

# CHASING SOPPU



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### CONTENTS

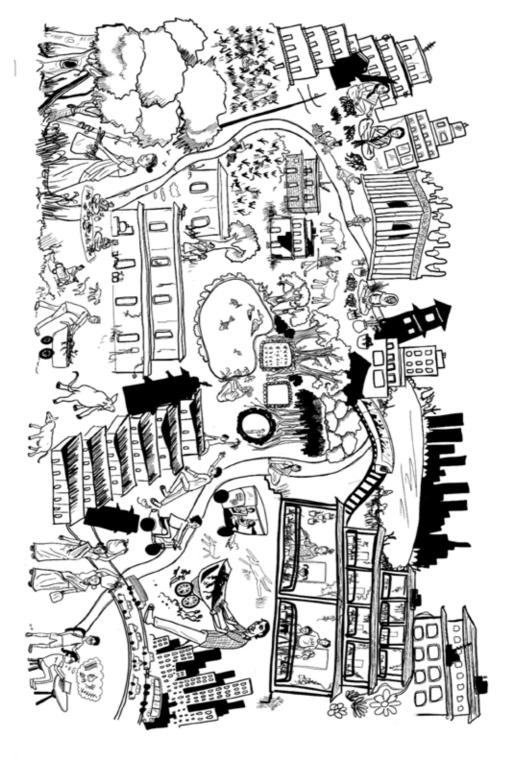
6	Introduction
10	Plant Guide
11	Glossary
19	Climbers
20	Basale
22	Bude gida
24	Dhagadi balli
28	Kadu seege
30	Kukke balli
32	Thonde balli
35	Erect Plants
35 36	Erect Plants Agase
36	Agase
36 38	Agase Anne soppu
36 38 40	Agase Anne soppu Arkberike soppu
36 38 40 42	Agase Anne soppu Arkberike soppu Bharngi
36 38 40 42 45	Agase Anne soppu Arkberike soppu Bharngi Chakota soppu
36 38 40 42 45 46	Agase Anne soppu Arkberike soppu Bharngi Chakota soppu Chowdangi soppu

- 56 Halumulangi soppu
- 58 Hunase mara
- 60 Kadu palak
- 62 Kadu sasive
- 66 Kamakasthuri
- 68 Kashi soppu
- 70 Kiru nelli
- 72 Kolikalina soppu
- 74 Kuppi gida
- 76 Mudre gida
- 78 Mulluharive soppu
- 82 Naayisasive
- 84 Nelabasale
- 86 Nelabevu
- 88 Nelanelli
- 90 Sundekkayi
- 92 Thagache
- 96 Thumbe gida
- 98 Uttarani
- 100 Vayunarayani

103 S	preading	Plants
-------	----------	--------

- 104 Acce gida
- 106 Bili suli gida
- 108 Chelakeerae soppu
- 110 Dodda gonni soppu
- 112 Dodda huli soppu
- 114 Gabbu sanna shaavanthi
- 116 Gargale soppu
- 120 Gonni soppu
- 122 Honagonne soppu
- 124 Huli soppu
- 126 Ilikivi soppu
- 128 Kaddi gida
- 130 Kanne soppu (1)
- 133 Kanne soppu (2)
- 136 Komme soppu
- 138 Mullu honagonne
- 140 Neggele mullu
- 142 Ondelaga soppu

- 144 Recipes
- 179 Home Remedies
- 184 Resources and Bibliography
- 185 References
- 189 Appendix
- 189 Appendix 1: List of plants with Kannada, common English and scientific names
- 193 Appendix 2: List of Berike soppu collected in Bengaluru with Kannada, common English and scientific names
- 196 Appendix 3: List of wild fruits with Kannada, common English and scientific names



### INTRODUCTION

The dark grey fumes billowing from the stagnant pile-up of vehicles at the Silk Board junction swept over the sidewalk and spread over the fenced-off park. A determined specimen of honagonne soppu had pushed itself through one of the multitudes of cracks on the pavements and had grown tall in the grey urban cloud. Puttamma, rushing to catch the 356 (bus number) to Madiwala, happened to glance down and catch sight of the sturdy soppu. Thrilled, she quickly plucked the soppu and stuffed it in her handbag. The sambar was going to taste better that evening!

The bustling, polluted, crowded city of Bengaluru might not be a place that most people associate with the foraging of wild, edible plants. But they would be wrong. All around us, pushing their way through the sidewalks, in the little strips of soil beside the road, in the drains, in the lakes, in the parks just waiting to be discovered—are edible plants. The act of gathering such edible plant species from private or public spaces in the city is called urban foraging, and it is a common practice across the globe.

Why do people forage? In cities, especially where almost everything is available in the market, why take the trouble of climbing the fence around Ulsoor lake to collect lesser than 500 gms of a soppu (Kannada for "leafy vegetable")? Well, people forage for a variety of reasons. In Bengaluru, we know that people collect wild plants to use in cooking, as medicine, and for cultural practices like ritual bathing, warding off evil spirits, or religious worship. The leaves of some plants are added to the bathwater used by new mothers, and leaves and pods of specific plants are used as talismans to protect infants. Wildflowers are used in worship, especially during certain harvest festivals like Sankranti. Mixed green curries (bas saaru, uppina saaru and massoppu) are staples in many homes, and wild plants, leaves and fruits can be turned into delicious chutneys and pickles.

Collecting and utilising wild plants helps to preserve local ethno-ecological and ethno-botanical knowledge. Foraging can also help migrants integrate into the community. Rehmat, who moved to peri-urban Bengaluru from North Karnataka, says she could not identify any wild green growing in the city. She learnt about the local plants from her neighbours, who took her along on foraging trips. She has also introduced her neighbours to a new green, pundi soppu (*Hibiscus cannabinus*), from her village.

Who are the people foraging these wild plants? In Bengaluru, it is mainly middle-aged or older women from low-income backgrounds. They are vital knowledge holders and experts on the local wild plants around them. They know what parts of the plants are used for food, medicine, or cultural uses, and which is the best season to forage. They also have delicious recipes that have been passed down through the generations.

Where do people forage? Mostly around lakes and wetlands. Other spaces that are great sites for foraging in Bengaluru are unused agricultural lands covered by weeds, abandoned buildings and empty sites, wooded groves, gardens, and parks. Bengaluru's numerous street trees, corporate campuses, wooded colleges and universities, cemeteries, and religious institutions with large trees also provide opportunities for foragers. But over time, many of these spaces have been closed off as foragers are considered a nuisance. Those foraging are actively banned from many local lakes and parks, which bear signages like "no plucking leaves or flowers". Wild and weedy vegetation that can be collected, is actively removed because people prefer trimmed and "neat looking" gardens. Wooded groves and empty plots are cleared and converted into built-up spaces. Open sites are used as dumping grounds, and lakes are polluted with

industrial waste and sewage, making it impossible for people to collect plants from these areas.

Yet, so many people still forage for wild plants across the city. It is a dying art, one which needs to be repopularised.

In this book, we provide an introduction to a few forageable species in Bengaluru. For each, we provide a guide for identification. We also share a collection of local recipes which can be used to cook these plants. In addition, we share some home remedies as well.

#### However, a word of caution:

Please do not consume any of the wild plants that you forage without checking with an expert (preferably a botanist or someone who has collected and used these plants frequently over the years). Several plants look very similar — cooking and consuming the wrong plant can be poisonous if you identify it wrong, and even experts sometimes get fooled.

You might want to purchase some of these wild edible plants. In that case, some markets that sell them in Bengaluru are Banashankari Market, Mavalli Market, Madivala Market, KR Market, and Russell Market. Street vendors near the Halasuru Metro Station and Lalbagh also sell these wild plants.

This book is just a guide, a source of information and documentation of culinary recipes of wild plant species in Bengaluru. We hope it stimulates you to learn more about the plants around. You can contribute to rewilding the city for foraging in many ways. Leave a patch in your garden for such plants to grow. Convert a patch of your apartment's manicured lawns or a patch of your local park and leave it open for foraging. And, if you can, do look out for knowledgeable foragers and tag along with them on foraging trips, learn about these little-known aspects of nature in namma Bengaluru, and contribute some richness and variety to your diet.



66

Several wild plants that were used by our grandparents' are no longer available. Local markets sell several of these plants. The produce sold here is not available in regular shops and supermarkets. Many people who sell these kinds of plants are very knowledgeable and often share recipes that use these plants.

**9**9

- Lakshmi from Banashankari

### PLANT GUIDE

Is there a way to identify common edible plants and know where to find them using this guide?

This guide can be a starting point to help identify edible plants. But we need to be extremely careful and be absolutely sure of the identity of the plant. There are some species that can be confused with others that look very similar but could even be poisonous. We should always consult with an expert before consuming any plant.

We have divided the book into three sections:

1) Climbers 2) Erect plants 3) Spreading plants

These sections serve as the first clue to identify the plants. Under each section, the plants are arranged in alphabetical order according to the vernacular Kannada name. Other vernacular names used specifically in Bengaluru and common English names are also listed. The Family is also included, and names of familiar flagship members are mentioned in both English and Kannada to identify the families. The description of the plant provides a brief and simple summary of key plant characteristics. Botanical terms used to describe the plants are mentioned in the glossary and medicinal, nutritional, and ecological information are included in the text as well.

Do note that while we have divided the plants into three sections, some plants may fall into the spreading or erect category. The sections, along with ordering by vernacular name rather than scientific name and not arranging according to the Genus or Family names has been done to make the book more accessible to the readers.

In the section on recipes we have used the commonly used terms saaru and palya—saaru for the rasam-like dishes and palya for the vegetable curries with seasoning.

### GLOSSARY

#### Habitat

Disturbed lands: Land that has witnessed changes due to human use

Kerbside: The side of a road or footpath

Unused land: Neglected plot of land with overgrown vegetation

#### Botanical terms

#### Life cycle

Annual: A plant completing its life cycle in a single year

Perennial: A plant whose life span extends over several years

#### Leaf scheme

#### Leaves type

Simple leaf: Undivided leaf

Compound leaves: Leaves divided into multiple leaflets

Types of compound leaves

- Pinnate: With leaflets arranged in two rows, on either side of the common axis
- Palmate: With leaflets originating from a single point and spreading out like fingers radiating from the palm of a hand

Leaflets: Segments of a compound leaf or smallest undivided unit of a compound leaf

Petiole: The stalk of a leaf

#### Leaf arrangement

Alternate: When only a single leaf is borne from a node or a point along the branch

Opposite: When two or more leaves originate from a node or point on the branch

#### Leaf shapes

Cordate: Heart-shaped

Elliptical: Symmetric along both perpendicular axis

Linear: Narrow, longer than broad

Lyrate: Lyre-shaped and deeply lobed

Obovate: Leaves that are widest at the apex

#### Leaf margin

Acute: Pointed or converging edges forming an angle less than  $90^{\circ}$ 

Dentate/toothed: Regularly incised margin

Entire: Leave with smooth margins

Obtuse: Blunt or converging edges forming an angle of more than 90°

Serrated: Finely toothed

#### PLANT CATEGORIES IN THIS GUIDE







Erect plant

**Climbing plant** 



Opposite



Simple leaf



Alternate

Cordate

Toothed/ Dentate



Compound leaf

Elliptical



LEAF SHAPE



Ovate





Entire





#### Flower

Anther: The pollen-bearing part of a stamen

Bract: A modified leaf, in shape, size, or colour associated with a flower or inflorescence

Calyx: A collective term for the sepals of one flower generally formed in the outer whorl of the flower

Corolla: A collective term for the petals

Filament: The stalk of a stamen

Gynophore : Elongated stalk of the ovary that elevates it above the floral parts

Pedicle: Stalk of a flower

Peduncle: Stalk of an inflorescence

Perianth: Single whorl of a flower in which calyx and corolla are not differentiated

Sepal: Each unit of the calyx, enclosing the petals and typically green and leaf-like

Stamen: Male organ of the flower

Tepals: Outer part of the flower used to describe individual members of a perianth that cannot be easily classified as petal or sepal

#### Inflorescence

Capitulum/Head: Dense cluster of sessile flowers or florets as seen in sunflower

Cyathium: A specialised cup-shaped inflorescence with several reduced male flowers and a single female flower

Cyme: An inflorescence with a cluster of flowers in which the central flowers bloom first

Panicle: A branched inflorescence with older flowers at the base and younger flowers on the top

Pappus: Tufts of hair on the seed that help with wind dispersal

Spike: Inflorescence with an sessile flowers

Spathe: An inflorescence with a leafy bract covering the flowers

Raceme: An unbranched inflorescence with older flowers at the base and younger flowers on the top

Umbels: Inflorescence with pedicles spreading from a common point

Verticillaster: An inflorescence with a cluster of flowers forming a whorl at the node

#### Fruit types

Achene: One-seeded indehiscent fruit

Capsule: Simple, dry dehiscent fruit that splits along several sutures onto segments

Dehiscent: Fruits that open at maturity to release the seed

Drupe: Indehiscent fruit with a fleshy outer part surrounding a single hardened shell enclosing a seed

Follicle: A dry fruit splitting along a single suture to release the seeds

Indehiscent: Fruits that do not open at maturity

Legume: Fruit pod characteristic of the pea family where

seeds are arranged in a single row. Characteristic fruit of Fabaceae

Mericarp: The individual segments of dry fruit when they spilt into single seeded segments

Nutlet: A small nut or one of the lobes of the mature ovary

Siliqua: Dehiscent fruit with a persistent partition that bears seeds

Utricle: A fruit loosely enclosed in a modified tubular bract

#### General terms

Awn: Hair or bristles

Axil: Angle between one part of a plant and another

Axillary: Borne in the axil

Filiform: Thread like

Glabrous: Surface without hairs, scales or bristles

Habit: The form or structure of the plant

Herb: Plant that does not develop a woody stem at any point during its life cycle

Latex: Milky fluid that exudes from plants. It is an emulsion consisting of proteins, alkaloids, starches, sugars, oils, tannins, resins, and gums that coagulate on exposure to air

Liana: Woody climber

Ornamental plants: Plants grown only for decorative purposes

Pubescent: Covered with soft hair

Quadrangular: In the shape of a quadrangle

Sessile: Flowers or leaves attached without a stalk

Stellate hair: Hair split at the free end into several strand giving a star like appearance

Stolon: Horizontal stem that grows along the ground and help in plant propagation

Shrub: Woody perennial plant without a single main trunk, branching, and smaller than a tree

Stamen: Male organ of a flower, consisting of a stalk called the filament, and a pollen-bearing head called the anther

Succulent: Plants thick fleshy leaves or stems adapted to storing water

Tendril: Slender coiling structure of climbing plants

Tuber: Vegetative underground storage organ

Whorl: Arrangement of plant parts such as leaves, petals etc radiating from a node

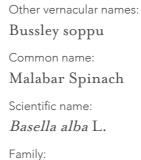
Vesicular hair: Hair with compartment (vesicles) that secrete metabolites



## CLIMBERS



### BASALE



Family: *Basellaceae* Raf.







