



Tree of Heaven removal

Tree of Heaven responds to being cut down by sending up dozens of aggressive root shoots, turning one tree into a dense thicket. To protect local Massachusetts wildlife, you must avoid broad foliar sprays that drift onto native plants, and instead target the root system directly.

Removal Strategy by Size

Tree Size	Least-Harmful Method	Wildlife Impact
Seedlings (Under 1 inch thick)	A. Hand-pulling. Wait until after a heavy rain when soil is soft. You must extract the entire taproot, or it will regrow.	Zero. No chemicals used.
Saplings (1 to 6 inches thick)	B. Basal Bark Treatment. Paint a targeted herbicide strictly on the lower 12-18 inches of the intact bark.	Low. No airborne drift.
Mature Trees (Over 6 inches)	C. Hack-and-Squirt. Injecting a concentrated herbicide directly into the tree's vascular system.	Very Low. Chemical is contained entirely inside the tree.

A. Hand Pulling of Seedlings:

- **Pull or dig seedlings immediately:** Hand-pull small seedlings when the soil is wet, making sure to get every piece of the root. Use a digging tool for larger saplings.
- **Constantly starve the roots:** If you cut an established tree down, you must inspect the area weekly during the growing season. Cut off every single new sprout or sucker the moment it breaks the soil.
- **Prevent photosynthesis:** The root system relies on green leaves to make food. By clipping off every new green shoot immediately, you prevent the leaves from feeding the roots, eventually exhausting the tree's energy reserves.
- **Be persistent for years:** This manual depletion process takes relentless diligence and must be repeated for at least one to two years (or longer for large root systems) until no new shoots appear.

- **Wear protective gear:** Handling tree of heaven wood, leaves, and sap can cause skin irritation or rashes, so always wear long sleeves and gloves.

B. Basal Bark Treatment for Saplings

In Massachusetts, this can be done from mid-July to mid-October. Treating at any other time of year will NOT work due to tree's dormancy.

Saplings can be quite tall; from 5-20 feet. You will be painting herbicide on the bark for the first 12" 14" of the trunk, all the way around.



- **Use a foam brush:** A cheap, disposable 2-inch foam paintbrush works much better than a standard bristle brush. Foam holds the oil-based mixture like a sponge, allowing you to press it firmly against the bark to release the liquid exactly where you want it without any splashing.
- **Paint from the bottom up:** Start at the top (approximately 14") and work your way down to the soil carefully. That way, if the brush does drip, it will drip onto the bark you haven't painted yet, rather than onto the dirt. Work slowly to avoid drips.
- **Wear gloves:** Because your hands will be very close to the trunk, you are more likely to accidentally brush against the wet bark. Wear heavy-duty, chemical-resistant nitrile gloves that extend up your forearms.

Once you finish, dispose of the foam brush in a sealed plastic bag in your regular household trash—do not try to wash the oil-based herbicide down your sink.

C . The "Hack-and-Squirt" Method for Mature Trees

In Massachusetts, this can be done from mid-July to mid-October. Treating at any other time of year will NOT work due to tree's dormancy.

For established trees, this is the safest method for surrounding wildlife because the herbicide never touches the soil, air, or neighboring native plants. Late August or September is an optimal time to do it—the tree is actively moving sugars down into its root system for winter, which will pull the herbicide directly into the roots.

1. Equip safely:

Wear gloves and eye protection.

Tree of Heaven sap can cause skin irritation and very rarely, heart inflammation. Wear chemical-resistant gloves, long sleeves, and safety glasses.

2. Make downward cuts:

Using a knife, hatchet or machete, make a downward angled cut through the bark at chest height. Twist the blade slightly to create a small "cup" in the wood. Space these cuts evenly around the trunk, leaving intact bark between them.



3. Inject the tree

Immediately spray exactly 1 milliliter (usually one pull of a standard spray bottle) of a concentrated triclopyr or glyphosate solution directly into the cupped cut. The wood will absorb it immediately. Work slowly and carefully to avoid any spillage.

4. Wait for dieback:

Do not cut the tree down yet. Leave the tree standing for at least 30 days. Cutting it too soon prevents the roots from dying. Once the tree is completely dead, it is safe to fell and remove.

How to tell if the tree is dead:

If you have treated the tree(s) later than July, it is smart to let the tree stand through the winter to be absolutely sure the treatment has worked and the tree is dead. But there are three way to see if the tree is dead sooner:

1. Scratch test: Use a pocket knife to make a nick in the outer bark. If the area revealed is brown, hard and dry, the tree is dead.



2. Leaves: Look at the tree canopy. All leaves should have turned brown or yellow and dropped off within 2-4 weeks of treatment.
3. Seedlings: Look at a 10' radius around the tree. If you see lots of small Tree of Heaven seedlings, that shows you that the treatment didn't work and the root shock caused the plant to send out many new seedlings.



Which Chemical to Choose

Triclopyr (Amine Formulation) - The Safer Choice

- **It is selective:** Triclopyr only targets broadleaf plants, trees, and woody vines. If you accidentally spill a drop on the ground, it will not kill the surrounding grasses. However Triclopyr can stay viable on soil for a while—don't drip!
- **Better aquatic safety:** The water-based "amine" formulation of Triclopyr is practically non-toxic to fish, amphibians, and insects. Given the amount of wetlands and coastal areas in Massachusetts, this is a major benefit. *(Note: You must ensure you buy the water-based **Amine** version. Avoid Triclopyr **Ester** formulations, which are highly toxic to aquatic life).*

Glyphosate (e.g., Roundup) - Higher Collateral Risk

- **It is non-selective:** If you spill glyphosate, it kills any plant it touches, including grasses and native groundcover.
- **Toxic additives:** While pure glyphosate breaks down quickly in soil, many standard consumer brands mix it with a chemical "surfactant" designed to help the liquid stick to waxy leaves. This common surfactant is highly toxic to amphibians and fish. To use glyphosate safely near wildlife, you have to track down specific "aquatic-approved" commercial formulations (like the brand Rodeo) that do not contain these toxic additives.

What to buy: Look for a concentrated herbicide where the active ingredient is listed as **Triclopyr Amine** (sometimes sold under brand names like Vastlan, or generic concentrated "Brush Killers"). Because you are injecting it into the tree, you want a high concentration (often 40% to 50% or higher), rather than a watered-down pre-mixed spray bottle.