

Invasive Plants in Pennsylvania

Goat's Rue

Galega officinalis L.



Photo: Steve Dewey, Utah State U., www.invasive.org

Background:

Goats rue is a member of the Legume family. This plant is native to southern Europe and western Asia. Historically, it has been a popular garden plant in both Europe and the U.S., partly because of its religious and medicinal associations.

Range:

Goats rue is native to North Africa, the Middle East and Europe. It was introduced into Utah in the 1890s as a possible forage crop. Later it was shown that the leaves and stems contain a poisonous alkaloid, making it unpalatable to livestock. In Pennsylvania it has been found in Bedford, McKean and Montgomery counties.

Description:

Galega officinalis is an herbaceous perennial, typically three feet tall at maturity, occasionally reaching heights of six feet. Leaves are pinnately compound, up to nine inches long, with 11 to 17 leaflets that are under two inches long. Spikes of 20 to 50 small purple or white flowers appear in June and continue throughout the growing season. Each flower produces a small pod with up to nine yellow seeds.



Photo: USDA APHIS PPQ, www.invasive.org

Habitat:

Galega officinalis grows along stream banks and in moist areas. It prefers full sun but will tolerate light shade.

Biology and Spread:

Goats rue forms dense crowns capable of regenerating for several seasons. The plants spread along waterways even though the seeds do not float. Apparently the pods are buoyant for a short time before they become saturated with water and sink. Herbivorous animals avoid goats rue so poisoning is a minor concern. Grazing cattle and sheep in the western U.S. eat plants around goats rue, encouraging it to spread. In Pennsylvania no signs of browsing by white-tailed deer have been reported.

Ecological Threat:

Feeding trials proved that eating the plants would kill goats, sheep and cattle. In 1980, it was designated a federal noxious weed. Goats rue was added to the PA Noxious Weed Control Law list in 2000.



Photo: USDA APHIS PPQ, www.invasive.org

How to Control this Species:

The Pennsylvania Department of Agriculture documented 50 acres of goats rue on 139 properties in McKean County in 2010. Infestations were directly related to the movement of contaminated soil from the dredging of Lake Hamlin for use as fill material. Populations were surveyed, measured and treated with chemicals and mowing. Emergence of the seedbank and regrowth in mowed populations occurred at all locations and treatments were repeated.

Look-A-Likes:

Although goats rue may be confused with crown vetch (*Coronilla varia*), it is taller when upright. Flower shape is similar between the two plants but the leaves and leaflets of goats rue are pointed and larger than those of crown vetch. Goats rue leaves “unroll” as they develop.



Crown Vetch

Photo: Dave Powell, USDA FS,
www.bugwood.org

Mechanical methods of control are not efficient alone. They can be used in combination with herbicide applications. Garlon 3A, Milestone, Vista, Oust, Arsenal, Banvel and glyphosate alone or in combination – applied March through September – are appropriate herbicides to use in Pennsylvania for goats rue control. Seeds remain viable for up to 26 years so any eradication approach should focus on seed bank management.

If You Find This Plant:

It is a violation of the Noxious Weed Control Law to sell, transport, plant or otherwise propagate a listed species, like goats rue, within the Commonwealth. If you believe that you have found a new population of this plant, please contact Melissa Bravo, PA Dept. of Agriculture, at 717-787-7204.

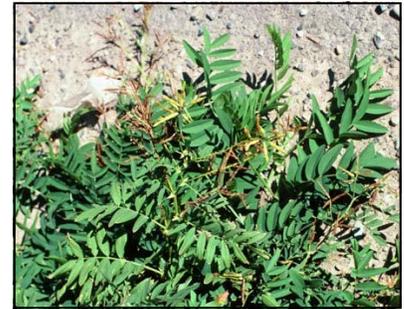


Photo: USDA APHIS PPQ, www.invasive.org

References:

Adapted from *Goatsrue, Galega officinalis, in Pennsylvania* by Katrina Klugh, Pennsylvania Department of Agriculture.

For More Information:

To learn more about invasive plants in Pennsylvania and the northeast, here are some useful resources:

DCNR Invasive Species Site: <http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>

Plant Invaders of Mid-Atlantic Natural Areas, National Park Service: <http://www.nps.gov/plants/alien/pubs/midatlantic/midatlantic.pdf>

Invasive Plants Field and Reference Guide, U.S. Forest Service: http://na.fs.fed.us/pubs/misc/ip/ip_field_guide.pdf