

Rue



Photo courtesy of *México Desconocido* magazine
Ruta spp.

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Common name in Spanish: Ruda

Botanical family: Rutaceae

Habitat: This plant is an herbaceous perennial, originally native to the Mediterranean region. It is now cultivated in many parts of the world. It has blue-green foliage and yellow flowers. Rue's odor is considered to be repulsive. There are two main species used in traditional medicine: *Ruta chalepensis* and *R. graveolens* (Iauk et al., 2004).

History

Rue was probably first brought to North America via the Spanish conquistadors. This species has been used in popular herbalism in various countries to treat a variety of ailments, ranging from absence of menstruation to rheumatism (Linares et al., 1994). Because of its potential toxicity if ingested, its use as a medicinal plant was prohibited in December 1999 by the Mexican Government (SSA, 1999).

Due to its toxicity, the use of this plant is now considered obsolete by modern phytotherapists.

Medicinal parts: The leaves and flowers.

Active principles

- Alkaloids, including those of the acridone type, such as metacridone, for example
 - Flavonoids
 - Furanocoumarins
 - Tannins
- (Kuzovkina et al., 2004; Chávez et al., 2003; Berdoncés, 1998).

Applications in herbal therapy

- To promote menstruation (Chávez et al., 2003; Steenkamp, 2003).
- As a contraceptive (Browner, 1985).
- Against hypertension (Berdoncés, 1998).
- To treat hysteria (McCann, 2003).
- To relieve symptoms of hangover (Chávez et al., 2003)
- Topically against ear aches and headaches (González, 1998).
- Externally as a skin antiseptic and insect repellent (Guarrera, 1999; González, 1998).
- Applied externally as a poultice against rheumatic pain (Chávez et al., 2003; Atta and Alkofahi, 1998; González, 1998; Linares, 1994).
- Rutin, a compound isolated from Rue, is a flavonoid, which has been suggested to have antioxidant properties and to reduce the triacylglycerol levels (Bernardo et al., 2002).
- Rue's active ingredients may have antifungal and insecticidal properties, which could be beneficial to agriculture and medicine (Mancebo et al., 2002; Trovato et al., 2002; Ojala et al., 2000).
- Rue's flavonoid content possesses antibacterial activity (Alzoreky and Nakahara, 2003), as well as cytotoxic effects *in vitro* (Trovato et al., 1996).



Safety/Precautions

- Rue leaves may contain bioactive compounds such as furanocoumarins 5-methoxypsoralen (5-MOP), 8-methoxypsoralen (8-MOP), and the quinolone alkaloid graveoline, which act as phytotoxic constituents (Hale et al., 2004).
- Never use internally in pregnancy or lactation. Rue's active principles are embryotoxic, can cause implantation failure and abortion (Ciganda and Laborde, 2003; Chávez et al., 2003; Gutierrez-Pajares, et al., 2003; Zeichen de Sa et al., 2000; González, 1998; Kong et al. 1989; Prakash et al., 1985; Conway and Slocum, 1979; Wehr, 1974).
- Do not use internally in small children or the elderly.
- Do not use in patients with cardiac or kidney ailments (Berdoncés, 1998).
- Rue can cause serious photodermatitis, as well as contact dermatitis in people hypersensitive to the plant (Schemp et al., 1999; Wesner et al., 1999; Ortiz-Frutos et al., 1995; Gawkrödger and Savin, 1983; Heskell et al., 1983).
- Some of Rue's components have mutagenic activity (Paulini et al., 1991; Paulini and Schimmer, 1990; Schimmer and Kuhne, 1990; Paulini et al., 1987).

Herb/Drug interactions

- Do not take Rue and antihypertensive medications together, as Rue may potentiate the medication's effects (Skidmore-Roth, 2003).

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