



IDENTIFY

TREE of HEAVEN

(*Ailanthus altissima*)

Tree-of-heaven is a **prolific seed producer** and **grows rapidly** to form dense thickets and stands, often overrunning native vegetation. Once taproots are established, it can quickly take over a site and **form an impenetrable thicket**. The root system can cause damage to sewers and foundations. It produces toxins that **prevent the growth of other plant species**.

TREE OF HEAVEN | James H. Miller, USDA Forest Service, Bugwood.org



CHARACTERISTICS

Tree-of-heaven is a rapidly growing deciduous tree which, at maturity, can reach 80 feet in height. All parts of the tree, especially the flowers, have a strong odor similar to that of peanut butter or cashews. Correct identification of tree-of-heaven is important, as several native trees and shrubs look very similar, including sumac, ash and black walnut. This invasive species can be differentiated from native species by its pungent odor and glandular teeth located near the base of the leaflets. The trunk is smooth with pale gray bark and light brown twigs. The wood is soft, weak, coarse-

grained, and creamy-white to light-brown in color. Leaves are compound, alternate, 1–4 feet in length, and composed of 11–25 leaflets. Yellow-green flowers appear near the tips of branches in large clusters in late spring to early summer.



TREE OF HEAVEN
Chuck Bergeron, University of Georgia, Bugwood.org

WHERE FROM

Native to China and originally sought for its medicinal qualities, it was first introduced to the U.S. in 1784.



TREE OF HEAVEN LEAFLET DETAIL
James H. Miller, USDA Forest Service, Bugwood.org

WHERE FOUND

Found in 42 of the 50 states, tree-of-heaven is common throughout the United States and has become widely naturalized. It is found in disturbed areas, including vacant lots, alleys, sidewalks, parking lots, along railroad tracks and streets; it is also found in fields, roadsides, fence rows and forest edges and openings. Extremely common in both urban and rural settings, it thrives in poor soils and tolerates pollution. It is not found in wetland or shaded areas.

CONTROL

CHEMICAL METHOD

The most effective method of control is the application of systemic herbicides such as glyphosate, imazapyr, and triclopyr. Between June and September, these herbicides can be sprayed onto leaves or painted onto freshly cut stumps.

MANUAL METHOD

Although not recommended as the only method of removal, young seedlings can be pulled or dug up when the soil is moist, if it is certain that the entire plant, roots, and root fragments can all be removed. If all parts are not removed, the plant is sure to re-sprout.

MECHANICAL METHOD

For larger trees, manually operated tools can be used. However, other methods (i.e., chemical) will also need to be employed as tree-of-heaven responds favorably to cutting by producing large numbers of stump sprouts. Cutting should be done in early summer.

REMEMBER

When removing, **be careful** not to remove or destroy desirable species, such as sumac, ash, or black walnut.

Cutting alone will not control the problem. Many times it will encourage new growth. Follow-up cutting with an herbicide application. Be sure to remove the entire plant, including the root system.

REPLANT

Replant area with native alternatives.

(Read and follow all herbicide labels carefully before use.)