

## Other Control Methods

Chemical methods should only be utilized if you feel that your infestation of garlic mustard is too large or difficult to remove by hand and with basic tools. Please visit [4countycwma.org](http://4countycwma.org) or Metro's Grow Smart Grow Safe guide ([www.lhwmp.org/home/gsgs](http://www.lhwmp.org/home/gsgs)) for more control recommendations.



Garlic mustard infestation. Photo: Ann & Peter Macdonald

## A Word of Caution

For any herbicide applications we urge you to work with a licensed herbicide applicator and refer to Metro's Grow Smart Grow Safe guide ([www.lhwmp.org/home/gsgs](http://www.lhwmp.org/home/gsgs)), or contact your county noxious weed coordinator. Always read and follow the label on any chemical product you are using!

### SUBMIT YOUR REPORT TODAY!

Garlic mustard is a top priority species within the 4-County CWMA boundary. Please report at all sightings at [www.oregoninvasiveshotline.org](http://www.oregoninvasiveshotline.org).



The mission of the 4-County Cooperative Weed Management Area, comprising Clackamas, Clark, Multnomah, and Washington Counties, is to create and support collaborative weed management in the greater Portland area. For more details on our collaborative efforts in management, mapping, and outreach, please visit our website:

[www.4countycwma.org](http://www.4countycwma.org)



## GARLIC MUSTARD

(*Alliaria petiolata*)

4-County CWMA  
Class B weed

OR Class B noxious weed  
WA Class A noxious weed



Photo: Frank Mayfield

## Overview

Garlic mustard is an aggressive invasive species in the Pacific Northwest. Originally introduced throughout North America for culinary uses, it has escaped cultivation to become a very serious invader in many states.

Garlic mustard is a groundcover that can grow in established forests, wetlands, disturbed soil, and people's yards. Once established, garlic mustard exudes a chemical which impedes shrub and tree establishment and hinders natural forest regeneration.

## How to Identify

Garlic mustard is a biennial plant with different forms in its first and second years. The first year it forms a small rosette of round, kidney-shaped leaves, with scalloped edges. In the second year, an elongated flower stalk appears (typically 12-48 inches tall) with alternating leaves along the stem. These leaves are different from the first year growth in that they are sharply toothed with a triangular shape. Plants have many white flowers, each with 4 white petals in a cross shape. When crushed between the fingers the plant can give off a distinct garlic smell, which would distinguish it from lookalikes. Garlic mustard stems and leaves tend to lack the tiny hairs of some native lookalikes.

## Lookalikes

Garlic mustard has several different lookalikes. During the rosette stage it can resemble wild ginger (*Asarum caudatum*), piggy-back plant (*Tolmiea menziesii*), and fringe cup (*Tellima grandiflora*). Make sure to check for the garlicky smell and smooth stems when removing plants to confirm garlic mustard.



Second-year plant. Photo: Brian Hefele



Second-year plant. Photo: Andrew Wilkinson

## *When to Remove*

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The most important consideration when dealing with garlic mustard is to prevent plants from flowering and going to seed. Hand pull plants that have bolted and stop it before the seed pods dry out. Handling garlic mustard when seed pods are opening will scatter seeds; avoid pulling at this stage. First year growth will generally not produce seed and may be removed at any time. Second year growth must be removed by late June or early July.

Do not manage garlic mustard outside your property (parks, roadsides, etc.) without consulting appropriate land management agencies.

## *Basic Manual Control Methods*

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### TOOLS TO CHOOSE FROM:

- Gloves
- Large bags or 5-gallon buckets
- Tarp
- Small garden spade (optional)

**HAND-PULL AND REMOVE** small plants in their *first year* if at all possible. These plants consist of first year growth and will not set seed until their second year. Therefore, simply dispose of pulled plants in your compost or yard debris bin. Never dump clippings in parks or natural areas.

**HAND-PULL AND REMOVE** all stalks that have not yet started budding (typically by mid-April). It is important to remove the roots, as these can regrow and develop into flowering plants later in the season. To avoid breaking off the s-shaped root, pull below the base of the stem.

For plants that have flowers or seeds, take special precautions. *Place the entire garbage bag into a trash can destined for the landfill.*

**CLEAN** off equipment, shoes, pets, and any clothes that may have come in to contact with seeds. Seeds can be transported very easily to new places and thus create a new invasion.

**PLANT** native plants in the area that is being controlled after the bulk of the invasive plants are removed. This will help to re-populate the area with desired species and prevent new and recurring invasions.

Seeds can remain viable in the soil for at least five years. It is important to **MONITOR** the site two or three times during the spring to remove any new growth.



First-year rosettes. Photo: Alan Wolf