



# WNY PRISM

Partnering to Protect Western New York from Invasive Species

## Best Management Practices: Japanese Stiltgrass

Japanese stiltgrass (*Microstegium vimineum*) is an annual grass that frequents shaded riparian areas and flood plains. It is commonly found along hiking trails and deer trails. Lime green in color, stiltgrass is most easily recognized by the off-center, silver mid-rib on each leaf.

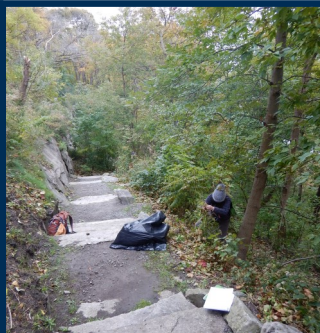
Japanese stiltgrass spreads primarily by seed, which is transported by water, deer and people (boots, vehicles, mowers). Each plant can produce hundreds of seed, resulting in up to 50,000 seeds per square meter in dense infestations. Stiltgrass emerges in late-spring and flowers in late summer/fall. It produces cleistogamous flowers, which are self-fertilized, and produces flowers near the ground where they can avoid mowing. Seeds maintain viability in the soil for approximately 7 years.

Large patches of stiltgrass will outcompete native species, alter soil pH and nutrient cycling, and may contribute to suppression of tree regeneration.

### Management

WNY PRISM recommends use of an Integrated Pest Management (IPM) strategy, an adaptive approach that involves the selection of multiple control methods and appropriate timing to match the management needs of each specific site and species. The goal is to maximize effective control and to minimize any potential negative impacts.

Management efforts should begin with an invasive species survey and site assessment. This allows for the development of a management plan and selection of appropriate removal methods. Management for most well-established species and/or infestations will require dedication over a number of years, often 3-5. Once initial control is achieved, restoration and continued monitoring and management will likely be required to maintain success.



## Best Management Practices: *Microstegium vimineum*

### Japanese Stiltgrass

#### Management

##### Manual

Individual plants and small infestations may be removed by hand, preferably prior to seed development.

##### Mechanical

Mechanical methods such as mowing are not recommended for stiltgrass management. If additional spread prevention methods are used, mowing may reduce seed production, but will not eradicate the stiltgrass.

##### Chemical

Herbicides, such as glyphosate and some grass-specific herbicides, are very effective for stiltgrass control and may be applied using foliar application methods. Pre-emergent herbicides may assist with reducing seed germination and species reestablishment, however these are non-specific and will limit all seed germination.

##### Spread Prevention

Clean mowers before and after use. Mow non-infested areas before those infested with stiltgrass. Mow as low to the ground as possible.

##### Disposal

Plant material should be disposed of in landfill-bound trash. Plant material may be bagged (black plastic) and placed in the sun (solarize) for no less than 3 weeks to ensure it's no longer viable.

##### Restoration

Japanese stiltgrass is likely to reestablish in areas once infested and restoration should be considered. Restoration efforts should take place after the stiltgrass infestation has been effectively managed (populations down to levels appropriate for manual removal, seed bank depleted) and may include planting of native understory species and management of trees.



Photos Front: Top - Japanese stiltgrass infestation; Middle - leaf close-up; Bottom (left to right) - survey equipment, hand pulling, and foliar spraying. Photos Back: Top - Japanese stiltgrass infestation; Bottom - individual plants.

#### Additional Resources:

[www.stewardshipnetwork.org/stewardship-network-webcasts](http://www.stewardshipnetwork.org/stewardship-network-webcasts) (November 2017 - A Conversation on Japanese Stiltgrass)



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