

Native Plant Trust

Common Invasive Species and How to Manage Them

The best way to prevent invasive plants from becoming established is to not plant them. Many of the species now known to be invasive were imported as ornamental plants and sold in nurseries; some of them are no longer legal to sell in New England states. When in doubt, or when ordering online, buy only plants native to this region.

Where invasive plants are already established, here are appropriate mechanical and biological ways to control and dispose of them.

Invasive Plant Control Basics

Most plants can be controlled by three basic strategies:

- Mechanical (hand-pulling, digging, smothering with tarps or black construction plastic, mowing, or weed whacking)
- Biological
- Chemical

Mechanical control requires only a handful of tools and works best for small sites with shallow-rooted herbaceous (non-woody) or young woody plants. Caution: Hand-pulling and digging disturb the soil, and invasives can readily recolonize those places. Make sure to check the site for new seedlings several times a season. To avoid spreading invasive seeds, remove or mow plants before they flower. Some plants also spread from cut fragments, so be sure to clean up pieces on the ground, especially after weed whacking or mowing.

Biological control uses plants' natural enemies to keep populations in check. What biocontrols are available may vary by state. Contact the Fish & Wildlife or Agriculture department in your state for more information.

Chemical control uses systemic herbicides to kill plants at their root system using one of two chemical compounds: glyphosate (the active ingredient in Roundup® and Rodeo®) or triclopyr (the active ingredient in Brush-B-Gone® and Garlon®). Herbicides can be applied to plant leaves (foliar application), cut stems, basal bark, or bark that has been frilled (cut with overlapping strokes encircling the trunk or stem). **However, we no longer recommend using glyphosate and other herbicides, due to research indicating harmful health effects.** For more information about glyphosate and which products contain it, visit the [National Pesticide Information Center website](#).

Disposing of Invasive Species

When doing invasive plant control, have a strategy up front for disposing of whatever you cut down, mow, or pull. Strategies depend on how the plant reproduces and include bagging, burning, chipping, and tarping. Plant parts that cannot re-sprout, such as woody stems and herbaceous plants without seed heads, can be left in brush piles to dry and compost on the site. Materials that can re-sprout, such as Japanese knotweed stems or roots, must be burned or bagged to ensure there is no living plant material before being taken to a landfill. The same thing applies to plant parts with seed: all seed heads and even soil containing seeds must be bagged and left in the sun for several weeks to decompose before disposal in a landfill. For more information on disposing of invasive plants, visit: UNH Cooperative Extension Invasive Plant Disposal (add link; https://extension.unh.edu/resources/files/resource000988_rep1720.pdf).

Best Management Practices

A note on smothering plants: Many invasive plants can be smothered using tarps or black construction plastic, especially in areas with direct sunlight. Remove all top growth before covering. Smothering is most effective if the covering is done in the spring and left for the entire season.

Herbaceous Plants

Black swallowwort (*Cynanchum louiseae*) and pale swallowwort (*Cynanchum rossicum*)

- For small infestations, dig out root crown at any time during the growing season for several years, being careful to capture all pieces to prevent resprouting.
- Cut or mow in summer to prevent seed production; monitor for resprouting.
- Smother small infestations.

Common reed (*Phragmites australis*)

- *Note:* There is a native subspecies of *Phragmites* that is not invasive, so be sure to properly ID the plant.
- Repeated cutting or mowing above-ground stalks during the growing season is not effective, as common reed spreads by seed and rhizomes. Instead, in summer, manually or mechanically cut stems beneath the lowest leaf, before the flowers produce seed.
- In loose or sandy soil, hand cutting individual stalks below the soil surface is proving effective.
- There is recent success with cutting common reed under water, to cut off its oxygen, and deep enough that new shoots cannot reach the surface (see <https://www.opwg.ca/>).
- Smothering can be effective.

Garlic-mustard (*Alliaria petiolata*)

- Plant is a biennial. Hand pull plants to get entire root system or cut to ground before or during blooming in spring, to prevent seed production. Can also pull rosettes in the fall.

Japanese honeysuckle (*Lonicera japonica*)

- Hand pull or uproot small infestations in spring through early summer.
- Mow low to ground at least twice annually.

Japanese knotweed (*Fallopia japonica*)

- Hand pull or uproot young plants in spring.
- Cut stalks repeatedly throughout the growing season, being careful not to scatter fragments that might resprout.
- Smothering is effective.
- See <https://www.agriculture.nh.gov/publications-forms/documents/japanese-knotweed-bmps.pdf>

Japanese stiltgrass (*Microstegium vimineum*)

- *Note:* This annual plant looks similar to native white cut grass (*Leersia virginica*).
- Hand pull or weed whack repeatedly each year before the fall flowering and seeding.

Multiflora rose (*Rosa multiflora*)

- Plants can be pulled in spring. Use a weed wrench on large plants. Some resprout will probably occur.
- Repeated cutting 3-6 times a growing season for several years can be effective.

Purple loosestrife (*Lythrum salicaria*)

- Hand dig when there are only a few plants (less than 10).
- *Galerucella* beetles eat leaf and roots and can be used on large stands.

Woody Shrubs and Trees

Autumn-olive (*Elaeagnus umbellata*)

- Hand pull or uproot young plants when there is enough moisture to ensure the full root is removed.
- Mowing, cutting, and burning are not recommended, as they promote vigorous regrowth.
- Produces prolific fruits each season, and plants will continue to sprout from seed carried in from nearby properties.

Asian bittersweet (*Celastrus orbiculatus*)

- Hand pull small plants in spring, but must get entire root and runners, as even small fragments can resprout.
- For large plants, cut close to root collar every few weeks.

Burning-bush/ Winged euonymus (*Euonymus alatus*)

- Hand pull smaller plants or weed wrench larger plants at any time when ground is soft, especially if soil is moist; be sure to remove the entire root system.
- Cut stumps back in fall or winter, then wrap with thick plastic; check and cut back any new growth.

Glossy false buckthorn (*Frangula alnus*) and European buckthorn (*Rhamnus cathartica*)

- Seedlings and small plants can be pulled in early spring and summer, especially when the soil is wet; be sure to remove the entire root system. For larger plants, use a weed wrench.
- Cut plants back at any time of year, then wrap with thick plastic; check and cut back any new growth.
- Annual spring burning for 5 or 6 years will kill most seeds and older stems.

Japanese barberry (*Berberis thunbergii*)

- Hand pull plants and seedlings any time of year, especially when the soil is wet; be sure to remove the entire root system. For larger plants, use a weed wrench.
- Cut stumps back in fall or winter, then wrap with thick plastic; check and cut back any new growth.

Bush honeysuckles (*Lonicera maackii*, *L. morrowii*, *L. tatarica*, *L. xbella*) and other shrubby honeysuckles

- Hand pull plants and seedlings any time of year, especially when the soil is wet; be sure to remove the entire root system. For larger plants, use a weed wrench.
- Cut stumps back in fall or winter, then wrap with thick plastic; check and cut back any new growth.

Norway maple (*Acer platanoides*)

- Hand pull plants and seedlings any time of year, especially when the soil is wet; be sure to remove the entire root system. For larger plants, use a weed wrench.
- Cut stumps back in fall or winter, then wrap with thick plastic; check and cut back any new growth.