ophidian, cardioprotective, nephroprotective, anti-ulcerogenic, anti-inflammatory, and antimicrobial properties.
Alkaloids content	The leaves contain <i>tannins</i> , <i>flavonoids</i> , <i>hyperoside</i> , <i>rutin and coumarino</i> Content is available under CC BY-SA 4.0 unless otherwise noted. Alkaloids isolated from T. cordifolia include <i>tinosporin</i> (<i>leaf</i> , <i>stem and roots</i>), tinosporic acid (leaf, whole plant), berberine, palmatine, tembatarine.



Common name	Chaff-flower, prickly chaff flower, devil's horsewhip
Botanical name	Achyranthes aspera
Family	Amaranthaceae
Tamil name	ஆகாடம் akatam/ அபாமார்க்கம் apamarkkam / நாயுரீஇ nay-urii



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Medicinal uses	Different parts of the plant are ingredients in many native prescriptions in
	combination with more active remedies. In Western India the juice is
	applied to relieve toothache. The ashes with honey are given to relieve
	cough; the root in dosed of one tola is given at bedtime for night blindness,
	and rubbed into a paste with water it is used as an anjan (eye salve) in
	opacities of the cornea. The seeds are often used as a famine food in India,
	especially in Rajputana, where the plant is called Bharotha (grass).
Alkaloids content	All the extracts of A. aspera root and inflorescences contain <i>alkaloids</i> ,
	tannins, cardiac glycosides, steroids, flavonoids, terpenoids. The samples
	of Achyranthes aspera were found to contain alkaloids and tannins.



Common name	Madagascar Periwinkle, Cayenne Jasmine, Rose Periwinkle,
	Periwrinkle.
Botanical name	Catharanthus roseus
Family	Apocynaceae
Tamil name	நித்தியகல்யாணி/ Nithya kalyani



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Medicinal uses	In Ayurveda the extracts of its roots and shoots, though poisonous, is used
	against several diseases. In traditional Chinese medicine, extracts from it
	have been used against numerous diseases, including diabetes, malaria,
	and Hodgkin's lymphoma. Many of the vinca alkaloids were first isolated
	from Catharanthus roseus. The substances vinblastine and vincristine
	extracted from the plant are used in the treatment of leukemia and
	Hodgkin's lymphoma.
Alkaloids content	Alkaloids produced by Catharanthus roseus (1) vindolicine (C ₅₁ H ₆₄ N ₄ O ₁₂ ,
	925.08 g/mol); (2) anhydrovinblastine ($C_{46}H_{56}N_4O_8$, 792.97 g/mol); (3)
	vincristine ($C_{46}H_{56}N_4O_{10}$, 824.95 g/mol); (4) ajmalicine ($C_{21}H_{24}N_2O_3$,
	352.43 g/mol); (5) tabersonine (C ₂₁ H ₂₄ N ₂ O ₂ , 336.44 g/mol); (6)
	catharanthine $(C_{21}H_{24}N_2O_2, 336.42); (7)$





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Common name	Indian Senna, Alexandrian senna, Tirunelveli Senna, Egyptian Senna,
Botanical name	Cassia angustifolia
Family	Caesalpiniaceae
Tamil name	Alakalam, Alakalampokki, Alakalampokkicceti/
Medicinal uses	Senna alexandrina was used in the form of senna pods, or as herbal tea made from the leaves, as a laxative. Modern medicine has used extracts since at least the 1950s as a laxative. If accidentally ingested by infants, it can cause side effects such as severe diaper rash. The active ingredients are several senna glycosides which interact with immune cells in the colon.
Alkaloids content	The presence of secondary metabolites such as <i>tannins</i> , <i>alkaloids</i> ,
	glycosides, terpenoids and phytosterols were determined according to standard methods.



