

Nepalese Browntop, Japanese Stiltgrass



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Nepalese browntop or Japanese stiltgrass [*Microstegium vimineum* (Trin.) A. Camus] is a sprawling, dense, mat-forming annual grass, 0.5 to 3 feet (15 to 90 cm) long with stems growing to 1 to 3 feet (30 to 89 cm) in height, often bending over and rooting at nodes to form extensive infestations. It has alternate, lanceolate leaf blades to 4 inches (10 cm) long with offcenter veins and thin seed heads in summer and fall. Dried whitish-tan grass remains standing or matted in winter. One of the region's most severe invasive plants, it flourishes on alluvial floodplains and streamsides, mostly colonizing flood-scoured banks, due to water dispersal of seed and flood tolerance. It is also common in forest edges, roadsides, and trailsides, as well as damp fields, swamps, lawns, and ditches. It occurs up to 4,000 feet (1200 m) elevation and is very shade tolerant. Consolidates occupation by prolific seeding, with each plant producing 100 to 1,000 seeds that can remain viable in the soil for up to 3 years. Hidden seeds within leaf sheaves are produced in early summer. Spreads on trails and recreational areas by seeds hitchhiking on hikers' and visitors' shoes and clothes.

Management strategies:

- Apply herbicide and mowing treatments to stop seed production.
- Hand pulling alone or hand pulling followed by a summer herbicide application result in the most plant diversity compared to broadcast glyphosate treatments, while control and diversity will only be maintained with repeated hand pulling.
- Treat when new plants are young to prevent seed formation, and be aware that early summer self-pollinated seeds are hidden inside the leaf sheaves.
- Clean shoes, clothes, dogs, and equipment of tiny seeds before leaving infested areas.
- Minimize disturbance within miles of where this plant occurs, and anticipate wider occupation when plants are present before disturbance.
- Infestations result in a widespread and dense layer of fine fuels in winter that can result in intense fires causing damage to native plants. Prescribed burning can promote spread of existing infestations..

Recommended control procedures:

- Apply a glyphosate herbicide as a 0.5- to 2-percent solution in water (2 to 8 ounces per 3-gallon mix) with a surfactant in early summer; or apply Fusilade[®] DX or Plateau[®] (see label) in summer for situations that require more selective control and less impact on associated plants (hand weeding a month prior to these treatments will increase control and revegetation diversity).
- Repeat treatments for several years to control abundant germinating seeds. Mowing or pulling just before seed set will also prevent seed buildup in the soil seed bank. An early summer seed crop is hidden inside the leaf sheaves.

* Nontarget plants may be killed or injured by root uptake.