Homeowner's Guide to Buckthorn Control
Developed by the Northwoods Cooperative Weed Management Area
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Common buckthorn (*Rhamnus cathartica*) and **glossy buckthorn** *(Rhamnus frangula)* are invasive shrubs that are becoming widespread in northern Wisconsin. Buckthorn is commonly found in hedgerows, fence rows, and gardens. The black and red berries are eaten by birds or washed away in storm water, and eventually find their way to natural areas. Once the seeds take hold in a forest or field, the plants spread aggressively and choke out other plants. It will replace tree seedlings and prevent tree regeneration, and also displace other native plants on which wildlife depend. Buckthorn stays green and continues to grow as late as November, giving it an advantage over native plants which are typically dormant by early October (this also makes it very easy to identify in late fall). Over time, buckthorn shrubs and seedlings will take over the understory, leaving no trace of the original forest other than the remaining canopy trees. Furthermore, buckthorn is a host for agricultural pests such as the soybean aphid and oat rust disease.

Effective treatment requires a variety of methods over several years.

Manual
Pulling buckthorn is an option for small seedlings or taller plants with a diameter of less than a quarter inch. The best time to pull is after rain when the soil is moist and roots are loose. Larger plants may be pulled using a weed wrench, although this disrupts the surrounding soil, which could uproot native plants nearby and hinder recovery at the site. For infestations over an acre in size, a weed wrench may exhaust your energy long before the site has been controlled (weed wrenches are heavy and challenging to use).
Cutting buckthorn encourages the roots to sprout new shoots. Plants should *not* be cut without applying herbicide to prevent re-sprouting.

Herbicide
Note: Herbicides can be compared to medications in that they have an *active ingredient*, but are sold under many different *trade names*. We refer to chemicals by the active ingredient because trade names vary by brand and retailer. The key to effective herbicide use is the correct dosage of the active ingredient, referred to as a percentage of active ingredient. Too much or too little and it has limited effect.
Herbicides are a type of pesticide. You are legally required to read and follow all instructions on the label. Herbicides should not be used in or over wet areas unless specified on the label. Residue or leftover chemical should not be allowed in public waters including household drains. Used gloves can be disposed of in the trash. Contaminated clothing should be washed separately. The herbicides recommended here are considered non-toxic to pets and humans, but as a precaution please keep them out of the area until the herbicide has soaked in.

Glyphosate (trade names: Rodeo, RoundUp, Cornerstone, Accord, RazorPro, etc.) is most effective in late summer through late fall. Glyphosate is a *non-restrictive use* herbicide, so anyone can purchase and use it. Unlike some herbicides, glyphosate is not *selective*, meaning it will kill or damage *any* plants that it contacts. Be careful not to spray other plants when using this chemical. Two examples of glyphosate products are:

- *Cornerstone* (EPA # 42750-60-1381) 41% glyphosate; sold at at Ashland Ag Center on Sanborn Ave in 2.5 gallon container (approx. $40)
- *Round up Super Concentrate* (EPA # 71995-25) 50% glyphosate; sold at hardware stores in 16oz container (approx $30-45)

Triclopyr (trade names: Garlon, Tahoe, Remedy, etc.) can be used year-round to control woody shrubs such as buckthorn. Triclopyr is also a non-restrictive use herbicide. It is *selective* meaning it will only kill certain types of plants, but has very little impact on other plants. A few examples of triclopyr products are:

- *Garlon 3A* (EPA # 62719-40) 61.6% triclopyr; sold from Forestry Suppliers online at www.forestry-suppliers.com (approx. $250)
- *Ortho Max Poison Ivy & Tough Brush Killer* (EPA # 239-2491) 8% triclopyr; sold at Ace Hardware in 32 oz container (approx. $20) or 16 oz container (approx. $15)

CUT STUMP METHOD

You will need:
loppers or bow saw
rubber gloves
long sleeves, long pants, sturdy shoes - not sandals
herbicide
spray bottle
liquid dye (such as food coloring or Rit dye)
safety glasses

Step 1: Closely examine the plants to be sure it is buckthorn. When in doubt, check online at www.dnr.wi.gov/invasives, or contact the NCWMA.

Step 2: Wearing appropriate safe wear, pour the herbicide into a spray bottle. For glyphosate, dilute 1:1 with water (to produce a mixture that is at least 20% glyphosate). Add enough dye so you will be able to tell where you have treated. Label the bottle with a piece of tape, indicating the chemical, how it was diluted, and when it was mixed. When diluting, do so over a dry sandy or gravel area. Any spills on grass or other plants will kill them.

Step 3: On a day where it will be free of rain for at least 1 hour after treatment, cut the stem of the plant 2-3 inches above the soil. Wearing rubber gloves, spray **immediately** with herbicide mixture. You will only need to spray the cut surface of the plant stem. Remember, overspray will harm surrounding plants, please use caution.

Step 4: You must wait at least 7 days before re-cutting, mowing or disturbing treated stems. The herbicide needs time to move into the roots for an effective kill.

Step 5: If the plants re-sprout, you may use the cut-stump method again. Or you may use a 2% active ingredient solution of glyphosate to spray the leaves, called a **foliar spray**. If you choose to use a 2% solution, follow the manufacturer's guidance for dilution or call for assistance. Foliar spraying requires near complete coverage of the leaves to be effective. Using this method often results in overspray and damage to surrounding plants. Please be careful.

For more information:
Darienne McNamara
Northwoods CWMA Coordinator
info@northwoodscwma.org
www.northwoodscwma.org