#### Usage: Food and medicine

Where to find it: Commonly grown as a potherb, wild plants are found on hedges and unused lands

Parts used: Leaves and stem

Habit: Climbing herb

**Description:** A fleshy perennial climbing herb. The stems are green or purplish and soft. Leaves are fleshy, thick, and have a viscous consistency; ovate, rounded or cordate at base. Flowers are small whitish, or tinged with pink, form in small clusters on the end of short stems at the nodes. Fruit globose or ovoid, dark purple and juicy. The juice is sometimes used as a dye. These can be harvested all year-round and can be used as a substitute for spinach.

**Nutritional properties:** Rich in Iron, Calcium and Vitamins A, C and K. Used to check malnutrition, particularly in children.

**Medicinal properties:** Used as a cooling medicine in digestive disorders.



### BUDE GIDA

Common name: Balloon Vine, Heart's Pea

Scientific name:

Cardiospermum halicacabum L.

Family:

Sapindaceae Juss. (Soap-nut family)

Usage: Food and medicine

Where to find it: Hedges in open places, disturbed lands

Parts used: Leaves

Habit: Climbing herb



**Description:** Small annual climbing herb with slender, smooth branches. The stem is angular, marked with parallel grooves and hairy. Tendrils are leaves that are alternate, broad, trifoliate, with highly lobed leaflets with a toothed margin. Flowers are small in axillary umbels on coiled wiry tendrils. The lowest pedicels are converted into tendrils. Four petals are white and unequal. The fruit is three-angled and inflated, from which the plant gets its common name. The fruit is a brown capsule, thin-shelled, membranous, winged at the angles, containing three black seeds each, with a white heart-shaped scar. Inflated capsules and seeds are the characteristic features of this plant.

Additional information: The flowers are pollinated by Red Dwarf honey bee (*Apis florea*) and Indian Stingless bee (*Tetragonula iridipennis*).

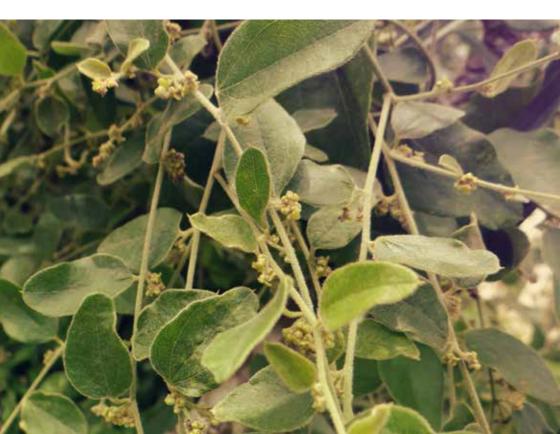
**Medicinal properties:** Leaves and stem are used to cure common cold, in hair oils and as a dandruff remedy.

## DHAGADI BALLI

Other vernacular names: Jagadi balli (Kannada)

Common name: Broom Creeper, Ink Berry Scientific name: *Cocculus hirsutus* (L.) W.Theob.

Family: *Menispermaceae* Juss. (Guduchi family)





Where to find it: Unused lands, commonly found growing on fences, shrubs and trees

Parts used: Leaves

Habit: Climbing shrub

**Description:** Perennial climbing shrub. Leaves are densely velvety when young, later nearly hairless, ovate or ovate-oblong, base heartshaped, wedge-shaped or flat, tip blunt or with a small point. Flowers are minute, greenish and unisexual (magnifying glass required). Male flowers appear first followed by female flowers. Male flowers have hairy sepals, oblong lance-shaped. Petals are ovate and yellowishgreen. The fruit is a berry greenish and turns purple when ripe and ribbed. The seed is horseshoeshaped. The juice of the ripe fruit yields a bluish-purple dye.

Medicinal properties: Leaves are used for treating leucorrhoea and urinary disorders. Decoction of the root helps in increasing bowel movements.

Additional information: Studies suggest that the leaf extracts of *Cocculus hirsutus* have insecticidal activity. It can be used to repel malaria and Japanese encephalitis vectors, *Anopheles subpictus* and *Culex tritaeniorhynchus*.





When I was very young, my father had lost his job, and all we could afford to buy was rice. *My* mother supplemented our diets with wild foraged greens. *I have since developed a taste* for these foraged plants. I do not remember the plants my mother collected. Ayurveda practitioners and cooking shows on television share recipes with wild plants. *I* request my local greengrocer to buy such plants from KR market or Russell market for me.

"

Padmavati

## KADU SEEGE

Common name: Black Catechu

Scientific name:

Acacia caesia (L.) Willd.

Family:

Fabaceae Lindl. (Leguminosae/Pea family)



#### Usage: Food

Where to find it: Uncommon and mostly found in forested areas growing along hedges and on other trees

Parts used: Young leaves

Habit: Liana





Description: Stout woody climber, 5-6 m tall. The stem is prickly and pubescent when young, fluted, fibrous and angled when old. The plant has thorns up to 2.5 mm long, strong and recurved. Leaves are double-pinnate, leaflets 6-42 pairs, pubescent on both sides. Columnar glands between all pairs of leaves. Inflorescence large terminal panicle. Whitecreamish spherical flower-heads, five dark pink sepals and numerous creamy-white stamens. Corolla is white and minute, slightly pubescent. Pod 10-15 cm long, velvety brown when young, glabrous flat, reddish-brown when mature. Stem with prickles, coppery pods turning brown on maturation, and columnar glands between all pairs of leaves are the characteristic features of the plants. The leaves have a characteristic odour.

Additional information: The plant is entomophilous (pollinated by insects), specifically bees and butterflies. Flowerfeeding beetles like *Mylabris pustulata* are often found on this plant and influence the pod and seed set rates.



### KUKKE BALLI

Common name:

Common Passion Flower

Scientific name:

Passiflora foetida L.

Family: Passifloraceae Juss. ex Roussel (Passion fruit family)



#### Usage: Food and medicine

Where to find it: Disturbed unused lands, steel fence of lakes, parks

Parts used: Leaves and fruits

Habit: Climber

**Description:** A small climbing vine on hedges and shrubs with simple alternate lobed leaves and tendrils. The stem is thin and woody, covered with sticky hairs. The leaves are simple, alternate, three- to five-lobed and hairy. They give off an unpleasant odour when crushed. The flowers have white to pale cream coloured petals and have a single row of white filaments with violet bands. Flowers have five prominent anthers and three prominent inward-facing stigmas. Bracts are persistent, filiform and hairy. The fruit is globose, and it is protected by a persistent hairy bract, yellowish-orange when ripe, and has numerous black seeds embedded in translucent/ white pulp. Persistent bracts and smelly leaves are the characteristic features.

Additional information: The flowers produce plentiful nectar and pollen, which attracts honey bees (*Apis mellifera*, *Apis cerana* and *Apis dorsata*) and Carpenter bees (*Xylocopa vanpuncta*).

The persistent hairy bracts are a defence mechanism to protect the developing flowers and fruit. However, it has been reported that the bracts trap insects and have glands that secrete digestive enzymes. It is unclear whether the plant utilises the nutrients from the trapped insects; therefore, they are classified as proto carnivores.

**Medicinal properties:** Decoction of leaves is used for the treatment of nausea and asthma.

Caution: Consuming too many fruits can cause vomiting.



### THONDE BALLI

Common name:

Ivy Gourd

Scientific name:

Coccinia grandis (L.) Voigt

Family:

Cucurbitaceae Juss. (Cucumber family)

Where to find it: Cultivated as a vegetable; wild plants seen growing on hedges of unused and abandoned lands

Parts used: Leaves and unripe fruits

#### Habit: Herb

**Description:** Perennial, rapidly growing, climbing herb. The stem is covered with smooth hair (glabrous), and the roots are tuberous. The leaves are five angled glistening simple, alternately arranged. Flowers are white, bellshaped and solitary; male and female flowers on different plants. Fruit ovoid or oblong, 3-5 cm long, green and fleshy with many seeds, bright red when ripe. Five angled leaves and white flowers are the characteristic features of the stem.



### Medicinal properties:

Prevents diabetes. Leaves prevent anaemia, therefore, recommended for pregnant women and children.

#### Additional

information: It is the host plant of moths (Diaphania indica and Olepa ricini), beetles (Aulacophora spp.), flies (Bactrocera cucurbitae, Liriomyza spp.) and True bugs (Aphis gossypii, Leptoglossus australis and Bemisia spp).

### NOTES \_\_\_\_\_

# ERECT PLANTS





### AGASAE

Other vernacular names: Agathi (Tamil), Agise (Telugu)

Common name: Vegetable Hummingbird Scientific name: Sesbania grandiflora (L.) Poir. Family:

Fabaceae Lindl. (Leguminosae/Pea family)





#### Usage: Food and fodder

Where to find it: Planted in gardens for its showy flowers. It is also cultivated as a shade plant, as cattle feed and for human consumption

Parts used: Leaves, flowers

Habit: Tree

Taste: Bitter

**Description:** Quick growing, short-lived, softwood tree, growing up to 10 m tall. The bark is light grey, corky and deeply furrowed. Branches have soft hair. Leaves are pinnate with 16-30 pairs of linear-oblong leaflets, hairless and entire. Flower racemes arise in leaf axils, 2-4 flowers in each inflorescence. Flowers are coloured white to pink, pendulous. Buds are sickle-shaped and recurved. Pods are flat, 50-60 cm long. The large, showy flowers are the characteristic feature of this plant.

Additional information: It is the host plant of Cotton Leafworm (*Spodoptera litura*) and Lemon Emigrant (*Catopsilia pomona*) caterpillar.

**Medicinal properties:** Leaves are anthelmintic, used to treat intermittent fevers, cough, diarrhoea, dysentery and diabetes.

**Nutritional properties:** Leaves and flowers are rich in Iron, Beta-carotene, Vitamin E.

Image credit: Forest & Kim Starr, CC BY 3.0, https://commons. wikimedia.org/w/index.php?curid=6182754

### ANNE SOPPU

Other vernacular names: Gurgaku (Telugu)

Common name: Flamingo Feathers, Plumed Cockscomb

Scientific name:

Celosia argentea L.

Family: Amaranthaceae Juss. (Amaranth/Dantu soppu family)





Where to find it: Abundant in unused lands and disturbed lands.

#### Parts used: Leaves

#### Habit: Herb

**Description:** Tall annual herb up to 1 m in height. The stem is grooved and tinged pink. Leaves are simple, alternate and elongated or lanceshaped. Flowers, are tiny, silver or white and arranged in dense conical spikes. The inflorescence stands above the foliage. Floral parts are dry, paper-like and silvery. There are many seeds; black and shining. Long dry flowers is the characteristic feature of the plant.

**Medicinal properties:** The leaves have antibacterial activity. Crushed leaves are used to treat cysts and bruises. Nutritional properties: Tender leaves are rich in potassium, Vitamins B1 and B6, Beta-carotene and Folic Acid

Additional information: The flowers provide nectar to butterflies such as Pea Blue (Lampides boeticus), Common Silverline (Spindasis vulcanus), Gram Blue (Euchrysops cnejus), Common Pierrot (Castalius rosimon), Angled Pierrot (Caleta decidia). It is the host plant of moths like Beet Webworm moth (Spoladea recurvalis) and Cotton Leaf Roller (Haritalodes derogata).

Cockscomb, a common ornamental plant that produces dense, colourful and undulating inflorescences, is derived from *Celosia argentea* i.e *Celosia argentea var plumosa* and *Celosia argentea var cristata*. The inflorescence of the ornamental varieties results from a rare condition of abnormal growth called "fasciation" or "cresting". The flowers are collected during the harvest festival of Sankranti to decorate Rangolis, main doors and cattle barns.

Image credit: Garg JM, CC BY 3.0, https://commons.wikimedia.org/ wiki/File:Celosia\_argentea\_(Silver\_cockscomb/\_W\_JMG\_0985.jpg#/ media/File:Celosia\_argentea\_(Silver\_cockscomb/\_W\_JMG\_0985.jpg



### ARKBERIKE SOPPU

Other vernacular names: Kancali soppu (Kannada)

Common name: False Amaranth Scientific name: *Digera muricata* (L.) Mart.

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu family)





Usage: Food Where to find it: Unused lands, disturbed lands Parts used: Leaves Habit: Herb

Taste: Astringent

**Description:** An annual herb, 20-70 cm tall. Stems are simple or branched from the base, nearly hairless. Alternately arranged leaves, linear to broadly ovate and entire. Leaf stalks are long, the base is narrow, and the tip pointed. Flowers are borne on slender racemes. Flowers are hairless, white mixed with pink to carmine or red, usually becoming greenish-white in fruit. Flowers are reduced or absent in the upper part of the spike, modified into antler-shaped wing-like scales. Fruit subglobose, slightly compressed, 2-2.5 mm, bluntly ribbed along each side, surmounted by a thick rim.

Medicinal properties: Leaves are used as a laxative.

Additional information: The flowers provide nectar to the Mottled Emigrant butterfly (*Catopsilia pyranthe*).



### BHARNGI.

Common name: Blue Flowered Glory Tree

Scientific name: Rotheca serrata (L.) Steane & Mabb.

> Family: Lamiaceae Martinov

Where to find it: Unused land

Parts used: Leaves

#### Habit: Shrub

Description: A large shrub with simple broad leaves. The stems are quadrangular, sparsely branched. Leaves are oval, in opposite pairs, serrated and hairless with a stout petiole. The young leaves are glabrous. The flowers develop in cymes which are covered with short, soft erect hairs. Flowers numerous, showy, in terminal panicle; pedicels often twisted; with exerted stamens and style. Corolla is pale blue, the larger lower lobe is dark bluish-purple and forms a concave lip. Fruit is a fleshy drupe, green at first and black when ripe, broadly obovoid and four-lobed.



**Medicinal properties:** Leaves are used to treat cough and bronchitis.

Additional information: The flowers provide nectar to butterflies such as Tailed Jay (*Graphium agamemnon*), Yellow Pansy (*Junonia hierta*), Chocolate Pansy (*Junonia iphita*), Lemon Pansy (*Junonia lemonias*), Blue Pansy (*Junonia orithya*), Grey Pansy (*Junonia atlites*), Peacock Pansy (*Junonia almana*), Brown Awl (*Badamia exclamationis*), Common Banded Awl (*Hasora chromus*), Bush Hopper (*Ampittia dioscorides*), Giant Redeye (*Gangara thyrsis*).



## CHAKOTA SOPPU

Common name: Purple Goosefoot, Tree Spinach Scientific name: *Chenopodium giganteum* D.Don Family: *Amaranthaceae* Juss. (Amaranth /Dantu Soppu family)

Usage: Food

Where to find it: Cultivated as a vegetable and as an ornamental plant, wild plants found in unused lands around farmlands

Parts used: Leaves

Habit: Herb

**Description:** Very large annual leafy vegetable that grows over 8 feet tall. The stem is branched, with young shoots conspicuously purple, and densely clothed with vesicular hairs; stems red-striped. Leaves are triangular or rhombicovate, green, young leaves at the plant's growing tips, which are magenta-tipped and covered in fine iridescent magenta dust, rounded at apex; margins with shallow, irregular teeth or lobes on each side; flowers are minute (magnifying glass required). Flowers are arranged in a panicle of very numerous small flower clusters, and it is wind-pollinated. Seeds black and shiny.





