

Mirabilis jalapa

Scientific classification

Kingdom : Plantae

Clade : Angiosperms

Order : Caryophyllales

Family : Nyctaginaceae

Genus : *Mirabilis*

Species : *M. jalapa*



Mirabilis jalapa

DESCRIPTION

It is a **perennial, herbaceous**, bushy plant that reaches stature heights of mostly 1 meter, rarely up to 2 meters, in height. It may also be grown as an **annual**, especially in the **temperate zone**. The single-seeded fruits are spherical, wrinkled and black upon maturity, having started out greenish-yellow. The stems are thick, full, quadrangular with many ramifications and rooting at the nodes. The posture is often **prostrate**.

Mirabilis jalapa, the **marvel of Peru** or **four o'clock flower**, is the most commonly grown ornamental species of *Mirabilis* **plant**, and is available in a range of colours. *Mirabilis* in **Latin** means wonderful and **Jalapa (or Xalapa)** is the state capital of **Veracruz** in **México**. *Mirabilis jalapa* was cultivated by the Aztecs for medicinal and ornamental purposes.

The flowers usually open from late afternoon or at dusk (namely between 4 and 8 o'clock), giving rise to one of its common names. Flowers then produce a strong, sweet-smelling fragrance throughout the night, then close for good in the morning. New flowers open the following day. It arrived in Europe in 1525. Today, it is common in many tropical regions and is also valued in Europe as a (not hardy) **ornamental plant**. It is the children's state flower of Connecticut under the name of Michaela Petit's Four O'Clocks.

Uses

- The flowers are used in **food colouring**. The leaves may be eaten cooked as well, but only as an emergency food.
- An edible crimson **dye** is obtained from the flowers to color cakes and jellies.
- **In herbal medicine, parts of the plant may be used as a diuretic, purgative, and for vulnerary (wound healing) purposes. The root is believed to be an aphrodisiac as well as having diuretic and purgative properties. It is also used in the treatment of dropsy.**
- The leaves are used to reduce inflammation. A **decoction** of them (by mashing and boiling) is used to treat abscesses. Leaf juice may be used to treat wounds. The bulbous roots of the flower have a **laxative** effect.
- The plant has a potential for the **bioremediation** of soils polluted with moderate concentrations of heavy metals such as **cadmium**.
- In Brazil, the Indian **Kayapo** sniff the powder of dried flowers to cure **headaches** and use the root decoction to wash wounds and treat skin conditions such as **leprosy**. In Peru, juice extracted from flowers is used for **herpes** lesions and earache. The juice extracted from the root is used to treat earache, **diarrhea**, **dysentery**, **syphilis** and liver infections. In Mexico, decoctions of the whole plant are used for dysentery, infected wounds, and bee and scorpion stings.