Common name	Thyme-leafed gratiola, herb of grace, and Indian pennywort.
Botanical name	Bacopa monnieri
Family	Plantaginaceae
Tamil name	Neer brahmi/ நூர்ப்பிரமி



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Medicinal uses	Famed in Ayurvedic medicine, brahmi has antioxidant properties. It has
	been reported to reduce oxidation of fats in the blood stream, which is a
	risk factor for cardiovascular diseases. It has been used for centuries to
	help benefit epilepsy, memory capacity, increase concentration, and reduce
	stress-induced anxiety. It is listed as a nootropic, a drug that enhances
	cognitive ability. According to Ayurveda, it is bitter, pungent, heating,
	emetic, laxative and useful in bad ulcers, tumours, ascites, enlargement of
	spleen, indigestion, inflammations, leprosy, anaemia, biliousness etc.
	According to Unani system of medicine, it is bitter, aphrodisiac, good in
	scabies, leucoderma, syphilis etc. It is a promising blood purifier and
	useful in diarrhea and fevers.
Alkaloids contents	Bacosides consists of 12 known analogs (Garai et al., 2009; Chakravarty et
	al., 2003). The alkaloids present in the plant contain brahmine , nicotine ,
	herpestine, apigenin, hersaponin, D-mannitol, plantainoside B
	monnierasides I–III, and cucurbitacin





Common name	Indian Mulberry, Noni, Great Morinda, Cheese Fruit, Brimstone Tree
Botanical name	Morinda citrifolia
Family	Rubiaceae
Tamil name	Munja pavattay / Nuna
Medicinal uses	Scientific studies have investigated noni's effect on the growth of
	cancerous tissue. One such study found that noni inhibited and reduced
	growth of the capillary vessels sprouting from human breast tumor
	explants and, at increased concentrations, the noni caused existing vessels
	in tumors to rapidly degenerate.
Alkaloids contents	It was also containing <i>alkaloids</i> , anthraquinones, antioxidants, essential
	oils, flavonoids, saponins, scopoletin and sugars. The main <i>alkaloids</i>
	present in <i>noni</i> are xeronine, scopolenin, dammacanthol



Common name	Crown flower or giant milkweed
Botanical name	Calotropis gigantea
Family	Apocynaceae
Tamil name	Erukku/ எருக்கு



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Medicinal uses	The plant is reported as effective in treating skin, digestive, respiratory,
	circulatory and neurological disorders and was used to treat fevers,
	elephantiasis, nausea, vomiting, and diarrhea. The milky juice of
	Calotropis procera was used against arthritis, cancer, and as an antidote for
	snake bite.
Alkaloids contents	C. gigantea leaf extract consisted of alkaloids (0.90%), tannin (5.94%),
	phenol (9.88%), flavonoids (2.20%), saponin (4.95%), and terpenoid
	(positive).





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Common name	Gale of the wind, stonebreaker, shatter stone, seed-under-leaf, quebra
	pedra and chance pierre.
Botanical name	Phyllanthus niruri
Family	Phyllanthaceae
Tamil name	கூழாநெல்லி / keelanelli,
Medicinal uses	Carry Me Seed is an important plant of Indian Ayurvedic system of medicine which is used in the problems of stomach, genitourinary system, liver, kidney and spleen. It is bitter, astringent, stomachic, diuretic, febrifuge and antiseptic. The whole plant is used in gonorrhea, menorrhagia and other genital affections. It is useful in gastropathy, diarrhoea, dysentery, intermittent fevers, ophthalmopathy, scabies, ulcers and wounds.
Alkaloids contents	An initial phytochemical exploration of <i>Phyllanthus</i> species reported the occurance of terpenoids, <i>alkaloids</i> , glycosides, <i>flavonoids</i> , tannins.



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Common name	Candy Leaf, Sugar Leaf, Sweet Herb of Paraguay, Sweet Honey Leaf.
Botanical name	Stevia rebaudiana
Family	Asteraceae
Tamil name	Seeni thulasi / சீனித்துளசி
Medicinal uses	It is probably best known as a source of natural sweeteners. Some people take stevia by mouth for medical purposes such as lowering blood pressure, treating diabetes, heartburn, high uric acid levels in the blood, for weight loss, to stimulate the heart rate, and for water retention.
Alkaloids contents	Our previous study and several other studies on <i>Stevia</i> also showed that the
	plant leaves contain alkaloids, steroids, tannins, saponins, flavonoids.