### CHOWDANGI SOPPU

Other vernacular names: Sowdangi soppu (Kannada)

#### Common name:

Big Eggplant, Mullein Nightshade, China Flower Leaf, Potato Tree, Tobacco Tree Scientific name:

Solanum erianthum D.Don

Family:

Solanaceae Juss. (Brinjal family)

#### Usage: Medicine

Where to find it: Unused fallow lands, roadside

Parts used: Leaves

Habit: Shrub

**Description:** Shrub or small tree, growing upto 4 m tall without thorns or prickles. Roots smell like cooked potatoes and the leaves and stem smell like tar. The stem is branched and covered with dense soft hair. Wood is soft and brittle, and thorns are absent. Leaves are ovate-elliptical, margin slightly wavy and entire, base rounded or wedge-shaped, tip pointed. Flowers appear in clusters at the end of branches and are star-shaped, white, and hairy. The sepal cup is bell-shaped. The fruit is round, velvety, dull yellow when ripe. Velvety stem without prickles and leaves are the characteristic features of the plant.

**Medicinal properties:** Leaves warmed in water and applied externally to lessen inflammation, burning sensation and pain.



## DANTU SOPPU

Other vernacular names: Harivi soppu (Kannada)

Common name: Joseph's Coat, Elephant-head Amaranth

Scientific name: Amaranthus tricolor L.

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu family)

Usage: Food

Where to find it: Cultivated for leaves. Wild plants are found along roadsides, unused lands and disturbed land.

Parts used: Leaves

Habit: Herb

**Description:** Erect annual with long-stalked leaves, growing up to 1.5 m tall. The stem is stout, branched, angular and glabrous. The leaves are ovate-obovate notched or rounded at the tips, entire. Leaves are dark green, light green or red. A bright red, yellow or deep purple blotch is often seen on terminal leaves. The flowers are whitish-green or red, while the seeds are tiny, black or red-brown.

**Medicinal properties:** Leaves can be used to reduce inflammation and in treating bladder distress.

Image credit: CC BY-SA 3.0, https://commons. wikimedia.org/w/index.php?curid=7411

There aren't any open and clean places to collect in the city. I collect berike soppu (wild greens) only when I go to my village. My mother-in-law also sends soppu with people who come to visit us. Since it is perishable I share with my neighbours as well. Bas saaru tastes the best only when fresh wild greens are the main ingredients.

Shivamma







### DHATURI GIDA

Other vernacular names: Arasina dhatura (Kannada) Common name: Mexican Poppy, Prickly Poppy Scientific name: Argemone mexicana L. Family: Papaveraceae Juss.





Usage: Medicine

Where to find it: Unused lands, disturbed lands and kerbside Parts used: Roots, latex exuding from the stem

Habit: Herb

**Description:** A herb with yellow latex. Leaves are lobed, ending in spines, alternate and with a powdery bluish-green surface. The leaves at the base have a petiole, and leaves on the top do not have petioles and are therefore subsessile. Flowers are terminal, solitary and yellow, sometimes creamishwhite also. The fruit is a prickly capsule, oblong, with many black seeds.

**Medicinal properties:** The fresh latex contains protein dissolving compounds and is used to treat warts. The root is used to treat toothaches.

Additional information: Butterflies like Peacock Pansy (Junonia almanac) and Lemon Emigrant (Catopsilia pomona) visit the flowers. It is the host plant of Cotton Leafworm (Spodoptera litura).

**Caution:** Leaves are poisonous. Oil extracted from the seeds is a common adulterant of cooking oil. The oil is toxic, causing a severe form of oedema called Epidemic Dropsy.



### HAL SOPPU

Other vernacular names: Beedisoppu (Kannada)

Common name: Wild Poinsettia, Wild Spurge

Scientific name: Euphorbia heterophylla L.

Family: Euphorbiaceae Juss. (Castor family)



Where to find it: Disturbed lands, lawns, hedges, garbage dumps, construction sites

Parts used: Young leaves

Habit: Annual herb

**Description:** Annual herb, between 30 and 100 cm tall and has hollow stems that may be branched. Leaves are ovate-elliptic, paler towards the base, margins entire. The stem and leaves exude a milky sap. The leaves are arranged alternately in the bottom and oppositely above. The upper leaves have a whitish or red base. The flowers are arranged in an inflorescence called cyathium which are arranged in terminal clusters with conspicuous nectary. The fruit is a trilobed capsule. The conspicuous nectary found on the lateral side of the cyathium attracts insect pollinators. The characteristics features are the unique inflorescence and milky latex.

Poinsettia (*Euphorbia pulcherrima*) is a relative of *Euphorbia heterophylla L*. and is a popular ornamental plant and Christmas decoration.

**Caution:** Large doses cause vomiting. Exposure of bare skin to milky latex can also cause dermatitis.



### HALU-MULANGI SOPPU

Common name:

Hare's Lettuce, Milk Thistle, Sow Thistle

Scientific name:

Sonchus oleraceus L.

Family:

Asteraceae Bercht. & J.Presl (Compositae/ Sunflower family)

Where to find it: Common garden weed, commonly found in unused lands and open spaces

Parts used: Leaves

Habit: Herb



**Description:** An erect annual herb, 30-100 cm high, with basal leaves, branching above. The stem is hollow, mostly hairless and oozes milky sap when broken. Leaves are light or dark green and alternately arranged. Basal leaves and upper leaves are variable in plant, oblong, obovate, lance-shaped, often winged at the base, spiny edges deeply lobed. Flowers are yellow, small, about 1 to 2.5 cm, on tips of flowering stalks. The flower-heads consist of strap-shaped florets. The fruit (achene) is attached to silky feather-like modified calyx (pappus) for dispersal. Flowerheads are borne in open clusters. Milky sap and incised leaves are the characteristic features of this plant.

**Nutritional properties:** The leaves are rich in Calcium, Vitamins C, B1 and B6.

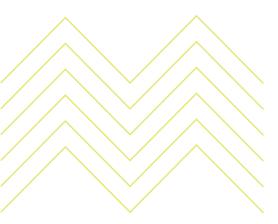


## HUNASE MARA

Other vernacular names: Puliya maram (Tamil), Chinta maanu (Telugu)

Common name: Tamarind Tree Scientific name: *Tamarindus indica* L. Family: *Fabaceae* Lindl. (Leguminosae/Pea family)





Where to find it: Cultivated extensively for its pods

**Parts used:** Young leaves, flowers and fruit

Habit: Tree

Taste: Sour

**Description:** A medium to large size, long-lived deciduous tree with a dense canopy. The bark is dark grey and fissured. Leaves are pinnately compound with small leaflets. Flowers are small, on a long inflorescence, palegreen, creamish and pink in colour with three unequal-sized petals. The fruit is a bean-like pod, fleshy, green at first, ripening to cinnamon-brown.

**Medicinal properties:** Pulp of fruit is digestive and laxative. The leaves are used for treating piles.

Additional information: Tartaric Acid and Malic Acid present in the leaves and the fruits are responsible for the sour taste.

Flowers are pollinated by Dammer bees (*Trigona sp.*).

## KADU PALAK

Common name: Wight's Sow-Thistle

Scientific name: Sonchus wightianus DC.

Family:

Asteraceae Bercht. & J.Presl (Compositae/ Sunflower family)



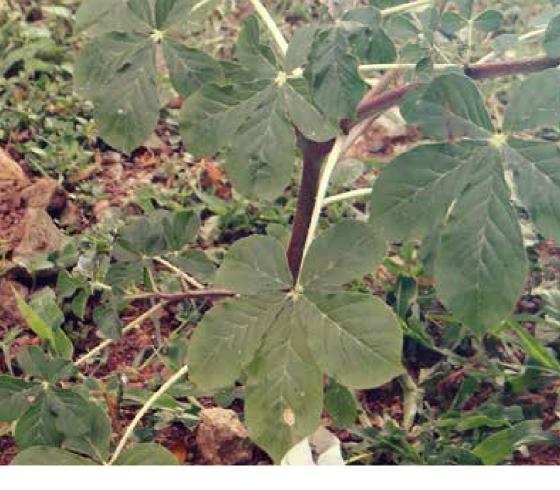


Where to find it: Grassy unused lands, gardens and parks

Parts used: Leaves

Habit: Herb

**Description:** A tall perennial herb, 1 m tall with a tuft of leaves. Stems and the bracts around the flower-heads have many purple hairs. Leaves are long, hairless. Lower leaves are narrow, inverted lance-shaped, subacute, entire or pinnately cut; middle and upper stem leaves are lance-shaped and the uppermost linear, all with spiny-toothed margins. Flower-heads are few and florets are bright yellow. Bracts are glandular and have purple hair. Fruit is achene and thorny. Yellow flowers and leaves that are not incised are the characteristic features of this plant.



### KADU SASIVE

Other vernacular names: Naramballi (Kannada)

Common name: Wild Spider Flower Scientific name: *Cleome gynandra* L.

Family: *Cleomaceae* Airy Shaw





Where to find it: Open fields, parks, unused lands

Parts used: Leaves

Habit: Herb

Taste: Sharp, mustard-flavor

**Description:** Annual, erect, herb, branched and rather stout, usually 0.5-1.0 m tall. Stems and petioles are hairy and glandular. Leaves are alternate. Each leaf is palmate with five ellipticshaped leaflets. The leaves have finely toothed margins and round ends. The inflorescence is quite showy. The flowers have long stalks, have four sepals, four narrow clawed white or pale pink petals, and six stamens with long purple filaments. The fruit is a long-stalked, dry, spindle-shaped capsule called a siliqua. Flowers with four petals, long filaments and leaves are the characteristic features.

**Medicinal properties:** Leaves are rich in Betacarotene, Folic Acid, Ascorbic Acid, Calcium, Vitamin E, Iron, and Oxalic Acid.

Additional information: Flowers are visited by the Asiatic honey bee (*Apis cerana*), Blue Banded bees (*Amegilla spp*), Common Rose butterfly (*Pachliopta aristolochiae*), ants (*Crematogaster*) and hoverflies (*Syrphidae*).



I have heard that plants like kashi soppu (Solanum americanum) have many health benefits. I do not know if we use these plants in our household.

Ramesh from Ulsoor



### KAMA– KASTHURI

Other vernacular names: Kagarale (Kannada)

Common name: Basil Scientific name: *Cleome gynandra* L.

Family: *Lamiaceae* Martinov



**Usage:** Cultural and religious purposes (offerings to god and used as a decoration)

Where to find it: Often cultivated in home gardens, open lands

#### Parts used: Leaves

#### Habit: Herb

**Description:** An annual herb with a green quadrangular stem, woody base and strong aroma. Leaves are ovate-lanceolate, acute at apex,



entire and hairy. Inflorescence (racemes) are terminal, usually branched at base, bracts are usually deep purple. The tiny purple or white flowers arranged in flattened whorls encircle the stems. Corolla lipped, long white or pale purple. Fruits are nutlets and gellike when wet.

**Nurtitional properties:** Ocimum basilicum is a common culinary herb, and the flavour it imparts varies with the variety and the hybrid.

Additional information: Basil has a clove-like flavour and fragrance. Different essential oils are present in different proportions for various cultivars. The clove scent of sweet basil is derived from Eugenol. Other constituents include Linalool, Methyl Chavicol and Myrcene. The essential oils have insecticidal properties, and *Ocimum basilicum* is often cultivated in home gardens.



### KASHI SOPPU

Other vernacular names: Kakki soppu, Ganike soppu (Kannada), Manthakalli keerai (Tamil)

> Common name: Black Nightshade

Scientific name: Solanum americanum Mill.

Family: Solanaceae Juss. (Brinjal family)





Usage: Food and medicine

Where to find it: Unused lands, lawns, side of roads, kerbside, parks.

**Parts used:** Leaves and fruits

Habit: Herb

**Description:** An annual or shortlived perennial herb, erect, around 100 cm tall. Leaves are simple, oval-shaped, with sparse hairs on both surfaces. Flowers have white corolla/petals with prominent yellow anthers. Fruits are edible, black, shiny, grow in bunches and have minute seeds.

**Medicinal properties:** Used for treating stomach ailments and as a laxative, popular remedy for liver cirrhosis and mouth ulcers. Berries and flowers prescribed for cough.

**Caution:** Green fruit is particularly poisonous but toxicity seems to diminish with ripening.



### KIRU NELLI

Other vernacular names:

Nelanelli, Jaundice soppu (Kannada)

Common name:

Gulf Leaf Flower

Scientific name:

Phyllanthus fraternus G.L.Webster

Family:

*Phyllanthaceae* Martinov (Gooseberry/Nellikai family)

Image credit: Valke D, CC BY-SA 2.0 https://commons. wikimedia.org/wiki/File:Bhuinanvalah\_(Hindi-\_%E0%A4 %AD%E0%A5%81%E0%A4%88%E0%A4%82%E0%A4 %86%E0%A4%82%E0%A4%B5%E0%A4%B2%E0%A4 %BE)\_(4692780593).jpg Usage: Food and medicine

Where to find it: Lawns, disturbed lands

Parts used: The whole plant

Habit: Erect herb

Taste: Astringent





**Description:** Erect, annual, usually 30-40 cm tall, with angular branches. Leaves are compound, and leaflets are membranous, elliptic-oblong and rounded at apex. Leaves are dark green above, greyish and hairy underneath. Flowers are tiny (magnifying glass required) and are found on the dorsal side of the rib. Tepals are rounded white, midrib green. Fruits are round, trilobate.

**Medicinal properties:** *Phyllanthus fraternus* and *Phyllanthus amarus* have similar medicinal properties.

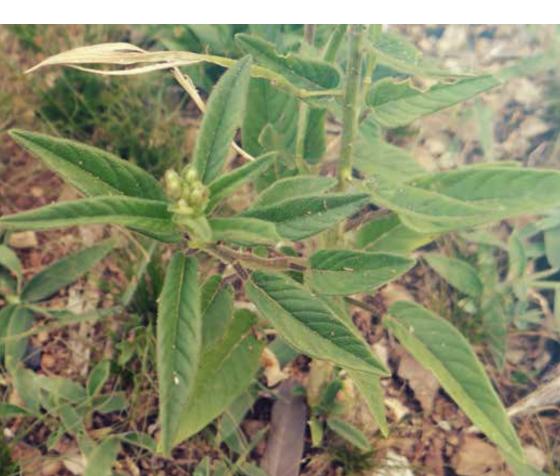
**Caution:** *Phyllanthus fraternus* and *Phyllanthus amarus* can be confused with a similar-looking *Phyllanthus tenellus* (Long-Stalk Phyllanthus). Flowers and fruits are found on the ventral side and have a long stalk in the case of *Phyllanthus tenellus*.

mage credit:Valke D, CC BY-SA 2.0 https://commons.wikimedia.org/ wiki/File:Bhumya-amalaki\_(Sanskrit-\_%E0%A4%AD%E0%A5%82%E0% A4%AE%E0%A5%8D%E0%A4%AF%E0%A4%BE%E0%A4%AE%E0% A4%B2%E0%A4%95%E0%A5%80)\_(1224211741).jpg

## KOLIKALINA SOPPU

Other vernacular names: Menasinakere (Kannada)

Common name: Spider Flower Scientific name: *Cleome monophylla* L. Family: *Cleomaceae* Airy Shaw



#### Usage: Food

Where to find it: Parks, open fields (dry, rocky areas)

Parts used: Young leaves

Habit: Herb

Taste: Astringent

Description: An erect annual herb, 40 cm in height with glandular velvety hair. The plant has an unpleasant odour. Stem branched, angled, striped. Leaves are simple, ovate to lanceolate, margins fringed with hairs. Flowers are in leafy racemes, and petals are light purple, clawed. There are six stamens: filaments unequal. The fruit is a siliqua on a short gynophore, linear, nearly cylindrical, beaked, strongly ribbed, glandular, hairy. Seeds are minute suborbicular, ridged, dark brown.

