

## SACRED DATURA (moon lily, thornapple, jimsonweed, angel trumpet)

People often notice the large, showy blossoms of the sacred datura (Datura meteloides) and wonder what type of a plant it may be: a lily? perhaps a morning glory? Actually this plant is a member of the tomato or potato family (the Solanaceae). The grey-green foliage does resemble a large potato plant. If you thought the flower similar to a large petunia, you wouldn't be far off, since petunias are in the same family. You may be familiar with some edible members of this family: the obvious tomatoes and potatoes but also bell peppers, eggplants and chilies. You may also be familiar with the less edible, sometimes poisonous, members of the Solanaceae, including tobacco, deadly nightshade, horse-nettle, and sacred datura. Another name for the tomato family is the nightshade family and for many years tomatoes were regarded as poisonous.

Datura has been used for centuries for its chemical properties. The chemicals present are atropine, which can be deadly, and scopolamine. These chemicals are present in every part of the plant: the roots, stems, leaves, flowers and seeds. Therefore, ingesting any part of the plant can be quite deadly. You may wonder why anyone would want to eat parts of this plant, but datura has long been known as a hallucinogen, due to the presence of scopolamine. Unfortunately, those who wish to experiment with scopolamine are, at the same time, giving themselves an unknown dose of the deadly atropine; many don't live to tell of their experience.

Southwestern Indians have long known of this plant's vision-inducing properties and also of its deadliness. Scopolamine has been used for many years in various ways. It was previously administered to women giving birth so they would be unaware of the pain of delivery--it was not a pain "killer." It was also the truth serum of World War II. Scopolamine is now used as a cure for motion sickness, marketed as a small tape disk applied to the skin behind the ear. The chemical is then slowly absorbed through the skin. Eye doctors use scopolamine to dilate the pupils for refraction and to relax the eye after injuries. This aspect came in handy for a famous woman renowned for her beauty--Cleopatra.

In the time of the ancient Egyptians, it was believed that those with large pupils were more beautiful. Since the seeds of tomatoes also contain traces of scopolamine, Cleopatra and other women would place a small seed under each lower eyelid. The seed would release small quantities of the chemical and thus dilate the pupils. It is reported that Cleopatra could **attract anything** with her "limpid pools of beauty," but that she really couldn't **see anything** as a result!

We cannot avoid the subject of datura's deadliness, caused by atropine. This alkaloid works to relax smooth muscle in the body. What's a very important smooth muscle? The heart. You can easily conclude what happens as one's heart relaxes--slows--stops. Atropine is an ancient medicine, still in use today. Since it works to relax gastrointestinal muscle it was formerly the leading medicine in treating ulcers and gall bladder disease. As early as 1640 Spaniards and East Indians used the plant to treat kidney and gall stones.

A closely related plant of India is commonly called mother-in-law plant. You can probably guess why! It was used by unhappy sons- and daughters-in-law to dispatch meddling mothers-in-law, first causing blindness and then death.

The eastern United States species (Datura stramonium) is called jimsonweed. It attained this nickname in 1676 when six militiamen stationed at Jamestown, Virginia, ingested the plant. They obviously had heard of its hallucinogenic properties and not its deadly nature. All six died and the plant was christened "Jamestown weed" to recall the tragedy. Through the years the name has been corrupted to "jimsonweed."

The name thornapple comes from the plant's very spiny, green, tomato-like fruit. The name moon lily comes from the lily-like flower which blooms only at night. The blooms only persist until late morning, fading when struck by sunlight. You may also see these flowers in bloom on an overcast day.

The flower is pollinated only by night-flying hawk and sphinx moths. These insects are drawn to the flower by its smell (it smells like whatever a moth would like to smell), its tasty nectar (to a moth) and its moth-attracting white luminescence. The flower that may bloom during a sunny day doesn't have much chance of being pollinated.

If you develop a rash when working amidst tomato plants, you may want to stay clear of datura, for it can induce a similar rash in those sensitive. Luckily, there have been few reported sicknesses and no deaths in the Zion area due to this plant.

Sacred datura is a beautiful and dangerous plant--one to be admired and respected.