



Invasive Species Leaflet



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Pueraria montana (Kudzu)

Initial Introduction and Expansion in Range

Native to Asia, it is widely believed that *Pueraria montana* was introduced into the United States in 1876 at the Philadelphia Centennial Exposition where it was exhibited as an ornamental vine.



This plant quickly became valued by gardeners for its fragrant flowers and large leaves that provide shade for arbors and work well as a screen. Subsequent to its use as an ornamental plant, *P. montana* was sold mainly as an inexpensive livestock forage. From the mid-1930s to the early-1950s, farmers in the south were encouraged to plant *P. montana* to control agricultural erosion. By 1953, the United States Department of Agriculture removed this plant from its list of allowable cover plants and in 1970 it was listed as a common weed of the South.

Pueraria montana is a common sight throughout most of the Southeastern United States. It has spread as far west as Oklahoma and Texas and is now occasionally found in Northern states. The spread of *P. montana* is primarily vegetative by rhizomes and by vines that root at the nodes where the vines come in contact with soil and form new plants. To a much lesser extent this plant can spread by seed, but there are usually few viable seeds in each pod. Regardless of how many seeds are viable, *P. montana* poses a serious threat to natural areas because of its extremely rapid growth rate.

Growing up to 1 foot a day, this plant has the ability to out-compete and kill everything from grasses to mature trees through crowding and shading.

Description and Biology

- Perennial, woody, trailing or climbing vine up to 100 feet in length.
- Young stems are hairy, while older stems become woody and are up to 4 inches in diameter.
- Leaves are compound with 3 broad leaflets up to 4 inches across. Leaflets may be entire or 2 to 3 lobed.



- Fragrant purple flowers 0.5 to 0.75 inch long are produced in the late summer on plants exposed to direct sunlight. Brown, hairy, flattened pods are present in October and November.
- Roots are fleshy with massive taproots that can become 7 inches or more in diameter and several feet in length.

Habitats Susceptible to Invasion

Pueraria montana grows well in a variety of habitats and soil types, although the greatest growth rate is achieved where winters are mild, summer temperatures are above 80 degrees Fahrenheit, and annual rainfall is greater than 40 inches. The large roots of this plant allow it to survive summer drought conditions. Populations of *P. montana* are generally established along roadsides, old fields, forest edges and other sunny, disturbed areas throughout North Carolina.

Prevention and Control

The most effective method of control of *P. montana* depends on the size of the infestation and proximity to non-target desirable vegetation. Small patches of *P. montana* that are not well-established can usually be eliminated by persistent weeding, mowing, or grazing during the growing season. The spread of a well-established infestation of *P. montana* can be controlled the same way, but cutting will typically not kill the roots of larger plants.

For vines in tree canopies, cut the vines near the ground and apply a 50 percent solution of triclopyr to the stumps. This procedure remains effective at lower temperatures as long as the ground is not frozen. Large infestations can be effectively controlled with a foliar solution of 2 to 3 percent glyphosate or triclopyr plus a 0.5 percent non-ionic surfactant to thoroughly wet all leaves. The ambient air temperature should be above 65 degrees Fahrenheit. After the above ground vegetation is controlled and it is possible to dig and cut into the central root crown, apply a 50 percent solution of glyphosate or triclopyr to the wound. The most successful chemical control of *P. montana* can be achieved with a foliar solution of 0.75 percent clopyralid plus a 0.5 percent non-ionic surfactant. Monitor all treatments in subsequent years for re-sprouting.

THE LABEL IS THE LAW!

WHEN USING ANY PESTICIDE, FOLLOW ALL LABEL INSTRUCTIONS

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Pueraria montana photography by James H. Miller, USDA Forest Service, Bugwood.org (*top*) and Johnny Randall, N.C. Botanical Garden (*bottom*).

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