



Fact Sheet

Commonwealth of Pennsylvania • Department of Environmental Protection

MANAGING RIPARIAN BUFFER VEGETATION Plants that may be Poisonous or Harmful to Livestock

What is a buffer and why do we need them?

A riparian buffer is an area of vegetation that is maintained along the shore of a waterbody to protect stream channels and banks. Buffers can reduce the pollutants entering a stream, lake or pond by trapping, filtering and diverting sediments, nutrients and other chemicals that are contained in the runoff from surrounding lands. Buffers can protect valuable land from being lost through stream or pond bank erosion. Buffers can also provide habitat for fish and other important aquatic organisms.

General maintenance

Buffers, like any land management practice, require maintenance to be effective. Once buffers have become permanently vegetated, they should be monitored for damage such as dying vegetation, fallen trees, beaver activity, deer browsing and invasive or noxious weeds. If needed, you may find it necessary to use tree tubes or replant vegetation in damaged areas. Noxious or invasive plants may compete with desirable vegetation and, in some cases, may completely dominate the buffer and adjoining land. These plants should be removed as soon as they are discovered. A list of state noxious

weeds is available from the Pennsylvania Department of Agriculture and a list of invasive plants in Pennsylvania is available from the Pennsylvania Department of Conservation and Natural Resources.

Plants that may affect livestock

If the buffer is adjacent to livestock, you should also monitor for plants that may be toxic or poisonous to animals. Plants may be harmful when they are mature or immature or certain parts of the plants may be toxic at different times of the year. Some plants may be harmful to only young livestock, specific livestock or to all livestock. For example, the **wilted** leaves of **Red maple** may be toxic to **horses**. Many plants that are harmful may have thorns or be unpalatable to livestock, so by nature, they will not be eaten. Nonetheless, if you have livestock near your buffers and you find these plants growing in your buffer, they should be removed. The best time to do this is prior to the seeds maturing.

Following is a very general list of more commonly known plants and trees in Pennsylvania, that may be harmful to livestock. Please consult this list if you are planting a buffer adjacent to livestock grazing areas.

Trees	Part of concern	Animal of concern
Red maple (<i>Acer rubrum</i>)	Wilted leaves	Horses
Kentucky coffee (<i>Gymnocladus dioica</i>)	Sprouts, foliage, fruit	All livestock
Wild black cherry (<i>Prunus serotina</i>)	Wilted leaves, twig, bark, pit	All livestock
Choke cherry (<i>Prunus virginiana</i>)	Leaves, twig, bark, pit	All livestock
Red oak (<i>Quercus rubra</i>)	Acorns, young shoots	Horse, cattle, sheep, hogs
Black locust (<i>Robinia pseudoacacia</i>)	Leaves, seeds, inner bark	Horse, cattle, sheep, poultry
Shrubs	Part of concern	Animal of concern
Mountain laurel (<i>Kalmia latifolia</i>)	Flowers, twigs, leaves	All livestock
American yew (<i>Taxus canadensis</i>)	Entire plant	All livestock
Boxwood (<i>Buxus sempervirens</i>)	Leaves & stems	All livestock
Herbaceous Plants	Part of concern	Animal of concern
Baneberry (<i>Actaea pachypoda</i>)	All parts of plant	All livestock
Pigweed (<i>Amaranthus retroflexus</i>)	Foliage	Cattle, sheep, hogs
Dogbane (<i>Apocynum</i> spp)	Vegetative parts	All livestock
Bittersweet (<i>Celastrus orbiculatus</i>)	Leaves, bark, fruit	Horses
Water hemlock (<i>Cicuta maculata</i>)	All parts of plant	All livestock
Poison hemlock (<i>Conium maculatum</i>)	All parts of plant	All livestock

