PA Noxious Weed Alert

KUDZU

Pueraria lobata

Kudzu

Kudzu is a state listed noxious weed with limited nationwide distribution occurring mainly in the southern states. Kudzu is capable of forming a monoculture in all habitats, displacing native or beneficial plants with its aggressive growth. Kudzu is also a host for soybean rust; a yield reducing plant pathogen.

History

In 1876, kudzu was introduced from Japan to the U.S. during the Philadelphia Centennial Exposition. Shortly there-after it was marketed as a shade plant for southern homes. From 1910 through the 1930's kudzu was also promoted in Florida and southern states as a new feed for animals and the U.S. Soil Erosion Service promoted kudzu for erosion control. Thousands of acres in the south were seeded to kudzu as a result. By 1953, it had become clear that kudzu was too aggressive and the USDA removed kudzu from the list of recommended cover crops and declared it a "weed" in 1970. However, the distribution of the plant for soil erosion and forage purposes was too extensive to declare the plant a federal noxious weed. By 1983, it was estimated that 2 million acres in the southeastern U.S. had been overrun by the introduction of this crop.

Kudzu in Pennsylvania

Historical information from investigations of old growth sites indicate that botanical hobbyists planted the species at their homes after the 1876 Centennial Exposition. Bethlehem Steele is also known to have seeded kudzu on slag piles throughout its land holdings for erosion control measures in the1950's. Site visits to several old growth infestations have found persisting populations that date to the 1920's if not earlier.

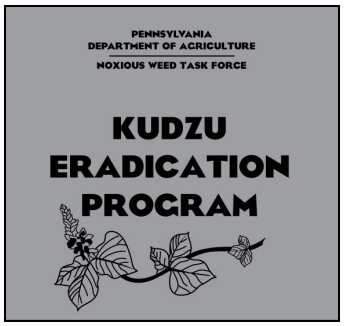
The Pennsylvania Department of Agriculture (PDA) added kudzu to the PA Noxious Weed Control List in 1989. As of 2011, Kudzu sites are known in 16 counties: Alleghany, Armstrong, Berks, Cambria, Centre (PSU weed garden) Chester, Dauphin, Delaware, Franklin, Lancaster, Lebanon, Montgomery, Northumberland, Philadelphia, Westmoreland, and York. All sites are classified as purposefully planted.

Kudzu Control Program

As of 2000, the PDA knew of only a few locations of kudzu and at the request of several property owners began conducting research to evaluate effective control measures. In 2005, a one time allotment of $50K from the legislature, enabled PDA to launch a ***Pilot Eradication Program*** to assist landowners with implementing a 3 year control program to eradicate populations of kudzu. Subsequent calls to the state hotline and surveying have since detected 91 populations of kudzu infesting 140 properties in PA. All sites were planted between 1920-1989 and average 18,000 sq. feet in size. Total state wide acreage infested in PA is less than 60 acres. To date 64 sites have been controlled and many have been eradicated in the pilot program.

How You Can Help

If you believe you have discovered a previously undetected kudzu population, please report it by calling the PA Noxious Weed Hotline 1-877-464-9333.



pennsylvania
DEPARTMENT OF AGRICULTURE

Kudzu seedlings emerge in August in PA after a heavy rain

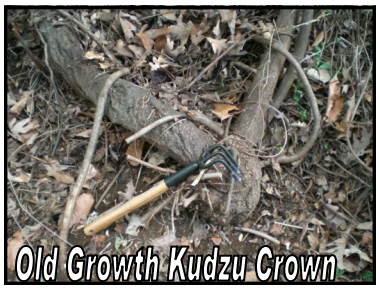
Typical kudzu strangling a tree in PA

Green seed pods in late Fall in PA

Kudzu Description

Kudzu is a perennial member of the Fabaceae or bean family and looks very much like a soybean or lima bean plant. As it matures it quickly becomes a woody twining vine, which can easily grow to a height of 50-60 feet and grows both prostrate on the ground and by climbing any nearby structure or tree.

Leaves are alternative and trifoliate with leaflets being broadly ovate up to 6" long and often times one or more leaflets are lobed like a "mitten".



Stems are both vegetative and woody. Vegetative stems are covered in soft white hairs and are very pliable. It is these stems that are describes as "*growing a foot a day"* in the summer. Young woody stems look like a brown snake and the center of the stem has corky white pith with a distinctive scent. These woody stems will mature over time into gnarly twisted vines with fissured bark.

Flowers appear in late summer as showy purple racemes and have a strong floral scent. Flowering begins in late July and continues through September in PA.

Seed pods are flat and hairy measuring 2 to 4 inches in length. The bean seed continues to harden after pods split open and these seeds at PA sites are persisting for 7 years in research sites.

Roots produce a "yam" like structure at the base of the parent vine deep in the soil- that can weigh up to 100 lbs; and roots spread across the ground as **runners** anchoring the parent vine with long rope like structures, that form a knot at regular intervals. These knots root and produce a new vine adding to the overall patch dimensions.

Similar species

Japanese honeysuckle, **oriental bittersweet, poison-ivy**, **wisteria,** and **wild grapes** are all climbing, twining, woody vines found in PA and are differentiated from kudzu by leaf and flower shapes. Poison ivy leaves are shiny and lack the fine hairs that cover kudzu leaves.

Biology/Ecology

Kudzu sites in PA are found along road-side shoulders, invading adjoining woodlots and tucked away in homeowner back yards. All surveyed sites were purposefully planted decades ago. Seedlings emerge in the late summer and flower a year or two after emergence. Kudzu leaves are completely killed by frost and current year stems will die back to the nodes of *twine-like stems* which then mature into *woody* vines.

Bravo et al. 2011. Pennsylvania Department of Agriculture. Noxious Weed Alerts.