

The Weekly Plant 29 July 2012

Common names: sacred datura, western jimsonweed, thornapple, indian-apple, tolguacha

Scientific name: *Datura wrightii* (formerly *Datura meteloides*)¹

TAV location:

At the top of my driveway, visible from the road in the early morning.

WARNING!

All parts of this plant are poisonous. Leaves and sap can cause contact dermatitis in some people. Southwestern Indians used this plant medicinally and in religious ceremonies (it is a hallucinogen) and, even with their extensive experience, didn't always get it right. Fatalities are known, especially among those who try to use it recreationally. Also toxic to animals, but they are usually smart enough to avoid the plant.

Discussion:

I've been waiting for the caterpillars to discuss this plant. This is the second year they've appeared in late July. First, the plant.

Sacred datura is native to the desert southwest. It is a perennial, typically growing to a width of 3-4 feet. The flowers are extraordinary! Over 8" long and 5-6" wide, held upright, they open late in the evening and begin to fade with morning sun (mine start fading by 9AM on a sunny day, somewhat later when it is cloudy. I have seen 15 flowers open on a single morning.) The flowers are white, sometimes with a lavender tinge. As they fade, they bend over, creating a bit of a messy look. The spiny fruit forms, also hanging down, first green, then brown.

The leaves are alternate, large also (6" or longer), but variable in shape. The edges may be rounded, perhaps a bit wavy, or they may have a few large teeth. The whole plant dies to the ground in winter but resumes growth as weather warms, starting to bloom in late April.

It can grow without irrigation but will be larger, with more flowers, if supplemental water is provided.

For two years I have noticed holes in the datura leaves. A close look revealed tobacco hornworms. These are the larval (caterpillar) stage of the Carolina sphinx moth². They will feed on several different plants in the nightshade family and are often found on tobacco, tomato, and datura plants. Once full grown (after about 3 weeks) the hornworm will burrow in the ground and form a dark-brown pupa from which the moth will soon emerge (after about 3 weeks). Yes, the leaves will look ratty, but the plant can survive the loss of some leaves, soon producing a new crop.

A young tobacco hornworm, about 1" long. Note horn at end of abdomen and legs held under the head. Five prolegs are grasping the stem. Full-grown hornworms are 3-4" in length and as big around as my thumb.



Above left: leaves. Below left: fruit. To right: open datura flower.



¹ GRIN Online Database is the source of the currently accepted scientific name.

² Moth photos: <http://www.butterfliesandmoths.org/species/Manduca-sexta>