

## Why is it a problem?

Garlic mustard's vegetative growth starts early in the spring, outcompeting native and beneficial species that are still dormant. Its ability to reproduce high quantities of seed from a single plant can make it difficult to eradicate once it is well-established.

Seeds can survive a number of years in the seedbank, prolonging its ability to dominate a site. Garlic mustard also changes the composition of a plant community by exuding chemicals that disrupt plant growth and certain plant-mycorrhizal fungi connections, which are important for tree seedling health.



Garlic mustard rosettes growing in the spring.

## Noxious Weeds in Washington

"Noxious weed" means a plant that when established is highly destructive, competitive, or difficult to control by cultural or chemical practices. RCW 17.10.10

Noxious weeds reduce crop yields, destroy native plant and animal habitat, damage recreational opportunities, clog waterways, lower land values, and poison or harm people and livestock.

Garlic mustard is a Class A noxious weed in Washington State. Eradication is mandatory everywhere. Check with your local county noxious weed control board or extension office to learn more about this and other noxious weeds.

## Contact Us

If you have questions about garlic mustard or other noxious weeds, we can help. Please contact us at:

WA State Noxious Weed Control Board  
P.O. Box 42560  
Olympia, WA 98504  
360-725-5764  
<http://www.nwcb.wa.gov>  
Email: [noxiousweeds@agr.wa.gov](mailto:noxiousweeds@agr.wa.gov)

Or contact your local county noxious weed control board:



Cover image: Frances Lucero, King County NWCB



## Identification

Garlic mustard is an annual, biennial or short-lived perennial with few to no hairs on its leaves and stems. Plants parts can have a garlic smell when crushed, especially when young.

- It develops a white, narrow taproot, that often forms an 'S' shape below the plant's crown.
- Plants start as a rosette of kidney-shaped leaves with scalloped edges.
- In early spring, stems bolt to 3.25 feet tall. Stems have alternate, triangular to heart-shaped leaves with coarsely wavy-toothed edges.
- Flowers form in clusters at stem tips, blooming April-June. Flowers are white with 4 petals and 6 stamens.
- Seed pods (siliques) are narrow, spreading out and curving upward, up to 2.4 inches long.



Frances Lucero, KCNWCB

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Okanogan County NWCB

## Where does it grow?

Garlic mustard is commonly found in forested understory areas including urban parks. It can also grow on roadsides, trails, railroad tracks, streambanks, fields, slopes and floodplains. It thrives both in disturbed and relatively stable sites, growing in sunny or shaded conditions.

Garlic mustard used to be only found in western Washington, but in recent years infestations have also been discovered east of the Cascade Mountains. Everyone in Washington should be on the lookout for this Class A noxious weed.

## Control

Garlic mustard eradication is required in Washington. Use these recommended control methods to eradicate it from your land. Be sure to clean vehicles, equipment and shoes to prevent moving seeds to new sites.

**Manual:** Garlic mustard plants can be successfully controlled by hand-pulling. Make sure to remove the roots, as roots left in the soil can resprout. Pull plants before they develop seeds. If plants already have flowers or seed pods, carefully bag them and put them in the trash. Mowing is generally not recommended for control since cuts stems can quickly resprout and flower.

**Mulching:** Mulching with wood chips can also be used to smother seeds and suppress germination after initial garlic mustard control. Layering cardboard or newspaper under the woodchips is an additional helpful step to ensure bare ground is not left exposed. Replenish wood chips as needed and monitor the area for seedlings and resprouts.



Bagged garlic mustard plants ready for disposal.

Frances Lucero, KCNWCB



Make sure to remove the roots when hand-pulling garlic mustard.

**Herbicide:** A number of herbicides are available for controlling garlic mustard. Apply to rosettes in the spring or fall or to plants prior to flowering. Remove and bag plants that have already flowered as herbicide applied at that time will not stop seed production. Always read the label instructions before applying any herbicides for proper rate and timing. Check with your local county noxious weed board and the Pacific Northwest Weed Management Handbook <http://pnwhandbooks.org/weed/> for specific herbicide recommendations.

After initial control, it is very important to monitor your site and control any seedlings and resprouts. Garlic mustard seeds can survive in the soil for a number of years. Since plants can self-pollinate, one plant can start a new infestation. Make sure to plant areas with non-invasive plants to provide competition and prevent other weeds from establishing.