

Datura stramonium

[Synonyms : *Datura inermis*, *Datura laevis*, *Datura stramonium* var. *tatula*, *Datura tatula*]

THORN-APPLE is an annual. According to some authorities it is native to the Near East (particularly the shores of the Caspian Sea) – while others believe it is native to North America. It has sweetly scented, violet-veined, white (occasionally purple or pale blue) flowers.

It is also known as *Aneglakya* (Zuni North American Indian), Angel's trumpet, Apple of Peru, *Asthmakraut* (German), *Attana* (Singhalese), Barnyard jasmine, Common thorn apple, *Datira* (Creole), *Datturamu* (Telugu), *Datura* (English, French), Devil's apple, Devil's ladder, Devil's trumpet, Dewtry, *Dhatura* (Hindi, Punjabi, Sanskrit), *Dholo dhaturu* (Gujarati), *Doornappel* (Dutch): *Durman obecný* (Czech), *Durman obyčajný* (Slovak), Fireweed, *Gemeiner Stechapfel* (German), *Gewone Stinkblaar* (Afrikaans), Gypsumweed, Gypsy weed, *Herbe au diable* (French), *Herbe aux sorciers* (French), *Hulluruoho* (Finnish), Jamestown lily, Jamestown weed, Jimpsonweed, Jimsonweed, *Kecubung* (Malay), Loco weed, Love apple, Mad apple, *Magurukia* (Kikuyu), *Meiwyn* (Welsh), Moonflower, Nightshade, Peru-apple, *Pigæble* (Danish), *Pomme épineuse* (French), *Pommyi du dgiâbl'ye* (Channel Islander-Jersey Norman-French), *Poumier du guiâble* (Channel Islander-Guernsey), Purple stramonium, Purple thornapple, *Sada dhutura* (Bengali), *Sakran* (Arabic), *Shet dhatura* (Bengali), *Spikklubba* (Swedish), *Stachelnuss* (German), *Stechapfel* (German), Stink apple, Stinkweed, Stinkwort, *Stramoine* (French), *Stramonio* (Esperanto), Stramonium, *Tattu dattura* (Punjabi), *Tatūrah* (Arabic), *Teufelsapfel* (German), *Tollkraut* (German), *Toloache* (Spanish), *Ummathai* (Malayalam, Tamil), *Violett spikklubba* (Swedish), *Vit spikklubba* (Swedish), and *Weisser Stechapfel* (German); and in flower language is said to be a symbol of delusive beauty, and deceitful charms.

The flowers open in the early evening to attract pollinating moths and close within 24 hours.

The flowers have a sweet scent that can cause stupor if inhaled for any length of time.

Warning – all parts of the plant are poisonous (for all mammals), particularly the leaves, unripe fruit and the seeds. It can cause confusion, hallucination, palpitations, thirst, flushing, nervous twitching, nausea, restlessness, an urge but inability to urinate, reddened face and neck, dilated pupils, double vision, delirium, rapid and weak heartbeat, convulsions, coma and death. Handling the plant can cause dermatitis and if subsequently the eyes are rubbed it can also cause dilated pupils. It must not be taken internally during pregnancy, if taking antidepressant drugs or if suffering from prostatic problems, abnormal heart beats or eye disease. Sweet scented flowers can cause stupor if inhaled for any extreme length of time. In Britain thorn-apple is obtainable only from registered pharmacists. It is poisonous for animals.

Stramonium is derived for some authorities from a Greek name for the thorn apple, and for others it may have been adopted from prickly bur (*Datura metel*). The latter was known in Europe before thorn-apple superseded it and came to be called 'stramonium'.

There are few records of the ancient Greeks or the Romans that indicate their use of the plant medicinally, although it seems that traditionally Nubians smoked the dried leaves in treatments for chest complaints.

Thorn-apple has been well-known for centuries however for its hallucinogenic properties. It is thought to have been employed at Delphi by the Greek priests of Apollo when they made prophecies, and during the four year reign of terror orchestrated by the Roman Emperor Caligula (12-41) from 37, some troops are said to have eaten the plant when retreating from battle. As a result they became completely incoherent. More recently soldiers were involved in an escapade in 1609 that led to thorn-apple's lasting association with Jamestown, in southern North America. These troops had been sent to put down a rebellion by colonists and according to authorities ate the plant because they thought it was a type of spinach (*Spinacia oleracea*). It is claimed that apart from fooling around they were then useless for 11 days. This helpless state was also useful for thieves and murderers (whose past exploits in Russia particularly are often noted in records), for white slavers who kidnapped young girls for prostitution and gave some thorn-apple 'knockout drops' to their intended victims, and for the prostitutes who stole from their drugged clients. In the 20th Century Peruvians were still using the seeds to make an intoxicating drink that in large quantities brought stupefaction and delirium. Certainly in the early part of the 20th Century it was said that in Turkey poorer people smoked thorn-apple as an alternative to opium (*Papaver somniferum*). While in Singapore it is understood from an account of a letter to the Straits Times, written by the then Catholic Bishop of the area, that thorn-apple leaves were being used effectively in India and other parts of south-eastern Asia in remedies for curing rabies.

