GARLIC MUSTARD (*Alliaria petiolata*)

**Family:** Brassicaceae (Mustard)  
**Life Cycle:** Biennial  
**Class:** A - Eradication Required  
**AKA:** Garlic root
# Garlic Mustard

**GARLIC MUSTARD**

- Young growth smells like garlic when crushed
- Thrives in shade but tolerates full sun
- Seeds may remain viable for 10 years
- Matures early, will outcompete native plants
- It can self-pollinate or cross pollinate
- Native to Eurasia and northern Africa

**CONTROL METHODS**

**Mechanical:** Small infestations can be pulled or dug up. Ensure entire root is removed; if stem is snapped in rosette stage, the plant can form multiple new shoots. Bag and dispose of all pre-flowering and flowering plants. Monitor site for new germination. Mowing will not control garlic mustard effectively unless it is consistently repeated through the growing season. Cutting close to the ground will reduce seed production and soil disturbance. Cut stems must be removed from the area.

**Cultural:** Mulching several inches deep with wood chips can be highly effective; monitor edges of mulched area for new growth. Clean boots, clothes and equipment before leaving an infested site.

**Chemical*:** Most effective on rosettes (spring or fall regrowth). Spot spray to minimize off-target injury. See table below for recommendations.

*ALWAYS read herbicide labels and follow instructions for use and PPE. The use of a surfactant (aka sticker) increases the efficacy of herbicide application, saving you time and money. All recommendations are supplied with the understanding that no discrimination is intended and no endorsement by the Noxious Weed Board is implied. Trade names are used to simplify recommendations.

**DESCRIPTION**

**Growth Traits:** Biennial to weak perennial plant develops basal rosette in first year. In the second year plants bolt, sending up a flowering stalk. Plants may grow to three feet tall.

**Leaves and Stems:** In first year, leaves of basal rosette are kidney-shaped, irregularly toothed. In second year, leaves on stem are alternate and more triangular than first year leaves. Stems generally upright, one to many stems per plant. May be branched or unbranched.

**Flowers:** Blooms April - June. Flowers cross-shaped with four white petals, borne on branching flowering stalk that extends as flowers bloom. May self-pollinate.

**Roots and Reproduction:** Taprooted, typically with an S-shape at the top of the root. Auxiliary buds are found on the root crown. Reproduces by seed. Seed pods are long, narrow, and upright; seeds are dark brown to black, grooved and oblong. Plants produce 8,000 seeds. Immature seed pods removed from plant may mature to set seed. Seeds remain viable in the soil for ten years.

**Habitat:** Thrives in temperate forested understory habitats but will tolerate open sunny sites. Garlic mustard is easily spread along trails, riparian corridors and in disturbed areas, but is capable of becoming established in otherwise intact forests.

**Toxicity:** Not known to be toxic. Deer tend to avoid it. Can interrupt the life cycle of some butterfly and salamander species. Produces a phytotoxin that inhibits beneficial mycorrhizae which interferes with the growth of other plants, including trees.

*NOTE:* There is no ‘magic bullet’ in noxious weed control, and control efforts must be repeated every season to stop their spread. Using a combination of methods (e.g. cultural and chemical) will lead to better control over time.

<table>
<thead>
<tr>
<th>April - May</th>
<th>June - July</th>
<th>September - October</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosette, Seedling Stage</td>
<td>Bolting, Bud, Seeding Stage</td>
<td>Late Fall Regrowth Stage</td>
</tr>
<tr>
<td>Garlon 4</td>
<td>Garlon 4</td>
<td>Garlon 4</td>
</tr>
<tr>
<td>Escort + 2,4-D</td>
<td>Escort + 2,4-D</td>
<td>Roundup</td>
</tr>
<tr>
<td>Opensight</td>
<td>PasturePro</td>
<td>Opensight</td>
</tr>
<tr>
<td>Roundup (in early spring on new growth)</td>
<td>Lilly Miller Brush &amp; Vine Killer</td>
<td>Pasture Pro</td>
</tr>
</tbody>
</table>