State of Illinois
Illinois Department of Natural Resources

KUDZU IDENTIFICATION GUIDE

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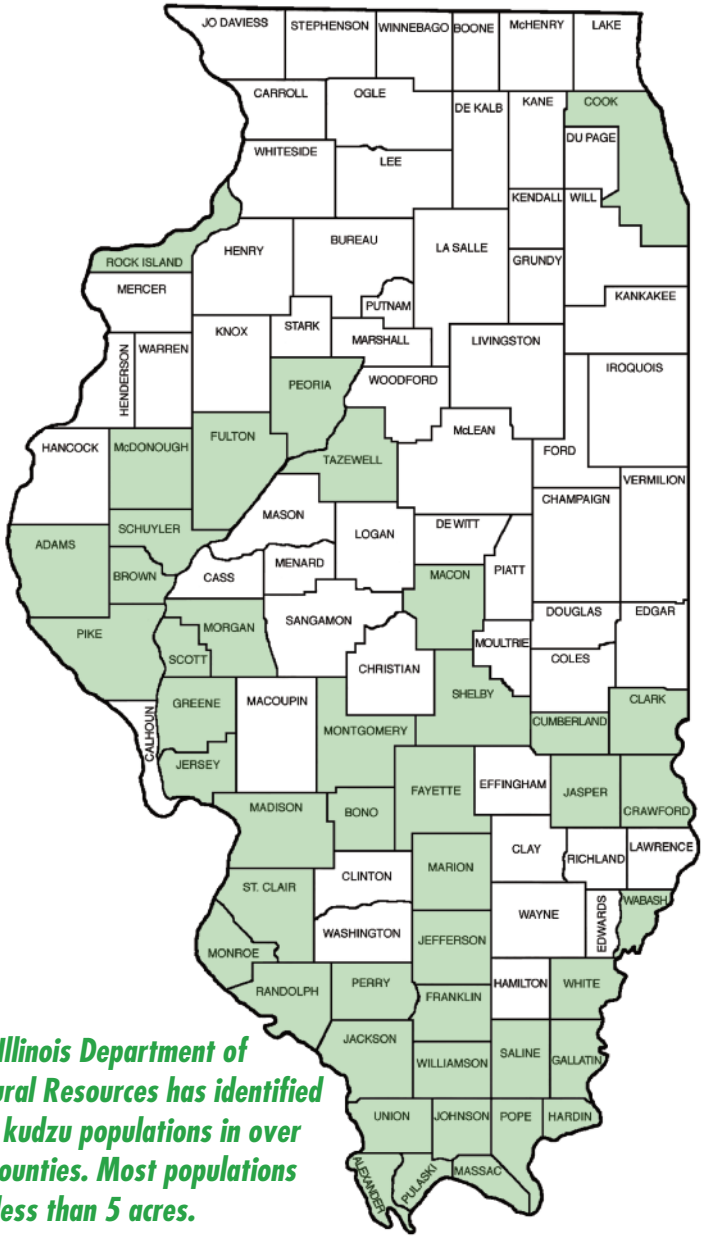
KUDZU DISTRIBUTION IN ILLINOIS



The Illinois Department of Natural Resources has identified 130 kudzu populations in over 30 counties. Most populations are less than 5 acres.

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Description

Kudzu is a perennial, deciduous, woody vine in the Fabaceae or "bean" family. Kudzu is a rapidly-growing, high-climbing exotic plant that was first introduced into the United States from Japan in 1876. It was widely promoted and planted in the 1930's to help control soil erosion.

Kudzu population in central Illinois

Although often considered a southern weed, kudzu is established in northern areas and is classified as a noxious weed in Illinois. Kudzu is very competitive and effectively smothers and suppresses other plants. It forms extensive monotypic patches, displacing native plant communities and interfering with ecosystem function. Kudzu girdles trees, breaks branches and even uproots entire trees as a result of the excessive weight of leaves and vines. In addition, kudzu has been identified as an alternate host for soybean rust.