Common name	Satawari, buttermilk root, climbing asparagus, water root,
Botanical name	Asparagus racemosus
Family	Asparagaceae
Tamil name	Asparagus / Thaneer vittan kilangu / தண்ணீர்விட்டான்
Medicinal uses	In Ayurvedic medicine, the root of Satavari is used in the form of juice, paste, decoction and powder to treat intrinsic haemorrhage, diarrhoea, piles, hoarseness of voice, cough, arthritis, poisoning, diseases of female genital tract, erysipelas, fever, as aphrodisiac and as rejuvinative.
Alkaloids contents	Steroidal saponins, shatavaroside A, shatavaroside B, filiasparoside C,
	shatavarins, immunoside, and schidigerasaponin D5 (or asparanin A) were isolated from the roots of Asparagus racemosus. Also known is the isoflavone 8-methoxy-5,6,4'-trihydroxyisoflavone 7-O-β-D-glucopyranoside.





Common name	Golden eye-grass, xian mao, weevil-wort, black musli, Kali musli
Botanical name	Curculigo orchioides
Family	Hypoxidaceae
Tamil name	Nilappannai kilangu / நிலப்பனைக்கிழங்கு
Medicinal uses	The rhizomes of the plants are used for the treatment of decline in strength, jaundice and asthma. According to Ayurveda, root is heating, aphrodisiac, alternative, appetizer, fattening and useful in treatment of piles, biliousness, fatigue, blood related disorders etc. According to Unani system of medicine, root is carminative, tonic, aphrodisiac, antipyretic and useful in bronchitis, ophthalmia, indigestion, vomiting, diarrhea, lumbago, gonorrhea, gleet, hydrophobia, joint pains etc.
Alkaloids contents	Curculigo orchioides rhizome extracts contain an alkaloid lycorine, sterols
	including sitosterol, sapogenin, and flavone glycoside 5,7- dimethoxy
	glucopyranoside . Flavonoids include 5,7-dimethoxy glucopyranoside, and
	fatty acids such as linolenic, palmitic, behenic, arachidic, and oleic acids



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Common name	Toothache plant, buzz buttons, tingflowers and electric daisy.
Botanical name	Acmella oleracea
Family	Asteraceae
Tamil name	Palvalipoondu
Medicinal uses	The leaves and flower heads contain analgesic, antifungal, anthelminthic, and antibacterial agents, but some of the compounds are destroyed by desiccation or freezing.
Alkaloids contents	It is worth highlighting the Acmella oleracea macronutrients and micronutrients with the highest content levels such as protein (24.01%), ash (10.92%), total fiber (62.61%), Ca (2551.56 mg 100 g ⁻¹), Mg (734 mg 100 g ⁻¹), and Cu (2.09 mg 100 g ⁻¹), and amino acids such as asparagine



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 $(32.01 \text{ mg g}^{-1})$, glutamic acid (28.26 mg).



Common name	Blond plantain, desert Indianwheat, blond psyllium, and ispaghol
Botanical name	Plantago ovata
Family	Plantaginaceae
Tamil name	Isabgol / இசப்கோல் உமி
Medicinal uses	It is used as a herbal medication in traditional Indian medicine (Ayurveda) with a high content of water-soluble fiber, exerting biologic effectiveness in humans, with relevant pharmacologic and nutritional properties, and can be combined with other medications to treat constipation
Alkaloids contents	Another neutral polysaccharide from <i>Plantago ovata</i> contained T-linked



Araf, 1,3-linked Xylp, T-linked Xylp and 1,2,4-linked Xylp residues.



