



United States Department of Agriculture

Herbaceous Weed Control

*Conservation solutions for
your Pennsylvania farm*

Do you have problems with...

*Weeds and brush in your pasture or on your property?
Invasive plants taking over areas of your farm?*

If so, you should consider biological management with goats!

DEFINITION:

Herbaceous weed control is defined as the removal or control of plant weeds such as invasives, noxious, and prohibited plants in order to improve forage or browse, restore native plants, and control erosion. A biological control is the use of a weed's natural predators to control it. The only **biological control** that NRCS will assist you in planning is the use of grazing animals, such as goats.

Benefits:

- Reduced need for chemical herbicides
- Potential decrease in machinery use
- Reduced on & off farm environmental risks
- Improved use of land overrun by undesirable / invasive plants
- Improved productivity of pastures
- Additional secondary income through goat products
- Increased plant and animal diversity
- Improved cycling of plant nutrients



Costs:

Costs will vary depending on the problem that you're addressing and the existing resources on your farm. Where goats are used for undesirable or invasive plant control, costs may include:

- Purchase of goats
- Fencing installation and maintenance
- Shelters
- Water sources (waterlines, troughs)
- Control of internal parasites (worming)
- Losses to predators

OVERVIEW:

Goats have been used for vegetation management in this country for over 100 years, learn more about management strategies below:

Using Goats to Manage Vegetation:

Goats will eat just about anything, and they are relatively easy to maintain. One goat can consume up to 3 to 5% of its body weight in dry matter daily. In areas where undesirable or invasive plants such as kudzu, thistle, leafy spurge, multi-floral rose, or even brush and brambles are a problem, goats may be an ideal solution. They consume a wide variety of plants such as grasses, weeds, tender branches, buds, and bark. They can kill trees through girdling, are resistant to many plant toxins, and prefer seeding stems (reducing plant reproduction).

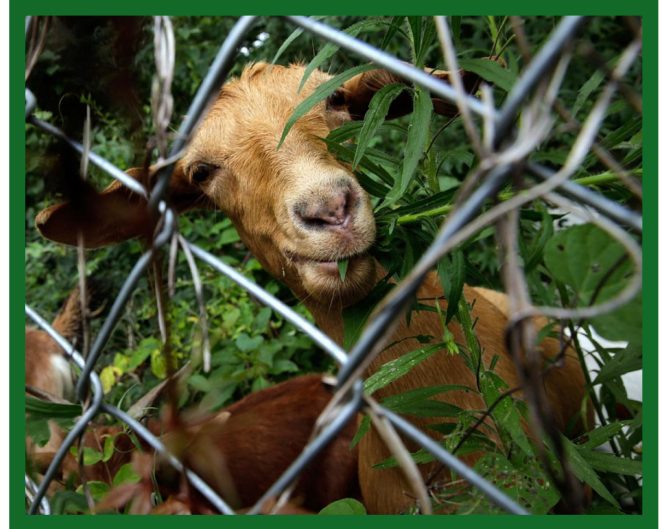


Photo: Win McNamee/Getty Images

Secondary Income:

Goats can be used to control or eliminate undesirable vegetation while simultaneously producing potentially profitable wool, milk, or meat products. Meat and fiber goats are particularly useful for brush control. Goats are excellent at reproducing and typically have an average of two kids per doe per year. If you are interested in making additional income take care to select the species that will give you exactly what you want. You should also investigate the market for the products you want to create and develop a sound marketing strategy.

Example Breeds:

Alpine - Dairy



Photo: Gary Crossey, Wiki

Boer - Meat



Angora - Mohair



Photo: Böhringer Friedrich, Wiki

MANAGEMENT:

Tips for managing a goat-based biological plant management system!

Rotational Grazing:

A rotational grazing system can be developed for maximum grazing use. To prevent overgrazing be careful to understock rather than overstock your land and always remove the goats from a paddock or pasture when the vegetation is grazed down to about 3 to 4 inches. See our Grazing Management Fact Sheet for more information.



Photo: Goat Sass Farm

Multiple Species Grazing:

Goats can be grazed alone or with other livestock such as cattle or sheep. Goats, sheep, and cattle prefer different forages. Goats utilize and suppress plant species that are not eaten by cattle and sheep. As a result, if the grazing is well-managed, grass production and carrying capacity of pastures may increase, allowing the land to be used more fully and to generate more income.

