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Ó American Botanical Council

# HerbClip

FILE: Chaya (*Cnidoscolus chayamansa*)

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**Date:** February 25, 1997

HC 022572

**To:** General Distribution

**Re:** Chaya <sup>3/4</sup> Edible Medicial Plant of Yucatan

Kuti, Joseph O., and Eliseo S. Torres. Potential Nutritional and Health Benefits of Tree Spinach (*Cnidoscolus chayamansa*). *Progress in New Crops*, American Society of Horticulture Science Press, December 1996.

Chaya (*Cnidoscolus chayamansa*) is a leafy green vegetable and medicinal herb popular in Mexico, Central America, and, increasingly, in Hispanic populations in South Texas and Florida. The leaves and shoots are a dietary staple for the indigenous people of the Yucatan peninsula (Mexico) and the Kekchi people of Alta Verapaz (Guatemala). The leaves of the plant contain hydrocyanic glycosides, a toxic compound found in many plant foods like lima beans, cassava, and other leafy greens. The compounds are destroyed, however, by cooking. Chaya is known for its nutritional content; it has also been used therapeutically for diabetes and other ailments.

The authors evaluated the nutritional composition of raw and cooked chaya leaves obtained from greenhouse-grown plants and compared these results with the nutritional composition of spinach leaves (data obtained from the USDA). Nutritional analysis showed chaya leaves to be substantially higher in nutrients than spinach (see Table 1 in article): twice as much crude fiber, iron, and calcium, three times as much vitamin C, and substantially higher amounts of protein, potassium, and carotenoids. The chaya nutrients levels are two to three times higher than for most edible leafy green vegetables. Chaya also provides several of the essential macronutrients needed for human health.

An experimental animal study was conducted to determine the effects of the oral administration of chaya leaf aqueous extract on the blood glucose levels of diabetic rabbits. The results showed that blood glucose levels gradually lowered in the rabbits who had been administered chaya extract, as opposed to those who had received only water.

Chaya should be seriously considered for inclusion as a new horticultural

crop, the authors write. The demand for chaya as a medicinal plant is growing, and the nutritional value of the plant merits its use as a food. In addition, the chaya plant is drought resistant, its growth is rapid, and propagation by cutting is easily accomplished. Other *Cnidocolus* species are also being studied in the authors' first laboratory at Texas A&M University in Kingsville, Texas. —*Ginger Webb*

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