

MARACUJÁ**Scientific name:** *Passiflora* sp.**Family:** Passifloraceae**Popular names:** Granadilla, Passion Vine ⁽¹⁾, Maypop, Maracuja and Passion flower ⁽⁴⁾.**Used parts:** aerial parts ⁽¹⁾.

Botanical characteristics: The Passion Flower is a perennial vine on a strong, wood stem reaching up to about 10 m in length. The vine is initially angular, later gray and rounded with longitudinally striated bark. The leaves are alternate, petiolate, serrate and very finely pubescent. The under surface is hairier than the upper surface. There are bumpy extra-floral nectaries on the leaf blades. Stipules and tendrils grow from the leaf axils ⁽¹⁾.

The axillary pedicle grows up to 8 cm and bears 1 flower. The flowers are androgynous and rayed with a diameter of 5 to 9 cm and have an involucre. The 5 sepals are green on the outside, white on the inside and tough. The 5 petals are white to paler. There is a secondary corolla inside the petals made up of 4 thread wreaths arranged in rays around the axis of the flower, which are white on the inside and purple on the outside. The ovary has 3 carpels and 3 style branches, which end in a thickened stigma. The 5 stamens are joined at the base and fused to the androgynophor ⁽¹⁾.

Habitat: The plant is indigenous to an area from the southeast U.S. to Argentina and Brazil. It is cultivated in Europe as a garden plant ⁽¹⁾.

Chemical composition:

- Flavonoids (C-glycosyl-flavones, isovitexin-2"-O-glucoside, schaftoside, isoschaftoside, isoorientin, isoorientin-2"-O-glucoside, vicenin-2, lucenin-2) and gyncardine ⁽¹⁾.
- Alkaloids, cyanogenic glycosides, carbohydrates, amino acids, benzopyrones, and volatile constituents from the aerial parts ^(3,5,6). Coumarins from the roots ⁽⁵⁾.

Indications: Passion Flower is used internally for depressive states such as hysteria, general nervous agitation, insomnia and nervous gastrointestinal complaints. The herb is used externally for hemorrhoids and as a bath additive for nervous agitation ⁽¹⁾. Aerial parts have been used for sedative, anxiolytic and antispasmodic purposes ^(3, 4, 5), analgesic, anticonvulsivant, and wormicidal and also in whooping cough, bronchitis, asthma, and other tough coughs ⁽³⁾.

Homeopathic uses: *Passiflora incarnata* is used for insomnia, convulsions, agitation ^(1,6), tetanus and muscular spasms ⁽⁶⁾.

Dose:

Inside use:

- Tea: pour 150 ml of hot water over 1 teaspoon of the herb and strain after 10 minutes. Drink 2 to 3 times throughout the day and one-half hour before bedtime ⁽¹⁾.

- Tincture: 0.5 to 2 ml, 3 times daily ⁽¹⁾.

Outside use:

- External use: 20 mg of the herb in 200 ml simmering water. Strain and use when cool as a wash or rinse ⁽¹⁾.

Others informations:

- Roots and flowers of *P. incarnata* act as natural adulterants by causing a significant increase in the anxiolytic dose ⁽⁵⁾.
- The methanol extract of the leaves of *Passiflora incarnata* exhibited significant antitussive activity ⁽³⁾.
- *P. incarnata* and *P. edulis*, due to their similar morphologic and microscopic characteristics had remained two controversial plants. The methanol extract of *P. incarnata* exhibited significant anxiolytic activity, whereas *P. edulis* was devoid of any significant activity ⁽⁶⁾.
- The BZF moiety isolated from aerial parts of *P. incarnata* acts: through its anti-aromatase function, and by eliminating estrogen's negative feedback loop ⁽²⁾.
- The concomitant administration of BZF with nicotine, alcohol, and alcohol-nicotine combination, maintains the high level of testosterone in the blood by stopping the aromatization of testosterone to estrogen ⁽²⁾.

References:

1. MEDICALECONOMICS COMPANY. **PDR for herbal medicines**. 2. ed. Montvale: Copyright, 2000.
2. DHAWAN, K.; SHARMA, A. Prevention of chronic alcohol and nicotine-induced azospermia, sterility and decreased libido, by a novel tri-substituted benzoflavone moiety from *Passiflora incarnata* Linneaus in healthy male rats. **Life Sciences**, v. 71, p. 3059-3069, 2002.
3. DHAWAN, K.; SHARMA, A. Antitussive activity of the methanol extract of *Passiflora incarnata* leaves. **Fitoterapia**, v. 73, p. 397-399, 2002.
4. DHAWAN, K.; KUMAR, S.; SHARMA, A. Anti-anxiety studies on extracts of *Passiflora incarnata* Linneaus. **Journal of Ethnopharmacology**, v. 78, p. 165-170, 2001.
5. DHAWAN, K.; KUMAR, S.; SHARMA, A. Anxiolytic activity of aerial and underground parts of *Passiflora incarnata*. **Fitoterapia**, v. 72, p. 922-926, 2001.

DHAWAN, K.; KUMAR, S.; SHARMA, A. Comparative biological activity study on *Passiflora incarnata* and *P. edulis*. **Fitoterapia**, v. 72, p. 698-702, 2001.