



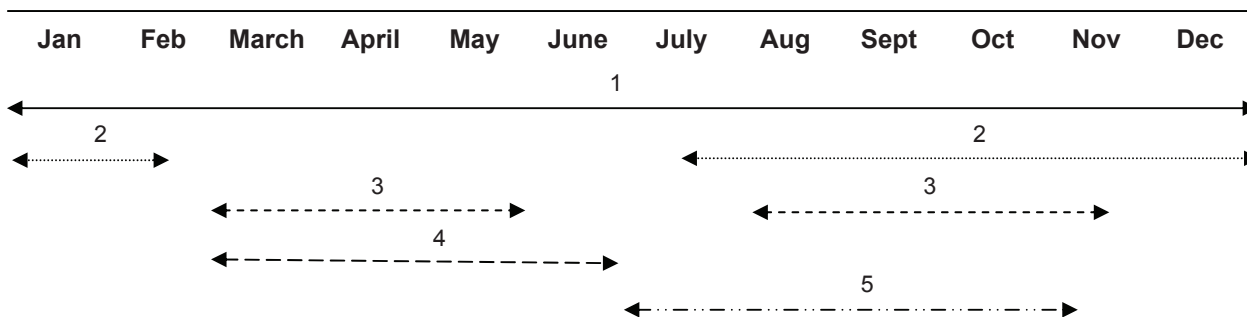
Leaves



Flowers



Fruit



Management Techniques

- (All year) Basal bark treatment. Using a handheld sprayer, line herbicide around the base of the plant 6-12 inches from the ground. ***This is your best treatment option. After enough fuel is collected this can be followed up with technique 3***
 - 25% Triclopyr solution (if temp. is between 30°F and 80°F)
- (Late Summer-dormancy) Stump treat. Cut the stems to the ground and within 15 minutes treat the stump with herbicide. Wipe herbicide on the cut with a small sponge-tipped bottle or paintbrush. ***The slash should be spread around and followed with technique 3, 4, then 5. Choose ONE of the following herbicides:***
 - 10% Imazapyr solution
 - 20% Glyphosate solution (if temp. is between 40°F and 80°F)
- (Spring, late Summer-early Fall) Prescribed Burn. A spring burn kills seedlings and the tops of mature plants. A late Summer-early Fall burn reduces seed dispersal. ***Follow with technique 4 then 5.***
- (Spring-early Summer) Clipping, mowing, or pulling. Shallow roots allow plants to be hand pulled or dug out. Mow, clip, or pull several times during the growing season for a couple years to prevent seed dispersal. ***This should be followed by method 5.***
- (Late June-October) Foliar spray. Apply herbicide to leaves using a sprayer. This technique will have a deeper root-kill if used in the fall, but can be used to top kill the plant in the spring and summer. ***This should be followed by technique 3 after enough fuel is collected.***
 - 2% glyphosate solution with a surfactant (if temp. is between 40°F and 80°F)

******Important Note: Glyphosate is non-selective, avoid contacting non-target plants******

For More Information Visit:

<http://www.HawkeyeCWMA.org>

ALWAYS READ AND FOLLOW PESTICIDE LABELS.

Proper training for prescribed fires is highly recommended.

Basic training can be found online at <http://training.nwcg.gov/courses/s130.html> and <http://training.nwcg.gov/courses/s190.html>

Related Websites:

<http://www.iowadnr.com/forestry/invasive.html>
<http://plants.usda.gov>
www.invasivespecies.gov
www.nps.gov/plants/alien

Credits:

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The **Hawkeye Cooperative Weed Management Area (HCWMA)** is a collective group of county, state, and federal agencies, nonprofit organizations and community associations who have come together to **combat the invasive species problem in Eastern Iowa**. The HCWMA serves Benton, Cedar, Iowa, Johnson, Jones, Linn, and Louisa Counties and is open to all interested parties. The Term CWMA, or Cooperative Weed Management Area, refers to a local organization that integrates invasive species management resources across jurisdictional boundaries in order to benefit entire regions.

Funding for this brochure provided by the US Forest Service through a Healthy Forest Initiative Grant.

All Hawkeye CWMA members (agencies, organizations, and individuals) are equal opportunity providers and employers.

Bush Honeysuckle

Lonicera spp



A SERIOUS THREAT To Iowa's Woodlands

What is Bush Honeysuckle?

- Native of Europe and Eastern Asian countries.
- Arrived to the US in the mid to late 1800s
- Woody hollow stemmed shrub
- Introduced as an ornamental, wildlife cover, and to control soil erosion.



Amur Honeysuckle Growing Next to a Railway



Morrow Honeysuckle Invasion

What is the Threat to Iowa?

- Has no native controls
- Grows quickly, producing dense thickets.
- Alters habitats by depleting soil moisture, nutrients, light, and displacing native plants.
- Seeds are spread by birds, making it difficult to track, and increasing its dispersal.

What does each variety look like?

Identifying traits: Older stems are hollow and have tubular flowers that range from white, yellow, pink, or red depending on the species. The flowers are produced in pairs along the stem at the base of the leaves. Both species have egg-shaped leaves that are oppositely arranged on the stem. The fruits of the plant are many seeded berries ranging from red, orange, or black in color. Both varieties establish dense thickets, which inhibits desirable plant growth.

Amur Honeysuckle (*Lonicera maackii*):

A Deciduous shrub that can grow up to 15 feet high. White to yellow flowers are produced from May through June. This shrub produces red berries in September.



Native Alternatives:

Hazelnut (*Corylus americana*)-

A multi-stemmed shrub that grows up to 12 feet high. In the fall the leaves turn an attractive array of colors. Also produces tasty nuts that feed quail, grouse, blue jays, squirrels, and deer. The nuts can also be roasted and eaten by people.



Morrow's Honeysuckle (*Lonicera morrowii*):

A deciduous shrub that grows up to 7 feet tall. Has 2 to 3 inch long leaves, that are hairy on the underside. Flowers are white to cream colored. The fruit is orange to red when ripe.



Fragrant Sumac (*Rhus aromatica*)-

This shrub grows between 6 and 12 feet tall. The branches are velvety, the fruit feeds birds during the winter, and the flowers' nectar attracts butterflies in the spring. The shrub is generally pest and disease-free, as well as deer resistant.



I'm a Hiker, Why Should I Care?:

Invasive plants can affect your ability to enjoy natural areas. Hikers like to enjoy well-maintained trails, and invasive plants can grow on and along these trails making it nearly impossible to walk the trails or enjoy the scenery once an area is overtaken by invasive plants.

The seeds of these plants are easily spread by people and their pets. They can stick to hair, boots, pants, socks, fur, equipment, as well as anything else you bring with you during your hike.

To help prevent invasive plants from spreading here are a few things you can do:

- Learn to recognize invasive plants and not walk through them.
- Clean off your clothes, pets, and equipment before and after each hike.
- Volunteer at your favorite hiking trails to help remove invasive species. This will help keep your favorite hiking trails worth hiking.



Enjoy Your Hikes,
But Make Sure You Only Take Home What You Take In.