

A few important cultivated and wild leafy vegetables of South India.

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That vegetables have played a very important part in the past and continue to do so in modern dietetics and that they are a very necessary menu in the every day meal of each and every person has been admitted on all hands. Among vegetables, leafy vegetables should be given the first and foremost place as they rank very high in the present day dietetics. In the first place they are the sources of calcium in abundance. Of all the metals calcium is the most important one as it is very essential for the building up of bones and teeth. Deficiency of calcium in the diet has been responsible for a number of diseases. At the present day bad teeth are so common even among young people that one has to think well about the diet one should adopt to avoid this trouble. Very naturally therefore greens such as amaranth, cabbage, fenugreek, spinach etc. are advocated to one and all especially to young children and expectant and nursing mothers. In the second place leafy vegetables contain the pigment carotene which is said to fulfil the physiological function of Vitamin A in the body. The importance of vitamins is so well recognised that it need not be dealt with in this short note. In the third place, the leaves are the repositories of valuable food materials such as the various mineral salts, sugars, proteins, oils, fats, etc. and as such a few of leafy vegetables consumed every day go to make the diet complete, nutritious and wholesome. Dr. Aykroyd remarks 'in the East it will usually be found that the easiest and cheapest way of ensuring sufficiency of Vitamin A units is to increase intake of green leafy vegetables'.* For example, 3 ounces (about 85 grammes) of amaranth leaves will supply more than 3,000 international units and cover adult requirements. The needs of children of school age, which may possibly exceed those of adults can be covered in the same way by a high intake of leafy vegetables. In the case of leafy vegetables, a good rough indication of carotene content is their greenness. The greener they are the better and they are best in the fresh condition. Ordinary cooking does not destroy the carotene present in leafy vegetables. Intake of green leafy vegetables should be not less than 4 ounces per head per day. The cheaper varieties—amaranth leaves, coriander, drumstick leaves, etc. are as nutritious as the more expensive ones such as lettuce. In children's homes the available supply of green leafy vegetables could often be increased by creating a vegetable garden to be tended by the children themselves.**

* Aykroyd, W. R. (1938) *The nutritive value of Indian foods and the planning of satisfactory diets*. Health Bulletin No. 23. Manager of Publications, Delhi.

** *Ibid*

In India we have a great many of these plants in use in different parts of the country. It was therefore felt that at least some of the commonest ones should be brought together and given a wider publicity than they are now receiving at the hands of the educated public. The plants are arranged in alphabetical order with a short note for each touching on the salient characters, the family to which the plant belongs and the popular name by which it is known (an index of the popular names is also given). Care has been taken to steer clear of the druggists' domain and confine oneself strictly to the sphere of the vegetable consumer. The distribution of the plants is given only for the Presidency of Madras.

1. *Abutilon indicum*, G. Don. Fam. Malvaceae, Eng. The country mallow; Tam, Tutti; Tel, Tuthru benda, Adavibenda.

An erect woody herb, 3-5 feet high, commonly met with in all waste places and in all districts especially in the hills. The stem is covered with smooth close tomentum. Leaves ovate, cordate, stipulate. Flowers yellow and showy opening in the evenings. The tender leaves are used as a 'pot' herb. Propagated from seed.

2. *Acalypha indica* Linn. Fam. Euphorbiaceae. Tam. and Mal. Kuppaimeni; Tel. Muripindaku, kuppinta chettu.

An erect herbaceous plant, about 2 feet high, growing wild in all waste places. Leaves simple, alternate, ovate. Flowers minute green, unisexual, monoecious. Leaves are cooked as a 'pot' herb and have laxative properties also. Propagated from seed.

3. *Achyranthes aspera* Linn. Fam. Amarantaceae. Tam. Nayuruvi.

A very common and very extensively growing weed in waste places. The plant is an erect small herb with a deep tap root. Branches minutely hairy. Leaves obovate up to 4" long. Flowers in terminal spikes. The leaves are used as a 'pot' herb especially by the poorer classes. Propagated from seed.

4. *Alternanthera triandra* Lam. Fam. Amarantaceae. Tam. Ponnangani.

A prostrate herb rooting at the nodes, grows wild in moist places all over the province. Stem glabrous, leaves obtuse or acute, up to 2" long. Flowers white in small heads in the axils of leaves. The leaves are very highly valued as a 'pot' herb. It is reported to be rich in iron. Propagated from seed.

5. *Amaranthus gangeticus* L. Fam. Amarantaceae. Tam. Thandu Kirai. Tel: Mokka Thotakura.

