

# Leaves to live by: perennial leaf vegetables

by Craig Elevitch

Permanent Agriculture Resources, PO Box 428, Holualoa, Hawaii 96725 USA

© 1998

## Landscaping with edible perennials

There are basically two types of gardeners: the “master gardener” type who genuinely delights in the detailed tasks of garden management and the “lazy” gardener who enjoys harvesting but who experiences other garden activities as drudgery. I belong to the latter category. For years I’ve been striving for the generous results of the master gardener without the continual effort.

The solution was to abandon the idea of building my garden around familiar annuals such as lettuce, spinach, and peas. This happened when I discovered a whole group of perennial plants that have edible leaves, stems and often, other parts. These are known as “perennial vegetables,” or “leaf spinaches.” Instead of annual garden beds, these leafy plants adorn the house and its various pathways. Anybody who has not seen many of these perennial vegetables before might think that they were unusual, yet highly appealing, ornamentals. Best of all, these perennials provide edible leaves nearly year-round, in a quantity and diversity that I could ever hope for from a conventional garden of annuals. Most of my formerly neglected annual garden space is now filled with thriving perennials which yield copious amounts of edible leaves but require almost no tending.

Apart from being ornamental and edible, perennial vegetables can serve other functions around the house such as view screens (Pacific spinach, chaya, moringa), ground covers (sweet potato, sissoo spinach), and edge plants as a barrier to weeds (comfrey, sissoo spinach, garlic chives). Many of these plants have medicinal as well as culinary utility.

One of the satisfying parts of eating perennial vegetables has been to become aware of the many plants growing in my tropical bioregion that have edible leaves. There are thousands of plants with edible parts, and hundreds that people have cultivated over the millennia. Most modern gardens have tended to focus on just a very few leafy edible species, most of which are short-lived annuals, such as lettuce, cabbage, and common spinach. Adding lesser-known perennials to the garden contributes to diversity in the ecosystem and the diet.

## Harvesting perennial leaf vegetables

For most perennial vegetables, the best part to eat is the tender growing shoot or tip which includes the young leaves that have not yet matured and

the soft growing stem. Shoots are favored for eating because they are sweeter and more tender than older growth. The mature leaves can often also be eaten, but require longer cooking times and can still be tough. The way to harvest shoots is to simply snap off the tender stem where it naturally breaks, leaving the more mature and fibrous stem and leaves. The plant then regrows 2–4 stems just below the break, and production of shoots is multiplied. If the plants receive sufficient water, growth of new shoots continues throughout the year in subtropical and tropical climates, and throughout the growing season in temperate climates.

## **Adding perennial vegetables to the diet**

As I began adding more leafy perennials to my diet I began wondering how much I should be eating. Just as with any food, too much is not good. Most plants have nutritive as well as non-nutritive effects on the body. In other words, eating too much can have toxic effects or upset digestion. The toxic effects can be moderated by including small amounts of a wide variety of leafy vegetables in the diet. Even though a plant's leaves are known to be edible, I found it a good idea to start with just 1–2 leaves to see how my system reacts. It also gives my palate some time to familiarize itself with the new taste sensations. As I became familiar with a vegetable, I learned how much felt good to eat. For most plants, about 10 shoots, a handful (1/2 cup cooked), is a good amount for me in one meal.

## **Cooking usually necessary**

Plants from the tropics have evolved even more toxins as a defense against predators than those from temperate climates. For example, the leaves of Tahitian taro (and other taro species) contain high amount of calcium oxalate crystals that are highly irritating to mouth and throat. Cassava leaves often contain substances that can release highly toxic hydrocyanic acid. That is why many plants of subtropical or tropical origin require cooking in order to eat them. Cooking dispels or denatures the harmful toxins, and makes the remaining portion safe to eat. Because much of the nutrients and enzymes are destroyed in the cooking process, it is best to cook for the shortest time possible while still removing toxic effects. References such as Bailey (1992) give recommendations for cooking times and methods for many popular subtropical/tropical perennial vegetables.

