

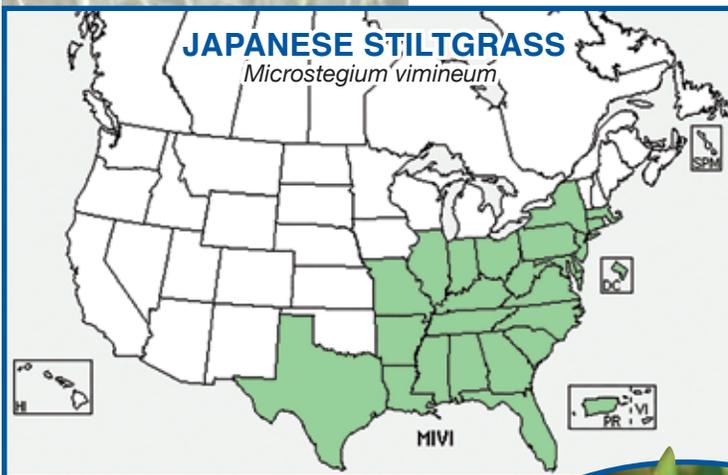
JAPANESE STILTGRASS

Microstegium vimineum

Photo courtesy of Ted Bodner,
Southern Weed Science Society,
Bugwood.org

SPECIES AT A GLANCE

Japanese stiltgrass, also known as *Nepalese browntop* and *packing grass*, is an annual, herbaceous, sprawling grass from Asia that has invaded floodplains, streambanks, and moisture rich areas throughout much of the mid-western and eastern United States. It has two important advantages that allow it to outcompete native species: it is extremely shade-tolerant, making it competitive in low-light conditions, and it is thought to be free of natural enemies.



Map courtesy of USDA Plants Database

SPECIES DESCRIPTION

Resembling a smaller, more delicate version of bamboo, Japanese stiltgrass can grow 30-91 cm (1-3 ft) tall in a sprawling, mat-like manner. It has narrow, blade-shaped leaves that are pale green and alternate on a branched stalk. A distinguishing characteristic is a pale silvery stripe of reflective hairs along the midrib of the upper surface of the leaves. One or two delicate flower spikes grow on top of each stem in late August to September.

NATIVE & INTRODUCED RANGES

Native to Japan, Korea, China, Malaysia, and India, Japanese stiltgrass was introduced into Tennessee in 1919, most likely while used as a packing material for porcelain. By 1960, it had naturalized and spread northward to Ohio and Pennsylvania, and eastward to all coastal Atlantic states from Florida to New Jersey. In Pennsylvania, Japanese stilt grass can be found in more than 30 counties throughout the state.

BIOLOGY & SPREAD

Japanese stiltgrass germinates in the spring and grows slowly through the summer months. It spreads mainly through a high production of seeds, with a single plant producing between 10 and 1,000 seeds. These seeds are then dispersed by water currents, contaminated materials such as hay, soil, and potted plants, and on footwear. Seeds can remain viable for at least three years in the soil seedbank. It can also spread by sprouting new shoots from the stems that come in contact with the ground.

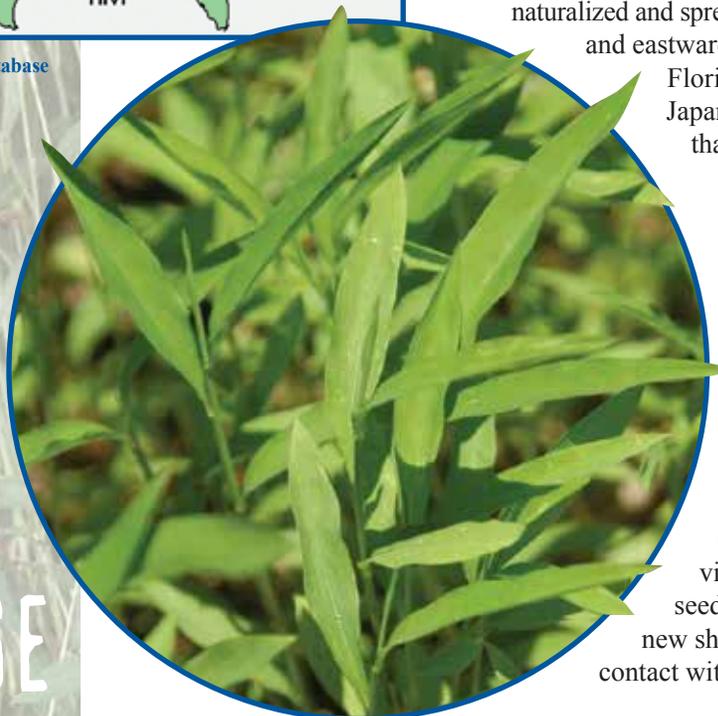


Photo courtesy of Chris Evans,
River to River CWMA, Bugwood.org

JAPANESE
STILTGRASS

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Photo courtesy of David J. Moorhead, University of Georgia, Bugwood.org



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Pennsylvania Sea Grant is a partnership of NOAA, Penn State University, and the Commonwealth of Pennsylvania.

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Funded in part by the U.S. Fish and Wildlife Service and the Great Lakes Restoration Initiative.



Photos courtesy of Tom Cermak, PA Sea Grant

HABITAT

While it occurs in a wide variety of habitats and light conditions, Japanese stiltgrass prefers to colonize disturbed moist areas such as stream sides, floodplain forests, wetlands, fields, roadsides, ditches, utility corridors, and gardens that have been disturbed by mowing, tilling, foot traffic, and flooding.

IMPACTS

Once established, Japanese stiltgrass rapidly spreads to form extensive mats that displace native plant species. Invasion can also inhibit tree survival and growth, reduce light availability, and impact soil chemistry by changing nutrient cycling processes. Japanese stiltgrass has been found to have little to no value as food for grazers like white-tail deer and so they avoid it and consume native plants nearby, giving it the opportunity to invade the vacant spaces left behind.

PREVENTION & CONTROL

Preventing disturbed soils can minimize the chances of a Japanese stiltgrass infestation. If caught early, small populations of Japanese stiltgrass can be controlled by hand pulling; ideally in the late summer before seed set. Populations of Japanese stiltgrass can also be mowed or the soil tilled while the plants are in flower, but before seed set in late summer to early fall. Mowing or tilling too early will result in the plants still being able to flower and go to seed. Due to the length of time the seeds remain viable in the seed bank, management will be needed for multiple years in combination with site remediation. Larger populations of Japanese stiltgrass can be managed by using chemical controls both pre-and post-germinations. Because of its ability to re-infest disturbed areas, restoration of previously contaminated sites is important to prevent reintroduction.



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