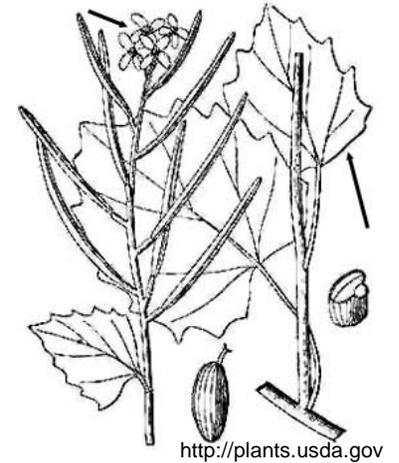


## Garlic Mustard (*Alliaria petiolata*)

**Look:** Cool season biennial (2 year life cycle)

- First year: Rosettes of dark kidney shaped leaves with rounded teeth will be green throughout the winter ready to flower in early spring the second year. Strong garlic smell when crushed.
- Second year: Cluster of white cross-shaped flowers on stalks. Some plants will have more than one stalk. Leaves more heart shaped and sharply toothed. Seeds develop in a slender pod by mid-summer. 800-6,000 seeds can be produced by one plant.



**Issues:** Extremely prolific and aggressive out competing native woodland ephemerals like trillium, wild ginger and hepatica. Recent studies have found that garlic mustard releases antifungal chemicals into the soil disrupting the natural symbiotic relationship between mycorrhizal fungi and native tree and plant development. This is bad news for our native plant populations.

**Control:** Early detection is best. Small infestations (and medium ones too if you have the time) can be controlled through hand pulling. Hand pulling should be done as early as possible in the spring preferably before flowering. Pulled specimens without flowers can be composted but plants pulled with flowers should be bagged and removed from site or composted if your compost will get hot enough to kill any seeds that might develop after the fact. Plants that are pulled and left on the ground if conditions are moist enough, can still flower and go to seed with all roots exposed. At least the top inch or “crown” of the root should be taken with every plant. The top of the root will re-sprout if left in the ground. Return to the site at least two more times after the initial pulling to pull any remaining or re-sprouted plants. Seeds can remain viable for up to 5 years, so the goal is to prevent the plants from going to seed. For large infestations weedwacking or mowing plants to the ground repeatedly (once every 2 weeks from May-July) can help prevent re-seeding. Hand removal and bagging of plants with mature fruits can be done from June through August.



Careful application of herbicide may also be an option in certain areas for instance, you may have a massive invasion that stretches into a wooded area not open enough for a mower to navigate. Unless you have an extreme problem with garlic mustard I would recommend using any other non-chemical control.

**If you are considering using chemical control remember:**

Like any weed control method, herbicides will fail if used incorrectly. Because garlic mustard thrives a variety of areas including sensitive woodlands and wetland borders, herbicide exposure to water resources, the susceptibility of surrounding native plants to the herbicide, and the potential impact of herbicides on soil and amphibious organisms must be considered in choosing the most appropriate product for your particular weed control program. Furthermore, using any herbicide correctly means using:

- **An herbicide which has a label allowing applications on the particular use site;**
- **The correct concentration (rate);**
- **An adjuvant if recommended** (adjuvants are spray solution additives that may make the herbicide more effective);
- **The right application method;**
- **The correct timing to coincide with plant susceptibility.**

*As always with herbicide use, carefully read and follow all use directions and any restrictions or precautions listed on the product label. If in doubt, contact your local extension agent, pesticide dealer, Department of Agriculture, or the herbicide manufacturer for advice or clarification.*

Herbicide can be applied to the basal rosettes at any time of year (temperature permitting--above 50 degrees F). Treating the first year rosettes will effectively prevent reseeding interrupting the life cycle. Thoroughly wet all leaves with a glyphosate herbicide as a 2-percent solution in water (8 ounces per 3-gallon mix). Do not apply so heavily that herbicide drips off the leaf surface and only apply if rain is not expected for about 8 hours. Include a surfactant (adjuvant) unless plants are near surface waters (ponds, streams, vernal pools, etc.). Extreme care must be taken not to get glyphosate on desirable plants as the product is non-selective and will kill almost any plant it contacts. Treatments should be done in the early spring (apply to the rosettes) when most other non-target vegetation is dormant. Refer to manufacturer's label for specific information and restrictions regarding use. Spray shields may be used to better direct herbicide and limit non-intentional drift.

You may be able to hire a **trusted ecological landscaper** to apply the herbicide for you.

**It's edible too.  
Recipes: Pesto Petiolata**

**3/4 cup extra virgin olive oil**  
**1 garlic clove**  
**2 Tbl pine nuts or walnut pieces**  
**1/4 tsp salt**  
**1/3 cup freshly grated Parmesan cheese**  
**4 cups of garlic mustard leaves or use 2 cups garlic mustard and 2 cups basil leaves**

Place all of the ingredients except the basil in a blender or food processor. Blend until smooth, then add the garlic mustard and/or basil a handful at a time, blending until all of the greens are incorporated and the pesto is smooth.

Makes about 1 cup.

Notes: For the best flavor, pick the rosette leaves before the plant has flowered. I personally wouldn't use leaves from roadside plants because I don't know what the roadside crews use on the roads or along the roads. If freezing, omit the cheese and add in when ready to use the pesto. I like to freeze 1/4 scoops of pesto in baggies, then cut the corner off and squeeze the pesto out.

- Andrea Hoerr