



Urban Harvest

Growing gardens. Enriching lives.

Chaya: An Ancient Plant for the New Garden

John Jacob, Ph.D.

Chaya (*Cnidoscolus chayamansa*) was a favorite garden vegetable of the ancient Maya of the Yucatán Peninsula. “Tree spinach” is a common name given to it in English, and this leafy green vegetable does almost grow into a tree, certainly a very respectable bush or shrub. Chaya could become a very important crop of the future. It has twice the protein of spinach and ten times as much Vitamin C as an orange, on a per weight basis!

I have been growing chaya for over a year now, and there is a very healthy chaya plant that is several years old in the Urban Harvest Teaching Garden. The plant will die back some in the winter with heavy frosts, but it comes back strong.

Chaya is very easy to grow. Chaya is propagated by stem cuttings. It needs at least a moderately well drained soil, but seems to tolerate some wetness. I do not have specific information on its soil requirements, but given that this plant comes from an area with very limy soils, it may not do as well in acid soils.

The leaves are prepared much like spinach. Chaya must be cooked, however, because of the presence of cyanogenic glucosides. A recent study in Guatemala (Molina Cruz, et al. 1999) of different ways of cooking chaya* found that boiling in water for 10-15 minutes removes toxins to below harmful levels. Boiling with salt added to the water resulted in less loss of Vitamin C from the leaves. The stock or liquid the leaves are cooked in can also safely be consumed as HCN, the principal toxin leached from the plant, is volatilized during cooking.

The Guatemalans also found that the HCN toxins were removed by pressure and steam cooking, as well as frying (no less than 5 minutes) and microwaving for 10 minutes at 550 watts in a small amount of water. This last method resulted in the least loss of Vitamin C compared with all other methods.

We have tried several recipes for chaya, but our favorite so far is chaya and potato soup, adapted from Leon de Gutierrez.

Chaya and Potato Soup

50 chaya leaves

2 lbs potatoes

2 tablespoons or so of butter

water as needed for cooking and “thinning”

Cook and peel the potatoes, boil the chaya, place together in blender and liquify (you may need to do this in several batches depending on how tough your blender is). Use the chaya stock to achieve desired consistency, or additional water as needed. Salt to taste. This is really a great soup! The following recipe looks good, but we haven't tried it yet:

Chaya Casserole

3 cups chopped and cooked chaya
4 tbs chopped onion
2 eggs, lightly beaten
1 cup milk
½ cup bread crumbs or ground bread
2 tbs butter
salt and pepper to taste

Mix together the chaya, onion, salt and pepper; stir the eggs into the milk and add to the chaya mixture and place in a greased glass casserole, sprinkle the top with the bread crumbs and butter. Bake at 220 degrees for 15 minutes.

As an aside, we do have our own native Chaya in this area: *Cnidoscolus texana*. This is a stinging nettle-like plant found in the Navasota area and probably here as well. The stingers on this plant are something else! I have no idea as to its edibility.

*This study used *Cnidoscolus aconitifolius*, a more "wild" chaya, but similar in most respects to *C. Chayamansa*.

References:

Leon de Gutierrez, L. no date. *El Libro de los Guisos de Chaya*. Area Maya. Merida, Yucatan, Mexico.
Molina Cruz, A., M. Solórzano, R. Bressani. 1999.

Procesamiento de las hojas de chaya (*Cnidoscolus aconitifolius*; Euphorbiaceae) para consumo humano: I. Cocción en agua hirviendo y almacenamiento de hojas frescas; II. Cocción al vapor, en olla de presión, con microondas, y frita en aciete. *Ciencia en Acción*. Nos 6 y 7. Universidad del Valle de Guatemala.

© *Urban Harvest, Inc.*

2311 Canal Street, Suite 200, Houston, Texas 77003, 713.880.5540, urbanharvest.org