

Buckthorn Information & Removal Guide



Prairie Restorations Inc.
crew cutting invasive
buckthorn

WHAT IS BUCKTHORN

Common Buckthorn (*Rhamnus cathartica*) and Glossy Buckthorn (*Frangula alnus*) are woody shrubs or small trees that are native to Europe and Asia. Buckthorn was introduced to North America in the early 1800s as an ornamental plant, and it has since spread aggressively across the continent. Buckthorn can now be found in nearly every state and province, where it invades both forest and prairie habitats.

Buckthorn is particularly problematic because it can grow in a wide range of conditions, from full sun to deep shade. It also produces a large number of seeds that are spread by birds and other animals. Because of its high level of seed production and its ability to outcompete native plants, buckthorn is **considered to be one of the most invasive species** in North America.

Removing buckthorn is important for the health of forest and prairie ecosystems. buckthorn invades these habitats by outcompeting native plants for light, water, and nutrients. This can alter the structure of the landscape and reduce biodiversity. In addition, buckthorn alters soil chemistry, which can further damage native plant communities. **Removal of buckthorn is therefore essential** for restoring native plant communities and maintaining ecosystem health.



Native woodland
overrun with
invasive buckthorn

IDENTIFY THE PROBLEM

To identify Common buckthorn, look for single and multiple stem trunks that are dark gray to nearly black with a smooth shiny surface that becomes scaly with age. The leaves are mostly opposite generally egg shaped. The edges have small, rounded teeth and the surface is sparsely hairy with 3 or 4 lateral veins.

To identify Glossy buckthorn, look for single and multiple stem trunks that are dusky to dark gray with patches of lighter gray. The leaves

are alternate and oblong. The edges are toothless and often wavy. The surface is glossy with 6 to 9 veins per side that are strongly parallel to each other before curving towards the tip of the leaf. A strong stand out characteristic to identify both species is in late fall and early winter the leaves will not change color and keep their persistent green foliage until cold temperatures freeze them off the tree.

The berries when ripe will be shiny black and are about $\frac{1}{4}$ in in diameter. These berries are an important food source for many wildlife species, as a result, buckthorn spread primarily through the actions of birds that eat the berries and then deposit the seeds in new areas.



