

The Introduction, Spread, and Control of Non-Native, Invasive Species in Tennessee Forests: Chinese Silvergrass

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CHINESE SILVERGRASS (*MISCANTHUS SINENSIS*)

Chinese silvergrass, often referred to as Miscanthus, but also known as zebra grass and maidenhair grass, is a warm season, perennial, non-native bunch grass of several cultivars or varieties that is planted as an ornamental. This grass has escaped from plantings, forming dense infestations on disturbed sites along roadsides and forest margins. Miscanthus is highly flammable and a fire hazard.

The grass grows in dense, upright clumps that are three to six feet tall with blades up to one inch wide. The blades are green to variegated often with green-white horizontal stripes. The leaves have a white midrib, and the leaf tips are curved and sharp. The fan-shaped, terminal panicle seed head is 6 to 24 inches long. Preferred habitats are open areas with full sun and moist, but well-drained soils. Once established, the plant tolerates drought.

Miscanthus reproduces primarily through rhizomes. Reproduction from seed is not as common as sprouting. Wind and animals disseminate seeds. The abundant sprouts from rhizomes allow the grass to form dense and extensive infestations.

Control of Chinese silvergrass is difficult. Mechanical control through manual removal, burning, or mowing should be conducted before seedheads mature and distribute seeds. Repeated mechanical control is required to deplete rhizome energy reserves. Even then, control is usually ineffective with the ability of the grass to regrow from the ever-present root fragments or rhizomes.

Glyphosate is the recommended chemical control of Chinese silvergrass. The herbicide should be applied when the grass is actively growing so the chemical is transferred to the roots. Unless the entire rhizome system is killed, regrowth will occur the next year. Thus, re-application is necessary several times to control the grass. Glyphosate is a non-selective herbicide and will impact other vegetation if contact with the herbicide occurs. However, the high density of most Miscanthus infestations permits minimal contact with associated vegetation.



*Chinese silvergrass in a wildlife opening.
Photo Credit: Lauren Quinn, Bugwood.org*

FURTHER REFERENCE WEBLINK

Southeast Exotic Pest Plant Council <https://www.se-eppc.org/manual/MISI.html>

Global Invasive Species Database <http://www.iucngisd.org/gisd/species.php?sc=1121>



*Terminal panicles or seed heads of Chinese silvergrass.
Photo Credit: Arthur E. Miller, USDA APHIS PPG, Bugwood.org*



Physical feature of stripes on the grass suggests the common of zebra grass. Photo Credit: Chris Evans, University of Illinois, Bugwood.org