

A Message from the Environmental Advisory Council

By: Nora Sadler

Japanese Stiltgrass

This is the second article discussing an invasive plant. In the first article, the definition of invasive plants explained they are non-native plants that can spread rapidly by several means including by seed, vegetative growth, and underground roots. They outcompete native plants by taking over available space, absorbing sunlight or shading, using nutrients efficiently and sometimes even changing the soil chemistry. Although they may provide nectar and/or food for insects and birds, they do not support the total life cycle that is important for a healthy ecology

Japanese Stiltgrass, *Microstegium vimineum*, grows in almost every condition, sun to shade, moist to dry. It is an annual, meaning it produces foliage, flowers and seeds in one year and then dies. However, one plant can produce between 100 to 1000 seeds. The smooth leaves can be between 1 - 3" in length on wiry stems. In the woods it's about 1-2' tall but in the sunlight, it can reach 6' in height. Each stem is supported by small stilt like prop roots, giving the species its name. It can form a dense tangled mat that smothers desirable plants. The plant flowers and produces seed from early September through October. These seeds can be dispersed accidentally on contaminated surfaces, such as vehicles, shoes, soil, and animals. The seeds float and can also be easily dispersed in ditches, streams or wetlands as the water moves. Seeds remain viable in the soil up to 5 years.

For control, it's necessary to try and eliminate seed production. If there is a small infestation, this annual is easily pulled up. Mowing repeatedly will not stop seed production, the plant will still flower and produce seed. However, if you use a weed eater, taking the Stiltgrass down to the ground when the plant begins to flower in September, there will not be enough time for the plant to recover and produce seed. It's important to remember that this process can take years because of the seed bank that has probably accumulated in the soil.

Chemical control can be effective by using a pre-emergent herbicide such as Pendulum in mid-March. These herbicides prohibit seeds from germinating and are not supposed to hurt perennials. When I realized that there was a lot of Japanese Stiltgrass in my lawn, I contracted a company to apply a pre-emergent to my lawn and garden. I had used a backpack sprayer with Pendulum for years in my meadow (about 1 acre) with tremendous success, but 4 acres was more than I wanted to tackle. That year, I saw virtually no Stiltgrass, but there was considerable damage to my spring ephemerals, such as Virginia Bluebells and other early flowering perennials, including Moss Pink. My experience is not unique, and several friends had damage to their early blooming plants. I would urge caution if using a pre-emergent if you have early blooming plants

This invasive is pervasive in lawns, fields, woods and wetlands. Constant vigilance to prevent seed production is necessary.

The pictures show a close-up of the foliage and seedhead, an infestation in a woodland, height in a sunny area, the 'stilts' on a node.

Written by Nora Sadler

Nora Sadler earned a BS in plant science and a BA in earth resources/geography from the University of Delaware. She has completed the Longwood Gardens Series I and Series II Certificate of Merit programs and received a Landscape Design Certificate. Sadler was the staff gardener at the Brandywine Conservancy for 28 years.



