

Arlington Land Stewards

Invasive Plant Management Guide

Eradication efforts to control and eliminate invasive species requires careful planning in order to be successful. All efforts are labor intensive and time consuming. Some require repeated efforts over two or more growing seasons in order to be successful. Never-the-less, progress is possible and the work important in order to retain and expand the potential for native species to thrive. What follows is a brief overview of recommended procedures for a few of the most prevalent invasive species in Arlington. Note that only certified applicators may apply chemical controls on town-owned property and all requests for use of herbicides must be made to the Conservation Agent.

Invasive Species Types

Arlington has many invasive plant species (invasives) scattered throughout town. Invasives are dangerous to our natural environment because they exhibit the following characteristics:

1. They spread their seed aggressively
2. They grow rapidly and reach maturity quickly
3. They do not provide good habitat or nutrition for wildlife
4. They suffocate native vegetation within their vicinity
5. They are difficult to remove and control.

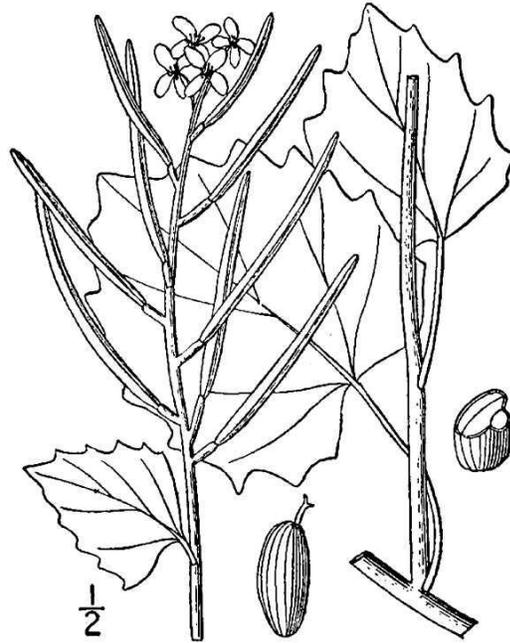
Because of these reasons, invasives create a lack of biological diversity which leaves our native vegetation more susceptible to disease and eradication. This has a compounding effect on our wildlife and pollinators. Without adequate food and shelter, these animals and pests will cease to exist.

The most common invasive plant species in Arlington, and the most likely to encounter in carrying out your stewardship duties include: Garlic Mustard, Japanese Knotweed, and Oriental Bittersweet. This guide will teach you how to identify these plants and effectively manage them.

1) Garlic Mustard (*Alliaria petiolata*)

What Is It?

Garlic mustard is a biennial plant that takes two years to complete its biological life cycle. In its first year, it grows small rosettes of leaves that lie close to the ground and are often unnoticed until much later in the season or over the winter when snow cover is light. In its second year, it grows flower stalks that spread seed. It is most recognizable in this year.



While perhaps the easiest of our common invasive species to physically remove by hand, it can be one of the most frustrating to control in that its seeds remain viable for up to five years in the soil. The absolute key in tackling this species is to adopt a multi-year plan, returning each year to the same treatment areas for continued removal until all evidence of the plant is gone. Once a program of eradication of garlic mustard is begun in a given area, a commitment should be made to return to this area on an annual basis until there is no further sign of this species returning.

When to Remove:

The best method to remove this plant is by hand removal in the spring from mid to late April until mid to late May. This is the time of year when pulling the plant by the roots is easiest as the soil is typically moist from spring rains. Once the plant has finished flowering and set seed, it is best to not disturb it as the seeds disperse very easily and can cling to clothes, shoes, etc, which will spread the seeds over a far wider area than if left alone. In its first year, the root structure is not as strong as in its second year, which means second-year plants are far easier to remove in their entirety. So be sure if you are removing a first-year plant, that you have gotten the entire root system.

How to Remove:

The best method for hand removal is to grasp the plant at the base of the stalk and gently pull the roots from the ground. Placing a bag around the entire plant prior to pulling will help ensure seeds are captured while removing. With practice, the whole root is easy to remove in most soils. If the flower stalk breaks off, continue to pull the root out, as the plant is often able to generate new growth from imbedded roots and finish its flowering and seed production cycle either later in the year or the following season. When clearing an area, make every effort to remove every specimen visible. It only takes a few plants to generate enough seed to repopulate a cleared area the following season.

Discard the entire plant, roots and all, in plastic garbage bags which should be sealed and disposed of either with your curbside trash pickup or if in large quantities, contact the Conservation Office to arrange for DPW disposal. Do not attempt to compost this plant, it will reseed and regenerate and does not break down like other yard waste!

If the area to be cleared is adjacent to wetlands or water, the Conservation Office must be notified in advance to determine if any reseeding efforts need to be undertaken. Removing vegetation adjacent to wetlands or streams can destabilize the soil resulting in the potential for erosion.

2) Japanese Knotweed (*Polygonum cuspidatum*)

What Is It?

Japanese knotweed is the familiar, bamboo-like perennial, often growing to heights in excess of 6 feet or more in dense stands. It spreads via rhizomes (roots that continuously shoot out deep within the soil) making it particularly hard to eradicate.



When to Remove:

There is no bad time to remove this plant. Japanese Knotweed does, however, grow fastest in the summer season when there is a lot of sun. Removing it in the Spring season, after the ground has thawed, will help ensure limited growth over its optimal growing season. You should return to the removal site again in the Fall to cut back any summer growth before the ground freezes.

How to Remove:

Digging or attempting to uproot the plant is not recommended as even small pieces of the rhizomes are capable of regeneration. The best method for control is to cut the plant to the ground as many as three times a season and covering the rhizomes with heavy-gauge black plastic film and heavy mulch on top. Depriving the rhizomes of light is the only way to prevent their regeneration.

When cutting the stalks, cut flush with the ground leaving no protruding stumps. Return to the treated area several times during the season and for several seasons in subsequent years, each time cutting any new growth and then reapplying the black plastic film and mulch as needed.

You may dispose in your regular curbside trash pick-up. If you are removing large amounts as part of a bigger effort, please contact the Conservation Office to arrange for DPW disposal, prior to starting the removal.

3) Oriental Bittersweet (*Celastrus orbiculatus*)

What Is It?

Oriental Bittersweet vine is the familiar vine with the attractive fall berries that open from orange to red as they ripen and are a sometimes used in fall wreath displays. The vine itself, if left unmanaged, can eventually bring down trees and blanket an area with vigorous growth that covers everything in its path.



When to Remove:

The best season for this treatment is late fall after leaf drop. The root stock will re-sprout, often in the same season if cut before late summer/early fall. If cut in the fall, they will re-sprout the following season. Repeat visits are necessary to continue cutting back the new growth and to deprive the main root stock of any remaining ability to regenerate. Return visits to the cleared area later in the season and for the following 2-3 years are necessary to determine if all root stock has been eradicated.

How to Remove:

Young vines can be uprooted by hand. Try to pull out as much of the root as possible. Dispose in a yard waste bin. Older, woody plants which have succeeded in climbing nearby trees should be cut at the base. Cut the climbing vines up as high as you can reach, but leave the remaining vines that have climbed into the tree canopy in place as pulling them down will likely cause damage to the trees themselves. Disperse the cut vines in the adjacent undergrowth for decomposition.

Offsite Disposal

Species that cannot be left to decompose must not be sent to public landfills or compost stations where they would regenerate and spread.

To dispose of these plants:

1. Wrap the plant materials in bags and place in your regular household trash.
2. If a large number of bags are collected, contact the DPW to arrange for the bags to be picked up at the site. Instruct them to dispose as trash not compost.