The Indian tribes in South America and south-western North America were all familiar with thorn-apple. The plant was used particularly by priests, medicine men and initiates in puberty rites in order to induce visions. The Algonkin Indian tribe gave thorn-apple to their adolescent young men who, after an 18-20 day ritual, were then considered to be adults. In eastern North America women in the Yokut tribe took it as an aphrodisiac and the Zuni and Californian Indian tribes used thorn-apple as an anaesthetic when setting broken bones. But from records the plant's poisonous nature seems to have been generally recognized by North American Indian tribes as medicinal use appears to have been confined to external applications. Smoke from the burning leaves was inhaled however to ease asthma in the Cherokee tribe. Externally the leaves (and sometimes the seeds) were applied to wounds by the Delaware, Rappahannock and Mohican Indians. The Delaware used crushed seeds to ease piles, while the Cherokee applied leaves to boils. The Rappahannock tribe also used thorn-apple in external applications for the treatment of fever, pneumonia and sore throats. Some tribes placed burnt leaves on the forehead to ease neuralgia – and this practice is still used locally today especially in some tropical countries where the roots are also used for treating rabies and insanity.

In western Africa despite its extremely poisonous nature the seeds have been strung into necklaces. One authority tells how local African children used to blow the flowers up as if they were balloons.

Thorn-apple's seeds have the ability to remain dormant for many years. This quality was probably significant in its worldwide distribution as they were likely to have been transported from one country to another in earth used as ship's ballast.

It is also alleged by some that it was gypsies who smoked the dried leaves in order to experience hallucinations and transported the seed and thus introduced the plant to Europe in the middle to late 16th Century from the Near East. This theory would lend support to the ready association of the plant in Europe with witchcraft, not only because witches were said to inhale the vapours as they cast their spells but also because women seemed to be particularly susceptible to it and, in addition to hallucinations, the plant gives a sensation of flying and releases inhibitions. (It was said to feature as an ingredient in versions of the so-called 'flying ointment' used by witches in many parts of Europe.)

In England during the Middle Ages this association with witches was of such strength that it was considered unlucky to have the plant growing near your home.

It would seem that thorn-apple has made a contribution to genetic discoveries. A paper in 1934 by an American botanist, Dr. Albert Francis Blakeslee (1874-1954), discusses his work on chromosomes in thorn-apple cells.

Many of thorn-apple's medicinal properties were familiar to the Arabs and the famous Arab philosopher and physician, Avicenna (980-1037), referred to these in his works.

In India thorn-apple has been used medicinally for centuries to treat a range of diverse illnesses and disorders, including epilepsy, hysteria, heart disease, pneumonia, sexual problems and mumps.

Although it was eventually cultivated in Britain for medicinal use up to the time of the 1st World War, this was only on a small scale (in for instance the herb farms at Long Melford or Brentford) as the dried leaves were generally imported from Germany or Hungary.

Farmers are posed a problem if the plant is growing amongst crops as their harvest could be contaminated. Animal poisonings have been recorded from feed adulterated in this way. Similarly honey can also be polluted if the bees have visited thorn-apple. However in areas like Britain, where the plant is uncommon, this eventuality would be unlikely because of the scarcity of the plant.

In modern literature thorn-apple's poisonous nature provides the backdrop for a novel entitled *Thornapple* by the English crime novelist Ruth Rendell, Baroness Rendell of Babergh (1932-).

Modern Western medicine is said to owe its introduction to thorn-apple in the later 18th Century to a Baron Storch (who is also said to be credited with re-introducing henbane (*Hyoscyamus niger*) similarly). The plant has been used in the 20th Century in particular to ease pain, and for the treatment of asthma, tetanus and epilepsy. In medical research this plant has been the subject of detailed genetic analysis since the last decades of the 20th Century. It was reported in 2002 that Japanese scientists have identified chemicals that can be used to stem growth in some kinds of brain cancer. Thorn-apple is used today in proprietary medicines and in homoeopathic treatments.

It is the birthday flower for 6th June.