Knowledge of edibility of plants has been developed slowly over a long period of time. Experts recommend strongly against testing an unknown plant for edibility. Such informal trials can be toxic to the system and/or fatal. There are some excellent reference books available (see list below). I have found books, plant lovers, and experienced ethnobotanists to be the best source for knowledge of edible plants. Also, I have discovered that there are a surprising number of perennial vegetables available which have been selected for their vigorous growth, favorable taste, lower content of bad

tasting or toxic substances, and beauty. Once established, plantings of perennial vegetables around the house can provide an abundance of leafy vegetables for many years.

## Tables

A short list of favorite and abundant perennial vegetables. Many subtropical and tropical perennials can be grown as annuals in temperate regions.

### Tropical Species

Common Name	Botanical Name	Edible Parts	Uses/functions
katuk	<i>Sauropis androgynus</i>	leaf tips, leaves	hedge
sweet potato	<i>Ipomoea batatas</i>	leaf tips, leaves, tuber	ground cover
Cassava, manioc, tapioca	<i>Manihot esculenta</i>	leaves, tuber	hedge, privacy break
edible hibiscus Pacific spinach, bele	<i>Abelmoschus manihot</i>	leaf tips, leaves	privacy break
Tahitian taro	<i>Xanthosoma braziliense</i>	leaves	hedge
chaya	<i>Cnidoscolus chayamansa</i>	leaf tips, leaves	
Okinawan spinach	<i>Gynura crepioides</i>	leaf tips, leaves	ground cover
Ceylon spinach	<i>Basella rubra</i>	leaf tips, leaves	ground cover
Sissoo spinach Brazilian spinach	<i>Alternanthera sissoo</i>	leaves	ground cover, barrier
Moringa, drumstick tree	<i>Moringa oleifera</i> , <i>M. stenopetala</i> , others	leaf tips, leaves	hedge, trellis, living fence

### Subtropical Species

Common Name	Botanical Name	Edible Parts	Uses/functions
winged bean	<i>Psophocarpus tetragonolobus</i>	leaf tips, leaves, pods, tuber	(usually 2 years only)
bitter melon	<i>Momordica charantia</i>	leaf tips, leaves, fruit	ground cover (annual, but reseeds easily)
pumpkin, squash	<i>Curcubita moschata</i>	leaf tips, flowers, fruit	ground cover (large areas) (annual)

garlic chives	<i>Allium tuberosum</i>	leaves, flowers	weed barrier
chili peppers	<i>Capsicum frutescens</i>	leaf tips, fruit	hedge
water cress	<i>Nasturtium officinale</i>	shoots	water's edge
chayote	<i>Sechium edule</i>	leaf tips, fruit, seed, tuber	ground cover (large areas)

### Temperate Species

Common Name	Botanical Name	Edible Parts	Uses/functions
comfrey	<i>Symphytum officinale</i>	young leaves	weed barrier (grows well in tropics and subtropics)
perennial kale & collard	<i>Brassica oleracea</i>	leaf tips, leaves	hedge (grows well in tropics and subtropics)
chicory	<i>Cichorium intybus</i>	leaf tips, leaves, flowers	
sorrel	<i>Rumex acetosa</i>	leaves, flowers	
lamb's quarters	<i>Chenopodium album</i>	leaf tips, leaves, flowers	

### References and further reading

ADAP Project. 1994. *Pacific Islands Farm Manual*. ADAP Project, Tropical Energy House, University of Hawaii, Honolulu, HI 96822

Bailey, John M. 1992. *The Leaves We Eat*, South Pacific Commission, B.P. D5, Noumea Cedex, New Caledonia

Facciola, Stephen. 1990. *Cornucopia: A Source Book of Edible Plants*. Kampong Publications, 1870 Sunrise Drive, Vista, CA 92084 USA

International Institute of Rural Reconstruction. 1993. *The Bio-Intensive Approach to Small-Scale Household Food Production*, IIRR, Room 1270, 475 Riverside Dr., New York, NY 10115

Martin, Franklin W., R. Ruberté, and L. Meitzner. 1998. *Edible Leaves of the Tropics*, 3rd Edition. Available from ECHO, 17430 Durrance Rd., N. Ft. Myers, FL 33917, U.S.A., echo@echonet.org, <http://www.echonet.org>

Martin, Franklin W. 1994. *Plants for Use in Permaculture in the Tropics*, Yankee Permaculture, P.O. Box 672, Dahlonga, GA 30533-0672