



*Agriculture Newsletter*  
*Spring 2015*



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**Improving Pastures  
with Rotational Grazing**

**What's the difference between continuous grazing and rotational grazing?**

***Continuous Grazing***

In a continuous grazing system, livestock have unlimited access to the entire pasture. In this type of system, only 30-50% of the pasture is utilized; livestock tend to avoid the more mature, less palatable forage, and graze the younger, better tasting, tender forage. In many cases, the better tasting forage is the forage that they have already grazed and is actively re-growing. Carbohydrates in the forage are stored in the lower parts of the plant (crown) and in the roots. When the forage is grazed nearly to the ground, the roots are unable to sufficiently replenish the carbohydrates lost. As a result, this forage cannot adequately rest, or recover from being repeatedly grazed. This can cause a reduction in forage quality and yield over time.

***Rotational Grazing***

A rotational grazing system involves dividing your pasture into smaller pastures (i.e. paddocks) and periodically moving your animals through these smaller pastures. This gives sections of a pasture that have just been grazed a chance to rest, resulting in improved yield and quality of the pasture forage.



### Additional Benefits of Rotational Grazing

- ✓ Improved animal health
- ✓ A more even distribution of nutrients from manure
- ✓ Reduced soil compaction
- ✓ Reduced need for supplemental feeding
- ✓ A decrease in undesirable weedy species
- ✓ Increased use of the pasture (50-70% use of pasture compared to 30-50% use in a continuous grazing system).

### Rotational Grazing Planning Considerations

There are many variables that go into planning an effective rotational grazing system, and there needs to be room for flexibility. Factors to consider include:

- ✓ The forage and water requirements of your animals.
- ✓ The number and type of animals your grazing system can adequately sustain. While a rotational system can support a higher stocking rate, you don't want to exceed what the pasture is capable of sustaining, i.e., the carrying capacity.
- ✓ How often it's practical for you to move the animals.
- ✓ The design of the rotational grazing system.
- ✓ The type of forage available, and the growth rate of this forage. Forage growth will vary depending on the plant species, season, weather conditions, topography, the type of soil, and fertilization.

Table 1 below shows estimated resting periods for paddocks in a rotational grazing system based on the season, weather conditions, and the overall growth rate of the forage within the pasture.

Season	Weather Conditions	Growth Rate	Rest Period
Spring	Cool, moist	Fast	10-14 days
Spring	Warm, dry	Medium	14-20 days
Summer	Hot, moist	Slow	30-35 days
Summer	Hot, dry	Very Slow	40-60 days



Table taken from Penn State Extension's *Agronomy Facts 43*

It is helpful to work with a grazing specialist to guide you through the establishment of a rotational grazing system. The NRCS Grazing Specialist for Northwestern PA is Tim Elder, based out of the Clarion Technical Office (814-226-8160 ext. 125).

#### Resources:

William, Craig and Hall, Marvin (Penn State Extension) *Agronomy Facts 43: Four steps to rotational grazing.*

Hugh, Aljoe (Samuel Roberts Noble Foundation, Inc) *Why Rotationally Graze?*

NRCS *Managing Your Pasture: small scale solutions for your farm* <http://www.nrcs.usda.gov>

Iowa State University *How Pasture Plants Grow*

## Free Agricultural Services Offered at the District

If you missed the Farmer Open House Days this winter, a list of agricultural services the District offers is below. Contact the District if you are interested in any of the services listed.

### **Farm Plan Development**

State regulations require farmers to have written plans that address soil and manure management. Whether you just want to update your plans, or need them written all together, we can help you maintain compliance with state regulations. We develop the following:

- ✓ Agricultural Erosion and Sedimentation Plans
- ✓ Manure Management Plans
- ✓ Nutrient Management Plans for farms that prefer but are not required to have one. Home farm must be in Jefferson County.

### **Map Development**

Aerial, topographic, and soil maps can be developed with farm boundaries, field acreages, and farm features included to help you meet the mapping requirements for your farm plans.

### **Soil Sampling**

We are available to take your soil samples for you if you just can't find the time, or if you need help doing it. We can also help you interpret and use the results from the samples to get the most out of the nutrients you already have and avoid paying for more fertilizer than you need.

### **Weed Identification and Control Information**

Weeds can be detrimental to a crop or pasture if not controlled. We can help you identify what you have, and how to manage it before it overtakes your fields.

### **Educational Workshops/Presentations Available Upon Request**

The District wants to offer workshops and presentations that you are interested in! Please contact us if you have something in mind. We also offer educational programs for kids.

### **REAP (Resource Enhancement and Protection) Application Assistance**

REAP allows you to earn tax credits for using best management practices on your farm. The District can help you determine what you need to qualify, what practices are eligible, and help you through the paperwork.

### **Chlorophyll Meter Testing**

The Chlorophyll Meter measures the chlorophyll content of a corn plant. Chlorophyll content can indicate a corn plant's Nitrogen (N) status, and therefore help you determine if supplementary N is needed to meet your yield goals.

## **Financing Your Agricultural Business**

When: April 14, 2015, 6:00pm – 9:00pm

Where: Penn State Extension Office - Warren County, 100 Dillon Drive, Youngsville, PA 16371

Determine your options for financing your new or growing food business.

- Learn about grants and loans available for food businesses.
- Learn what loan officers and grantors require from you.

No cost to attend, register by April 13<sup>th</sup> by contacting Juliette Enfield at 814-563-9388.

## **Free Calendars**

The District has the following free 2-year calendars available:

*2015-2016 Environment of a Healthy Horse Calendars*

*2015-2016 Conservation Planner Calendars*

**Jefferson Conservation District**  
**1514 Route 28**  
**Brookville, PA 15825**