

CHILLI LEAF

FACTSHEET no: 10



• Tips ready for harvest



• Mature plant of Tabasco/Birdseye chilli

Botanical name: *Capsicum* spp. (Solanaceae)

Location specific common names: *C. frutescens* (Birdseye and Tabasco)

C. annum (Sweet peppers or capsicum) chili, chile

Plant characteristics: Chilli plants are small bushes that usually grow for a year or more in warm locations. They are suitable for container growing. Many recognized species and varieties exist, ranging from sweet capsicums with no heat to the fieriest hot-fruited forms. Birds are not affected by the heat component (capsaicin) in chilli, therefore birds are effective seed dispersal agents, thus volunteer plants are often found in unusual places.

Uses: The leaves and very young tips can be used fresh or in cooked dishes. Leaves have a mild distinctive flavour that is not hot to taste.

Availability: This plant can be grown all year in most tropical and sub tropical areas.

Propagation methods: New plants are produced from seed. Plants often self-seed and with a little care, the seedlings easily transplant.

How to grow: Chilli plants can be easily grown in large pots. A pot of 20 litres capacity or larger should be used, filled with a well drained loam and compost mix, in which four seeds or young plants can be placed. Chilli plants like more alkaline soils than most tropical plants so coral sand in the mix will promote growth. They are deep rooted but require occasional watering during drier conditions. Chilli plants will grow in full sun but a little shade produces larger, tender leaves.

Leaves should not be harvested too often as plant vigour may be affected, and fast growing younger plants produce the best leaves. For a continuous supply of leaves two or three staggered plantings of ten or more plants will be required each year. Leaf production is reduced when the plants fruit.

Threats: Pests like scales and spiralling whitefly will reduce plant vigour, resulting in smaller leaves or even death of the plant. Scales can be controlled by reducing ant populations with well mulched, moist soils. Spiralling whitefly can be reduced by mulching the soil with light coloured materials such as shredded paper and spraying the undersides of leaves with jets of water.

Harvesting: Leaves and tips can be neatly picked, ideally in the cooler hours of the day to prevent wilting. Harvesting too many leaves at one time will reduce plant vigour.

Post harvest and storage: Leaves should be washed carefully with water of drinking quality or clean seawater. If loosely bundled in moist paper and kept in a cool location, leaves should keep fresh for a day or two. If placed in an airtight container in a refrigerator, they can last for up to a week. Chilli leaves are firm and therefore can be frozen.

Project findings/nutritional value: Samples of chilli leaves for analysis were collected from Solomon Islands, Samoa and the Torres Strait Islands. 50 to 100 grams of fresh leaf (1.5-3 handfuls) per person for a meal serving will provide useful nutrition.



• Leaves with spiralling white flies



• Nutritional deficiency symptoms on chilli leaf



• Mature plant of tropical sweet capsicum

We found chilli leaf to be a consistently rich source of potassium and copper, as well as being relatively high in most other minerals and carotenoids: for example, at a Burns Creek, Honiara (Solomon Islands) site, chilli leaf was found to contain 829, 32 and 340 mg/kg dry weight of lutein, alpha-carotene and beta-carotene, respectively, all excellent levels.

Carotenoids: Lutein is important for eye health (e.g. reducing risk of cataracts) and beta-carotene (pro-vitamin A) is important for vision, immunity and bone health.

Potassium: Controls body water balance through its interactions with sodium and chloride ions, and is involved in electrical stimulation of nerves and muscles. Deficiency can cause muscle weakness, cramps and irregular heartbeat.

Copper: Component of enzymes, involved in iron metabolism, therefore supports production of healthy blood and generation of energy.

This table compares selected mineral nutrients in leaves of Chilli and “sandpaper cabbage” (*Ficus spp.*) grown together at Aruligo, Guadalcanal, Solomon Islands in 2012 and English cabbage (average of samples bought from Honiara market, Solomon Islands and Nukualofa market, Tonga in 2012) (concentration in mg/kg dry weight, except N: % dry weight).

	Mn	B	Cu	Zn	Ca	Mg	K	P	S	N %
Chilli	32	72	26	22	19900	4600	50000	4900	3800	3.2
Ficus	26	54	8	18	25000	3200	22000	2100	2100	3.1
Cabbage	23	12	2	20	5700	1450	29000	3750	3750	2.8

Mn: manganese; B: boron; Cu: copper; Zn: zinc; Ca: calcium; Mg: magnesium; P: phosphorus; S: sulphur; N: nitrogen. Analyses conducted by Waite Analytical Services and the Mares Laboratory, University of Adelaide, South Australia



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The factsheets are intended to provide information on some of the most nutritious leafy green vegetables suitable for growing in tropical areas.

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