

Control Methods for Common Invasive Plant Species in Calvert County



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Terminology

Native vs. Non-native

- Native plants evolved and adapted in this area while non-native (introduced) plants have been transported to an area where they did not evolve or historically occur

Non-native vs. Non-native Invasive

- Invasive plants are those that outcompete and take over an ecosystem, causing environmental damage by reducing biodiversity, resilience, and suitable habitat

The ones that cause the most damage are **non-native invasive** species

Control Methods

Manual Removal- hand pulling or cutting

Mechanical removal- use of power tools/equipment to mow, remove trees, etc

Solarization- using plastic to trap heat and kill seeds and underground portions of the plant

Biological- using other organisms as control mechanisms (predators or diseases)

Chemical- using herbicides

Cultural- practices other than direct control that can help reduce non-native invasive plants (limiting disturbance/encouraging a closed forest canopy, not tracking seeds from areas with invasive plants into areas without invasive plants)

*****Often multiple control methods are combined to increase effectiveness- the goal is to reduce energy reserves and prevent seed set**

Oriental Bittersweet

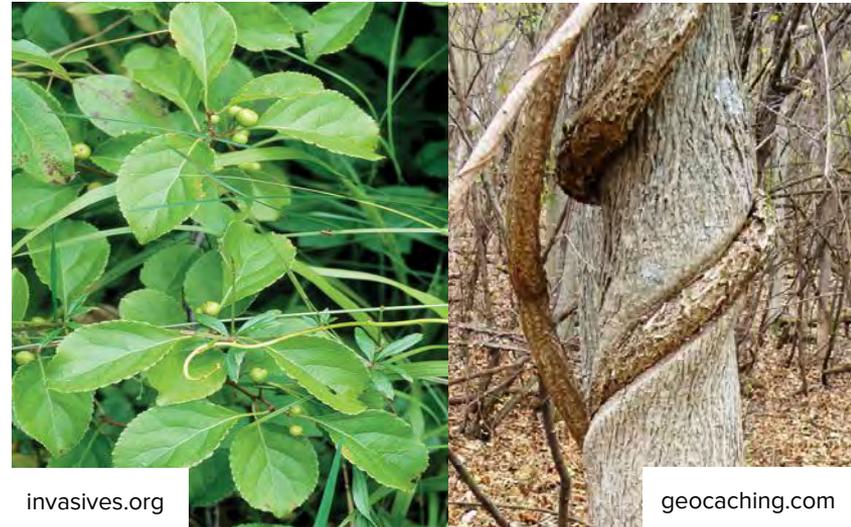
Identification

- Vine with smooth, light colored bark with dark lenticels
- Ovate, toothed (serrated) leaves
- Red berries with orange husks in the fall and winter



Control

- Hand pull to remove roots of small plants
- Repeated cutting at ground level will drain energy
- Foliar spray of glyphosate or triclopyr but hard not to get on non-target plants
- Cut and treat stump with a high concentration glyphosate or triclopyr herbicide
- Reduce infestation into new areas by keeping a closed canopy/limiting disturbance



Japanese honeysuckle

Identification

- Vine with very light tan, “peely” looking bark
- Honeysuckle-like yellow and white flowers
- Small, waxy leaves are dark green year-round

Control

- Hand pull to remove roots
- Repeated cutting at ground level, may decrease spread but increase stem density
- Controlled burning- reduce by as much as 50% in one burn
- Foliar spray with glyphosate or triclopyr herbicide in late autumn when other plants are dormant but honeysuckle is still active



Wisteria

Identification

- Vine commonly used in landscaping
- Compound leaves with smooth edges
- Purple flowers in early summer
- Leaves look similar to native trumpet vine

Control

- Hand pulling roots for small plants
- Repeated cutting at ground level
- Cut stump application of 25% glyphosate or triclopyr
- 2% foliar application of glyphosate or triclopyr
- Educate consumers on negative impacts and promote the use of other species in landscaping



Kudzu

Identification

- Woody vine with compound leaves with 3 round or lobed leaflets
- In the pea family, has “pea-like” purple or red flowers



Control

- Must exhaust extensive root system
 - Can be achieved by regular cutting of vegetation throughout growing season to exhaust energy reserves
 - Stump application after cutting if done late in season
 - Foliar application of systemic herbicide (various chemicals will work) with a large volume of water
 - Repeated application of soil-active herbicides can be effective
- Cut portions must be bagged, burned, fed to livestock, or otherwise destroyed