**Medicinal properties:** Crushed leaves are used to treat headaches.







### KUPPI GIDA

### Other vernacular names: Kuppaimeni (Tamil), Kupintaku (Telugu)

Common name: Indian Nettle, Mercury Plant

> Scientific name: Acalypha indica L.

Family: Euphorbiaceae Jess. (Castor family)





Usage: Food and medicine

Where to find it: Unused lands, along the roadside, weed in pots

Parts used: Leaves

Habit: Herb



Description: Annual herb, 75 cm tall, the stem is hairy, leaves are broad and oval with an acute leaf tip, serrated leaf margin, hairy on the ventral surface. Flowers are arranged in a spike; male flowers are located on the top, and female flowers are located on the bottom of the main axis. Both the male and female flowers are minute and whitish-green (magnifying glass required). The characteristic feature of this plant is the green leafy cup-shaped bract attached to the female flower. This bract is persistent and seen concealing the fruit, which is a trilobed capsule.

**Medicinal properties:** It is used to treat wounds, acne, cough and cold. It contains several medically active ingredients like acalyphamide and kaempferol.

The root of this plant produces cat attractants. Compounds produced by the roots are known to alter cat behaviour and induce a drugged state similar to catnip (*Nepeta cataria L*.).

**Caution:** Can cause intestinal irritation.



### MUDRE GIDA

Other vernacular names: Usuru soppu (Kannada)

Common name: Indian Mallow Scientific name: *Abutilon indicum* (L.) Sweet

Family: *Malvaceae* Juss. (Hibiscus family) Usage: Medicine

Where to find it: Unused lands, disturbed lands

Parts used: Leaves

Habit: Shrub

**Description:** An erect velvety-pubescent erect shrub. The plant can reach up to 1-2 m in height. Leaves are heart-shaped with coarsely serrated margins, alternately arranged, and have long stalks and have velvety, soft, pale hairs on them. Flowers are solitary orange-yellow and occur on axils, on long stalks, petals are triangularobovate, single staminal-tube hairy with stellate hairs. The fruit is circular, consisting of 11-20 radiating hairy boat-shaped carpels, brown when dry. Seeds are kidney-shaped. Hair on the plant, yellow flowers and the capsules are the characteristic features of the plant.

**Medicinal properties:** Leaves are antibacterial and anti-inflammatory.

Additional information: Honey bees (*Apis sp.*) are the most common pollinators. It is the host plant of the African Marbled Skipper (*Gomalia elma*) caterpillar.



mage Credit: Vinayaraj - Owr vork, CC BY-SA 3.0, https:// commons.wikimedia.org/w/ ndex.php?curid=18559278





## MULLU-HARIVE SOPPU



Other vernacular names: Mulludantu (Kannada)

Common name: Prickly Amaranth, Spiny Pigweed

Scientific name: Amaranthus spinosus L.

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu family)

Usage: Food

Where to find it: Commonly found on the sides of roads, pavements, unused lands and disturbed lands

Parts used: Leaves

### Habit: Herb

**Description:** Annual, erect herb; green sometimes branched. Red-tinged erect stems, sometimes ascending, 30-150 cm long. Leaves alternate, ovate to rhombic-ovate, elliptic, lanceolate-oblong, or lanceolate. Leaf axils with paired spines. Inflorescence in axillary clusters. Flowers green, in axillary clusters in the lower part of the plant and unbranched or branched spikes in the upper part, the lower clusters entirely without stamens are the lower flowers of the spikes, the upper flowers in the spikes staminate. Fruit is a utricle and singleseeded. Seeds are dark brown and shiny. Leaf axils with paired spines are the characteristic feature of the plant.

Additional information: Amaranthus spinosus is the host plant of the Dark Grass Blue butterfly (Zizeeria karsandra).



I used to collect seasonal fruits like guava, wild jamun, beal, jackfruit, elache hannu and kare hannu and sold to school children. Finding these fruit-bearing trees is extremely difficult now, and also children prefer chips and cakes. I stopped collecting and selling wild fruits several years ago.

Sidappa from Talaghattapura



### NAAYISASIVE

Other vernacular names: Nayibela (Kannada)

Common name: Yellow Spider Flower, Wild Dog Mustard Scientific name: *Cleome viscosa* L.

Family: *Cleomaceae* Airy Shaw



#### Usage: Food

Where to find it: Unused lands, disturbed lands

#### Parts used: Leaves, flowers

#### Habit: Herb

Description: Annual herbs, erect, glandular, hairy, up to a meter high. The plant has a strong penetrating odour. The stem is sticky (viscid hence the C.viscosa). Leaves are compound elliptical or obovate, variable in size and glandular. Flowers arranged in elongated racemes, up to 30 cm long, with flowers at the top and elongated mature fruits below. Flowers are whitish or yellowish with foliaceous bracts. Sepals are oblong-lanceolate, glandular and hairy. Stamens do not exceed the petals; gynophore absent. Fruits are dehiscent linear-oblong, erect, striated, tapering at both ends, glandular-pubescent, seeds dark brown, numerous and minute. Sticky stem, absence gynophore and yellow flowers are the characteristic features of this plant



**Medicinal properties:** The leaves have compounds such as Macrocyclic Diterpene, Cleomaldeic Acid, Cleomeolide etc., which are antihelmintic and fungi-toxic properties attributed to the plant.

Freshly crushed leaves of the plant, when added to dried cowpeas (*Vigna unguiculata*), increase the shelf life by inhibiting the embryonic development of weevil (beetles) eggs.

Additional information: It is the host plant of Psyche caterpillar (Leptosia nina). The flowers are visited by bees such as Giant honey bee (Apis dorsata), Eastern honey bee (Apis cerana), Dwarf honey bee (Apis florea) and Stingless bee (Trigona iridipennis), flies (Helophilus sp.) and butterflies such as Crimson Rose (Pachliopta hector), Common Emigrant (Catopsilia pomona), Mottled Emigrant (Catopsilia pyranthe), Common Grass Yellow (Eurema hecabe), Indian Cabbage White (Pieris canidia), Common Gull (Cepora nerissa), Tawny Coster (Acraea violae), Plain Tiger (Danaus chrysippus), Common Pierrot (Castalius romison) and Lime Blue (Chilades laius).



## NELA-BASALE

Common name: Flame Flower, Ceylon Spinach Scientific name: *Talinum portulacifolium* (Forssk.) Asch. ex Schweinf.

Family: *Talinaceae* (Fenzl) Doweld

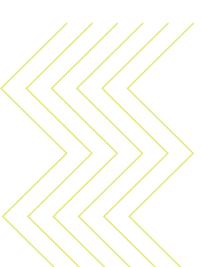
Usage: Food

Where to find it: Ornamental plants grown in home gardens, parks. Wild plants are seen growing in unused lands and disturbed lands.

Parts used: Leaves

#### Habit: Herb

**Description:** A large perennial herb, erect, stout and fleshy around 0.5-1 m tall. The stem is grey and succulent. Branches are erect, fleshy. Leaves are simple, alternate, fleshy and obovate, and tip pointed to tapering. Flowers are borne in branched, raceme-like clusters 3-20 cm long. Flowers have pink petals, obovate. There are many stamens. The fruit is a globose yellow capsule and tiny.





### NELABEVU

Common name: Creat, Kariyat Scientific name: Andrographis paniculata (Burm.f.) Nees

Family:

Acanthaceae Juss.



Usage: Medicine

Where to find it: Often cultivated in gardens. Fairly uncommon, primarily found in undisturbed rocky areas.

Parts used: Leaves

Habit: Herb

Taste: Bitter



**Description:** Erect annual herb, about 30 cm tall. Stem dark green, quadrangular with longitudinal furrows and enlarged at the nodes; leaves are hairy, lanceolate, pinnate. Flowers are arranged in an inflorescence called panicle, which is branched in a zigzag pattern. Petals are two-lipped, white with purple patterns. The upper lip is erect and has prominent patterns. Stamens have a tuft of white hair at the base. The fruit is a capsule, linear-oblong, seeds numerous and yellowish-brown.

**Medicinal properties:** Dried leaves are used to reduce blood sugar levels. Fresh leaves are used for treating cold and upper respiratory tract infections. Andrographolide is the phytochemical imparting the bitter taste and medicinal properties of the leaves.

Additional information: The flowers are visited by Common Gull butterflies (*Cepora nerissa*), bees (like *Apis dorsata* and *Apis indica*), beetles (*Heteroligus spp.*) and wasps (*Vespa spp.*).



### NELANELLI

Other vernacular names: Jaundice soppu (Kannada)

Common name: Stone Breaker, Carry-me Seed

Scientific name: Phyllanthus amarus Schumach. & Thonn.

Family: *Phyllanthaceae* Martinov (Gooseberry/Nellikai family)



Usage: Food and medicine

Where to find it: Common garden weeds, lawns, disturbed lands, cervices of walls, unused gutters

Parts used: The whole plant

Habit: Erect herb

Taste: Astringent

**Description:** Herb, 30 cm tall. The stem is angular. Compound leaves, leaflets are small oblong-elliptic or squarish leaves, hairless, about 6-12 mm long. Whitish/translucent flowers with prominent yellow anthers. Flowers are tiny (magnifying glass required) and hang down on the dorsal side of the midrib in an array hidden below the leaves. The flowers produce very small fruits that burst open, and the seeds are dispersed. The characteristic feature of the plant is the arrangement of the flowers and the fruits.

**Medicinal properties:** Anti-inflammatory and has hepatoprotective activity (hepato=liver) hence the popular name Jaundice soppu.

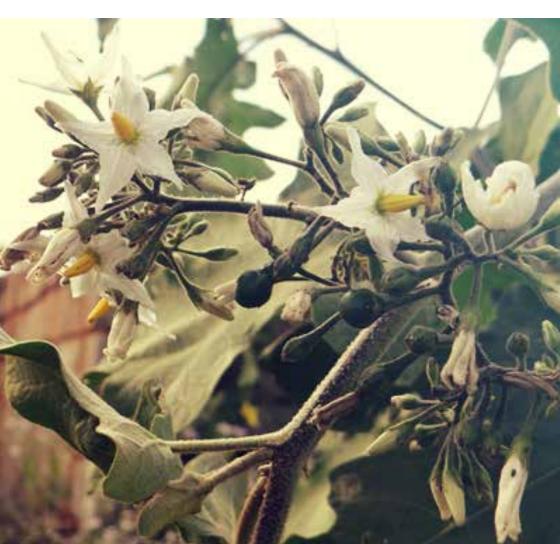
The bitter taste is attributed to a phytochemical called Phyllanthin.

### SUNDEKKAYI -

Other vernacular names: Usthi kai (Kannada)

Common name: Turkey Berry Scientific name: Solanum torvum Sw.

Family: *Solanaceae* Juss. (Brinjal family)





#### Usage: Food

Where to find it: Roadsides, unused lands, disturbed lands

Parts used: Young fruits

Habit: Shrub

**Description:** Large, evergreen, hairy shrub, that forms thickets. The stem and branches are stout, prickly and woolly. The stem is also woody and branched. Prickles are also found along the petiole. Leaves are broad, alternate, ovate-lanceolate, hairy and shallowly lobed. Prickles are also found along the midvein. Flowers and fruits are found in clusters. White flowers are arranged in clusters; stalks are stout, petals are white with hairy lobes. Fruit is a globose berry, unripe berries are green and can turn pale yellow as it ripens. Seeds are flat, round and brown. White flowers and prickles under the midrib are the characteristic features of the plant.

**Medicinal properties:** Fruits are cooked and eaten as a vegetable. Useful in treating liver and spleen enlargement.

Additional information: Solitary bees like Blue Banded bees (Amegilla) pollinate the flowers. It is the host plant of Cotton Leafworm (*Spodoptera litura*).



91





## THAGACHE

Other vernacular names: Chagache (Kannada)

Common name: Foetid Cassia, Sicklepod Scientific name: Senna tora (L.) Roxb. Family: Fabaceae Lindl. (Leguminosae/Pea family)

#### Usage: Food

Where to find it: Disturbed land, open lands and roadsides mainly during the rainy season and flowering is after the monsoon

Parts used: Leaves

Habit: Herb

**Description:** Annual, erect herb, 30-90 centimetres tall. The plant gives off an unpleasant smell (foetid) when broken. Leaves are symmetrically and alternately pinnate leaves with three opposite pairs of leaflets. Leaflets are obovate with a rounded tip. The stems have distinct smelling foliage when young. The flowers occur in pairs in axils of leaves with five petals and pale yellow in colour. The stamens are of unequal length. The pods are flattened or four-angled, long and sickle-shaped, therefore the common name sicklepod. There are 30-50 seeds within a pod. The sickle-shaped pods, foetid smell and compound leaves with six leaflets are the characteristic features.

**Medicinal properties:** Leaves are anti-inflammatory. Decoction of leaves and flowers helps cure headaches. Leaves are added to bathwater to treat skin ailments and ringworm infections.

Additional information: It is the host plant of Lemon Emigrant (*Catopsilia pomona*), Mottled Emigrant (*Catopsilia pyranthe*) and Common Grass Yellow (*Eurema hecabe*) butterfly caterpillars.

Bee-flies (*Argyromoeba duvauceli*) and Heterolania (*Isotamia insulate*) are the common pollinators of *S.tora*.



Image credit: Raju DV, CC BY-SA 4.0, https:// cormons.wikimedia.org/ wiki/Category:Senna\_tora# media/File:C.tora\_(2),jpg



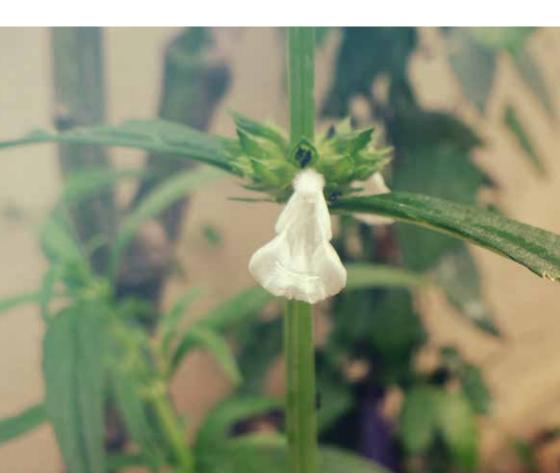
66

I have never bought leafy vegetables. I have always collected seasonal greens from the neighbourhood park (Lalbagh). They use machines to mow the lawns, the edible plants are not as abundant and I am too old to bend down and collect the plants. I have stopped collecting berike soppu and buy whatever is available in the market.