A very common, tall, leafy herb, both wild and cultivated. Practically every house which has a small kitchen garden grows this plant. Leaves large but variable up to 5" long and 3" broad. Flowers clustered in lower axils, gradually joined in a long terminal spiciform panicle. Flowers are green unisexual and polygamous.

The leaves and the young stem are cooked and consumed. A very highly valued 'pot' herb. Propagated from seed.

6. *Amaranthus gangeticus* var. *tristes* Pr. Fam. Amarantaceae. Tam. Araikirai. Tel: Koyya Thotakura.

The plant is a herb branching densely at the base and most widely cultivated throughout the presidency. It is a favourite with the people of the Coimbatore, Tanjore, Trichy, Malabar and Tinnevely districts. The young branches are frequently cut several times a year. It is also the cheapest of vegetables. It is reported to be rich in iron and other nutrients. Propagated from seed.

7. *Amaranthus paniculatus* L. Fam. Amarantaceae. Tam. Pungi kirai.

The plant is a tall annual herb both wild and cultivated. Very much like the other Amaranths. Leaves are used as a 'pot' herb. Propagated from seed.

8. *Amaranthus spinosus* L. Fam. Amarantaceae. Tam. Mullukirai. Tel. Mullathotakura.

A common herbaceous annual weed, full of spines and resembles closely the other members of the genus *Amaranthus*. Stem is hard and often reddish. The leaves are used as 'pot' herb by the poorer classes. Propagated by seeds.

9. *Amaranthus viridis* L. Fam. Amarantaceae. Tam. Kuppaikirai.

An erect glabrous annual. Very much like the other members of the genus. The leaves are very commonly used as a 'pot' herb particularly by poor people. Propagated by seeds.

10. *Basella rubra* Linn. Fam. Chenopodiaceae. Eng. Indian Spinach. Tam. Pasalai kirai. Tel. Batchalakura.

A glabrous succulent climbing herb with small white or red flowers, grown in all districts and also wild. The leaves are alternate, broad, cordate up to 5" long and 3" broad. It is a very popular vegetable in South Kanara and now grown all over the Presidency. The plant is easily propagated both by seeds and by stem cuttings.

11. *Brassica Juncea* Hook. and Thomas. Fam. Cruciferae. Eng. The Mustard; Tam. Kadugu; Tel. Avalu.

The plant which is a juicy herb is grown more in northern India than in the South for the sake of its seeds which are used as a spice and from which an edible oil also is extracted. The leaves of the plant are used as 'pot' herb by some people. Propagated by seeds.

12. *Brassica oleracea* Linn. var. *capitata*. Fam. Cruciferae. Eng. Cabbage. Tam. and Mal. Motta Khos or Khos kirai. Tel. Gosugadda.

The most popular European vegetable among the Indians is the *Cabbage*. The plant is a low herbaceous annual thriving best 3000 feet above sea level, and therefore very widely cultivated on the hills and in all plains districts where there is a fairly cold winter. The cabbage has the best reputation among leafy vegetable being very rich as a food material. Propagation is by seed.

13. *Cardiospermum halicacabum* Linn. Fam. Sapindaceae. Eng. Baloon vine; Tam. Modakithan.

A herbaceous tendril climber common in wet lands, on the bunds of paddy, fields and banana and sugarcane plantations and other moist situations such as arecanut and coconut *topes* distributed throughout the East and the West Coast. The leaves are used as a 'pot' herb and they have distinct laxative properties. The plant is easily distinguished by its inflated capsules and tendrils. Propagated from seeds.

14. *Cassia tora* Linn. Fam. Caesalpinioideae. Tam. Tagara. Tel. Tantipu; Tulu. Twajang.

It is a common low shrub growing wild in waste places and fallow lands all over the Presidency and very luxuriant in Malabar and South Kanara. It is also to be met with on the hills up to 4000'. The flowers are yellow and the pods long and curved. The leaves are edible and various preparations are made of them. Propagated by seeds.

15. *Colosia argentea* L. Fam. Amarantaceae. Eng. The white cock's-comb; Tam. Korangu val chedi; Mal. Kozhi pulu.

The plant is a herbaceous annual, grows wild as a weed in dry soils often in such rank fashion that one easily mistakes it for a crop. The flowers are arranged in cylindrical spikes which are pinkish in the beginning and then become glistening white. These spikes are very conspicuous and enables one to identify the plant easily. Leaves are used as a 'pot' herb especially by the poorer classes of people. Propagated from seed.

16. *Celosia polygonoides* Retz. Fam. Amarantaceae. Tam. Eli katu kirai.

