

Invasive Plant Species in Chester, CT

Common Name: Tree-of-Heaven (TOH)

Scientific Name: *Ailanthus altissima*

Origin: China

General Information and Concerns: TOH is extremely hardy - it can grow out of cracked pavement and concrete, abandoned lots, fields, stream banks and woodlands. TOH can form monocultures and crowd out native vegetation. It produces copious amounts of wind-dispersed seeds and can send up many young tree clones, suckers, from the roots of a mature tree (especially if the adult tree is injured). It is allelopathic, meaning its roots and leaves produce toxins that inhibit other plants, and it is not very palatable to deer, so it is avoided while native species are eaten.

TOH is the preferred host of an invasive insect, the spotted lanternfly that is poised to wreak havoc on vineyards, orchards and many of our native forest trees. To date, spotted lanternfly populations have been mostly contained in several counties of PA. But, single adults and small isolated populations have been reported in CT and several nearby states.

Identification: This fast-growing tree can reach 80 feet.

Bark: pale gray with lighter ridges, like cantaloupe rind (Photo 1, David Jackson, Penn State Extension).



Leaves: large compound leaves, one to three feet long, each with a central reddish stem to which 10 to 40 leaflets attach (Photo 2, David Jackson). At the base of each leaflet are one to two protruding bumps (this is a good way to distinguish it from similar native plants).



Stems: brown stems of young trees are bulky, and the leaf scar, where a leaf has separated from the stem, is distinctive - large and heart-shaped (Photo 3, Peter Auster).



Flowers & Seeds: large clusters of pinkish flowers on female trees appear in June, and flat achene seeds in September (NJ Agriculture Exp. Station).



Odor: unpleasant odor of rancid peanut butter emitted from the leaf stem or crushed leaf.

Local examples: Young trees grow in the streambank rip-rap at the back of the Norma Terrace Theater parking lot. There are a couple of labeled mature trees at the Chester Land Trust Scudder Preserve, and a cluster of young shoots on the hillside just east of the Chester Package Store lot.

Similar Native species: TOH can be easily confused with native desirable species such as sumac (staghorn, smooth, winged and even poison), which provide pollen and nectar for native insects, and fruits for birds and other wildlife. It also can look like black walnut, which is native to most of the eastern US and an important wildlife and landscape tree.

Control: As with most exotic invasives, persistence is key. Hand-pulling seedlings so that all of the root parts are removed, can be effective. But, cutting a young or mature tree without poisoning it will likely just promote stump sprouts and root suckers, so a combination of herbicide and cutting is recommended. One of the most selective and effective ways to apply herbicide is to make a diagonal downward cut in the stem and squirt in concentrated herbicide, a process called “hack and squirt”. For a cluster of small trees, a careful foliar application may be necessary. Use of herbicide is most effective in late summer to early fall. Once the tree and its sprouts are dead, it can be cut down. See more about control in References below.

References:

Pennsylvania State University, <https://extension.psu.edu/tree-of-heaven> and the

US Forest Service, <https://www.fs.fed.us/database/feis/plants/tree/ailalt/all.html>.

To familiarize yourself with the spotted lanternfly and report a sighting, go to the CT Agricultural Experiment Station website, <https://portal.ct.gov/DEEP/Forestry/Forest-Protection/Spotted-Lanternfly>.