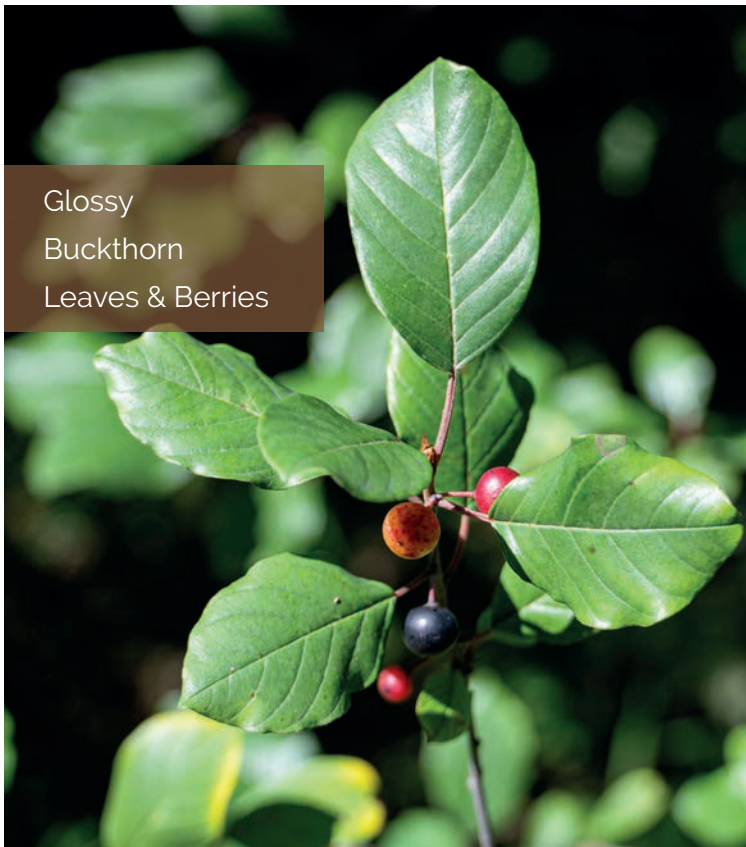
Common
Buckthorn
leaves



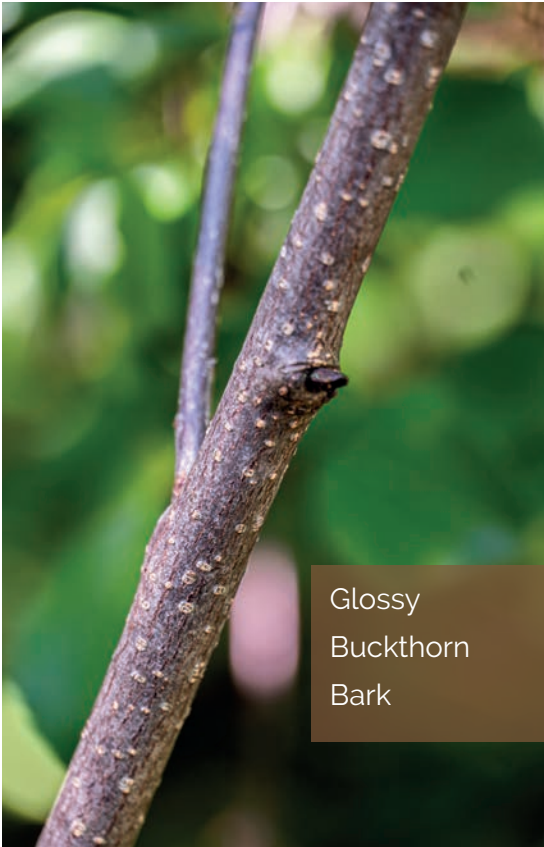
Common
Buckthorn
Berries



Common
Buckthorn
Bark



Glossy
Buckthorn
Leaves & Berries



Glossy
Buckthorn
Bark

REMOVAL METHODS

Hand Pulling

This is a great DIY method for small stands and consists of removing the entire plant and roots. The method does not involve chemicals but is more labor intensive. Its important to remember by pulling up plants you will also be disturbing a lot more soil. This may cause soil runoff during heavy rain events or during the spring thaw. The disturbed soil can also release additional weed seeds in the soil that can create other issues. We suggest only using this technique with small infestations.

Cut and Stump Treat

This method is exactly how it sounds and is used for larger plants. You cut the plant down to the stump and then treat the stump with an herbicide to eliminate any regrowth. Once the material is cut we recommend removing the material by burning it or hauling it offsite. In low density areas a cut slash method can be used where you slash the material into smaller pieces and leave it lay to decompose.

Forestry Mowing

This method of removal is for large areas with dense stands of buckthorn that is the predominate understory specie. This will consist of a skid steer with a forestry mower attached. The




Prairie Restorations crew member cutting back buckthorn

material will be mulched and scattered across the site to decompose. Stump treating will not be an option with this method so it's very important that follow up management is done to eradicate resprouting plants.

Foliar Spray

This method is used on small resprouting buckthorn. A selective herbicide is used and sprayed on leaves to eradicate it. We recommend doing this later in the fall when buckthorn leaves are still green and attached to the plant while other tree species have already lost its leaves and have gone dormant for the year. Be sure to follow all label instructions carefully to avoid harming other plants or animals. Monitor the area for regrowth and repeat the treatment as necessary. With persistence, you can eventually rid your property of buckthorn.



woodland after Prairie
Restorations, inc.
buckthorn removal

BENEFIT OF REMOVAL

While buckthorn removal may seem like a daunting task, the many benefits of removal make this task well worth the effort. Some of the many benefits of removing this plant from your property include restoration of native plant populations, improved wildlife habitat, and the reduced spread of this invasive species.

With buckthorn removed, the native plant ecosystem is allowed to gain a foothold once again. This, like most things in nature, has a cascading affect. The native plant ecosystem creates habitat for wildlife, so with a successful remediation effort, you should begin to see more wildlife soon.

In addition, buckthorn removal can be a great way to improve the aesthetic value of your property.

WHAT ARE THE RISKS

While buckthorn removal can be beneficial for restoring the natural ecology of an area, there are potential risks that should be considered before undertaking such a project.

Buckthorn removal can disturb the soil, leading to increased erosion. Additionally, buckthorn removal can result in an increase in invasive species if not done properly.

These risks can be minimized by following some simple best practices. Use appropriate equipment to minimize soil disturbance. Additionally, it is imperative that you dispose of buckthorn debris in a way that will prevent it from spreading to new areas. Check with your municipality to see if they have a site that accepts buckthorn waste. Another acceptable disposal method is burning, but be sure to check if you need a burn permit for your project.



Prairie Restorations, Inc. crew burning brush piles of buckthorn during late fall in Minnesota.

A person wearing a green shirt, a cap, and safety gear is using a chainsaw to cut a tree in a wooded area. The ground is covered with fallen leaves and branches. The background shows a dense forest of bare trees.

WE CAN HELP

We hope that this information has helped you better understand the importance and process of removing buckthorn. If you need assistance with your buckthorn removal, please don't hesitate to contact our professional staff.

www.PrairieResto.com (763) 389-4342



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