A perennial herb of the Deccan and the Carnatic tracts and not found outside India. The plant is found wild in waste places. The leaves are used as a 'pot' herb by poor people. Propagated by seeds.

17. *Centella asiatica* Urban. Fam. Umbelliferae. Eng. Indian Pennywort; Tamil. Vallarai keerai; Mal. Kodangal. Tel. Saraswathi aku.

A prostrate stoloniferous herb very common in moist places, particularly on the bunds of paddy field, sugarcane and banana plantations and also in coconut and arecanut *topes*, easily made out by its reniform fleshy leaves. The leaves are widely used as a 'pot' herb, considered to be a blood purifier. It is a good fodder and increases the secretion of milk in cows. Propagation by stolons and seeds.

18. *Chenopodium album* Linn. Fam. Chenopodiaceae. Eng. White goose-foot. Tam. Paruppu Kirai.

An erect annual herb growing sometimes up to 10 feet high and clammy to the touch. The plant is green or grey with white granular mealiness, the stems usually striped green or purple. Leaves are rhomboid, deltoid, entire or toothed. The leaves are considered very valuable as a pot herb and are therefore very popular and widely cultivated all over the Presidency. It is usually cooked with green gram. Propagated by seeds.

19. *Cissus quadrangularis*, Linn. Fam. Vitaceae. Tam. Perandai; Tel. Nalleru.

A much rambling shrub, the branches climbing over bushes to a long distance and found distributed in all the dry regions of the Madras Presidency. The quadrangular fleshy stem, the terminal tendrils and the small fleshy leaves enable the plant to be easily made out. The tender leaves and the young stem are after a little roasting made into a preparation called chutney or Thogaiyal. It is regarded as a tonic and stomachic. The plant propagates itself by its stem.

20. *Colus amboinicus*, Lour. Fam. Labiatae. Tam. Karpuravallithashai.

This is a native of Malaya, a fleshy aromatic spreading herb, both wild and cultivated. The leaves which are fleshy are also very juicy and aromatic. They form a good leafy vegetable. Propagation is by soft wood cuttings.

21. *Colccasia antiquorum* Schott. Fam. Araceae. Tam. Sembu or Seppan, Tel. Kaladi. Chama.

A common herbaceous plant common in all moist situations from sea level up to 3000' above S. L., both wild and cultivated. The sagittate leaves are characteristic of the plant and form an excellent pot herb. It is both wild and cultivated and there are a number of varieties also. The plant is propagated by the corm.

22. *Coriandrum sativum*, Linn. Fam. Umbelliferae. Tam. Kothamalli; Tel. Kothameir, Daniyalu.

A low much branched aromatic annual herb widely cultivated throughout the presidency. It has a deep tap root and the leaves are decompound. The

plant is grown both for the leaves and the seeds which are used as a spice. Propagated by seeds.

23. *Digera arvensis* Fam. Amarantaceae. Tam. Thoyya kirai; Tel. Chenchalikoora.

One of the most common herbaceous weeds growing in all kinds of soils and at its best in loamy soils of the cultivated fields. The plant is very popular as a pot herb with poor people. Propagated by seeds.

24. *Hibiscus cannabinus* L. Fam. Malvaceae. Eng. Bimilipatam Jute; Tel. Gonkura; Tam. Pulimanchi.

A tall undershrub with a sparsely prickly stem and a fairly deep tap root, commonly cultivated throughout the province and more extensively in the Circars and the Ceded Districts. The leaves on the main stem and on the axillary branches at the base are often undivided while those given off from the upper portion are palmately deeply lobed the number of lobes being from 3-5. The leaves taste slightly acidic and are a favourite with the Andhras. Recently the taste for the Gonkura preparations has extended into the Tamilian districts also. Propagation is by seeds.

25. *Hibiscus Sabdariffa* L. Fam. Malvaceae. Eng. The Red Sorrel, the Roselle.

This resembles very closely the former species and differs from it mainly in being pigmented. There is a red tinge about the whole plant, the pigmentation being marked in the stem and in the veins and in the calyx and the epicalyx of the flower. The leaves are slightly acidic as in the former case and are used in the same manner. Propagation is by seeds.

26. *Mentha Viridis* L. Fam. Labiatae. Eng. Spearmint. Tam. Putheena. Tel. Putheena.

A dwarf aromatic herbaceous perennial native to the temperate regions and therefore widely cultivated in the hills. It comes up well in the plains also. The leaves are used as a flavouring ingredient in various culinary preparations. It is considered to be a good stomachic. Propagated by cuttings.

