

# *Parkinsonia aculeata* L.

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## FABACEAE (BEAN FAMILY)

### *Parkinsonia thornberi* M.E. Jones

Acacia, acacia de agüijote, acacia de mesones, arrete-boeuf, boonchi strena, cambrón, cina-cina, cují extranjero, espino del cairo, espino negro, flor de mayo, flor de rayo, goajiro, horsebean, Jerusalem, Jerusalem-thorn, Junco marino, lluvia de oro, madam raíz, madam yass, mataburro, palo de rayo, palo verde, paují, retama, retamola siempre-viva, sauce, sauce espino, sulfatillo, sulfato, wonder tree, yabo, yass

A native of Texas, Arizona, Mexico, and possibly elsewhere, *Parkinsonia aculeata* is widely distributed in tropical America. Once cultivated, the trees spread and naturalized throughout the Southern U.S., southern Argentina, and the Old World tropics. The species also grows throughout the West Indies, where it probably was introduced in Bermuda.

*Parkinsonia aculeata* is a slow-growing tree that usually has a relatively short trunk. This small spiny tree reaches 3 to 6 m in height and 5 to 8 cm d.b.h. The bark is smooth and yellow-green or blue-green, and the branches and twigs are often the same color. The branches begin near the ground with a very open crown of spreading branches. The twigs have paired short spines (stipules) that may remain on the branches and trunk in groups of three or singly. The alternate leaves are twice pinnate (bipinnate), consisting of a very short main axis ending in a spine and one or two pairs of drooping axes. The axes are 10 to 30 cm long, 0.35 cm broad, flat, and slightly thickened. Each dropping strip or streamer bears 20 to 30 pairs of thin, oblong, green, deciduous leaflets and functions as a leaf after the leaflets fall. The foliage is green throughout the year, although the tree appears leafless after the leaflets fall. In Guanacaste, Costa Rica, *P. aculeata* grows in large natural stands in areas that are swampy during the rainy season and very dry during the dry season.

The wood is considered moderately hard, heavy (specific gravity is 0.60), and brittle and is used primarily as firewood. The sapwood of this species is yellowish and thick; the heart-

wood is light brown or red-brown.

The trees are also grown as spiny living hedges that function as fences, and the foliage and pods are browsed by livestock (Little and Wadsworth 1974). An infusion of the leaves is used in home medicines. Because the tree has peculiar foliage, bending branches, and attractive and abundant yellow flowers, it is also planted as an ornamental in many tropical and subtropical cities.

*Parkinsonia aculeata* begins to flower and fruit 5 to 6 years after planting. Many slightly beanlike, fragrant yellow flowers are borne on panicles of slender stalks throughout the year. The pods are linear, torulose, striated, dehiscent, 5 to 15 cm long, and constricted between the oblong dark brown seeds, which are 0.90 cm long.

When the pods turn dark brown, they are collected from the trees and placed on blankets in the shade until they dry enough to be opened by hand. *Parkinsonia aculeata* seeds retain their viability for at least 9 years when they are stored in hermetic containers at 4 °C and 5.7 percent water content (Trujillo 1996a).

Seed germination is enhanced when the seeds are immersed in boiling water (100 °C) for 5 seconds, then transferred to tap water and soaked for 24 hours (Trujillo 1996b). Seeds are usually germinated in flat boxes filled with sterilized soil. Seedlings are transferred to nursery banks or plastic bags. The seedlings can be outplanted in about 10 to 12 months (personal observations).

