

# What poisons the soil, wrecks fields & forests, and hosts the spotted lanternfly?

## The Culprit: Tree-of-Heaven (*Ailanthus altissima*)



*Tree-of-heaven grows quickly and often forms dense thickets.*

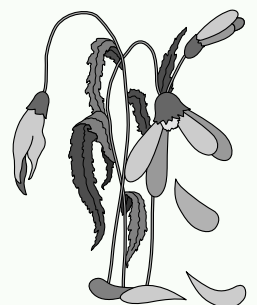
Imported from China and planted in a Philadelphia garden in 1784, the tree was commonly available in nurseries by the mid-1800s. It soon escaped cultivation and today is present in most of Virginia.

**Now we know =>**

Tree-of-heaven threatens forests and landscape trees, and is the preferred host tree of the invasive spotted lanternfly.

### Why It's a Problem

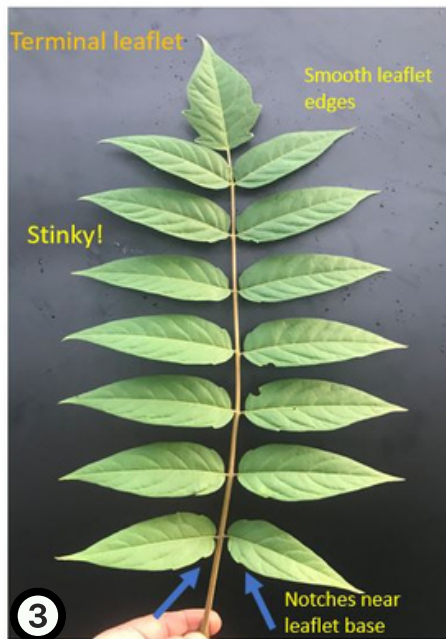
- Outcompetes desirable plants by poisoning the soil with toxins exuded from its roots and fallen leaves
- Produces large amounts of seeds, and has a vigorous root system that results in numerous sprouts
- Can invade almost anywhere, especially disturbed soil
- Preferred host for the spotted lanternfly, which threatens to become a serious agricultural problem by ruining fruit crops



## What Does It Look Like?



Leaves are 1 to 4 feet long and are composed of 11 to 41 leaflets with a terminal leaflet. Each leaflet has one or more small notches at its bases. Small bumps (glands) are visible on these notches.



Twigs or shoots are stout and can vary from a yellowish brown to a reddish brown. They have large, heart-shaped leaf scars in winter.





Twigs are easily broken and have a reddish brown pith that often smells like rancid peanut butter. Seed clusters on female trees begin as creamy-yellow and ripen to yellow-green or red-brown.



**Spotted Lanternfly**

Trunk bark is patterned and pale tan when young and gray when mature; it is smoother than the bark of most native trees. The bark resembles the skin of a cantaloupe when young. Tree-of-heaven is a host tree of the invasive spotted lanternfly.

## How Do I Control It?

- Individual small saplings can be pulled by hand in moist soils. However, all roots must be removed to prevent resprouting.
- Hack and squirt or foliar spray herbicide treatments are best utilized in the summer months before the onset of fall leaf color.



The hack and squirt method involves making a downward (~ 45 degrees) cut with a hatchet into the trunk at about waist height. Using a squirt bottle, spray a concentrated herbicide into the cut immediately after you make it. Repeat, leaving 2 inches between cuts.

## Additional Information

### Blue Ridge PRISM

-- Tree-of-Heaven Fact Sheet

-- Resources on Invasive Plants



## Photo Credits

1. Blue Ridge PRISM
2. Steve Shafer
3. Virginia Department of Forestry
4. Rowena Zimmermann, Blue Ridge PRISM
5. Rowena Zimmermann, Blue Ridge PRISM
6. Blue Ridge PRISM
7. Tim Maywalt, Blue Ridge PRISM
8. Rowena Zimmermann, Blue Ridge PRISM