

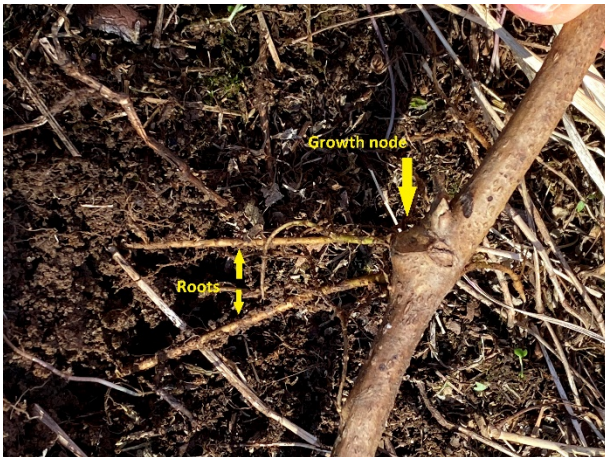
## Weed focus: Kudzu

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Kudzu [*Pueraria montana* (Lour.) Merr.] is a warm-season perennial legume from the pea family that is native to Asia. It is considered a noxious weed in the US. It was first introduced during the 1876 Centennial Exposition in the Japanese pavilion. During the 1930's and '40's, it was planted on over 1 million acres as a means of erosion control. It has spread ever since; however, it is found primarily in the southeastern states. It grows quickly and can easily overrun trees, fences, and even abandoned buildings (left).

Kudzu propagates in several ways. It has a taproot that can grow to 7 inches in diameter and extend 6 feet into the soil. Viny stolons creep across the soil surface, can reach 100 ft in length,



and send out roots from their growth nodes (above, left). It also spreads underground by rhizomes. Kudzu can produce seeds, which are contained in pods (above, right) and which can survive for several years; however, few viable seeds are produced. The seeds require 5-7 days of soggy conditions and temperatures above 68°F to germinate and survive. Seedlings do not tolerate disturbance and they require as much sunlight as possible, so often they do not survive.

Kudzu has pinkish purple flowers that hang in clusters from the vines (below, left). They are fragrant and can be gathered and used to make jelly. Its leaves are compound, with 3 leaflets.



Young leaves are edible. They can be eaten raw or cooked. The plant is deciduous and loses its leaves before going dormant in the winter (below, right).



Because it is leguminous, kudzu makes excellent feed for livestock. The nutrient content of the leaves is reported to be similar to alfalfa, containing over 15% crude protein and 60% total digestible nutrients (1). It easily becomes an environmental threat because of its rapid, aggressive growth, so it is not recommended to plant it as a feed source. If present in a pasture, it may be utilized without concern, and grazing may even help to keep it under control. Its viny nature makes harvesting it for hay a challenge and the baling process often results in leaf shattering and loss so kudzu hay's nutritional value is lower than that of the fresh material.

Controlling kudzu in pastures: As mentioned earlier, kudzu can be controlled by grazing it with livestock. Repeated defoliation forces the plant to draw from its root reserves for regrowth and with persistent grazing periods, over 3 to 4 years, kudzu can be eliminated. Consumption should be 80% of the stand on a monthly basis. Any vines which the animals cannot reach should be mechanically cut for this treatment to be effective. Once basic control is achieved, remaining vines can be spot sprayed to obtain full control. Mowing can replace grazing; however, it must be applied at the same frequency (monthly) and to the same extent (80% defoliation) as grazing. Again, its viny nature may make mowing difficult.

Chemical control of kudzu is difficult because its extensive root system contains large, persistent starch reserves from which the plant can draw energy. Chemical control of kudzu is, however, possible. If the stand is mature, control may take 3 to 5 years with two to three applications per year, so kudzu should not be allowed to become well-established. Young stands may be eliminated in 1 to 2 years. Aminocyclopyrachlor, aminopyralid, and picloram products are effective for kudzu control. If the stand is near water, triclopyr amine and glyphosate may be used, however, their control of kudzu is not as effective as the aforementioned herbicides. Treatments should be made during late summer, when leaves are



fully grown. They should not be made during drought or within 2 weeks of the killing frost date for your area. Read and follow label directions.

Reference:

- (1) Gulizia JP, Downs KM. A Review of Kudzu's Use and Characteristics as Potential Feedstock. *Agriculture*. 2019; 9(10):220. <https://doi.org/10.3390/agriculture9100220>

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