



**Kudzu**

*Pueraria montana* var. *lobata* (Willd.) Maesen & S. Almeida  
Pea family (Fabaceae)

**NATIVE RANGE**

Asia

**DESCRIPTION**

Kudzu is a climbing, semi-woody, perennial vine in the pea family. Deciduous leaves are alternate and compound, with three broad leaflets up to 4 inches across. Leaflets may be entire or deeply 2-3 lobed with hairy margins. Individual flowers, about 1/2 inch long, are purple, highly fragrant and borne in long hanging clusters. Flowering occurs in late summer and is soon followed by production of brown, hairy, flattened, seed pods, each of which contains three to ten hard seeds.



**ECOLOGICAL THREAT**

Kudzu kills or degrades other plants by smothering them under a solid blanket of leaves, by girdling woody stems and tree trunks, and by breaking branches or uprooting entire trees and shrubs through the sheer force of its weight. Once established, Kudzu plants grow rapidly, extending as much as 60 feet per season at a rate of about one foot per day. This vigorous vine may extend 32-100 feet in length, with stems 1/2-4 inches in diameter. Kudzu roots are fleshy, with massive tap roots 7 inches or more in diameter, 6 feet or more in length, and weighing as much as 400 pounds. As many as thirty vines may grow from a single root crown.



**DISTRIBUTION IN THE UNITED STATES**

Kudzu is common throughout most of the southeastern U.S. and has been found as far north as Pennsylvania.

**HABITAT IN THE UNITED STATES**

Kudzu grows well under a wide range of conditions and in most soil types. Preferred habitats are forest edges, abandoned fields, roadsides, and disturbed areas, where sunlight is abundant. Kudzu grows best where winters are mild, summer temperatures are above 80 degrees Fahrenheit, and annual rainfall is 40 inches or more.

**BIOLOGY & SPREAD**

The spread of kudzu in the U.S. is currently limited to vegetative expansion by runners and rhizomes and by vines that root at the nodes to form new plants. Kudzu also spreads somewhat through seeds, which are contained in pods, and which mature in the fall. However, only one or two viable seeds are produced per cluster of pods and these hard-coated seeds may not germinate for several years.

**BACKGROUND**

Kudzu was introduced into the U.S. in 1876 at the Philadelphia Centennial Exposition, where it was promoted as a forage crop and an ornamental plant. From 1935 to the mid-1950s, farmers in the south were encouraged to plant kudzu to reduce soil erosion, and Franklin D. Roosevelt's Civilian Conservation Corps planted it widely for many years. Kudzu was recognized as a pest weed by the U.S. Department of Agriculture and, in 1953, was removed from its list of permissible cover plants.



**MANAGEMENT OPTIONS**

For successful long term control of kudzu, the extensive root system must be

destroyed. Any remaining root crowns can lead to reinfestation of an area. Mechanical methods involve cutting vines just above ground level and destroying all cut material. Close mowing every month for two growing seasons or repeated cultivation may be effective. Cut kudzu can be fed to livestock, burned or enclosed in plastic bags and sent to a landfill. If conducted in the spring, cutting must be repeated as regrowth appears to exhaust the plant's stored carbohydrate reserves. Late season cutting should be followed up with immediate application of a systemic herbicide (e.g., glyphosate) to cut stems, to encourage transport of the herbicide into the root system. Repeated applications of several soil-active herbicides have been used effectively on large infestations in forestry situations.

### **Biological**

Efforts are being organized by the U.S. Forest Service to begin a search for biological control agents for kudzu.

**USE PESTICIDES WISELY:** Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

**NOTICE:** mention of pesticide products on this page does not constitute endorsement of any material.

### **CONTACTS**

For more information on kudzu management, please contact:

- Robert J. Richardson, Aquatic and Noncropland Weed Management, Crop Science Department, Box 7620, North Carolina State University, Raleigh, NC 27695-7620, (919) 515-5653, Rob\_Richardson at ncsu.edu
- James H. Miller, USDA Forest Service, DeVall Drive, Auburn University, AL 36849, Miller at forestry.Auburn.edu

### **SUGGESTED ALTERNATIVE PLANTS**

Native vines such as trumpet creeper (*Campsis radicans*), pipevine (*Aristolochia macrophylla*), passionflower (*Passiflora lutea*), trumpet honeysuckle (*Lonicera sempervirens*), and native bittersweet (*Celastrus scandens*) have attractive flowers and fruits, provide food for wildlife and make excellent substitutes for kudzu. These plants should be used in landscaping and for land restoration where they are known to occur as natives.

### **OTHER LINKS**

- <http://www.invasive.org/search/action.cfm?q=Pueraria%20montana>
- <http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specied=23>
- [http://www.hear.org/starr/hiplants/images/thumbnails/html/pueraria\\_montana\\_var\\_lobata.htm](http://www.hear.org/starr/hiplants/images/thumbnails/html/pueraria_montana_var_lobata.htm)

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### **PHOTOGRAPHS**

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