Shantamma from Siddapura

## THUMBE GIDA

Other vernacular names: Tummi (Telugu) Common name: Common Leucas Scientific name: *Leucas aspera* (Willd.) Link Family: *Lamiaceae* Martinov



#### Usage: Food and medicine

Where to find it: Common garden plant, also found in disturbed lands, unused land, crevices of walls

#### Parts used: Leaves

Habit: Herb



Description: Annual erect herb 15-60 cm tall. They are diffusely branched. The stem is quadrangular and covered with stiff hair. Leaves are linear or oblong, long with blunt tips and entire margins. Whorls are large, terminal and axillary. Flowers are white, two-lobed lip-shaped with green cup-like sepals directly attached to the stem without a stalk and arranged in whorls (verticillaster inflorescence). Fruit is a small brown nutlet.

**Medicinal properties:** Leaves used to cure cough and cold, especially for babies and young children. The leaves are crushed and applied to skin rashes and wounds.

The smoke produced from burning fresh leaves acts as an insect repellant.





### UTTARANI

Common name:

Devil's Horse Whip, Prickly Chaff Plant

Scientific name:

Achyranthes aspera L.

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu family)



Usage: Food, fodder and medicine

Where to find it: Unused lands, disturbed land, roadside

Parts used: Leaves

Habit: Herb

Taste: Astringent



**Description:** Erect herb, pungent and up to 1 m tall. Stem stiff, quadrangular, covered with fine hair and a woody base. Leaves are opposite, thick, elliptic or obovate, entire and obtuse. Flowers are greenish-pink or greenishwhite, small, numerous, stiffly curved backward against the main axis in an elongated terminal spike. The perianth is scaly, glabrous and shiny. The fruit is a utricle. The fruit sticks to animal fur for dispersal. The elongated spike is the characteristic feature of the plant.

**Medicinal properties:** The plant is often used as a cure for bites of insects such as wasps. The essential oils of the plant have antifungal activity. Leaves are used to cure asthma and cough.

**Nutritional properties:** The leaves are rich in Vitamin C, Sodium, Calcium, Magnesium and Potassium.

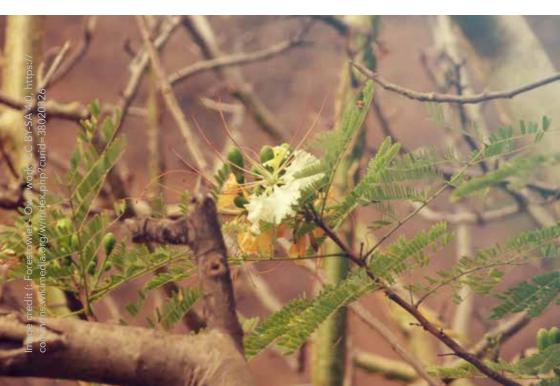
Additional information: It is the host plant of the Beet Webworm moth (*Spoladea recurvalis*).

It is one of the 21 leaves offered to Ganesha during the Ganesh Patra Pooja. A Sanskrit text on classical Indian architecture called Samarangana Sutradhara mentions that the plant extract is used to prepare the surface to paint murals.

## VAYU– NARAYANI

Other vernacular names: Vatanarayana (Kannada) Common name: White Gulmohar Scientific name: *Delonix elata* (L.) Gamble Family:

Fabaceae Lindl. (Leguminosae/Pea family)





Usage:Food and medicine

Where to find it: Planted in parks. Uncommon in the cities, found mostly in forested areas.

Parts used: Leaves Habit: Tree Taste: Bitter

**Description:** An erect tree, 6-10 m tall, with ash or black coloured warty bark. Leaves are bipinnately compound (like gulmohar). Leaflets are 10-20 pairs, stalkless, linear-oblong, blunt, sometimes with a slight point at the tip, narrowed towards the base, margins are entire, branchlets are warty and hairy. Flowers are borne in racemes at the end of branches, the lower flower with the longest stalk, stalks hairy, up to 2.5-3 cm long. Sepals are fused at the base, leathery, silky pubescent, oblong, narrow and sharp-pointed. Flowers are white initially, turning yellow; the upper petal is smaller and darker in colour, almost circular or curled at the margins. Stamens are long, subequal, hairy, dark coloured and thickened at the base. Pods are long, smooth, narrow at both ends, seeds 4-8. Black bark, white-yellow flowers and long brown pods are the characteristic features of the plant.

**Medicinal properties:** Leaves have anti-inflammatory properties, therefore used to control joint pain, arthritis, and other bone-related complaints. Decoction of the leaves is an effective remedy for constipation.

### NOTES \_\_\_\_\_

# SPREADING PLANTS





### ACCE GIDA

Other vernacular names: Hal soppu (Kannada)

Common name: Common Spurge, Asthma Plant Scientific name: *Euphorbia hirta* L.

Family: Euphorbiaceae Juss. (Castor family)



Usage: Food and medicine

Where to find it: Lawns, crack in walls, cervices of footpaths, along kerbs, cracks and crevices of walls

Parts used: Leaves

Habit: Prostate herb



Description: An annual prostate herb. Leaves are simple, in opposite pairs, hairy (on both surfaces). With finely toothed margin, diversity in leaf colour is observed, ranging from green to brownish copper (purple leaves are also reported). Flowers are tiny greenish-white, unisexual and clustered in the leaf axils (magnifying glass is required). The fruit is a capsule, trilobed and hairy. Milky sap that exudes out of the stem and leaves when broken and young shoots covered with yellow multicellular hair are the characteristic features of the plant.

**Medicinal properties:** Laxative and used to treat gastrointestinal disorders. The milky latex is used to treat wounds. Antiasthmatic activity is attributed to Choline and Shikimic Acid.

Additional information: It is the host plant of Croton caterpillar (Achaea janata).

**Caution:** Consuming large quantities causes vomiting.

# BILI SULI GIDA

Other vernacular names: Bili hindi gida (Kannada) Common name: Mountain Knotgrass, Polpola Scientific name: *Aerva lanata* (L.) Juss. ex Schult.

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu family)





**Usage:** Food and fodder

Where to find it: Unused lands, disturbed lands

Parts used: Leaves, flowers

Habit: Herb



**Description:** An erect or prostrate or scrambling herb, perennial, occasionally woody, with hairy branches; up to 2 m tall. Stem and branches are densely woolly with whitish hair. Leaves are stalkless, alternate, elliptic to obovate, wedgeshaped at the base, entire with hair on the lower surface. Flowers arranged in spikes are stalkless, solitary or usually in clusters in leaf axils. Individual flowers are white to creamy. Axillary spikes are the characteristic feature of this plant.

**Medicinal properties:** Decoction of the plant is a popular remedy for dissolving kidney stones.

Additional information: The plant is collected during the harvest festival of Sankranti. It is used to decorate doors, cattle barns and placed on the cow dung mounds that are placed over the colourful and elaborate Rangolis drawn during this festive season. It is one of the ten sacred flowers of Kerala (Dashapushpam).



# CHELA-KEERAE SOPPU

Other vernacular names: Kancali soppu (Kannada)

Common name: Green Amaranth, Pigweed Scientific name: Amaranthus viridis L. Family: Amaranthaceae Juss. (Amaranth/ Dantu soppu family)



Where to find it: Lawns, parks, disturbed lands and on roadsides

Parts used: Leaves

### Habit: Herb

**Description:** An erect annual or a short-lived perennial herb, 10-100 cm tall. The stem is green, branched at the base, hairless. Leaves are ovate or deltoid, tip usually narrow and with a small narrow notch; the lower surface of the leaf and the primary veins have hair. Flowers are green, minute (magnifying glass required) in slender, paniculate spikes, in leaf axils or at the end of branches. Both sexes are mixed throughout the spikes, but female flowers are more numerous, bracts and bracteoles whitish, triangular-ovate to broadly lance-shaped, membranous, with a short, pale or reddish awn. Fruit is nearly round, and seeds are black, shiny. Leaf axils without paired spines and a terminal spike are the characteristic features.

Medicinal properties: The leaves are used as a laxative.

**Nutritional properties:** The leaves and seeds have an essential Amino Acid called Lysine.

Additional information: It is the host plant of Beet Webworm moth (*Spoladea recurvalis*).

## DODDA GONNI SOPPU

Other vernacular names: Pasale soppu, Muchchugoni (Kannada)

Common name:

Desert Horse Purslane, Round-leaved Portulaca

> Scientific name: Trianthema portulacastrum L.

> > Family: Aizoaceae Martinov





Where to find it: Common garden weed, lawns, disturbed lands, roadsides

Parts used: Leaves

### Habit: Herb

**Description:** Succulent has thick fleshy leaves. Stem prostrate or rising, smooth. Leaves are flat, opposite, elliptic to obovate, margins entire, tip blunt. Leaf bases are membranous and are arranged to form a cup. Pink or white flowers are borne solitary, stalkless, hidden. Petals are linear, pink or white with purple or red edges. The characteristic features are the fleshy leaves with purple/red margins.

Nutritional properties: Rich in Iron.

Additional information: It is the host plant of Beet Webworm moth (*Spoladea recurvalis*).





## DODDA HULI SOPPU

Common name: Broadleaf Woodsorrel

Scientific name: Oxalis latifolia Kunth

Family: *Oxalidaceae* R.Br.





Where to find it: Weeds in lawns, sides of roads, generally found in the shade

Parts used: Leaves

Habit: Herb

### Taste: Sour

Description: An annual herb with clover-like triangular leaflets. Leaflets are smooth with rounded edges. Purple leaves are also observed. The stem is absent; leaves arise directly from the root. Flowers are small, pink bellshaped flowers with five petals and clustered at the end of an elongated inflorescence. The fruit is a few-seeded capsule. The plant is bulbiferous; bulbs are triangular, the outer surface is membraneous and many nerves. Large leaves, conical tubers and pink flowers are characteristic features.





# GABBU SANNA SHAAVANTHI

Other vernacular names: Tikke gida, Kari balli (Kannada)

Common name: Coat Buttons Scientific name: *Tridax procumbens* L. Family: *Asteraceae* Bercht. & J.Presl (Compositae/Sunflower family) Usage: Food and medicine

Where to find it: Open lands, disturbed lands, pavements, crevices of walls and rocks and along the roads

Parts collected: Leaves

Habit: Herb





**Description:** A perennial hairy herb, 30-60 cm high and has slightly hairy stems. Leaves are simple and alternate, ovate or lanceolate with toothed edges. Flowers are arranged into tiny head inflorescence, creamy or white has five petals which are notched on the outer edges, and the centre is yellow. Fruit tiny, dark hard achene covered with stiff hairs and having a feathery, plume-like white pappus at one end. Lobed leaves and hairy petioles are the characteristic features.

**Medicinal properties:** The leaf juice exhibits antiseptic, insecticidal and parasiticidal properties. It is used to check bleeding from wounds, cuts and bruises, also for restoring hair growth.

Image credit: Yadav R, CC BY-SA 4.0, https:// commons.wikimedia.org/wiki/Category:Tridax\_ procumbens#/media/File:A\_Natural\_Selection.jpg



### GARGALE SOPPU

Other vernacular names: Garga, Bhringaraja gida(Kannada)

Common name: Field Aster, Trailing Eclipta Scientific name: *Eclipta prostrata* (L.) L.

Family:

Asteraceae Bercht. & J.Presl (Compositae/Sunflower family) Usage: Food and medicine

Where to find it: Common garden weed

**Parts used:** Leaves and flowers

Habit: Herb

Taste: Bitter



**Description:** A small annual herb. The stems are erect or prostrate, entirely velvety, often rooting at nodes, covered with white hairs. Leaves oppositely arranged stalkless, oblong, lance-shaped, or elliptical. It has a short, flat or round, brown stem and small white daisy-like flowers on a long stalk found axillary or terminal. Fruits are achenes. Seeds are winged with no pappus.

**Medicinal properties:** Paste prepared by mincing fresh leaves has an anti-inflammatory effect, applied to insect bites and inflammations. Leaves and flowers are used in hair oils to reduce hair loss and dandruff. The oil also prevents insomnia. The herb is also used as an ingredient in shampoo.



There are 101 different sopput that we can consume. We collect tender leaves of several wild edible plants, and this mixture of wild greens is known as berike soppu. These plants are seasonal, nutritious, and have medicinal properties. They grow abundantly in agricultural fields, and are also known as holada soppu (field greens).

## GONNI SOPPU

Other vernacular names: Goli soppu (Kannada) Common name: Common Purslane Scientific name: Portulaca oleracea L. Family: Portulacaceae Juss.



Where to find it: Common garden weed, disturbed lands, roadside, crevices of footpaths, kerbsides, gutters, dumping yards

### Parts used: Leaves

Habit: Herb

#### Taste: Sour

**Description:** Succulent, prostate and mat-forming. The stem is reddish and hairless. Leaves are alternate, entire and are clustered at stem joints and ends. Diversity of leaf size and colour is observed. Leaves have a gel-like quality. Flowers are bright yellow and remain open till mid-day, and are hidden in the centre of the leaf cluster. Sepals are persistent. The fruit is small, globose and green. The fruit dehisces with the upper half coming off like a cap when mature. It has minute black seeds.

**Medicinal properties:** Leaves can be applied on burns.

**Nutritional properties:** Rich in Vitamin C.

Additional information: It is the host plant of Danaid Eggfly (*Hypolimnas misippus*) caterpillars. It is often grown with crops as a companion plant because it provides ground cover and creates a humid microclimate for nearby plants.

Wingpod Purslane (*Portulaca umbraticola*), a popular ornamental plant cultivated for its large bright, colourful flowers, is a close relative of the Common Purslane.





Image credit: Satheesan VN, CC BY-SA 3.0, https://commons. wikimedia.org/wiki/File:Alternanthera\_sessilis\_11.jpg#/media. File:Alternanthera\_sessilis\_11.jpg

## HONAGONNE SOPPU

Other vernacular names: Ponnanganni (Tamil), Ponnagantiaaku (Telugu)

Common name: Joy Weed Scientific name:

Alternanthera sessilis (L.) R.Br. ex DC.

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu) Image credit: Garg JM, CC BY 3.0, https://commons. wikimedia.org/wiki/File:Alternanthera\_sessilis\_W3\_ IMG\_3422.jpg#/media/File:Alternanthera\_sessilis\_W3\_ IMG\_3422.jpg



### Usage: Food

Where to find it: Lawns, gardens, parks, lake beds, ditches, gutters

**Parts used:** Leaves (leaves collected from lake beds are preferred)

Habit: Herb

**Description:** Perennial herb, spreading. A much-branched prostrate herb, branches purplish, frequently rooting at the lower nodes; leaves simple, opposite, somewhat fleshy, oblanceolate or linear-oblong, hairy. Flowers are small, white, in clusters, and appear like a head inflorescence; fruits are minute utricles.

**Medicinal properties:** Leaves are used for eye trouble and boils.

**Nutritional properties:** Young shoots and leaves are rich in Iron and protein.

Flowers of Alternanthera sp. provide nectar to Common Four-ring butterfly (*Ypthima huebneri*).





## HULI SOPPU

Common name: Creeping Woodsorrel

Scientific name:

Oxalis corniculata L.

Family: *Oxalidaceae* R.Br.



Where to find it: It is found in crevices of walls, empty lands, lawns, as a weed in pots

Parts used: Leaves

Habit: Prostate herb

Taste: Sour

**Description:** Weakly erect, perennial herb, branching from the base and rooted at the nodes, smooth. The leaves trifoliate and resemble a clover. Leaves are generally green, but purple leaves are also observed. A single yellow flower is observed on a long stalk and has five yellow petals. The fruit is a capsule that explodes to discharge seeds. Flowers and fruits are seen throughout the year. The bright yellow flowers and heart-shaped leaves are the characteristic features of this plant.

