

Herbicide Quick-Start Guide

Helpful tips for application of herbicide following buckthorn removal

To control European or common buckthorn (*Rhamnus cathartica*) following clearing efforts, the Lake County Forest Preserves uses herbicides containing the active ingredient triclopyr. Triclopyr herbicides are sold under many brand names, including Garlon®, Element™, Tahoe® and others. They are an industry standard for controlling buckthorn and are widely used by local conservation organizations. These methods are also effective for applications to other non-native, invasive species.

Personal Protective Equipment

Wear personal protective equipment according to label directions when using herbicide. Examples include long sleeves, long pants, closed-toe shoes, eye protection, and chemical-resistant gloves.

Purchasing Herbicide

Triclopyr products are commercially available for purchase to the general public. Many home improvement stores, garden centers, and online retailers offer them for sale. Look for products marked as suitable for stump treatment. Read and follow all safety directions on the label(s) of any product(s) you purchase.



Solutions and Concentrations

Many products labeled “ready-to-use” may already be diluted to ineffective concentrations. Purchase herbicide concentrate and dilute it according to label directions.



Applying Herbicide

Most herbicide applications on buckthorn are performed in winter using a triclopyr ester product on cut stumps. If you cut down buckthorn and larger stumps remain, use a sponge applicator (example on page 2) to apply herbicide to the outer edge of the stump.

You do not need to cover the entire stump. The solution does not need to run down the sides of the stump. It needs to be applied to the ring of wood just inside the bark (see photo above). For re-sprouts, apply herbicide solution to the leaves or use the glove application method (example on page 2) to apply by hand.

Apply until just wet. The solution should not drip off the leaves. Use a surfactant for foliar applications, as it reduces dripping and increases the plant's uptake of the solution.



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Questions or concerns? Contact us at HealthyHedges@LCFPD.org



(Above) This bottle contained dyed water for demonstration purposes. Always wear proper personal protective equipment when using herbicide.

Formulations

Triclopyr comes in two formulations. One is an ester, usually sold with a number 4 in its name. The other is an amine, usually sold with the number 3 in its name. Each product is used for different applications at different times.

Use a triclopyr ester product (Garlon 4®, etc.) mixed in a basal oil carrier to treat cut buckthorn stumps in winter, since it will not freeze. **It should not be used in weather warmer than 50 degrees Fahrenheit or in areas with standing water.**

If you need an herbicide in warm weather, use the triclopyr amine product (Garlon 3A®, etc.). **This product readily mixes with water and can be used when temperatures are above freezing.**

Do It Yourself

Make your own tools or purchase them to allow for targeted applications, reduce the volume of herbicide used, and enjoy better ergonomics. Try a glove, sponge or “hockey stick swiper.”

Stump Application

After cutting a horizontal buckthorn stump a few inches above the ground, apply herbicide solution to the ring of wood just inside the bark. You do not need to cover the entire stump. See page 1.

← Glove Applicator

A glove can be an effective tool to treat buckthorn with a foliar (leaf) application. Wear a cloth glove or car wash mitt over a chemical-resistant glove. Soak the cloth glove or mitt with an herbicide solution. Touch buckthorn leaves to apply.



Sponge Applicator ↗

Wrap a tile or grout sponge around the tip of a spray wand and secure with a zip tie. Next, wrap two or three rags around the sponge and secure with another zip tie. When you squeeze the sprayer handle, the sponge and rags become saturated with herbicide. Dab the sponge gently on cut buckthorn stumps.

“Hockey Stick Swiper” Applicator

This applicator is commercially available for purchase. It is made of PVC pipe, a garden hose valve, and a paintbrush roller. Load herbicide solution into the PVC pipe. Adjust the valve to control the flow into the roller. Swipe the roller onto cut buckthorn stumps, or use to treat the foliage of small seedlings and re-sprouts during the growing season. Example on page 1.



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Visit [LCFPD.org/buckthorn](https://www.lcfdpd.org/buckthorn) to view a video showing more herbicide tips and tricks