

You Ain't From Around Here! Exotic Invasive of the Quarter: Japanese Stiltgrass (*Microstegium vimineum* (Trin.) Camus)

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I will be featuring an invasive plant species in each newsletter. This section will provide resources to help you identify and control these plants and insects, hopefully before they become a problem!

Japanese stiltgrass is a pest of many names, including Nepalese brownglass, Nepalese browntop, Asian stilt grass, Vietnamese stilt grass, Nepal microstegium, basketgrass and Chinese packing grass. As the last name implies, leaves of this species were used to protect porcelain shipped to the US from its native Asia (India, Nepal, China and Japan). It has also been used for basketweaving. The first known escape of the species was in 1919, near Knoxville, Tennessee. It is now found in 22 eastern states, including Virginia. The Nature Conservancy has reported Japanese stiltgrass as one of their worst weed problems!



Japanese stiltgrass blanketing the forest floor. Photo by: Chris Evans, UGA

This grass is well-adapted to shady environments and flourishes in disturbed areas (e.g., flood plains and along roads and trails). Disturbances such as mowing and tilling along roadways and power line rights-of-ways facilitate the spread, as well as hikers and their dogs. The seeds do not have any adaptations such as barbs or hooks, but are small enough to be picked up on shoes or fur. Since the species does well near waterways, floating seeds are a primary method of dispersal. Stiltgrass doesn't do well on bright sunny sites, or in standing water. One plant can produce up to 1000 seeds and these seeds can remain viable in the soil for up to 5 years!



The author and her dog, Bob - unwitting seed dispersers!

Because of its ability to form dense ground mats, Japanese stiltgrass effectively reduces native plants by crowding them out. In as little as 3 years, the site can be completely overtaken by the grass. Stiltgrass may also change soil pH, making it unsuitable for some native species. While the dense mats provide excellent habitat for rats to hang out in, they have few other wildlife benefits.

How to identify Japanese stiltgrass

Plant: Sprawling, mat-forming annual grass; upright to reclining stems up to 4 feet long

Stems: Branched

Leaves: Alternately arranged, long and thin, pale green, 2-4 inches long and less than 1 inch wide; white, off-centered mid-vein; slightly hairy on both surfaces, along edges, and at base. May develop a purple tinge in the fall.

Flowers: Slender stalks of white flowers bloom August to October,

Seeds: September to December; grain husked and ellipsoidal, yellow-reddish, 0.1 inch long

How to control Japanese stiltgrass

Instigate control methods as soon as you spot this grass – early infestations are much easier to control than heavy ones!

Also, try to minimize soil disturbance in areas free of this grass.

Mechanical: Shallow-rooted plants can be pulled up throughout the growing season; pulling or mowing in late summer, before seeds form, reduces seed buildup. Two caveats: 1. Be careful not to pull up native grasses which intermix with the stiltgrass and don't pull plants after seed has formed – you will be spreading the seeds! 2. If you mow, make sure it's late in the growing season; mowing earlier in the summer will give the plants sufficient time to regrow and will cause them to bloom and produce seed even earlier.

Fire: A late summer burn can help reduce the litter created by the grass, as well as reducing infestations. Again, do not burn early in the growing season or the plants will come back quickly!

Chemical: Apply 2% Glyphosate (Roundup® in dry areas, Rodeo® in wet areas) in a water solution (8 oz. herbicide per 3 gallons water) in late summer. Or, Apply Vantage (see



Japanese stiltgrass. Photo by: Nancy Loewenstein, Auburn



Greenhouse research at Auburn University. Photo by: Nancy Loewenstein, Auburn.

label for recommended rates) to reduce herbicide impact on neighboring plants (if there are any).

Miller, J.H. 2003. Nonnative invasive plants of southern forests. www.

Tu, Mandy. 2000. TNC - Species management Summary (ESA): Japanese stiltgrass.

<http://tncweeds.ucdavis.edu>

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