

PROTECT URBAN HABITAT— STOP THE SPREAD!

Tree-of-Heaven (*Ailanthus altissima*)

The Problem: Tree-of-heaven is grows almost anywhere, including in sidewalks, foundations, and bridge abutments. Female trees are prolific seeders and can produce more than 300,000 seeds annually. Established trees form colonies, spreading by sending up root suckers. A cut or injured tree may send up dozens of stump and root sprouts. Tree-of-heaven produces allelopathic chemicals in its leaves, roots, and bark that can limit or prevent the establishment of other plants. It is drought tolerant, but does not tolerate shade or wet soils.

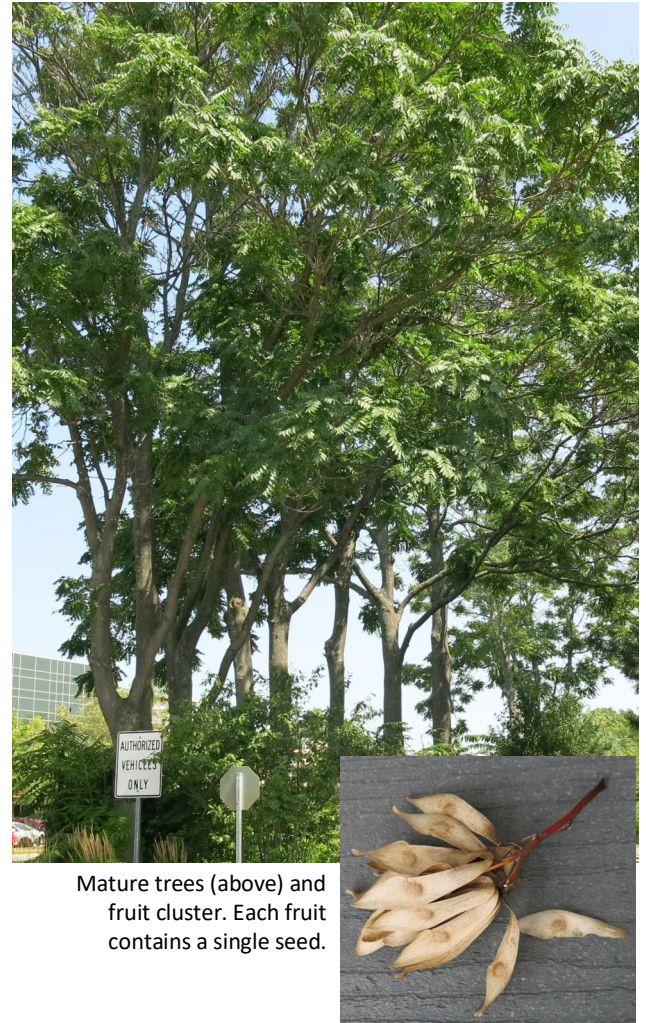
Description: Tree-of-heaven grows rapidly and can reach heights of 80 feet. The bark is smooth and brownish-green when young, eventually turning light brown to gray. Leaves have a central stem on which leaflets are attached on each side (pinnately compound). One leaf can range in length from 1 to 4 feet with anywhere from 10 to 40 leaflets. The leaflets are asymmetrically-lobed with smooth edges, whereas the leaflets of native trees, such as walnut and sumac, have teeth. When male plants are crushed, the leaves and all plant parts give off a strong odor. The fruit, which appear in August-October, grow



in clusters and may hang on the tree through winter. The fruit are dispersed by wind.



Seedling (top) and young plant growing out of a foundation.



Mature trees (above) and fruit cluster. Each fruit contains a single seed.

Management for Homeowners: Hand pulling young seedlings is effective when the soil is moist and the entire root system is removed. However, seedlings can be easily confused with root suckers, which are nearly impossible to pull by hand. When pulling, small root fragments left in the soil can generate new shoots. If you can't dig out the full root system, pull the stems to weaken the plant over time. It will take repeated pulling to fully weaken and eradicate the plant.

Cutting or mowing larger trees is effective in that it removes the source of seed production. However, cutting will result in the tree producing stump sprouts and root suckers. Well-established stands can only be eliminated through repeated efforts and monitoring.

Herbicide application is effective in killing the root system, but care must be taken to avoid exposure of desirable vegetation. Be sure to read and follow all label directions. Professional application is recommended for large infestations.