**Medicinal properties:** Used to cure indigestion and diarrhoea in children. The sour taste of the leaves is attributed to Tartaric and Citric Acid; stems contain Alsomalic Acid.

*Oxalis corniculata L.* is used in phytoremediation of soils rich in Mercury, Lead and Copper.

Additional information: Pale Grass Blue (*Pseudozizeeria maha*) butterflies are seen feeding on the nectar of these flowers, and caterpillars of this butterfly feed on the leaves.





## ILIKIVI SOPPU

Other vernacular names: Kancali soppu (Kannada)

Common name: Lilac Tassel Flower, Cupid's Shaving Brush

Scientific name: *Emilia sonchifolia* (L.) DC.

Family: Asteraceae Bercht. & J.Presl (Compositae/Sunflower family)



Where to find it: Common garden weed, found growing in gardens, parks, along the sides of roads and kerbs, unused lands, cervices of pavements

Parts used: Leaves

Habit: Herb



**Description:** An annual herb that is around 10 to 60 cm tall. The stems are weak, erect or often branched at the base, smooth or sparingly hairy. Lower leaves are deeply and irregularly toothed, ovate, lyrate-pinnatilobed (shaped like a lyre) with narrowly winged stalks. Upper leaves are smaller, alternately arranged, usually entire, sometimes coarsely toothed, stalkless and clasps the main stem. The inflorescence is a head resembling a single flower, urn-shaped, long-stalked, at the end of branches. Flowering branches branched with 3-6 flowering heads; each head or capitulum a composite of numerous florets. The cup of the flower-head is green, cylindrical, somewhat inflated below. Florets are 30-60 per head, purple, scarlet, red, pink, orange, white or lilac. The seed carries a pappus of hairs, indicating the use of wind as a dispersal agent.

**Medicinal properties:** Entire plant extract is used to reduce body temperature (febrifuge). It is tolerant of acid conditions.

Additional information: It is one of the ten sacred flowers of Kerala (Dashapushpam). These herbs are found almost everywhere in Kerala and are used for decorative purposes, such as making the pookalam (floral designs) during the festival of Onam.



### KADDI GIDA

Other vernacular names: Bheemana kaddi (Kannada)

Common name: Common Wireweed, Morning Mallow Scientific name: *Sida acuta* Burm.f.

Family:

Malvaceae Juss. (Hibiscus family)

Usage: Medicine and fodder

Where to find it: Unused land, roadsides, parks

Parts used: Leaves

Habit: Herb

**Description:** A shrubby, erect plant growing to a height of 30 cm. The stem is cylindrical, branched, solid and green, and produces viscous juice. Leaves are simple lanceolate, can vary in size and have acute leaf tips, remotely serrate; petiole much shorter than the blade and reticulate venation. Leaf size is variable. The flowers grow from leaf axils, are yellow, solitary or occasionally in pairs. The fruit is dry and indehiscent, which breaks into smaller mericarps, and each mericarp has a single seed.

**Medicinal properties:** The root and the leaves have antimicrobial activity attributed to a phytochemical called Cryptolepine.

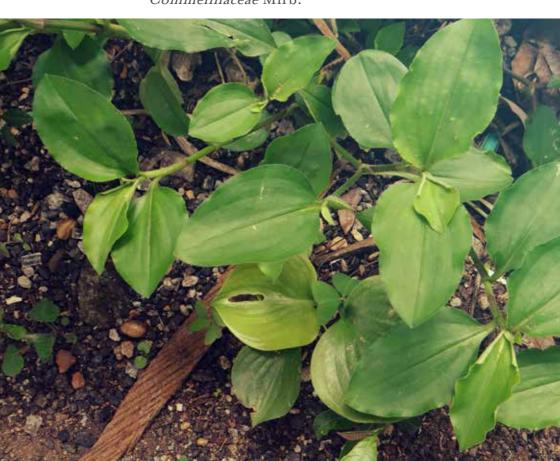
The dried plant is used as a broom.

Additional information: The flowers provide nectar to butterflies such as Small Branded Swift (*Pelopidas mathias*), Tricolour Pied Flat (*Coladenia indrani*), Dakhan Spotted Flat (*Celaenorrhinus ambareesa*) and the host plant of Asian Grizzled Skipper (*Spialia galba*) caterpillars.

Image credit: J.M.Garg - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index. php?curid=5332796

# KANNE SOPPU 1

Common name: Bengal Dayflower, Tropical Spiderwort Scientific name: *Commelina benghalensis* L. Family: *Commelinaceae* Mirb.









Where to find it: Disturbed soils such as yards, lawns and cultivated areas

Parts used: Leaves

Habit: Herb

**Description:** Diffuse creeping perennial herb, rooting at lower nodes. Leaves are ovate or elliptic-ovate, base rounded, tips are pointed, velvety hair on both the surfaces of the leaves and stem, margin frilly, sheathed. Flowers are small and arranged in an inflorescence called spathe, funnel-shaped, flat at the apex, velvethairy. Outer sepals are linear and inner ones orbicular. Petals are blue, broadly ovate. The fruit is a capsule, minute, ellipsoid, three-celled. Seeds are five in number and pitted.

**Medicinal properties:** The leaves have antipyretic and anti-inflammatory properties.



# KANNE SOPPU 2

Common name: Crested Cat Ear Scientific name: *Cyanotis cristata* (L.) D.Don Family: *Commelinaceae* Mirb.

Usage: Food

Where to find it: Unused lands, roadsides, gardens, parks

Parts used: Leaves

Habit: Herb

**Description:** A prostrate herb with erect or ascending branches, spreading, glabrous, branches creeping and rooting below, then ascending. Leaves are ovate-oblong, sessile; tips are acute, entire margins. The inflorescence is a solitary, few-flowered cyme. Flowers are blue, 1 cm across, with tufts of staminal hairs. The fruit is a capsule, obtuse, membranous, nearly glabrous, usually six-seeded.

**Additional information:** Several ornamental plants which belong to the genus Tradescantia belong to this family.





Are wild plants edible? I have only heard of palak, mentya (methi) and kothimiri soppu (coriander).



Ranjit, college student



### KOMME SOPPU

### Other vernacular names: Punarnava, Adakaputtana gida, Komme (Kannada) Atakamamidi aaku (Telugu)

Common name: Spreading Hogweed, Pigweed Scientific name: *Boerhavia diffusa* L.

Family: *Nyctaginaceae* Juss.





Usage: Food and medicine

Where to find it: Common garden weed, lawns, disturbed lands, roadsides, crevices of walls and pavements

Parts used: Leaves

Habit: Herb

**Description:** Perennial, prostate and spreading herb. The stem is reddish or brown and stout. The plant is highly polymorphic with several variations of leaves and flowers. Leaves are simple, opposite, unequal, ovate, wavy along margins with heart-shaped woolly base. Branches are divergent. Inflorescences occur at the end of branches and are forked with 2-5 flowered clusters. Bract at base of the flower tube. Flowers are purplish-red to reddish-pink or nearly white, bell-shaped. The fruits have sticky ribs and sticky hairs for dispersal.

**Medicinal properties:** Entire plant used to cure renal diseases due to their anti-inflammatory properties. Leaves are Hepatoprotectant.

Additional information: The flowers provide nectar to butterflies like Chinese Lemon Pansy (Junonia lemonias), Common Pierrot (Castalius rosimon), Peacock Pansy (Junonia almanac), Common Grass Yellow (Eurema hecabe), Small Salmon Arab (Colotis amata) and Crimson-tip (Colotis danae).



## MULLU HONAGONNE

Common name: Khaki Weed

Scientific name:

Alternanthera pungens Kunth

Family:

Amaranthaceae Juss. (Amaranth/Dantu soppu family)

Where to find it: Roadsides, footpaths, often found in dry or rocky soils

Parts used: Leaves

### Habit: Herb

**Description:** A perennial herb with stems prostrate, sometimes rooting at the nodes, mat-forming and hairy. Leaves are opposite, simple, stalked, ovate to obovate and entire, smooth or sparsely hairy. Flowers arise in stalkless, sparsely velvety spikes, tipped with a spine; flowers are small, inconspicuous and aggregated into a head-like inflorescence. The fruit is minute, enclosed by the sepals. The spiny head like greenish-brown inflorescence is the distinguishing character of the plant.

**Caution:** The plant is suspected of causing the deaths of pigs and digestive disturbances, and dermatitis of cattle.





## NEGGELE MULLU

Other vernacular names: Kiruneglimullu, Nerangi mullu, Aane neggele mullu (Kannada)

Common name: Puncture Vine, Land Caltrops

Scientific name: *Tribulus terrestris* L.

Family: *Zygophyllaceae* R.Br.

#### Usage: Food

Where to find it: Open unused lands, parks and gardens

Parts used: Leaves

Habit: Herb

Taste: Astringent

**Description:** Prostate perennial herb, radiate from the crown to a diameter of about 10 cm to over 1 m, often branching. The stem is hairy. The leaves are pinnately compound. Leaflets are hairy, oblong and arranged oppositely. The flowers have five lemon-yellow petals. Fruits are five angled with two long and small spines, falling apart easily into burs (fruit or seeds with hooks). Each bur has seeds stacked on top of each other, separated by a hard membrane. The thorns help in the dispersal of the seeds by clinging on to the fur of animals or sticking to the feet.

**Medicinal properties:** The leaves are used as a muscle relaxant, hypoglycaemic, and supporting medicine in cough and asthma.

Additional information: It is the host plant of Dark Grass Blue (*Zizeeria karsandra*) caterpillars.

**Caution:** The thorns of the fruits are sharp enough to puncture tyres hence the common name. They can also cause painful injury to bare feet and grazing livestock.





ONDELAGA SOPPU Other vernacular names:

Urage soppu, Saraswati soppu, Brahmi soppu, Gadde soppu, Gubbi soppu, Ilikivi soppu (Kannada)

Common name: Indian Pennywort Scientific name:

*Centella asiatica* (L.) Urb. Family:

Apiaceae Lindl. (Coriander family)

Usage: Food

Where to find it: Common pot herb, wild plants found growing along roadsides, parks and gardens

Parts used: Leaves

Habit: Herb

**Description:** A small slender creeping herb. The stems are with stolons, green to reddish-green, rooting at nodes, branching; leaves are long-stalked, in bundles, roundedreniform (kidney-shaped) with a rounded apex. Flowers are pinkish to red, borne in small, rounded bunches (umbels). Each flower is partly enclosed in two green bracts. The fruit is densely reticulated, ribbed or warty.

Medicinal properties: Brain tonic to improve memory.

Additional information: *Centella asiatica* accumulates heavy metals like Copper in the roots, Zinc, Iron and Lead in the leaves. It is used in the phytoremediation of soil and sewage. Phytoextraction of these metals from the plant tissue is also viable.

# RECIPES



# BASSARU / BASSIDA SAARU

Bassaru is the most popular dish to accompany Ragi mudde. There are numerous variations of Bassaru using several green leafy vegetables, lentils and vegetables. It has two components, saaru (curry) and soppina palya. The saaru is made from the stock drained from cooking the lentils, vegetables and greens. The mixture of cooked lentils, vegetables and greens are tempered with onions, curry leaves and mustard. Greens like Dantu, Arive, Sabakshi etc. or vegetables like beans, Avarekai, ridge gourd, cabbage etc. are regularly used. However, the most rustic form of this dish is made using forged wild-weedy plants or Berike soppu (or Holada soppu which is a collective term used to describe a mix of edible wild greens).

# Bas saaru using Honagonne soppu

Ingredients for saaru

- Tur dal (1 cup)
- \* Honagonne soppu (*Alternanthera sessilis*) cleaned, washed thoroughly and chopped (about 4 to 5 cups)
- Turmeric powder (1/4 tsp)
- Salt (to taste)

To be ground for paste

- Roast onion (1 medium) on a flame till done, discard the top burnt layer and then use
- Garlic (10 to 12 cloves)
- Tomatoes (2 medium-sized)
- Coriander leaves (2 tbsp)
- Coconut grated (1-2 tbsp)
- Tamarind soaked in water (marble size)
- Sambar powder (2 to 3 tsp)
- Cumin seed or jeera (1 tsp
- Peppercorns (5 to 6)
- Turmeric powder (1/2 tsp)
- Around 4 tbsp of the cooked dal and greens

### Seasoning for saaru

• Oil, mustard, curry leaves

#### Ingredients for palya

- Oil (2 tbsp)
- Mustard seeds (1/2 tsp)
- Onion (2 chopped)
- Crushed garlic (10 pods)
- Red chillies (3 broken)
- Curry leaves (1 sprig)
- Coconut grated (2 tbsp)
- Coriander leaves chopped (2 tbsp)

# Preparation

- \* Heat water in a cooking pot/bowl, add tur dal, cook till it is half boiled. Add the chopped greens, salt and turmeric powder and cook until the dal is thoroughly cooked.
- \* Remove from fire and drain the water entirely from the dal and greens mixture. Save the drained water (stock) to be used in curry. Keep aside about 4 tbsp of the dal and greens to grind with the ingredients for paste.

# Making the saaru

- Grind the ingredients in the list with 4 tbsp of cooked dal and greens.
- Take a cooking bowl, mix this paste with the saved drained water (stock) and salt. Add more water as needed.
- This saaru is usually served thin, not very thick. Hence, add water accordingly.
- Bring this saaru to a boil, and cook for a few minutes.
- Temper with oil, mustard and curry leaves.
- Serve hot.

# Making the palya

- \* Heat oil in a pan, add mustard seeds, crushed garlic, curry leaves, red chillies and fry till the onions are golden brown in colour.
- \* Add a little salt and add all the remaining drained dal and greens mixture.
- Fry for a few minutes. Check and add more salt if needed.
- Garnish with chopped coriander leaves and grated coconut.
- Serve hot.

# Note

Honagonne soppu and tur dal can be replaced by the following to make Bassaru

#### Variation 1

Any seasonal greens or a combination of seasonal greens and vegetables.

#### Variation 2

Mature leaves of Anne soppu (Celosia argentea) and beans.

# Variation 3

Drumstick leaves/Nuggesoppu is often paired with Avarebele or flat beans (*Lablab purpureus*) instead of tur dal or chana dal.

# UPP SAARU

Upp saaru is a rustic dish made with green leafy vegetables and fresh seasonal beans, Avare or flat beans (*Lablab purpureus*) and Halsande or cowpea (*Vigna unguiculata*) or dried lentils. Combination of various wild weedy plants is preferred.

