



## Woody Vegetation Control

Trees and shrubs are valued in the right location but may need to be controlled when invading areas where they are not wanted. Invasive trees and shrubs are **non-native** plants that can reduce economic values, damage the environment, or cause harm to human health. Native woody plants can be aggressive too, spreading into areas where they are not desired. An example of this is encroachment of box elder and cottonwoods into lands planted as grasslands.

This fact sheet describes methods to control woody species that may be a problem in your landscape. Cost share programs, resources and web links are also listed.

Some commonly seen invasive woody plants in Minnesota include: Amur maple, buckthorn, Norway maple, Asian bush honeysuckles, multi-flora rose, black locust, Japanese barberry, Russian olive, Siberian elm, Siberian pea shrub and mulberry. For details on these invasive species and more, visit the Minnesota Department of Natural Resources (DNR) at: [www.dnr.state.mn.us/invasives](http://www.dnr.state.mn.us/invasives). Native plants that grow rapidly and are often considered weedy include: poison ivy, blackberry, raspberry, sumac, hazel, prickly ash, dogwood, wild grape, Virginia creeper, poplar species like aspen and cottonwoods.

While mowing or cutting can be used as a management strategy, most deciduous trees and shrubs will resprout after the trunk is cut. Some woody plants like aspen can resprout from underground lateral roots several feet from the main plant. These species must be controlled chemically for complete control.

### Chemical Control Methods

1. **Cut Stump treatment** - Cut the plant near the ground and treat the cut surface (Cambium/bark ring) **immediately** with a labeled herbicide. Remove any berries or reproductive cut stems by chipping, burning, or hauling to a brush dump. *Note: Transporting cut stems may spread seeds or reproductive parts.* Non-reproductive stems can be left in the woodland to help prevent erosion.
2. **Low Volume Basal Spray** - Wet the bark area from ground level up to 12 to 15 inches. The bark should be wet but not dripping.
3. **Foliar (Leaf) application** - May be used on seedlings, small plants, and resprouting plants. Spray leaves to wet around the entire tree. Avoid spraying non-target plants.

**Always read and follow label directions**, wear recommended protective clothing and avoid contact with non-target plants. The label directions will list plants controlled, areas where the herbicide can be used, and application methods. Two common active ingredients found in brush killer herbicides are glyphosate and triclopyr. Glyphosate is a non-selective herbicide which can injure any green plant. Roundup® is one example of a product that contains glyphosate. Triclopyr is a selective herbicide active on broadleaf plants. Triclopyr has two formulations: amine (water base) and ester (oil base). Some products that contain triclopyr commonly used for woody brush control, in non-crop areas and forests include Vastlan (formally Garlon 3A (amine)), Garlon 4 (ester), Pathfinder II (ester), and Ortho Brush B Gone Poison Ivy Killer (amine).

**Before you purchase a brush herbicide, read the label** to verify that the product is labeled for your site and will control the plants you want to eliminate. Finally, even after treatment with an herbicide, re-sprouting and seedling emergence may continue for years. **Monitor sites for re-growth annually and retreat accordingly.**

*The information provided in this publication is for educational purposes only. Reference to commercial products and trade names is not an endorsement.*



## Non-Chemical Control Methods

Non-chemical treatment options may vary with species and age of the woody plant.

1. **Pulling** – Removing the root crown by pulling is effective. Success is species specific. (Hand pulling tools are available)
2. **Cut and grind stumps** – Stumps need to be chipped to below ground to reduce re-sprouting.
3. **Cut and cover stumps** – Covering stumps with plastic or material that excludes light for two years can reduce sprouting.  
(Methods 2 & 3 are effective on species that stump sprout. They are not effective on species that sucker or spread from lateral roots.)
4. **Frequent mowing or burning** – Repeated mowing may kill woody broadleaf plants. Burning can be effective on some woody plants. Burning every 3 years in a grass CRP or native grass/forb planting is recommended. Larger stems will not be controlled with fire.

## Equipment

Equipment for controlling undesirable woody plants varies from inexpensive hand tools to large power equipment. Selection of tools will be determined by budgets, size of plants, number of plants, size of the site being managed and who will be doing the work.

## Re-establishing Native Vegetation

Many native species can re-establish from existing seed banks and roots if undesirable plants are controlled. Desirable plants can also be seeded or transplanted after controlling invasive species. Planting grasses can reduce establishment of buckthorn seedlings while allowing establishment of desirable native species. An example grass mix may include creeping red fescue, oats or Virginia wild rye after buckthorn removal to prevent erosion. There are also native shrubs that could be considered such as high-bush cranberry, nannyberry, chokecherry, pagoda dogwood, gray dogwood, elderberry, American hazelnut and black chokeberry.

## Cost Share Programs

There may be local, watershed, state or federal cost share programs available for landowners to use to control invasive species on their property and possibly re-plant the treated area. Contact your local Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS) or Soil and Water Conservation District (SWCD) office for more details. Local conservation organizations may also support invasive species control projects.

## WEB LINKS TO MORE RESOURCES

MN DNR Buckthorn Control web site/publication, [www.dnr.state.mn.us/invasives/terrestrialplants/woody/buckthorn/index.html](http://www.dnr.state.mn.us/invasives/terrestrialplants/woody/buckthorn/index.html)

DNR Buckthorn publication, <http://z.umn.edu/buckthorn>

Midwest Invasive Plant Network Control Database, [mipncontroldatabase.wisc.edu/](http://mipncontroldatabase.wisc.edu/)

My Minnesota Woods: [www.myminnesotawoods.umn.edu/2007/04/woodland-invasive-species-in-minnesota/](http://www.myminnesotawoods.umn.edu/2007/04/woodland-invasive-species-in-minnesota/)

Herbicide Information & Pesticide Labels on the Web: [www.greenbook.net/](http://www.greenbook.net/)

Disposal of Noxious Weeds, [www.mda.state.mn.us/en/plants/pestmanagement/weedcontrol/disposalnoxweed.aspx](http://www.mda.state.mn.us/en/plants/pestmanagement/weedcontrol/disposalnoxweed.aspx)

Recommended Trees for Minnesota, [z.umn.edu/rectrees](http://z.umn.edu/rectrees)

MN Invasive Species Advisory Council, [www.mda.state.mn.us/misac/](http://www.mda.state.mn.us/misac/)

MN Native Plant Society, <http://www.mnnp.org>

Dow Agro-Sciences Vegetation Management, [www.dowagro.com/vm](http://www.dowagro.com/vm)

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