Alien Invasive Species Prevention and management techniques

GOUTWEED (Aegopodium podagraria)

About goutweed

Goutweed is an invasive species that was introduced during European Settlement and is native to parts of Europe, and northern Asia through to eastern Siberia. Goutweed can spread by their roots, meaning that the roots (rhizomes) will continue growing out and spreading until they are removed or destroyed. The roots are white and long with branching throughout. These plants are a threat to native species because it forms in dense patches that can displace our native species by reducing ground cover diversity.

For anyone who has dealt with goutweed in their garden, they likely know what a daunting task this can be. If you are fortunate enough not to have goutweed on your property, it is a great opportunity to prevent its introduction and the introduction of any other invasive species.



Goutweed leaf with common solid-green colour.



Goutweed leaf with common solid-green colour.



Goutweed flowers resemble members of the carrot family.

Prevention tips

If you are purchasing transplants or getting transplants from a friend, ensure they do not come from a bed that has goutweed. Small root fragments can lead to an introduction. If you are not sure of the source of your transplants, you can sift through the root ball to pull out any foreign roots.

If you have any areas with an infestation of goutweed, avoid disturbing the soil. Sometimes a well-established lawn or another ground cover will hold patches of goutweed in check, but as soon as those areas are disturbed, the goutweed will take the opportunity to expand. Maintaining your lawn at at least 2 1/2 inches will help to hold back goutweed and prevent its spread into the area.

Management Techniques

Digging

One technique that has been successful for some gardeners is to dig down about 2 1/2 feet, carefully pulling out the extensive root network and sifting soil as they go. After that, the area is left fallow and covered in plastic for 6+ months, to solarize the soil. A more extreme alternative is to completely remove the impacted soil and replace it.



Goutweed have long, branching root networks.

Solarizing

The process involves covering the ground with a tarp, usually a transparent plastic cover, to trap solar energy. The sun heats the soil to temperatures that kill bacteria, fungi, insects, nematodes, mites, weeds, and weed seeds. One downside of this technique, is that it will kill beneficial soil organisms.

The basic steps of solarizing include:

- Clear the area of plants and debris.
- Water the soil deeply until it is wet.
- Cover the area with clear plastic (such as 1 to 4 mil painter's plastic). While black plastic is commonly used, clear will allow more heat to transfer to the soil.
- Bury the plastic edges in the soil to trap the heat.
- Leave the plastic in place for at least 6 weeks in the hottest part of the summer, longer is recommended for our climate in Nova Scotia. If possible, solarize for a full growing season, just to be cautious.
- Remove the plastic.

(Constant) cutting

Some gardeners have reported success from constant and consistent cutting throughout the full growing season. In some cases, this takes multiple growing seasons. As soon as goutweed emerges, every stalk should be cut back to the ground. You must start at the beginning of the year, to prevent the plant from accumulating starch reserves, which will support growth even when there are no leaves to photosynthesize. This must be repeated every time a new stalk emerges, to prevent photosynthesis. Without full commitment to this technique, it is rarely successful.

Herbicides

Systemic herbicides, such as glyphosate can be used for goutweed. However, non-selective herbicides will also kill or damage non-target plants in the area. Ensure you read all guidelines and directions for herbicide use if considering this option, because when improperly used they can still cause both short- and long-term health and environmental problems. Foliar sprays are considered ineffective for goutweed, as they will readily produce new growth from defoliated root systems.

Techniques to avoid

Tilling

Tilling is one of the worst options for attempting goutweed control. It will create ideal, disturbed soil conditions, and thousands of root fragments to generate new plants.

Disposal

Collect all plant material and double-bag it in black garbage bags and leave it in the sun to rot, then dispose of it in regular garbage collection or by bringing it to a waste disposal facility.

Do not dispose of invasive plant material in your compost. Backyard composting does not reach temperatures hot enough to completely kill all parts of the plant or seeds.

Invasive plants should not be dumped at the yard waste facility in the Town of Annapolis Royal, is it does not have the capacity to adequately deal with invasive species in order to mitigate the risk of their spread.

Additional resources

Plant Conservation Alliance, Factsheet: Goutweed https://www.invasive.org/weedcd/pdfs/wgw/goutweed.pdf

USDA Forest Service, Aegopodium podagraria https://www.fs.fed.us/database/feis/plants/forb/aegpod/all.html



You can eat your goutweed! The young leaves and stems of the goutweed are tender and aromatic, making a great addition to salads. Older leaves can be cooked in dishes such as fritters. In northwest Germany goutweed is made into *grune suppe*, green soup.

Check out this webinar by Clean Annapolis River Project and East Coast Wildfoods for tips on foraging a preparation: https://www.youtube.com/watch?v=BmlzDd-rkYk