Autumn Olive

Identification



- Understory shrub, smooth bark with white dots
- Leaves with smooth edges and silvery undersides
- White, fragrant flowers in spring; red berries in fall



Control

- Controlled burning or cutting in the late spring after full leaf out will significantly reduce plant energy and vigor
- Foliar application of glyphosate, triclopyr, fluroxopyr, or picoram in July- September when transport of energy is primarily towards roots
- Cut and treat stump with systemic herbicide concentrate within 5 mins of cutting (works best anytime other than spring)



Multiflora Rose

Identification

- Understory shrub with thorny green stems
- White flowers in spring
- Compound leaves, edges finely toothed

Control

- Small plants can be pulled relatively easily, but any root pieces left in the soil will resprout
- Repeated cutting (6-8 times in a growing season has been shown to be effective)
- Sheep and goats will graze on foliage
- Biological control- viral pathogen rose rosette disease, native in western US, slowly moving eastward naturally, thought to be able to provide control of dense stands
- Cut stump treatment, foliar treatment, or basal bark treatment in dormant season with systemic herbicide



Bradford/Callery Pear

Identification

- Understory tree with white flowers in spring
- Waxy, dark green leaves
- Callery pears have large thorns
- Common landscaping tree, sometimes confused with dogwoods

Control

- Herbicide- foliar spray on young trees; frill, girdle, or cut-stump treatment with concentrate of systemic herbicide (glyphosate, triclopyr, etc) on mature trees- cover sapwood within 5 mins of cutting
- Basal bark treatment during fall or dormant season
- Mechanical removal with heavy equipment to remove roots of mature trees
- Educate people on alternatives for landscaping



Ailanthus altissima (Tree of Heaven)

Identification

- Full height tree with very smooth and very light colored bark
- Compound leaves as many as 20+ leaflets
- Large bunches of red and yellow seeds in fall
- *Host for the non-native spotted lanternfly



Control

- Herbicide- foliar spray for young trees; frill, girdle, cut-stump, or basal bark treatment for mature trees
- Use heavy equipment to remove roots of adult trees
- Target female trees that have many seeds
- Avoid infestations by maintaining a closed canopy when possible



neinvasives.com



mda.state.mn.us

Japanese stiltgrass

Identification

- Grass that can grow up to 24” tall, leaves have a silver stripe down the middle
- Annual that is easy to pull, seeds last 7 years in seed bank
- Can grow in full shade, likes moist areas

Control

- Hand pull to remove roots before August
- Cut to ground level in August (not too early or too late)- don't need to remove roots because it is an annual
- Apply pre-emergence herbicides to the soil to prevent seed germination (*Pendimethalin, imazapic, sulfometuron*)
- Spray with 1% glyphosate or a grass specific herbicide (*quizalofop, clethodim*)
 - All methods will need to be repeated until seed bank exhausted
- Try to remove in well-traveled areas to prevent spread



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Wavyleaf Basketgrass

Identification

- Low growing grass; broad, wavy leaves
- Perennial, produces very sticky seeds
- Grows in the shade, likes moist areas
- New invader, very fast spreading
- Sometimes confused with native deertongue

Control

- Hand pull to remove roots
- Foliar spray with 2% glyphosate or a grass-specific herbicide (clethodim) in June while plant is still growing and before seed development
 - All require multiple years until seed bank is exhausted
- Try to remove in well-traveled areas to prevent seed spread



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Bamboo

Identification

- Woody grass that can grow over 40' tall
- Forms dense stands, spreads primarily by underground rhizomes

Control

- Cut stalks and treat stumps with a systemic herbicide concentrate (ie glyphosate) within 5 mins of cutting
- Cut stalks and spray regrowth with foliar application, works best when completed twice in 14 days from mid Sept - mid Oct
- Excavation to remove all rhizomes- most effective but most disruptive



Phragmites australis (phrag)

Identification

- Marsh grass, grows in dense stands up to 15' tall
- Fluffy seed plume in fall through spring

Control

- Foliar spray with aquatic-approved formulation of glyphosate in late summer, 5 consecutive years
- Cut at ground level in late spring and solarize