Common name	Turkey Tangle Frogfruit
Botanical name	Phyla nodiflora
Family	Verbenaceae
Tamil name	Poduthalai/Frog Fruit/Phyla Nodiflora Podutalei/Nelahippali Jalbuti
Medicinal uses	Traditionally, the plant has been used to treat constipation and knee pain .
	Leaves and immature stalks are used to make infusions that are administered
	to children with indigestion or women that have recently delivered a baby.
	A paste produced from the plant is also applied to boils and ulcers.
Alkaloids contents	Nodiflora contains 22 different phytochemicals (including 4-
	hydroxybenzoic acid, 3-dimethoxybenzoic acid, quercetin, gallic acid,
	benzoic acid, catechin, epicatechin, harpagoside, naringin, vanillic acid,
	carvacrol, 3-hydroxybenzoic acid, naringenin, 3-hydroxy-4-methoxy
	benzaldehyde, t-cinnamic acid, p-coumaric acid





Common name	Soursop, Guanabana, Prickly Custard Apple, Durian Belanda,
	Graviola, Durian Europa.
Botanical name	Annona muricata
Family	Annonaceae
Tamil name	Mullu Ram Phal / Mul seetha
Medicinal uses	The seeds, fruit, and leaves have been used traditionally for stomach complaints and fever, and as a sedative. Clinical trials are lacking to support these uses. The most widely used preparation in traditional medicine is the decoction of bark, root, seed or leaf and applications are varied. In Indonesia, the Caribbean islands and South Pacific countries, the leaves are used in bath to treat skin ailments, while in Mauritius, New Guinea and Ecuador the application of leaves is local on the pain site.
Alkaloids contents	From leaves, root - and stem - barks of Annona muricata L., seven
	isoquinoline alkaloids have been isolated: reticuline (main alkaloid),
	coclaurine, coreximine, atherosperminine, stepharine. Anomurine and
	anomuricine, two minor alkaloids, are new tetrahydrobenzylisoquinolines,
	with 5, 6, 7 substituted ring A.



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Common name	Rosemary/ Sagargandha
Botanical name	Rosmarinus officinalis
Family	Lamiaceae (Labiatae)
Tamil name	Rosumary (ரோசுமேரி).
Medicinal uses	Rosemary contains the antioxidants carnosic acid and rosmarinic acid, and other bioactive compounds including camphor, caffeic acid, ursolic acid, betulinic acid, rosmaridiphenol, and rosmanol. Some of these may be useful in preventing or treating cancers, strokes, and Alzheimer's Disease.
Alkaloids contents	Two specific genera are highlighted, Rauwolfia and Catharanthus, which contain important medically useful <i>alkaloids</i> like reserpine, ajmaline, The main constituents of the <i>rosemary</i> essential oil are camphor (5.0–21%), 1,8-cineole (15–55%), α-pinene (9.0–26%), borneol (1.5–5.0%)





Common name	Brazil Button Flower, Larkdaisy,
Botanical name	Centratherum Punctatum/ C. muticum, C.intermedium
Family	Asteraceae
Tamil name	Kesavardhini/ കേസഖക്കൃ
Medicinal uses	Centratherum punctatum Cass. is an important wild ornamental medicinal plant belonging to Asteraceae family. It has anti-inflammatory, anti-cancerous, anti-hypersensitive, anti-bacterial and anti-fungal properties and is commonly used in hair care preparations.



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Alkaloids contents	In the callus, the extract had a total of 57 phytocompounds; among them,
	the Stigmasterol, Guanosine, and Tri-decanoic acid were the major ones.
	In the root. Leaf extract of Centratherum punctatum exhibits <i>antimicrobial</i> ,
	antioxidant and anti proliferative properties. The Total Flavonoids (0.97
	mg/kg), Total Alkaloids (0.32 mg/kg) and Tannin (0.56 mg/kg).



Common name	Vetivergrass
Botanical name	Chrysopogon zizanioides
Family	Poaceae (Gramineae)
Tamil name	Vetiver
Medicinal uses	The essential oil obtained from the roots is used medicinally as a
	carminative, diaphoretic, diuretic, emmenagogue, refrigerant,
	stomachic, tonic, antispasmodic and sudorific. A stimulant drink is made
	from fresh rhizomes. The plants are used as an anthelmintic.
Alkaloids contents	It is the major constituent of vetiver (Chrysopogon zizanioides) essential
	oil, which is used widely in the perfume industry. The quantitative analysis



illustrated that the *alkaloids*, *flavonoids*, tannin, saponin and phenol. Free radical scavenging activity were analyzed



