

The Weekly Plant

23 March 2014

Common names: tree tobacco

Scientific name: *Nicotiana glauca*¹

TAV location:

On Langtry just north of the landscaped area round the Villa. Stand on the sidewalk at the very north end of the Villa landscaped area (N of their parking lot). Look up the hill for the large shrub with the yellow flowers (picture right taken from that location).

Discussion

I didn't mean to select another poisonous plant for this Week's Plant, but I did. I also managed to select an invasive one.

Tree tobacco is from South America, native to Argentina, Paraguay and Bolivia. Most references imply the plant was brought to the United States by the Spanish, possibly as an ornamental. It was reported in California in 1848 and was grown in Tucson by 1891. This plant has the ability to flower year-round in warm climates, to self pollinate and to produce thousands of seeds, so soon it was found outside cultivation. Soon it was invading natural areas. Now it is considered invasive in California and Hawaii. It has invaded Africa, Israel, Australia, and countries around the Mediterranean.

If that was not enough of a problem, tree tobacco is toxic. There are over 70 species of *Nicotiana*. All produce nicotine and/or related compounds as a way to prevent herbivory. It's the related compound - anabasin - that's the problem here. While nicotine can act as a stimulant, anabasin depresses respiration. Eating the leaves is fatal to cattle, horses, swine, sheep, ostriches², and humans.

Tree tobacco can grow to over 20 feet in warm-winter climates. Here in Tucson, temperatures below 23°F can kill the top growth so we often have more of a large shrub than a tree. The flowers are formed at the end of the branches and they just keep coming if not frozen back. The old seed pods plus the new flowers can become so heavy the branches bend over with the weight.

The leaves are large, glabrous and glaucous. Glabrous means they are smooth, without hairs. Glaucous means the leaves are covered with a whitish coating, sometimes called a "bloom", that makes the leaf look bluish-green or white. You see this same type of coating on the skin of plums. Just as with plums, it is possible to rub off the bloom, revealing the true color underneath. The bloom may hinder the easy movement of insects and help protect the plant from their feeding.



Tree tobacco flowers are yellow and about 2" long. Above you see the flowers at the end of the branch, the new green fruit and the old brown fruit.



Left: leaves can reach 7-8" in length.

Center: glaucous leaf

Right: same leaf with a portion of the bloom rubbed off, showing a darker green underneath.



¹ Tropicos is the source of the currently accepted scientific name: <http://www.tropicos.org/>.

² Source: Both, Steenkamp, Oliver, and Bekker: J S Afr Vet. Assoc. (2011) 82(2) 116-119, found online.