

The Weekly Plant

31 August 2016

Common names: puncturevine, goathead, caltrop, cat's-head, devil's thorn, tackweed, Mexican sandbur, Texas tacks, bullhead

Scientific name: *Tribulus terrestris*¹

In our Community: Along the driveway bordering lot 173. Look for the yellow and orange flags.

Discussion

There are weeds, and then there are noxious weeds. Noxious weeds are defined by a Federal, state, or county law as those plants “injurious to public health, agriculture, recreation, wildlife or property.”² The law usually includes restrictions on bringing the plant or its seeds into the state and provisions for ensuring eradication of the plant if it is found.

The Arizona [noxious weed list](#) contains at least 53 plants, including this Week's Plant. I'm breaking the law just a little bit, but I promise I'll remove the plants after you've had a chance to look at them.

Puncturevine is an annual, native to southern Europe and perhaps Asia, that arrived in the US in the early 1900s. It has spread throughout the western US (and is defined as a noxious weed in most of those states³) and can be found in Florida and the Midwest as well. It has many common names but I think my favorite is “scourge of the earth”.

What's so terrible about this plant? It competes with farm crops for water and nutrients, reducing yield. It contains chemicals that are toxic to farm animals, especially sheep. The fruit is an effective [caltrop](#) and even low levels of contamination in feed can injure the mouths and digestive tracks of livestock. The fruit sticks to shoes, feet, and fur; its spines are hard and sharp enough to puncture thin tires, like those on a bicycle.

Typically found in pastures, roadsides, waste and disturbed spaces, and cultivated fields, puncturevine is unexpectedly not as much of a pest in natural areas as might be expected. Apparently, it does not compete effectively with established plants.

In our area, puncturevine germinates with the monsoon rains and dies with winter cold. The stems can grow up to 5' long, forming a mat as they run along the ground. The opposite leaves range from 1-3" long, with 5-8 pairs of small oval leaflets. The hairs on both the stems and the leaves are easy to see. The flowers are yellow with 5 petals, 1/4-1/2" wide, with some resemblance to the flowers of creosote bush, its close relative.

The fruit, which gives rise to so many creative names, is made of five parts that eventually separate. Each part has two long sharp spines and a number of other small, sharp protrusions. Drop a part of the fruit on the ground and it will inevitably land so one of those spines is pointing upward, just waiting for the unwary foot or tire.

Like all annuals, cultural methods can be an effective control: dig up the plant before it flowers and produces seed, then monitor the area for several years and remove any plants you find. [Note: if the plant has already produced fruit, make sure to collect them and discard. Don't leave them on the ground.] This works well in a yard but perhaps not so



Left: flower. Note the 5-lobed stigma in the center of the flower.
Right: 5-part fruit. The stigma is still visible in the center. Note spines!!
Top: form. Note the opposite, compound leaves with hairy leaflets.



well for large areas such as roadways. Fortunately, there are [two weevils](#) that can be used for biological control. They kill the plants and reduce seed output in plants that are not killed.⁴

As you walk around the Village, stop at lot 173 and look at puncturevine. They'll be gone before you know it!

¹ [Tropicos](#) is source for accepted scientific name.

² http://www.blm.gov/wo/st/en/prog/more/weeds/weed_definition.html

³ <http://bonap.net/NAPA/TaxonMaps/Genus/County/Tribulus>

⁴ http://www.trivalleycentral.com/trivalley_dispatch/farm_and_ranch/arizona-gardeners-two-weevils-make-biological-control-of-puncture-vine/article_73fd8d18-4bdb-11e3-8012-0019bb2963f4.html