

Follow-up to Initial Control

- **Remove young plants:** To continue control by pulling and killing seedlings that germinate and any small or large saplings that were missed. MN DNR's materials discuss how to do this. For dense seedling patches, multiple prescribed burns (**check what your area allows**) or foliar spraying are other options. One treatment is never enough to succeed.
- **Exhaust its seed bank:** By following through with the first step, you will eventually exhaust buckthorn's seed bank that resides in the soil. Seeds viable in the soil for 5 years.
- **Consequences:** If continued efforts are not pursued, buckthorn will return in thicker densities and continue expansion, as seen in image on other side.
- **Remove other invasive plants:** Remaining invasive species will take over the habitat left behind after buckthorn removal, such as the non-native honeysuckle, pictured below.



Jeffrey Flory, 2013

Non-native Honeysuckle
Crow-Hassan Park Reserve, Rogers, MN

What Can You Do?

Learn to identify invasive plants:

US Department of Interior: www.invasivespecies.gov

US Department of Agriculture: www.plants.usda.gov

MN Department of Agriculture: www.mda.state.mn.us

Private website: www.minnesotawildflowers.info/

Report new sightings:

EDDMapS Midwest: www.eddmaps.org/midwest

GLEDN: <https://apps.bugwood.org/apps/gledn>

Perform control:

Follow MN weed laws that regulate handling and control.

See www.mipn.org, www.mda.state.mn.us control methods.

If using herbicides always follow the label instructions.

Prevent the spread:

Never plant invasive species.

Control invasive plants, then clean tools & footwear on site.

Follow MN weed laws that regulate handling & control.

Spread the word to others you know!

For local information:

www.stewardshipnetwork.org/duluth



**Do your part: protect Minnesota's health,
economy, environment, and outdoor
heritage!**

Credits:

Brochure Originally Produced By: Hawkeye CISMA

Brochure Adapted By: Duluth CISMA with HCISMA's permission

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The **Duluth Cooperative Invasive Species Management Area (CISMA)** is a group of city, county, and state agencies, nonprofit organizations, community associations, and private citizens.
Our Mission: We help citizens & communities protect our lands from the damages caused by invasive species.

IDENTIFY & MANAGE

Common & Glossy Buckthorn

Rhamnus cathartica & *Frangula alnus*



**A SERIOUS
THREAT
To Minnesota's Forests**



Duluth CISMA

What are Invasive Buckthorns?

- Small trees or tall shrubs
- Often used as hedges in landscaping
- Produces dark purple to black berries that are eaten and spread by birds and small mammals
- Seeds remain viable up to 5 years in soil



Buckthorn hedge Lakeside
Neighborhood Duluth

What are Their Threats to MN?

- Invades woodlands
- Forms dense clusters shading out native plants and tree seedlings
- Common buckthorn is a threat to farming because it harbors pests of the oat crop and soybean crop



Jeffrey Flory, 2017

Buckthorn thicket at Hawk Ridge Duluth

Regulations

- As of 2018 MN Weed Law, both are Restricted Noxious Weeds. Buckthorns are illegal to import, sell, and transport any propagating parts. All materials that are cut cannot be removed from property without following strict guidelines.

Identify Common and Glossy Buckthorn



MinnesotaSeasons.com



Leaves:

Common: Oval, edged with small teeth, in pairs or slightly offset pairs. Usually three main veins on each side of midrib. Remain green late into fall.

Glossy: Smooth-edged, oval, singly along twigs. More than three veins on each side of midrib. Upper side is glossy.

End buds



Jeffrey Flory, 2015

Common
thorn present, resembles
buck's hoof, not hairy



Jeffrey Flory, 2017

Glossy
no thorns, no scales
hairy

Fruit: Both produce pea-sized berries that ripen to black in August– September

Common: Only the female plant produces berries & often hang through winter. See front cover for photo.

Glossy: All individuals produce berries seldom hangs through winter.



Glossy Buckthorn fruit

Similar traits for both buckthorns:

Inner bark is orange.

Sapwood is dark yellow.

Heartwood is pink to orange.



Be careful to not misidentify plants!

General Small - Scale Control Options



Pull: Hand pull or use “weed wrench” tool to remove seedlings and root crown when soils are moist. Rent weed wrenches from Hartley Nature Center.

Cut & cover stump: With a product called a Buckthorn Baggie (found on-line) that is zip-tied at the trunk's base for a year or cover with a metal can that fits the stump & nail on.

Cut & apply herbicide: Do not apply May through July. If cutting, treat with 50% glyphosate within 30 minutes (aquatically certified glyphosate near water). Herbicide must be applied to all cut stems. Untreated stump or stems will cause re-sprouting with multiple stems. Buckthorn Blaster in photo applicator (purchase on-line) is commonly used in Duluth.

For more detailed treatments see:
MnDNR, MDA, MIPIN, and MnDOT

Buckthorn Waste Options

Best

- Cut and drop (leave material at site to decompose)
- Pile cut material while it decomposes (provides temporary habitat for wildlife)
- Burn on-site where and when allowed

Next Best

- Carefully transport to WLSSD Compost Site, but do not transport with berries.

www.wlssd.com/hours-facilities/

Never

- Dispose in the trash - it's illegal
- Compost cuttings that have buckthorn fruits