

Invasive Alien Plant Species of Virginia

Kudzu (*Pueraria lobata* (Willd.) Ohwi)

Description

Kudzu is a perennial, trailing or climbing vine of the legume family. Dark green leaves, starchy fibrous roots, and elongated purple flowers with a fragrance reminiscent of grapes readily identify this aggressive vine. A dense stand of identically colored plants growing on and around everything in its path is also a familiar field mark. Rarely flowering, kudzu stems and roots spread out in all directions from root crowns, with new plants beginning every one to two feet at stem nodes. This dense packing of kudzu can result in tens of thousands of plants occupying a single acre of land. Kudzu leaves are hairy beneath, often tri-lobed, and in groups of three on the vine. The 1/2 to 3/4 inch purple flowers are pea-like in shape and are produced on plants exposed to direct sunlight. Kudzu fruits, present in October and November, are hairy, bean-like pods which produce only a few viable seeds in each pod cluster. It is thought that some seeds can remain dormant for several years before they germinate. During the peak growing season in early summer, this prolific vine can grow at a rate of a foot a day, easily covering and choking trees and understory vegetation.

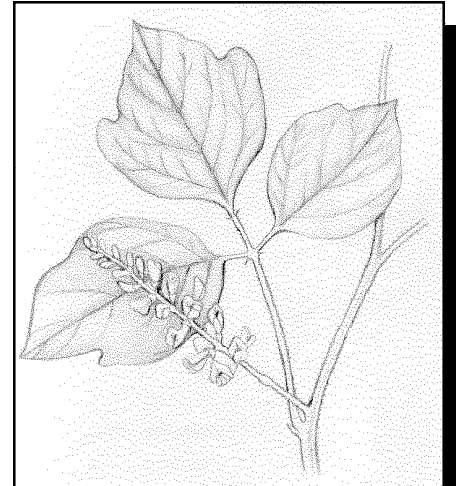
Habitat

A hardy opportunist, kudzu grows in a variety of habitats and environmental conditions, but does best on deep, well-drained, loamy soils. Almost any disturbed area is suitable habitat for this vine. Roadsides, old fields, vacant lots and abandoned yards are all prime spots for new kudzu growth.

Distribution

A native of Japan, kudzu was brought to the southeastern United States at the turn of the century for

use as a soil stabilizer, animal fodder, and ornamental vine. Due to its prolific nature and lack of natural insect or disease controls, kudzu quickly made a pest of itself and was considered a nuisance by the early 1950s. In 1970 it was listed as a common weed by the Soil Conservation Service. Today, kudzu is spread along the Atlantic coast; north to Illinois and Massachusetts, west to Texas and Oklahoma, and south to Alabama, Georgia and Mississippi where the heaviest infestations occur. It has also recently been



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found in Florida where it has begun to invade the Everglades. Throughout Virginia, kudzu stands are a common sight along roadways and bordering agricultural fields.

Threats

Where it grows, kudzu has the ability to out-compete and eliminate native plant species and upset the natural diversity of plant and animal communities. Its extremely rapid growth rate and habit of growing over objects threatens natural areas by killing native vegetation through crowding and shading, and can seriously stifle agricultural and timber production. In addition, al-

For more information, contact the Department of Conservation and Recreation, or the Virginia Native Plant Society.


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Kudzu

though edible by many grazing animals, its viney nature makes it difficult to cut and bale, making it undesirable as a hay crop. Grazing can eliminate kudzu fields in just a few years making them unsuitable for use as pastures except over a short time period. Because of its hardy nature and lack of natural enemies, kudzu is able to colonize diverse habitats and achieve a widespread distribution.

Control

Control of well established kudzu stands can take up to 10 years. Persistent eradication of all roots is the key to the control of this pest, keeping in mind that a single kudzu patch may extend past landowner boundaries. The most effective method of control will depend on several factors; size of the infested area, proximity to sensitive species or other desirable vegetation, and accessibility of the patch. Small patches of kudzu that are not well established (usually ones less than ten years old)

can be eliminated by persistent weeding, mowing, or grazing during the growing season over a period of three to four years. Unfortunately, with root systems that can be up to 12 feet deep, eradication by direct root removal is not practical.

Long-term treatment of heavily infested sites usually requires the application of herbicides over a period of up to five years to inhibit the growth of new shoots. Biodegradable glyphosphate herbicides are recommended for control of kudzu in natural areas. These herbicides break down rapidly into harmless components when exposed to soil. Because glyphosphate is a systemic, non-selective herbicide that affects all green vegetation, treatments should be carefully timed and applied by trained applicators. The best time for application of these herbicides is at the end of the growing season when the plants are actively transporting nutrients from leaves and stems to root systems. When applied at the proper time, herbi-

cides are transported to the roots where they are able to kill the entire plant.

In some areas, prescribed burning may be used as a follow-up treatment after herbicide application. Although it should be carefully and professionally handled, this two step process is effective in clearing out leaf litter and speeding recolonization of an area by desirable native plant species.

References

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