Garlic Mustard Management

Photos: The Nature Conservancy

Description:

Wild Garlic Mustard is an invasive species originally native to Europe and Asia. It has become an aggressively invasive plant across the Northeast, Midwest and Northwest of the United States. Garlic Mustard was introduced to the US in the mid 1800s for its herbal and medicinal properties. Wild Garlic Mustard typically can grow between 2 to 4 feet tall. In its first year leaves are rounder and take on a rosette shape and ground level. In the second year, the leaves grow up a flowering stem and become more triangular and heart-shaped with toothed edges(The Nature Conservancy). The flowers emerge in the spring and they are small white four-petaled flowers.

Habitat:

Garlic Mustard thrives in disturbed soils, this weed is an opportunistic plant and is quick to occupy spaces where vegetation has been removed. It is most often found in the

understories of trees in moist, shaded environments, but it can grow in many different habitats due to its high adaptability (Gupta, Rager, Weber).

Control Methods:

Mechanical control methods

When managing Garlic Mustard the goal is to remove all the plants to prevent seed development and spreading until the existing seed bank is depleted (The Nature Conservancy). The best method for removing garlic mustard is manually. The plants should be pulled up in spring before the plant has had time to seed, a good time to remove the plants is after rain when the soil is softer to get the long taproot fully out of the ground. Throw plant debris in the trash do not compost. Getting rid of the plant fully can take 2-5 years in a confined area.

Chemical control methods

Selective chemical control is most effective when applied in early spring or late fall with minimal damage to grass and sedges. Some chemical options that cause minimal damage to grasses include Triclopyr alone, 2,4-D amine alone, 2, 4-D + dicamba. A non-selective herbicide that can be applied in early spring and late fall when other plants are dormant is Glyphosate (Gupta, Rager, Weber)

Fun Facts:

Garlic mustard is suspected to have allelopathic qualities. The roots of the plant can release chemicals that alter the important underground network of fungi that connect

nutrients between native plants, inhibiting the growth of important species like trees (The Nature Conservancy).

Sources:

The Nature Conservancy. (2020, July 22). *Journey with Nature: Garlic Mustard*. The Nature Conservancy. https://www.nature.org/en-us/about-us/where-we-work/united-states/indiana/stories-in-indiana/garlic-mustard/

Gupta , A., Rager, A., & Weber, M. (2024). *Garlic mustard*. Extension.umn.edu. https://extension.umn.edu/identify-invasive-species/garlic-mustard