

PARKINSONIA ACULEATA Jerusalem Thorn



Jerusalem Thorn is a native tree that grows in the southern U.S. It is in the Fabaceae (or Leguminosae) family. This tree is also commonly referred to as retama, and lesser known names include Horse Bean, Mexican Palo Verde, Guacaporo, Bagote, Huacapori, Junco Marino, Cacaporo, Guacóporo, Huacóporo, Espinillo, and Mezquite Verde. In addition to growing in the southern U.S., Jerusalem thorn is also reported to be native to northern Mexico, the Galapagos Islands and in some South American countries. It has naturalised in eastern

Africa, tropical and southern Africa, Pakistan, Oceania, and Central America.

Trunk/Bark

When young, its bark is relatively smooth, green, and indicative of many desert plants, it has many thorns. As it ages the trunk remains green and the bark can become somewhat scaly. This tree can have a single or multiple trunks. The bark is thin and easily damaged.

Branches/Twigs

Jerusalem thorn branches are bright green or yellow-green, smooth bark (hairless), and it has photosynthesizing bark. Its needle-sharp spines are turned up slightly. Branches often droop or have a zigzag appearance. Younger stems have a pair of sharp spines (3-20 mm long) below each leaf (stipular spines) and these remain on older stems after the leaves have been shed.

Height

5 to 6 metres (15 to 20'). Some trees can be almost as wide as they are tall.

Leaves/Needles

Leaves grow alternately along the stems, are pinnately compound, and leaflets grow in 1 to 3 pairs. Leaf shape is elliptical.

Flowers

Yellow flowers measure about 2 cm (1/2") wide, have five petals, one of which has red spots (becoming entirely red with age). Flowers have 10 stamens. It flowers in May; with minor flowering throughout the year.



Fruit

The fruit is a brown, many-seeded legume up to 10cm (4") long. They are thick and somewhat leather-like.

Habitat

This tree tends to prefer areas that are moist and poorly drained. It is mostly found growing near creeks, rivers and man-made water points (bores and dams) in semi-arid regions (especially those that have a distinctive wet and dry season). It is also found to grow in grasslands, open woodlands, pastures, waste areas, disturbed sites and roadsides. According to the USDA this tree grows throughout the SW, SE, southern U.S. and in possibly in Hawaii. Jerusalem Thorn can grow at elevations up to 900 metres (3,000'). It has a salt tolerance so it can grow along coastal areas.

Edible Parts

The young seed pods and mature seeds (generally the flatter the better) are edible when cooked. According to Mark Vorderbruggen of Foraging Texas, young seed pods can be cooked like green beans. Hard, mature beans can be ground into flour or cooked liked domestic dried beans.

Edible Uses

Seed - raw or cooked

The mature seed is dried, then cooked when required. The seeds are rich in protein (they contain around 21% protein, 62% carbohydrate and 8% fat) and have potential for use as a human food

The dried, powdered seed has a digestibility rating of 76%, increasing to 85% when cooked - this is higher than for many of the commonly eaten legume foods. The seeds do contain antinutritional factors, including trypsin inhibitors, phenols, alkaloids and haemagglutinin, but these are not present in high enough concentration to constitute a major nutritional problem. These antinutritional factors are soluble in saline solutions and can be removed by soaking or during cooking

Fruit - raw

The pulp inside the seedpod has a sweet flavour, containing up to 60% sugars



Medicinal

Leaf, fruit and stem decoctions are taken orally and applied externally to treat fever, atony and malaria

The decoction is also said to be abortifacient

Flower and leaf extractions in alcohol are applied as a poultice to treat rheumatism

It is a well known medicinal shrub for its beneficial effects as **antipyretic, antimalarial, diaphoretic**

and abortifacient. The phytochemistry of the leaves, flowers and stems of *P. aculeata* has revealed the presence of glycosides, glycerides, flavonoids, reducing sugars, sterols and traces of minerals.