27. *Moringa oleifera* Lamk. Fam. Moringaceae. Eng. The horse radish tree; Tam. Murungai. Tel. Munaga.

A graceful tree most popular and cultivated throughout the presidency, practically every house which enjoys a compound having one or more plants of this tree. The leaves are very good as a pot herb. It is easily propagated by stem cuttings and also by seeds.

28. *Murraya Koenigii* Spreng. Fam. Rutaceae. Tam. Kari vempu. Tel. Karepaku. Kan. Kari bevi.

A very common small tree, thrives very well in the Coimbatore district as also in other parts of Deccan and northern Circars. The leaves are rich in an aromatic oil. The plant is easily propagated by seeds. Root suckers are also employed in multiplying the plant. The leaves of coriander and murraya are the favourite flavouring leaves in all Indian preparations. Apart from its flavouring value, the leaves by themselves are an excellent food.

29. *Nelumbium speciosum* Willd. Fam. Nymphaeaceae. Eng. The sacred Lotus; Tam. and Tel. Thamarai.

A typical aquatic plant both wild and cultivated throughout the Presidency and a favourite with the Hindus as the flowers of the plant are used in worship in all temples. In all tanks especially in Malabar in or round about the temples

in the province this is grown. The petioles of the leaves are cut into small pieces, salted, sun-dried and fried in ghee or oil whenever required. Propagated both by rhizomes and seeds.

30. *Oxalis corniculata* Linn. Fam. Geraniaceae. Eng. Yellow wood Sorrel; Tam. Pulichai keerai.

A perennial stoloniferous herb wild in all moist places and in all elevations. The leaves are 3 foliolate. The plant has a preference for somewhat moist and stony localities in gardens and under fence and along ditches. The leaves are used by the poor people. Propagation by stolon and seed.

31. *Pisonia morindifolia* R. Br. Fam. Nyctaginaceae. Eng. The tree lettuce, Tam. Thevadiyal kirai; Tel. Lanjamunda aku.

The plant is small tree and a native of the beach forests of the Andaman islands. It is now very widely grown all over the Presidency as an ornamental plant on account of its pale green leaves. The tender leaves are used as a pot herb. Propagation easily effected by stem cuttings.

32. *Portulaca oleracea* Linn. Fam. Portulacaceae.

A prostrate succulent small herb common in all dry districts. The leaves are small and succulent. As the plant comes up profusely with rains, the poor people make use of the leaves as a vegetable. Propagation by seeds.

33. *Premna serratifolia* Linn. Fam. Verbenaceae. Tam. Minnal ilai, Minna kirai.

A small tree common on the coromandel coast. The leaves have a peculiar aroma and are used in flavouring culinary preparations. Propagation from seeds.

34. *Rumex Vesicarius* Linn. Fam. Polygonaceae. Tam. Sokka Kirai.

An annual herb cultivated very widely for the sake of its much relished leaves. The plant is recognised by the membranous pink or white reticulate inner fruiting perianth. Propagation by seeds.

35. *Sesbania grandiflora* Pers. Fam. Papilionatae. Tam. Agathi Kirai, Tel. Avrsaku.

The plant is a small soft-wooded tree reaching 20—30 feet high large showy red or white flowers and long cylindrical pods about a foot or more long. The leaves are pinnate compound, leaflets numerous and linear oblong. The young leaves are relished as a pot herb and in every orthodox Hindu house the leaves are cooked on the Dwadasi day. Throughout South India, milking cows are fed with it as it is believed to increase the secretion of milk. The plant is usually grown in batel vine gardens where it forms the support for the vine. Propagation is by seeds.

36. *Solanum nigrum* Linn. Fam. Solanaceae. Tam. Manathakali.

A common erect annual herbaceous plant growing as a weed both in waste places and cultivated fields in all Districts and at all elevations. The leaves are used as a pot herb. Propagation by seeds.

37. *Solanum trilobatum* Linn. Fam. Solanaceae. Tam. Thuthuvalai.

This is a prickly trailing or climbing undershrub. It is commonly met with as a weed in waste places. It thrives very well along the coast and also in black soils. The leaves are used as a pot herb. Propagation by seeds.

38. *Trigonella foenum graecum*, Linn. Fam. Papilionatae. Eng. The Fenu-greek; Tam. Venthayakirai. Kan. Menthe soppu.

It is a herbaceous annual growing to a height of 10 to 12 inches. Leaves pinnately trifoliate. The young plants are used very widely as a pot herb and are considered very nutritive. Propagation by seeds.

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