Common name	Creat or green chiretta,
Botanical name	Andrographis paniculata
Family	Acanthaceae
Tamil name	நிலவேம்பு / nilavempu
Medicinal uses	Since ancient times, Kariyat is used as a wonder drug in traditional Siddha and Ayurvedic systems of medicine as well as in tribal medicine in India and some other countries for multiple clinical applications. The therapeutic value of Kalmegh is due to its mechanism of action which is perhaps by enzyme induction. The plant extract exhibits antityphoid and antifungal activities.
Alkaloids contents	14-Deoxy-11-dehydroandrographolide, Plant.,14-Deoxy-11-
	oxoandrographolide,5-Hydroxy-7,8,2',3'-Tetramethoxyflavone, 5-
	Hydroxy-7,8,2'-Trimethoxyflavone, Tissue Culture.Andrographine,
	Root.Andrographolide, Plant.Neoandrographolide, Plant.Panicoline, Root.





Common name	Sensitive Plant, Touch-me-not, Shame Plant, Live-and-die, Humble	
	Plant, Action Plant, Rumput Simalu, Mimosa, Malu-malu.	
Botanical name	Mimosa pudica	
Family	Fabaceae (Leguminosae)	
Tamil name	Touch me not	
Medicinal uses	The root is used for dysentary with blood / mucus, piles and urinary	
	calculi. The fresh juice of leaves is given internally to stop bleeding. The	
	paste of the leaves is applied externally on piles, fissures, skin wounds,	
	ulcers, etc.	
Alkaloids contents	Mimosa pudica contains the toxic alkaloid mimosine, which has been	
	found to also have antiproliferative and apoptotic effects. The extracts of	
	Mimosa pudica immobilize the filariform larvae of Strongyloides stercoralis	
	in less than one hour.	





Common name	Indian snakeroot or sarpagandha	
Botanical name	Rauvolfia serpentina	
Family	Apocynaceae	
Tamil name	Chevanamalpodi	
Medicinal uses	Although this plant was well known in India, westerners paid no attention to	
	it until an Indian physician Rustom Jal Vakil, wrote an article on rauvolfia in	
	1943. Because of the drug's noted sedative effects, it was used to treat over a	
	million Indians in the 1940s for high blood pressure. After a U.S. physician	
	named Wilkins demonstrated the positive effects of reserpine (1952), the	
	plant made front page news. This drug rapidly replaced electric shock and	
	lobotomy as treatments for certain types of mental illness. Moreover,	
	knowledge about the chemistry of this natural plant stimulated the synthesis	
	of other similar alkaloids that are now used as major tranquilizers.	
Alkaloids	Rauwolfia contains at least 40 alkaloids, which total some 0.7–2.4%. Other	
contents	substances present include phytosterols, fatty acids, unsaturated alcohols and	
	sugars. In 1931 Siddiqui and Siddiqui isolated ajmaline (rauwolfine),	



ajmalinine, ajmalicine, serpentine and serpentinine.



Common name	Vasaka, Adulsa, Malabar nut
Botanical name	Adathoda vasica
Family	Acanthaceae
Tamil name	ஆடாதோடை/Atatotai /Attucam /Cimma-muki
Medicinal uses	Adhatoda is useful for curing coughs, colds and asthma and is easy to administer. It has been used for centuries, and is mentioned in Sanskrit scriptures. The leaves, roots, flowers, and bark of this plant have been used in cough , colds , asthma , liquefy sputum , bronchodilator , bronchial catarrh , bronchitis , and tuberculosis . The parts of the plant are commonly used in the forms of decoction or powder.



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Alkaloids contents

The total alkaloid content varied from **0.3 mg/ml to 5.93 mg/ml** and that of vasicine content varied from 0.2 mg/ml to 5.64 mg/ml in the juice samples prepared by different methods.



