

INVASIVE WATCH

Kudzu Control (*Pueraria montana*)

Kudzu is a semi-woody, perennial legume vine that spreads by vegetative growth, rhizomes and seeds. Kudzu is extremely hard to control, because of its large tuberous root system, which has tremendous re-sprouting capacity. It is a high-climbing vine capable of reaching lengths and heights of more than 100 feet. It can grow one foot each day and cover the tops of trees, shrubs, buildings, utility poles and fences. Kudzu often smothers and kills all other vegetation in its path, including trees, and can cause electrical outages.

Its leaves are hairy, alternate, compound and can grow up to five inches long. Flowering occurs in midsummer when deep-purple, pea like flowers appear in clusters at the axils of the leaves. Kudzu fruit are brown, hairy, flat seed pods.

This highly invasive weed is native to Japan and China and was introduced into the United States in 1876 at the Philadelphia Centennial Exposition. It was widely planted throughout the eastern United States in an attempt to reduce erosion. It now occupies roadsides, fields and forests throughout the Southeast, north to Illinois and east to Connecticut. As of 2008, an estimated 7 million acres in 32 states are affected by kudzu. It is listed on the U.S. Forest Service and Exotic Pest Plant Council invasive plant lists and on the Federal Noxious Weed List.

No practical biological control options have been identified.

Commitment

There are a number of ways to control kudzu and all require multiyear commitments to a programmed approach. There is no current program — herbicide or mechanical — that will control kudzu with a single-year treatment. All methods require multiyear programs to successfully eradicate kudzu.

Mechanical removal is usually not successful. Most experts agree that herbicides can be used to effectively remove and eliminate kudzu. Treated areas should be checked each year, and new sprouts or seedlings must be treated. The establishment of desirable vegetation, such as native trees and/or grasses, will help to discourage new kudzu growth and recovery.

Dow AgroSciences has been involved with kudzu control programs and recommendations longer than any other herbicide manufacturer dating back to the 1960s. Older herbicide standards and more recent introductions from Dow AgroSciences allow several treatment options, depending upon the site, location and desired outcome.

Recommendations for Control

Herbicides for kudzu control:

The family of Milestone® specialty herbicides delivers broad-spectrum, long-lasting residual control that is effective at very low use rates. Milestone®, Capstone™ and Opensight™ specialty herbicides are relatively new products from Dow AgroSciences and provide excellent control of kudzu. While Milestone, Capstone, and Opensight are selective herbicides, Transline® specialty herbicide offers the widest degree of selectivity to trees and other non-target vegetation.



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Milestone® specialty herbicide is active on many broadleaf weeds — such as Asteraceae (sunflower family), thistles, and nightshade and legume species. On some sprayed, non-legume tree species, leaf curling, leaf discoloration, some defoliation or other leaf or bud damage may occur. This effect is usually temporary, and the trees should return to normal growth within a few weeks. Caution should be exercised when spraying near non-target legumes. Do not apply Milestone to the soil underneath non-target legume or other desirable tree species. See the Milestone Tree Guidelines fact sheet for more details.

For kudzu control, Milestone should be mixed at a rate of 7 fluid ounces plus 0.5 percent surfactant per 100 gallons of spray solution for high-volume handgun applications or should be applied at the same rate usually applied at 50 to 100 gallons per acre with truck-mounted manifold sprayers. Do not exceed the maximum labeled use rate of 7 fluid ounces per acre. For spot treatment applications, Milestone can be used at a rate of up to 14 fluid ounces per acre as long as no more than 50 percent of the acre is treated. The higher rate in the rate range is better on tough, older kudzu patches.

Capstone™ specialty herbicide contains two active ingredients: aminopyralid and triclopyr. The combination of the two active ingredients provides broader-spectrum weed control and some brush control. This combination is excellent on kudzu but will damage or kill some tree species and brush if it comes in contact with the foliage of these species (i.e., it is less selective than Milestone). For kudzu control, Capstone should be mixed at a rate of 9 pints plus 0.5 percent surfactant per 100 gallons of spray solution for high-volume handgun applications or at the

same rate usually applied at 50 to 100 gallons per acre with truck mounted manifold sprayers. Do not exceed the maximum labeled use rate of 9 pints per acre on broadcast applications. For spot treatments, Capstone can be used at a rate of up to 9 quarts per acre as long as no more than 50 percent of the acre is treated. This higher rate is better on tough, old kudzu patches.

Opensight™ is another good option for kudzu control. It contains two active ingredients — aminopyralid and metsulfuron — both of which are very active on kudzu. Opensight controls more than 160 broadleaf weed and brush species. Because Opensight contains metsulfuron, it can damage certain grasses such as bahiagrass and tall fescue; see label for additional information on grass tolerance. Opensight specialty herbicide should be mixed at a rate of 3.3 ounces plus 0.5 percent surfactant per 100 gallons of spray solution for high-volume handgun applications or should be applied at 3.3 ounces plus 0.5 percent surfactant per acre.

For highly selective kudzu control, Transline® is generally the top choice and is used extensively for electric utility pole treatments and other areas where selective kudzu control is desired with little potential for damage to adjacent trees and shrubs. For forest sites, Transline is labeled for use as an over-the-top application for kudzu control in pine plantations (and other conifers) as either a broadcast or spot treatment. Transline provides excellent season-long control of kudzu with little or no effect on neighboring desirable woody plants or grasses. Even when kudzu is growing on top of desirable trees, Transline specialty herbicide can usually effectively remove the kudzu with minimal noticeable effect on desirable non-legume trees. Transline will injure and potentially kill legume trees.

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