



Alliaria petiolata

WA – Class A Noxious Weed, Prohibited Plant List

OR – Class B Noxious Weed

Garlic Mustard

Garlic Root, Poor Man’s Mustard

Family: Brassicaceae

Origins: Native to Europe, Garlic Mustard was first documented in the United States in 1868.

Range: Found throughout much of the United States.

Habitat: Commonly found in forest understories, parks, right-of-ways, riparian areas, and floodplains. Garlic Mustard is shade tolerant and can grow in a broad range of soil types.

Impact: Garlic Mustard rapidly spreads to forest understories where it outcompetes native vegetation. As an allelopathic species, it produces growth inhibiting chemicals that interfere with mycorrhizal activity and the establishment of native vegetation. If left unmanaged, these characteristics lead to the development of a monoculture, which greatly reduces the biodiversity of natural areas.

Garlic Mustard reproduces vegetatively by its taproot and by seed. Each plant can produce as many as 8,000 seeds per year, which can remain viable in the soil for up to 5 years. It can self-pollinate, meaning a single viable seed grown to maturity has the potential to establish a dense population in a new area.

Description: Garlic Mustard is a biennial or short-lived perennial forb that grows up to 3 feet tall and forms a distinct ‘s’ shaped taproot. During the first year, plants form a rosette of basal leaves, and during the second year, plants bolt and flower.

Leaves range from kidney-shaped at the base to triangular at the upper stems. Leaves are alternately arranged, on second-year plants, with coarsely toothed margins. Crushed leaves smell like garlic, especially in the spring. Flowers are small clusters of white 4-petal blossoms that bloom from April through June. Plants produce slender pods that turn from green to brown or black when mature and expel seeds up to 10 feet.

Common Look-Alikes: Creeping Charlie, Fringecup.

**Garlic Mustard is not known to be toxic.*



Integrated Pest Management - Control Methods

Integrated Pest Management (IPM) combines various methods such as mechanical, cultural, biological, and chemical controls to manage pests. IPM offers the possibility of improving the efficiency of pest control while reducing its negative environmental impacts. For more information, see the Cowlitz County Noxious Weed’s IPM Resources & Strategy Guide or contact your local Noxious Weed Control Board to develop a customized IPM plan.

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Non-Herbicide Control

<p>Mechanical (pulling, cutting, digging, etc.)</p>	<p>Hand pulling is effective on small patches and when the entire root can be carefully pulled since root fragments can resprout. The best time to pull is in early spring before or at flowering. Take care to minimize soil disturbance since this can expose seeds. DO NOT COMPOST material, especially if it has flowers or seeds.</p> <p>Mowing is not recommended since this will not remove roots and will encourage the spread of seed.</p>
<p>Cultural</p>	<p>Prescribed burning is a control option for large invasions of Garlic Mustard. Burning is recommended for two consecutive years to achieve effective control. Fires must burn hot enough to kill plants completely. If fires are too cold, plants may regenerate from root crowns, producing flower stalks with higher seed production and higher seedling survival.</p>
<p>Biological</p>	<p>Grazing large patches is not recommended since this activity is likely to compact soil, expose and spread seed. Most animals do not find this plant palatable. However, consumption transfers an unpleasant odor and taste to the milk.</p>

Herbicide Control: Foliar Broadcast Treatment

<p>Glyphosate (Rodeo, Killzall, Kleenup, Roundup)</p>	<p>Timing: Spring <u>prior to flowering</u> or late fall. <u>Not effective on flowering plants.</u> Remarks: Application rate may vary based on life cycle stage; spray complete uniform coverage, but not to the point of runoff; dust on plants may reduce effectiveness; Glyphosate is nonselective and may injure or kill any vegetation it contacts; refer to the label for use in aquatic areas.</p>
<p>Triclopyr (Garlon 3A, Vastlan)</p>	<p>Timing: Spring prior to flowering or late fall. Preferred over glyphosate for flowering plants. Remarks: Spray complete uniform coverage; dust on plants may reduce effectiveness; refer to the label for use in aquatic areas.</p>
<p>Metsulfuron (Escort, MSM)</p>	<p>Timing: Spring prior to flowering or late fall when plants are actively growing. Remarks: Do not allow spray to drift to sensitive crops; consult label for application sites which differ among products; for best results, use a surfactant; do not apply near water.</p>
<p>Imazapyr (Imazapyr, Arsenal, Habitat)</p>	<p>Timing: Apply to actively growing plants. Remarks: Spray complete uniform coverage, but not to the point of runoff; dust on plants may reduce effectiveness; consult label for application sites which differ among products do not apply near water; may be harmful to some tree species; refer to the label for use in aquatic areas.</p>
<p>Other Listed Chemicals</p>	<p>Imazapic, Imazapyr + Metsulfuron, Aminopyralid + Metsulfuron, MCPA + fluroxypyr + dicamba, MCPA + fluroxypyr + Triclopyr, 2,4-D + fluroxypyr + dicamba, 2,4-D + MCPA + 2,4-DP, Triclopyr + MCPA + 2,4-DP, 2,4-D + quinclorac + dicamba, Imazapyr + aminocyclopyrachlor + Metsulfuron, aminocyclopyrachlor + Metsulfuron.</p>

* Cowlitz County Noxious Weed Control Board does not endorse any product or brand name. Brand names are listed as an example only. Other commercial products may contain the listed active chemical for herbicide control. Always read and follow the safety protocols and rate recommendations on the herbicide label. **The Label is The Law.**

This control sheet includes excerpts from the Written Findings of the Washington State Noxious Weed Control Board (WSNWCB), nwcb.wa.gov. Herbicide information from the PNW Weed Management Handbook (ISBN 978-1-931979-22-1) and product labels.