



# Grazing Economics

*Conservation solutions for  
your Pennsylvania farm*

## Studies have shown that prescribed grazing...

- *Is as profitable (and in many cases more profitable) as conventional methods.*
- *Provides several environmental benefits (such as cleaner water and decreased erosion).*
- *Offers herd health advantages and improves the life of the farmer.*

Learn more about how prescribed grazing could **save you money!**

## GRAZING ECONOMICS:

For producers who manage livestock operations, **prescribed grazing systems** offer an effective way to reduce energy use, decrease costs, and improve animal health and productivity. Well-managed grazing systems improve the health and vigor of plants, enhance the quality and quantity of water, reduce soil erosion and improve soil condition on the land.



**Prescribed Grazing Method: Intensive Rotational Grazing**

PHOTO: Transterraform.com

## What is prescribed grazing?

Prescribed grazing is the management of vegetation production (ie. forage production) using grazing or browsing animals. Prescribed grazing systems provide rest time for pastures, allowing for efficient forage regrowth. Grazing systems take several factors into consideration including the rate of plant growth, density of vegetative cover, needs of the grazing animals, and other environmental inputs. Different models exist, such as intensive rotational, simple rotational, and continuous. See our *Grazing Management* fact sheet for more information and comparisons of various prescribed grazing systems.

**A well-managed pasture can improve the environment *and* your bottom line.**

## DIRECT SAVINGS

### Save Energy:

It takes about 50 pounds of nitrogen and 1.24 gallons of diesel fuel to raise, harvest, store, and feed a ton of grass hay. At today's costs of \$0.55 per pound of nitrogen and \$2.60 per gallon of fuel, there are **direct energy savings of \$15.59 per month per cow** for each month a 1200 lb cow remains on pasture.\* Most cost savings arise from using less fuel to harvest hay, store it, and transport it to feeding locations. In dairy operations, leaving cows on pasture also reduces the need for electricity to moderate the climate of free-stall barns, and decreases labor costs associated with feeding cattle in confinement and related manure handling, storage, and spreading.

\* See: <http://goo.gl/3AVzop>

### Increase Profits:

In addition to energy savings, prescribed grazing has been shown to improve the profitability of cattle operations. In Missouri, beef cattle raised and finished on high quality pasture that is thick and lush have been shown to have a rapid average daily gain of two or more pounds and reach marketable weight within just 20 months at **a cost of \$27 per hundred-weight of gain, versus \$60 in confinement**. By applying grazing management, dairies in New York and Wisconsin found that pastured lactating dairy cows consistently provide a higher net farm income from operations over a 4-year period when compared to confined cows, whether measured per cow or per hundred weight of milk.



*Let the livestock harvest their own feed for free!*



*There are many fencing options to choose from.*

### Lower Start-Up and Maintenance Costs:

Start up and maintenance costs are lower for well-managed grazing systems than for confinement operations. Often the only capital costs specific to rotational grazing are fencing and watering facilities. Many different fence types can be used, some cost very little, some cost more for durability. See our *Fencing* fact sheet for information on what is available and how NRCS might be able to provide assistance. Grazing efficiency improves when livestock walk less than 800 ft for water. As such, rotational systems will need multiple, ideally movable, watering facilities. See our *Watering Facility* fact sheet for information about watering options.

## INDIRECT SAVINGS

### Less Time and Labor

Many farmers believe that managed grazing systems will require much more time and labor than they are willing to give. In reality, the time to move livestock is minimal if the design is efficient. If dairy cows are moved right after milking- it can take as few as 15 minutes per day per group. In confinement systems the time it takes to feed hay and silage takes 20 minutes to an hour per day, per group. Growing hay as feed can take as much as 7 hours per acre every season! And hauling manure from confinement barns can be time consuming. In a grazing system none of this labor is necessary- the livestock harvest their own feed and distribute their own manure.

### Environmental Benefits

There are at least 1.7 million acres of forage lands in Pennsylvania. Making prescribed grazing a part of a resource management system benefits the overall health of the environment and will:

1. Minimize soil compaction and enhance soil quality and health
2. Provide vegetative cover to reduce erosion and sediment runoff
3. Enhance wildlife habitat
4. Improve water yield and quality
5. Sequester atmospheric carbon in the soil

### Dairy Production?

For rotational dairy operations, milk yield per cow is generally lower than conventional confinement-feeding operations. This is because the cow uses a fair amount of its energy harvesting its own feed and has less to devote to producing milk. However, these losses can be offset through proportional decreases in production costs through feed, labor, fuel, and veterinary expenses.



### Improved Animal Health

Successful graziers have often experienced increased health in their herds after switching from confinement to a grazing system. Fresher air, physical fitness, and reduced exposure to parasites and pathogens results in healthier conditions. For many farmers, culling animals for health reasons may drop anywhere from 35% of the herd to about 10%. Healthier animals are more productive, and can be more profitable.



# 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 planning a prescribed grazing system. Detailed plans and instructions are available concerning the many different aspects of a grazing system. 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