Common name	Henna Tree, Inai, Hinai, Mignonette Tree,
Botanical name	Lawsonia alba / lawsonia inermis
Family	Lythraceae
Tamil name	மருதாணி / Marudaani
Medicinal uses	The stem bark was given in jaundice , spleen enlargement , calculus care , leprosy and stubborn skin diseases . L. inermis was also reported to possess antibacterial, antifungal, antiamoebiasis, astringent, antihemorrhagic, hypotensive and sedative effect in ancient texts



Alkaloids contents	It contained carbohydrates, phenolic, flavonoids, saponins, proteins,	
	alkaloids, terpenoids, quinones, coumarins, xanthones, fat, resin and	
	tannins. It also contained 2-hydroxy-1,4-naphthoquinone (lawsone).	



Common name	Little Wild Gourd
Botanical name	Momordica cymbalaria
Family	Cucurbitaceae
Tamil name	Athalakkai (Tamil) or Kasarakayee
Medicinal uses	Little Wild Gourd fruits are useful in treating gout, rheumatism and subacute cases of the spleen and liver disease. The fruits juice and leaf tea of Little Wild Gourd is employed for diabetes, malaria, colic, sores and wounds, infections, worms and parasites, as an emmenagogue, and for measles, hepatitis, and fevers. Fruit pulp, leaf juice and seeds possess antihelimetic activity.
Alkaloids contents	The phytoconstituents of <i>alkaloids</i> , carbohydrates, <i>flavonoids</i> , sterols,



terpenoids, and saponins are present in *Momordica cymbalaria*. The fruit (per 100 g) has an energy value of 60 Kcal and contains approximately 23 mg calcium, 171 mg potassium, 2.4 mg sodium, 119.92 mg magnesium, 5.97 mg



Common name	Flame lily, climbing lily, creeping lily, glory lily, gloriosa lily, tiger	
	claw, and fire lily.	
Botanical name	Gloriosa superba	
Family	Liliaceae	
Tamil name	செங்காந்தள் Chenkantal, கலப்பை கிழங்கு Kallappai kilangu	
Medicinal uses	It has been used in the treatment of gout, infertility, open wounds, snakebite, ulcers, arthritis, cholera, colic, kidney problems, typhus, itching, leprosy, bruises, sprains, hemorrhoids, cancer, impotence, nocturnal emission, smallpox, sexually transmitted diseases, and many types of internal parasites.	



Alkaloids contents	Seeds and tubers produce bioactive alkaloids in very low concentrations of
	0.7–0.9% and 0.15–0.3%, respectively. G. superba varieties with stable
	tuber or seed yields and improved colchicine and gloriosine contents are
	still under development



Common name	Cochin grass, East-Indian lemon grass or Malabar grass	
Botanical name	Cymbopogan fluxuosus	
Family	Poaceae	
Tamil name	எலுமிச்சைப் புல் / Elumichchai pul	
Medicinal uses	The leaves and stems are used in cooking and for making herbal tea. Medicinal: Many medicinal uses but most know to calm and relieve the	
	cramping and colic associated with digestive problems . In India it has also been used as a topical application to treat fungal infections like	



ringworm.

Alkaloids contents

The primary compounds identified in C. citratus essential oil include α - citral, β -citral, geraniol, nerol, citronellal, myrcene, terpinolene,

geranyl acetate, and terpinol methylheptenone. Terpenes, alcohols, ketones, and certain flavonoids and phenolics have also found in the plant

Common name	Tridax Daisy, Coat Buttons, Mexican Daisy	
Botanical name	Tridax procumbens	
Family	Asteraceae (Compositae)	
Tamil name	வெட்டுக்காயப் பூண்டு / vettukkaya-puntu	



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Medicinal uses	It is used as food and medicine. It is used to treat high blood pressure,
	bronchial catarrh, malaria, dysentery, diarrhoea, stomach ache,
	headache and wound healing. It also prevents hair loss and stops
	hemorrhage from cuts and bruises
Alkaloids contents	It consisted of 77.326% galgravin, 12.221% dehydroabie- tic acid,
	7.837% retusin, 2.612% epieudesmin, 0.003% apigenin-4', 7-dimethyl
	ether and 0.00002% (9E,12E, 15E)-9,12,15-octadecatrien-1-ol. The
	leaves had very high alkaloids content (10.191 g/kg).