Shelter:

Goats can tolerate cold weather, but get chilled in cold, wet conditions. Adequate shelter should be provided. Depending on your climate, shelters may range from trees in the pasture, portable shelters, or permanent sheds or barns. While shelters may be minimal, they should be clean and well-ventilated.



Fencing and Water:

Goats can be difficult to contain, and the cost of permanent fencing for goats is relatively high. In order to effectively control invasive vegetation, goats must be kept in the desired area until all of the desirable plant species are eliminated. The most effective control is obtained by confining the goats to small areas to force them to eat the small amount they can access. This requires temporary fencing and frequent maintenance to rotate them as soon as they have eaten everything they can. Movable or frequent water sources will also be necessary. See our *Fencing and Watering Facility* fact sheets for more information.

Conservation Solutions for your Pennsylvania Farm

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you in managing undesirable plant pressure with goats. Detailed plans and instructions are available. They can also help you develop a Conservation Plan to solve other issues you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment for someone to come to your farm.



You may also be eligible to receive financial assistance through state or federal programs. Your NRCS office will explain various programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.

NRCS FIELD OFFICES:

Adams: 717-334-4216 ext 3
Allegheny: 724-482-4800 ext 3
Armstrong: 724-545-1022 ext 3
Beaver: 724-482-4800 ext 3
Bedford: 814-623-7900 ext 3
Berks: 610-372-4655 ext 3
Blair: 814-695-6291 ext 3
Bradford: 570-265-6969 ext 3
Bucks: 215-453-9527 ext 3
Butler: 724-482-4800 ext 3
Cambria: 814-472-5502 ext 3
Cameron: 814-375-2125 ext 3
Carbon: 570-779-0645 ext 3
Centre: 570-726-3196 ext 3
Chester: 610-696-0398 ext 3
Clarion: 814-226-8160 ext 3
Clearfield: 814-375-2125 ext 3
Clinton: 570-726-3196 ext 3
Columbia: 570-784-1062 ext 3
Crawford: 814-724-1852 ext 3
Cumberland: 717-249-1037 ext 3

Dauphin: 717-921-2380 ext 3
Delaware: 610-696-0398 ext 3
Elk: 814-375-2125 ext 3
Erie: 814-796-6760 ext 3
Fayette: 724-437-7971 ext 3
Forest: 814-226-8160 ext 3
Franklin: 717-264-8074 ext 3
Fulton: 717-485-3812 ext 3
Greene: 724-627-5821
Huntingdon: 814-627-1626 ext 3
Indiana: 724-463-8547 ext 3
Jefferson: 814-375-2125 ext 3
Juniata: 717-436-8953 ext 3
Lackawanna: 570-282-8732 ext 3
Lancaster: 717-299-5361 ext 3
Lawrence: 717-662-3740 ext 3
Lebanon: 717-272-3908 ext 3
Lehigh: 610-625-8392 ext 3
Luzerne: 570-779-0645 ext 3
Lycoming: 570-433-3902 ext 3
McKean: 814-274-8166 ext 3
Mercer: 717-662-3740 ext 3
Mifflin: 717-248-9541 ext 3

Monroe: 570-282-8732 ext 3
Montgomery: 215-453-9527 ext 3
Northampton: 610-625-8392 ext 3
Northumberland: 570-286-7114 ext 3
Perry: 717-582-4144 ext 3
Pike: 570-282-8732 ext 3
Potter: 814-274-8166 ext 3
Schuylkill: 570-622-1312 ext 3
Snyder: 570-837-0007 ext 3
Somerset: 814-445-6876 ext 3
Sullivan: 570-265-6969 ext 3
Susquehanna: 570-278-1011 ext 3
Tioga: 570-724-1726 ext 3
Union: 570-524-2549
Warren: 814-723-1217
Washington: 724-222-3060 ext 3
Wayne: 570-282-8732 ext 3
Westmoreland: 724-834-3970 ext 3
Wyoming: 570-836-2490 ext 3
Venango: 814-226-8160 ext 3
York: 717-755-2966 ext 3

USDA is an equal opportunity provider and employer.