# Seege soppina upp saaru

# Ingredients

- \* Tender leaves of Seege soppu (*Acacia caesia*) (about three cups) with thorns removed, leaflets separated and washed thoroughly
- \* Kadale bele (chana dal) (1/2 cup)
- Avare bele (hyacinth dal) (1/2 cup)

#### Making the khara chutney

To be ground to a khara chutney with very little water (just enough water to grind to a thick paste)

- Coconut grated (1 to 2 tsp)
- Garlic peeled (1 whole)
- Red chillies roasted (8 to 10)
- Cumin roasted (1tsp)
- Pepper roasted (1/2 tsp)
- Coriander leaves (1 tbsp)
- Tamarind soaked in little water (marble size)
- Salt (to taste)

#### For seasoning the palya

- Oil (2 tsp)
- Mustard (1/2 tsp)
- Onion (2 sliced)
- Red chillies (3 broken into pieces)
- Curry leaves (few)
- Coriander leaves chopped (1 tbsp)

# Preparation

- \* Cook the dals and greens with salt and water.
- Drain the mixture and reserve the stock.
- To make the saaru, just mix the stock with 1 tsp of the khara chutney to add flavour. Check and add more salt if needed.
- To make palya, heat oil in a pan, add mustard seeds, curry leaves, red chillies and onions. Fry till the onions are done. Add the drained dal and greens mixture. Check and add salt if needed. Give a good mix and garnish with coriander leaves.
- \* Serve Ragi mudde or rice with the saaru accompanied by very little khara chutney and palya.

#### Note

#### Variation 1

Tender leaves of seasonal beans like Averkai and Alasande are often used.

# MASSOPPU / MASIDA SOPPU

Massoppu is also a hearty dish that uses a combination of greens and lentils. It translates to mashed greens (masiyodumashed). Tur dal is used to make this curry; however, the combination of greens varies. Wild weedy greens or Berike soppu are prefered.

# Massoppu with Berike soppu

# Ingredients

- Tur dal (1/2 cup)
- Turmeric powder (1 tsp)
- Berike soppu (3 to 4 cups) washed and chopped
- Coconut grated (3 tsp)
- Cumin seeds or jeera (1 tsp)
- Green chillies (3 to 4)
- Tamarind (small ball)
- Garlic peeled (3 cloves)
- Onion (1 chopped)
- Tomato (1 chopped)
- Sambar powder (1 tsp)
- Salt (to taste)

#### For seasoning

- Oil (2 tsp)
- Mustard (1/2 tsp)

- Asafoetida (a pinch)
- Red chillies (2 broken)
- Curry leaves (few)

# Preparation

- \* Add washed and drained dal and turmeric powder into a pan with boiling water.
- When the dal is half cooked add all the other ingredients except salt and sambar powder and cook until done.
- Use a wooden-masher to mash the cooked mixture.
- Add salt and sambar powder and extra water if needed and bring to a boil.
- Simmer for a few minutes. Keep aside.
- Heat oil in a small pan, add mustard and asafoetida, chilli and curry leaves and fry till done.
- Pour this seasoning over the curry and mix well.

# Note

#### Variation 1

Huli soppu (*Oxalis corniculata* and *Oxalis latifolia*) leaves are added to Massoppu as a souring agent instead of tamarind.

#### Variation 2

Very tender leaves of Anne soppu (*Celosia argentea*) prefered over mature leaves.

### Variation 3

Huli soppu (*Oxalis corniculata* and *Oxalis latifolia*) and Kolikalina soppu (*Cleome monophylla*) is a less popular but tasty combination used to make Massoppu.

# HAL SAARU

Hal saaru is a popular accompaniment of Ragi mudde, rice or Ragi roti made with fresh beans like cowpea and green leafy vegetables. Milk is added in the end to add sweetness and creaminess to the curry hence Hal saaru. There are several variations of this saaru using different combinations of greens and bean. Popular recipes use wild plants such as Halmulangi soppu (*Sonchus oleraceus*), Kashi soppu (*Solanum americanum*) and wild pumpkin leaves.

# Hal saaru with Kashi soppu

Ingredients

- \* Kashi soppu (*Solanum americanum*) (3 cups) leaves separated and washed thoroughly
- Dried red chillies (3 to 4)
- Garlic (3 to 4)
- Whole green gram (1/2 cup)

To be dry roasted and ground to paste

- Coconut grated (1/2 cup)
- Cumin seeds or jeera (1 tsp)
- Poppy seeds (1 tsp)
- Pepper (1 tsp)

#### Seasoning

- Oil (2 tsp)
- Mustard seeds (1/2 tsp)
- Curry leaves (few)
- Thick milk (1 cup)

# Preparation

- \* Cook together Kashi soppu, chillies, garlic and whole green gram.
- \* Add the ground paste with salt and water and bring to a boil.
- Simmer for a while.
- \* Heat oil in a pan, add mustard seeds and when the mustard seeds stop spluttering add the curry leaves and pour this seasoning over the curry. Switch off the gas stove.
- Add the milk just before serving.

#### Variation 1

Hal saaru with young pumpkin leaves, fresh cowpea beans (Halasande) and fresh pigeon pea (Thogari kaalu)

Malamma's husband who insisted that we write this recipe declared that this tastes better than mutton curry.

# Ingredients

- Young pumpkin leaves
- Cowpeas (about 1/2 cup)
- Pigeon peas (about 1/2 cup)
- Green chillies (3 pieces)
- \* Poppy seeds dry roasted (1 tsp)
- Raw rice roasted (1 tsp
- Cumin seeds or jeera (1 tsp)
- Pepper (1 tsp)
- Coconut grated (2 tbsp)
- Thick milk boiled (1 cup)

- \* Cook the pumpkin leaves and the peas with green chillies in sufficient water.
- \* Grind together cooked green chillies or red chillies, poppy seeds, rice, jeera, pepper and coconut to a smooth paste.
- \* Add the paste to the boiled vegetables and bring to a boil. Simmer for a while until the raw smell goes and the curry thickens.
- \* Switch off the gas stove and add the milk at the end to get the required consistency.

# KASHI SOPPU (GANIKE) SOPPINA SAARU

# Ingredients

- \* Kashi soppu (*Solanum americanum*) with tender stems washed thoroughly (3 to 4 cups)
- Moong dal cooked (1 cup)
- Oil (3 tsp)
- Mustard (1/2 tsp)
- Cumin seeds (1/2 tsp)
- Onion (1 chopped)
- Garlic (3 to 4 cloves)
- Tomatoes (2 chopped)
- Green chillies (1 chopped)
- Coconut grated (3 tbsp)

- \* Saute the Kashi soppu in a little oil until the leaves begin to shrivel and then blanch in cold water.
- Mix the sautéed leaves and cooked moong dal with water and salt and bring to a boil.
- Meanwhile, heat another pan, add oil, mustard seeds and cumin seeds. Next, add onion, garlic, green chillies and fry well.
- \* Add tomatoes, when the tomatoes are soft, add coconut and fry for a few minutes.
- Next, add this fried mixture to the greens and dal mixture and cook for about 5 minutes.
- Serve hot.

# SOPPINA PALYA

### Ingredients

- \* Honagonne soppu (*Alternanthera sessilis*) washed and chopped (4 to 5 cups)
- Oil (to saute)
- Mustard seeds (1/2 tsp)
- Cumin seeds (1/2 tsp)
- Red chillies (3)
- Onions chopped (3 to 4)

To be ground to a coarse powder

- Groundnuts roasted (2 to 3 tbsp)
- Raw garlic (6 to 8 pods)
- Red chilli powder (1/2 to 1 tsp)
- Salt (to taste)

- \* Heat oil in a pan, add mustard seeds, cumin seeds, red chillies and onions. Fry well.
- Add chopped greens and cook until soft.
- Add a little salt and cook till done.
- Finally, add the coarse powder and give a good mix.

# JAGADI Soppina Palya

Shakuntala, who shared this recipe, states that eating this is the easiest method to maintain a healthy menstrual cycle.

#### Ingredients

- \* Leaves of Jagadi soppu (*Cocculus hirsutus*) are washed thoroughly and roughly chopped
- Oil (to saute)
- Mustard
- Chillies
- Onion (2 sliced)
- Cooked tur dal
- Salt (to taste)

### Preparation

- \* Heat oil, add mustard and chillies. When the mustard seeds stop spluttering add onions and saute in oil.
- \* Next, add the cooked dal and then add the chopped leaves with enough salt and cook only for 2 to 3 minutes to prevent the leaves from shrivelling.

# Note

Substitute 1 Kashi soppu (Solanum americanum)

#### Substitute 2

Kaadu sasive (Cleome monophylla) leaves and pods.



I learnt to identify and collect wild plants from my grandmother as a child. I buy wild plants from the local market to prepare traditional recipes. But when I see some familiar plants in the park when I go for a walk I collect a handful or two and use it to make chutneys.



Shanta

CHUTNEY

# KASHI SOPPINA CHUTNEY

Narayanamma who shared this recipe with us mentioned that green chutneys are the tastiest way to consume nutritional food.

#### Ingredients

- \* Kashi soppu (*Solanum americanum*) (handful, around 30 to 32 leaves)
- Grated coconut (1 1/4 cup)

#### For seasoning

- Oil (3 tsp divided)
- Green chillies (2, adjust according to taste)
- Cumin seeds (1 1/4 tsp)
- Sesame seeds (1 1/4 tsp)
- Mustard seeds (1 tsp)
- Tamarind gooseberry size (around 1 1/2 tbsp)
- Salt (to taste)

- \* Heat 1 1/2 tsp of oil in a heavy bottom pan. Add cumin seeds and sesame seeds and roast till a nice aroma comes.
- \* Add the cleaned Kashi leaves. Saute them for 1-2 minutes till it changes colour and switch off the gas stove.
- \* Grind together the roasted ingredients along with grated coconut, tamarind and salt to taste into a fine paste. Add water as required.
- \* Heat oil in a heavy pan. Add mustard seeds and when they start crackling, switch off the flame. Add this seasoning to the ground paste.

# KOMME SOPPINA CHUTNEY

### Ingredients

- \* Komme soppu (*Boerhavia diffusa*) washed thoroughly and chopped (1 cup)
- Oil (to saute)
- Onion chopped (1)
- Garlic peeled (4 cloves)
- Salt (to taste)
- \* Poppy seeds dry roasted (1 tsp)
- \* Peanuts dry roasted (2 tbsp)
- Cumin seeds dry roasted (1/2 tsp)

- Heat oil in a pan, add onion, garlic and fry for a few minutes.
- Next, add the chopped greens and fry well until it is cooked.
- \* Allow the mixture to cool.
- \* In a mixie jar, add the sautéed ingredients with all the remaining dry roasted ingredients and salt and grind.

# BUDDE SOPPINA CHUTNEY

### Ingredients

- \* Budde soppu (*Cardiospermum halicacabum*) washed thoroughly and chopped (1 cup)
- Oil (to saute)
- Garlic peeled (4 cloves)
- Ginger chopped (1/4 inch)
- Mint leaves (few sprigs)
- Tamarind (a small ball)
- Salt (to taste)

- Heat oil in a pan, add garlic, ginger and chopped greens and saute well until cooked.
- Allow it to cool.
- To a mixie-jar add the sauted greens with mint, tamarind and salt and grind it to a chutney consistency.

# SUNDEKKAYI CHUTNEY

### Ingredients

- \* Sundekkayi (Solanum torvum) (1cup)
- Oil (1 tbsp)
- Chana dal (1 tbsp)
- Red chillies (2 or as required)
- Tamarind (a little)
- Grated coconut (1/2 cup)
- Salt (to taste)

- Wash and crush the fruits using mortar and pestle.
- \* Immediately, put them in water to avoid darkening. Keep it aside.
- \* Heat the oil in a pan, add chana dal and fry till it becomes golden.
- Add red chillies and fry till they become crisp.
- \* Add the crushed fruit and fry till they become pale in colour.
- \* Add tamarind, salt and coconut. Mix them well and allow the mixture to cool down completely.
- Grind them into a fine paste using a little water.

#### Variation 1

#### Ingredients

- Sundekkayi (1 cup)
- Green chillies (3)
- Curry leaves (10 leaves)
- Garlic (6 cloves)
- Chana dal (1 tsp)
- Urad dal (1 tsp)
- Mustard seeds (1/2 tsp)
- Oil (2 tsp)

- Cut the fruits into halves and wash thoroughly.
- Remove the seeds.
- Dry roast the fruits.
- \* Dry roast chillies, curry leaves, and garlic.
- Grind the roasted vegetables with salt.
- Temper the paste with mustard, chana dal and urad dal.

# SOPPINA PALYA

### Ingredients

- Ondelaga (Centella asiatica) leaves with stems (1 cup)
- Coconut grated (1/2 cup)
- Urad dal or black gram (1 1/2 tsp)
- Chana dal or bengal gram (1 tsp)
- Red chillies dry (4-6)
- Asafoetida (pinch)
- Curry leaves (few)
- Tamarind (grape size)
- Salt (to taste)
- Coconut oil (1 to 2 tsp)

- Clean and wash Ondelaga leaves.
- \* Fry urad dal, chana dal, red chillies, curry leaves and asafoetida in oil till urad dal and chana dal turns golden brown in colour. Allow it to cool.
- Transfer the roasted mixture to a mixie-jar. Add salt, tamarind, coconut and ondelaga leaves. Grind to a smooth consistency by adding a little water.

# VAYUNARAYANI CHUTNEY

### Ingredients

- \* Vayunarayani (*Delonix elata*) leaves with leaflets stripped and washed thoroughly (1 cup)
- Onion chopped (1)
- Garlic (3 cloves)
- Ginger (1/4 inch)
- Mint leaves (few sprigs)
- Coriander leaves (few sprigs)
- Salt (to taste)
- Oil (to saute)

- \* Heat oil in a pan and saute onion, garlic, ginger, mint and coriander leaves for a few minutes.
- Add Vayunarayani leaves and saute for a few seconds.
- Add salt and grind the sauted mixture to a fine paste.

# ANNE SOPPINA CHUTNEY

### Ingredients

- \* Anne soppu (Celosia argentea) (2 cups)
- Onion (1 large)
- Tomato (2)
- Garlic (2-3 cloves)
- Poppy seed (1 tsp)
- Peanuts (1/2 cup)

### Preparation

- Dry roast the peanuts and poppy seeds.
- Boil the greens and the vegetables.
- \* Grind the boiled vegetables, salt and the dry roasted ingredients to a fine paste.

# Note

Huli soppu (*Oxalis corniculata* and *Oxalis latifolia*) can substitute lemon juice and tamarind in chutneys.



We collect wild plants after the first few monsoon showers when the plants are tender and abundant. The collection season mostly lasts for 4-5 months...that is between the festivals of Gowri habba (late August/early September) and Sankranti (early January). We collect berike soppu mostly from the fallow lands, unused empty lands, lake beds etc. Some plants like bidru kaale (bamboo shoots), wild seasonal fruits and greens like seege soppu are collected from nearby forested areas or kavals (grazing commons). We collect the plants when our cows or goats are grazing.

Revamma and Chowdamma from Talaghattapura

# SCRAMBLED EGGS WITH GREENS

Anniamma, who shared this recipe, tricks her grandchildren into eating greens by disguising it as scrambled eggs.

#### Ingredients

- Honagonne soppu (*Alternanthera sessilis*) washed thoroughly and chopped (2 to 3 cups)
- Oil (about 3 tbsp)
- Onions chopped (2 large)
- Green chillies chopped (3 to 4)
- Eggs (4)
- Salt and pepper (to taste)
- Chopped coriander leaves for garnish

- Heat oil in a pan.
- \* Add onion and chillies and fry until the onion turns light brown.
- \* Add the chopped greens, give a good mix. Cover, reduce the flame and cook till the greens are fully cooked.
- Break open the eggs and pour on the greens, mix well and keep stirring continuously till the moisture from the eggs is absorbed, and the mixture is dry.
- Add salt and pepper and fry for a minute or two.
- Garnish with coriander leaves.
- Serve hot.