Once established, kudzu is very difficult to eliminate and requires a long-term commitment to management. As a result, early detection and control will help minimize the spread of this invasive species. Since several species may be confused with kudzu, the purpose of this guide is to help distinguish kudzu from other climbing vines that may look similar.

Leaves

Leaves are alternately attached on herbaceous or woody stems. Leaves are trifoliolate, and the leaflets are hairy beneath and on the margins. They are broadly ovate (3-6 inches), and the leaflets may have 2-3 lobes, but not always. Note the variation in leaflets in the lower photograph.

Flowers

Flowers are reddish purple in dense axillary racemes and are fragrant with a distinctive grape aroma

Roots

First year roots are densely pubescent growing from buds on a root crown at the soil surface. As the vine trails, it can also root at individual nodes enlarging into root crowns from which individual vines can develop. In older populations, there can be 2 to 3 root crowns per square meter.

Growth

Vines grow from a large central root crown forming extensive patches. Older vines are woody and in Illinois have been recorded to have a diameter of up to three inches with eight obvious growth rings.

Kudzu can overwinter in Illinois as aerial vines especially in the southern part of the state. Kudzu vines can grow up to 60 feet per year and populations can increase 20% per year in size. Although the best growth occurs in warm humid climates like those of the southern states, kudzu is also capable of growing in much colder climates. It has been reported from New York, Pennsylvania, Connecticut, Massachusetts, Ohio, Indiana, and Illinois, and populations in Illinois are thriving.

Seeds, germination, and viability

The fruit is a dark brown legume covered with long spreading hairs. It was once thought that kudzu would not produce viable seeds in Illinois. Through a study partially funded by the Illinois Department of Natural Resources, 90% of the seeds from a southern Illinois population and 50% of the seeds from a central Illinois population we found to be viable. Viable seeds within a pod tend to be larger and mottled in appearance.

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Similar Species

Kudzu may be confused with other rapidly growing vines such as wild grape (Vitis spp.), poison ivy, or Virginia creeper. Upon closer examination, the presence of trifoliate leaves will easily distinguish kudzu from any of these species of vines. In addition, kudzu has densely golden pubescent young stems.

Similar Species: Wild grape (Vitis spp)

Grapes have simple leaves. Leaf veins radiate out like fingers on a hand from the point on the leaf where it attaches to the petiole. In contrast, kudzu has compound leaves.

Similar Species: Virginia creeper

Virginia creeper is a woody vine that may climb or trail along the ground. It normally has 5 leaflets. Vines have branched tendrils that it uses to adhere to surfaces.

Similar Species: Poison Ivy

Poison ivy has 3 large shiny leaflets that are 2-4 inches long and pointed at the tip. Leaflet edges may be smooth or irregularly toothed. Poison ivy grows as a climbing or trailing vine, or as a free-standing shrub.

Control

As with most exotic invasive species, controlling kudzu requires persistence in monitoring and repeated treatment during a multi-year program. Controlling kudzu is difficult due to its large, starchy roots, its ability to develop roots at the leaf nodes, and its ability to produce thick mats of vines. Eradication usually takes several years, but that is the only way to ensure complete control of the plant. Since regrowth is common, monitoring for residual kudzu plants should be high priority in any kudzu eradication strategy.

For control recommendations, please refer to the Illinois Nature Preserves Commission (INPC) control guidelines for kudzu. *http://www.dnr.state.il.us/INPC/VMG/VMG%20Kudzu%20original%202002.pdf*

To report sightings, contact Jody Shimp, DNR Regional Heritage Administrator at (618) 435-8138 ext. 127, or *jody.shimp@illinois.gov*

A series of images taken at the same location to demonstrate the vegetation changes over time after kudzu control measures were taken following the INPC kudzu control guidelines. Notice the utility pole on the left of each photo as a reference point for subsequent photos.

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