Jimsonweed (<i>Datura stramonium</i>)	All parts of plant	All livestock
Foxglove (<i>Digitalis purpurea</i>)	Leaves and stems	All livestock
Horsetail (<i>Equisetum arvense</i>)	All parts of plant	Horses
Ground-ivy (<i>Glechoma hederacea</i>)	All parts of plant	Horses
St. John's wort (<i>Hypericum perforatum</i>)	All parts of plant	All livestock
Morning-glory (<i>Ipomoea purpurea</i>)	Leaves and stems	All livestock
Wild pea (<i>Lathyrus latifolius</i>)	Seeds	All livestock
Cardinal flower (<i>Lobelia cardinalis</i>)	All parts of plant	All livestock
Star-of-Bethlehem (<i>Ornithogallum umbellatum</i>)	Bulbs	Sheep & cattle
Poke weed (<i>Phytolacca americana</i>)	Primarily roots	All Livestock
May apple (<i>Podophyllum peltatum</i>)	Herbage, roots, seeds	Cows, hogs, sheep
Bracken fern (<i>Pteridium aquilinum</i>)	Entire fresh plant	Horse, cattle, sheep, hogs
Buttercup (<i>Ranunculus</i> spp)	Fresh leaves, flowers	All livestock
Nightshades, common, black, deadly (<i>Solanum nigrum</i>)	Berries, vegetation, (fresh and dry)	All livestock
Cocklebur (<i>Xanthium strumarium</i>)	Seedlings, seeds	All livestock

Note: This information was obtained from several sources and should be considered as general guidance.

To prevent animal poisoning

Inspect new pastures before turning animals into them, especially in the spring. Provide adequate minerals for your animals because the lack of salt may produce strange cravings. Avoid overgrazing and lack of palatable forage. Avoid grazing wetlands and woodlands where many poisonous plants thrive. Provide adequate supplemental feed during drought when poisonous plants are often the only green plants in the pasture. Generally, plants produce poisons so insects or animals will avoid eating them. Most poisonous plants are unpalatable or few in number.

If your animal is poisoned

Isolate the animal and offer fresh water. Take samples from the suspected plant to aid in diagnosis. Remove the plant from the pasture. Call your veterinarian immediately. Local Poison Control Centers often can provide good advice, too.

You also may call the National Animal Poison Control Center, a nonprofit service of the ASPCA at 1-800-548-2423. There is a \$ 45 charge for this service. Their website can be found at www.asPCA.org, click on Animal Poison Control.

Additional Information and Resources

Pa. Dept. of Agriculture, 2301 N. Cameron St., Harrisburg, PA 17110-9408, (717) 772-5203

Pa. Dept. of Conservation and Natural Resources, P.O. Box 8767, Harrisburg 17105-8767, (717) 787-2869

"Poisonous Plants of Pennsylvania" Robert J. Hill, Published by the Pa. Dept. of Agriculture. Copies of the book are available from the Commonwealth Book Store, Keystone Building, 400 North St., Harrisburg, PA 17105, (717) 787-5109. Cost is \$5.30 for walk-in purchase or \$9.30 for purchase by mail. Tax is included.

"Horse Owners Field Guide to Toxic Plants" Sandra M. Burger, Breakthrough Publications Inc.

University of Pennsylvania "Poisonous Plants" webpage: <http://cal.nbc.upenn.edu/poison/>

Cornell University "Poisonous Plants" webpage: www.ansci.cornell.edu/plants/plants.html
<http://www.agnr.umd.edu/MCE/Publications/Publication.cfm?ID=25> - University of Maryland
<http://education.vetmed.vt.edu/Curriculum/VM8424/toxicplants/>- Virginia- Maryland Regional College of Veterinary Medicine, University of Minnesota Agriculture home page:
<http://www.extension.umn.edu/distribution/livestocksyste ms/DI5655.html> 01/28/02

This fact sheet and related environmental information are available electronically via Internet. For more information, visit us through the PA PowerPort at <http://www.state.pa.us> PA Keyword "Stream ReLeaf".



www.GreenWorks.tv - A web space dedicated to helping you learn how to protect and improve the environment. The site features the largest collection of environmental videos available on the Internet and is produced by the nonprofit Environmental Fund for Pennsylvania, with financial support from the Pennsylvania Department of Environmental Protection, 877-PA-GREEN.