# Note

Halmulangi soppu (*Sonchus oleraceus*) can be used instead of Honagonne soppu.

# DOSA WITH WILD GREENS

Dosa rice (4 cups) or equal parts of dosa rice and jowar flour (2 cups each) is allowed to soak overnight with a fistful of urad dal. 4 cups of Basale soppu (*Basella alba*) is ground with the rice, jowar and dal into a batter of pourable consistency. Salt and cumin seeds are added to the batter. This batter is used immediately without fermentation.

Vayunarayani (*Delonix elata*) leaves are added directly to fermented dosa batter. This can then be used to make regular dosa.

# **SNACKS**

# AGASE HOOVINA BAJJIS

### Ingredients

- \* Agase (Sesbania grandiflora) flowers washed and stamens removed (about 10 to 15)
- Chickpea or gram flour (1 cup)
- Rice flour (1 to 2 tbsp)
- Salt (to taste)
- Turmeric powder (1/4 tsp)
- Chilli powder (to taste)
- Oil (for deep fry)

- \* Take a mixing bowl, add the gram flour, rice flour, salt, turmeric powder and chilli powder and mix them up well.
- \* Add water little by little to form a batter of bajji consistency. The batter should not be too thin, nor too thick.
- The batter should be such that it will coat the flowers when dipped in it.
- \* Heat oil in a pan. When the oil is hot, dip the flowers one by one in the batter and deep fry until done.

# CHELAKEERAE SOPPU VADE \_\_\_\_

#### Ingredients

- \* Amaranthus greens (250 gms)
- Chana dal or split bengal gram (1 cup)
- Ginger grated (2 tbsp)
- Green chillies seeded and chopped finely (2-3)
- Salt (to taste)
- Oil (for frying)

- \* Wash and soak chana dal in plenty of water for about 2 hours. After it has been soaked well, drain the water and grind it into a thick paste. See to it that it is NOT ground very fine. Some grains of dal in the paste give it a good texture.
- Clean the Amaranthus leaves and chop them.
- \* Mix the leaves, ground dal, ginger, green chillies, asafoetida, salt together.
- \* Heat oil on medium flame and shape the mixture into flat fritters using your palm. Maintain the gas at medium flame and gently drop the vada in oil. Fry and remove when golden brown. Place the fried vadas on tissue paper to absorb the excess oil. If desired, you can fry more than one vada at a time, if not, doing it one at a time would be best.

## MUTTON SAARU

#### Ingredients

- \* Mutton cut into pieces of medium size and washed (1 kg)
- Onion roughly chopped (2)
- Green chillies (3)
- Red chillies (3)
- Cloves (4)
- Cinnamon (1 inch)
- Pepper (1 tsp)
- Tomato (1 chopped)
- Coriander leaves (1 tbsp)
- Coconut grated (1 tbsp)
- Corriander powder (2 to 3 tbsp)
- Oil (to saute)
- Garlic peeled (1 whole)
- Ginger (1/2 inch)

#### For seasoning

- Oil (to saute)
- Onion thinly sliced (1)
- Fenugreek leaves (2 tbsp)
- \* Curry leaves chopped (few)
- Turmeric powder (1/2 tsp)
- Salt (to taste)

#### To garnish

- Coriander leaves chopped (2 tsp)
- Huli soppu leaves (Oxalis corniculata/Oxalis latifolia) chopped (2-4 tsp)

#### Preparation

- \* Heat oil in a pan, add onion, green chillies, red chillies, cloves, cinnamon and pepper and fry well. Next, add tomatoes, coriander leaves and grated coconut and fry till the tomatoes are soft. Add coriander powder in the end.
- Allow this mixture to cool.
- In a mixie-jar add the fried mixture with ginger and garlic and grind it to a paste with sufficient water. Keep it aside.
- Heat oil in a pressure cooker, add sliced onion, fenugreek leaves, curry leaves, turmeric powder and salt with the mutton pieces. Give a good mix.
- \* Add the ground masala paste and fry well until the raw smell goes.
- Add just enough water, close the cooker's lid and wait for 3 to 5 whistles.
- Switch off the gas stove and allow it to cool.
- \* Remove the lid, garnish with coriander leaves and Huli soppu. Mix well.

#### Note

Oxalis corniculata is preferred over Oxalis latifolia in intestine (boti) curry or fry as a garnish.

# HOME REMEDIES



#### Acne and skin remedies

Kuppi gida (*Acalypha indica*) leaves ground with turmeric can be used as a face mask to cure acne and other skin problems.

#### Cough and cold remedies

Take two leaves of Dodpatre (*Plectranthus amboinicus*), four leaves of Tulsi (*Ocimum tenuiflorum*), two leaves of Kuppi (*Acalypha indica*) wrapped in betel leaf with some salt and turmeric and roast over a flame. The juices need to be extracted and consumed.

Fresh leaves of Thumbe (*Leucas aspera*) mixed with lime can be applied on the chest to clear congestion. The leaves are macerated, the extract is diluted with water or milk (this is also used to cure a cold and cough). Leaves are also used to treat colds and coughs of goats and other domestic animals.

#### Haircare

Dry wild bitter gourd, Chowdangi soppu (*Solanum erianthum*) and make into a fine powder. This powder mixed with turmeric powder is then made into a paste using lemon juice, and can be used as a hair mask.

#### Other home remedies

Wash leaves of Gargale soppu (*Eclipta prostata*) and grind together. Equal parts of the leaf extract are then boiled with coconut oil. The oil needs to be filtered, stored in a transparent container and exposed to sunlight for five days before use.

Grind leaves and fruits of Jaundice soppu (*Phyllanthus amarus* and *Phyllanthus fratenus*) with some water and filter. Mix the filtrate with milk or buttermilk. This concoction can be administered twice a day to people with jaundice fever.

Boil Chowdangi soppu (*Solanum erianthum*), lemon leaves, Herale kai (Citron) leaves, neem leaves, guava leaves and eucalyptus leaves together. New mothers are advised to use this as bathing water during the post-partum period.

Fresh leaves of Kagarale (*Ocimum basilicum*) and Thumbe (*Leucas aspera*) are placed on burning embers of charcoal. The smoke acts as an insect repellent.

Dried leaves of Nelabevu (*Andrographis paniculata*), neem and *Senna sp.* powdered and mixed with milk help control blood sugar levels.

Leaves of Jagadi soppu (*Cocculus hirsutus*), peppercorns and Orange Rock Candy (orange Kallu sakre) are combined to make a refreshing beverage. This is often prescribed to girls and women to maintain a healthy menstrual cycle.



Mullu gida (Barleria mysorensis) is used to cure cough and pneumonia-like symptoms in infants. When we collect the leaves of the plants we pray to the plant asking for help and tie a turmeric thread to the branch. The leaves are boiled in water and fed to the baby. When the baby recovers we come back, offer kumkuma (vermillion) and harshini (turmeric) and untie the thread.



Gowramma



# RESOURCES AND BIBLIOGRAPHY

Online resources that are trying to popularise and preserve the knowledge of wild greens

- \* Sarjapura curries (Instagram and Facebook)
- Forgotten greens (Instagram and Facebook)
- \* Edible weed walk (YouTube, Instagram and Facebook)
- Forgotten foods (Instagram)
- Adivasi lives matter (Instagram, Facebook and YouTube)
- Saagarchive (Instagram)
- Mycountryfoods (YouTube)
- World vegetable centre (https://avrdc.org/)
- \* Useful tropical plants database (http://www.tropical. theferns.info)
- \* Famine food database (https://www.purdue.edu/hla/sites/ famine-foods/)

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### APPENDIX

Appendix 1: List of plants with Kannada, common English and scientific names

Kannada name	Common English name	Scientific name
Acce gida	Common Spurge	Euphorbia hirta
Agasae	Vegetable Hummingbird	Sesbania grandiflora
Anne soppu	Plumed Cockscomb	Celosia argentea
Arkberike soppu	False Amaranth	Digera muricata
Basale soppu	Malabar Spinach	Basella alba
Bharngi	Blue Flowered Glory Tree	Rotheca serrata
Bili suli gida	Mountain Knotgrass	Aerva lanata
Bude gida	Balloon Vine	Cardiospermum halicacabum
Chakota soppu	Tree Spinach	Chenopodium giganteum
Chelakeerae soppu	Green Amaranth	Amaranthus viridis
Chowdangi soppu	Potato Tree	Solanum erianthum

Kannada name	Common English name	Scientific name
Dantu soppu	Elephant-head Amaranth	Amaranthus tricolor
Dhagadi balli	Broom Creeper	Cocculus hirsutus
Dhaturi gida	Mexican Poppy	Argemone mexicana
Dodda gonni soppu	Desert Horse Purslane	Trianthema portulacastrum
Dodda huli soppu	Broadleaf Woodsorrel	Oxalis latifolia
Gabbu sanna shaavanthi	Coat Buttons	Tridax procumbens
Gargale soppu	Field Aster	Eclipta prostrata
Gonni soppu	Common Purslane	Portulaca oleracea
Hal soppu	Wild Poinsettia	Euphorbia heterophylla
Halumulangi soppu	Sow Thistle	Sonchus oleraceus
Honagonne soppu	Joy Weed	Alternanthera sessilis
Huli soppu	Creeping Woodsorrel	Oxalis corniculata
Hunase mara	Tamarind Tree	Tamarindus indica
Ilikivi soppu	Lilac Tassel Flower	Emilia sonchifolia
Kaddi gida	Morning Mallow	Sida acuta

Kannada name	Common English name	Scientific name
Kadu palak	Wight's Sow-Thistle	Sonchus wightianus
Kadu sasive	Wild Spider Flower	Cleome gynandra
Kadu seege	Black Catechu	Acacia caesia
Kamakasthuri	Basil	Ocimum basilicum
Kanne soppu (1)	Bengal Dayflower	Commelina benghalensis
Kanne soppu (2)	Crested Cat Ear	Cyanotis cristata
Kashi soppu	Black Nightshade	Solanum americanum
Kiru nelli	Gulf Leaf Flower	Phyllanthus fraternus
Kolikalina soppu	Spider Flower	Cleome monophylla
Komme soppu	Pigweed	Boerhavia diffusa
Kukke balli	Common Passion Flower	Passiflora foetida
Kuppi gida	Indian Nettle	Acalypha indica
Mudre gida	Indian Mallow	Abutilon indicum
Mullu honagonne	Khaki Weed	Alternanthera pungens
Mulluharive soppu	Prickly Amaranth	Amaranthus spinosus

Kannada name	Common English name	Scientific name
Naayisasive	Yellow Spider Flower	Cleome viscosa
Neggele mullu	Puncture Vine	Tribulus terrestris
Nelabasale	Ceylon Spinach	Talinum portulacifolium
Nelabevu	Creat	Andrographis paniculata
Nelanelli	Stone Breaker	Phyllanthus amarus
Ondelaga soppu	Indian Pennywort	Centella asiatica
Sundekkayi	Turkey Berry	Solanum rudepannum
Thagache	Foetid Cassia	Senna tora
Thonde balli	Ivy Gourd	Coccinia grandis
Thumbe gida	Common Leucas	Leucas aspera
Uttarani	Devil's Horse Whip	Achyranthes aspera
Vayunarayani	White Gulmohar	Delonix elata

Appendix 2: List of Berike soppu collected in Bengaluru with Kannada, common English and scientific names

Kannada name	Common English name	Scientific name
Acce gida	Common Spurge	Euphorbia hirta
Adakaputtana gida	Pigweed	Boerhavia diffusa
Anne soppu	Plumed Cockcomb	Celosia argentea var. argentea
Arkberike soppu	False Amaranth	Digera muricata
Beedi soppu	Green Poinsettia	Euphorbia heterophylla
Bharngi	Blue Flowered Glory Tree	Rotheca serrata
Bili suli gida	Mountain Knotgrass	Aerva lanata
Chelakeerae soppu	Green Amaranth	Amaranthus viridis
Chepehannu	Guava	Psidium guajava
Dantu soppu	Elephant-head Amaranth	Amaranthus tricolor
Dhagadi balli	Broom Creeper	Cocculus hirsutus
Gargale soppu	Field Aster	Eclipta prostrata
Gonni soppu	Common Purslane	Portulaca oleracea
Halumulangi soppu	Sow Thistle	Sonchus oleraceus

Kannada name	Common English name	Scientific name
Honaganne soppu	Joy Weed	Alternanthera sessilis
Honge	Pongam Tree	Millettia pinnata
llikivi soppu	Lilac Tassel Flower	Emilia sonchifolia
Kadu palak	Wight's Sow-Thistle	Sonchus wightianus
Kadu sabsige		Glossocardia bosvallia
Kadu sasive	Wild Spider Flower	Cleome gynandra
Kanne soppu (1)	Bengal Dayflower	Commelina benghalensis
Kanne soppu (2)	Crested Cat Ears	Cyanotis cristata
Kashi soppu	Black Nightshade	Solanum americanum
Kolikalina soppu	Spider Flower	Cleome monophylla
Komme soppu	Pigweed	Zaleya pentandra
Mulluharivi soppu	Prickly Amaranth	Amaranthus spinosus
Mullu honagonne	Khaki Weed	Alternanthera pungens
Naayisasive	Yellow Spider Flower	Cleome viscosa

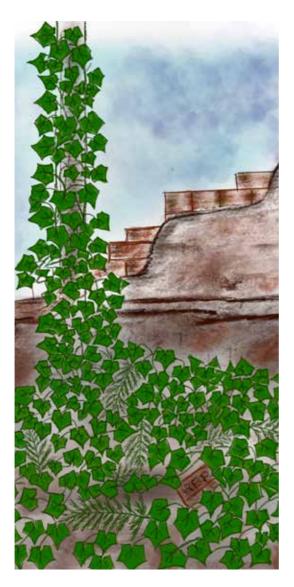
Kannada name	Common English name	Scientific name
Neggele mullu	Puncture Vine	Tribulus terrestris
Nelanalli	Stone Breaker	Phyllanthus amarus
Kiru nelli	Gulf Leaf Flower	Phyllanthus fraternus
Nugge	Drumstick	Moringa oleifera
Ondelaga soppu	Indian Pennywort	Centella asiatica
Dodda gonni soppu	Desert Horse Purslane	Trianthema portulacastrum
Thumbe gida	Common Leucas	Leucas aspera
Uttarani	Devil's Horse Whip	Achyranthes aspera

Berike soppu is the collective term normally vendors use to describe a mix of different types of edible wild greens they are selling.

#### Appendix 3: List of wild fruits with Kannada, common English and scientific names

Kannada name	Common English name	Scientific name
Ankole mara		Alangium salviifolium
Belada mara	Wood Apple	Limonia acidissima
Challe hannu	Indian Cherry	Cordia dichotoma
Choori mullu	Jackal Jujube	Ziziphus oenopolia
Kashi hannu	Black Nightshade	Solanum americanum
Khare mullina gida	Carray Cheddle	Canthium coromandelicum
Kukke balli	Common Passion Flower	Passiflora foetida
Seeme hunase	Manila Tamarind	Pithecellobium dulce











### NOTES

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