Martin-Gatton College of Agriculture, Food and Environment

Ohio County Farm & Home News

Cooperative Extension Service

Ohio County
P O Box 66
Hartford KY 42347
270-298-7441
http://ohio.ca.uky.edu/

DON'T FORGET THE FERTILIZATION BASICS

The above average temperatures spanning across the central states are bringing hay and pasture fields rapidly. Whether spring soil testing is in order and/or fertilizer application plans are being made, brushing up on the basics of fertilization in hayfields and pastures can help set the tone for the start of the growing season.

The first step in a successful soil fertility program is soil testing, and the first step of successful soil testing is soil sampling. When soil sampling, always take a representative soil sample that includes at least 20 soil cores collected at the proper depth. For hay & pasture fields, a depth of 4-5 inches is perfect.

Avoid pulling soil samples in pastures near feeders and waterers, as well as other areas where animals congregate and manure accumulates. Collect new soil samples for a field every 2-3 years, to allow you to monitor pH and fertility changes.

After collecting your soil sample, bring your samples to the Ohio Co. Extension Office. We offer free testing of samples for pastures, hayfields, gardens, lawns and fruit trees. Samples are evaluated at the Soil Testing Lab at U.K.

Once the available nutrients in soil are known, these values are correlated to relative crop yield. This allows nutrient concentrations to be calibrated to fertilizer needs; however, there are different approaches to creating recommendations considering sufficient nutrient levels, maintenance rates, and build-up fertilizer. Despite the various philosophies, it is generally accepted that the higher the soil test nutrient value, the less yield response with each additional unit of fertilizer there will be. In other words, maximizing forage yield with greater rates can become less cost-effective, also known as the law of diminishing returns.

The timing of fertilization depends on the nutrient being added and the purpose of the forage. We generally recommend adjusting soil pH in pastures and hayfields before applying fertilizer to ensure the added nutrients are as effective as possible. A pH too low can have negative affects on fertility applied, seed germination and the standlife of a forage.

MANAGING MUD:STRATEGIES FOR RECLAIMING DISTURBED AREAS

The following article is from Dr. Chris Teutsch, Extension Forage Specialist at U.K., based in Princeton, discussing how to repair your winter feeding areas. Since this article is rather lengthy, I will print half this week and the rest in next weeks article.

Hoof damage from livestock during the winter months can result in almost complete disturbance of desired vegetation and soil structure in and around heavy use areas. Even well-designed hay feeding pads will have significant damage at the edges where animals enter and leave. Highly disturbed areas create perfect growing conditions for summer annual weeds like spiny pigweed and cocklebur. Weed growth is stimulated by lack of competition from a healthy and vigorous sod and the high fertility from the concentrated area of dung, urine, and rotting hay. The objective of this article is to describe two approaches to revegetating these areas.

Regardless of the reclamation strategy that is employed, it is important to create an environment that will allow seeds to germinate quickly and uniformly,

resulting in rapid canopy closure. This will help to inhibit weed seeds from germinating. Creating this environment starts with making sure that soil fertility is in the medium to high range, soil pH is 6.0 to 6.4, and preparing a fine, but firm, seedbed.

- **Plant cool-season grasses and legumes**.

The first strategy is to seed cool-season grasses or a mixture of grasses and legumes in the spring. While this is commonly done, results are usually less than spectacular in most years. Seedings are normally delayed until late spring or early summer. Consequently, seedlings do not have time before the hot summer months set in. The second reason is that summer annual weed pressure is usually very high. Summer annuals weeds like foxtail, goosegrass, spiny pigweed, cocklebur, and others actively compete with cool-season seedlings for light and water, often causing stand failures.

Table 1. Seeding rates for perennial cool-season forage species planted ALONE or in a MIXTURE.

Species	Seeding Rate (lb/A)	
	Alone	In a Mixture
Tall fescue	20-25	10-15
Orchardgrass	15-20	6-8
Perennial Ryegrass	20-25	10
Kentucky Bluegrass	NR†	4-6
Red clover††	NR	6-8
White clover††	NR	1-2

†NR, not recommended

††Do NOT include red and white clover if herbicides will be used to control broadleaf weeds

If a spring planting of cool-season grasses and legumes is attempted, there are several things that can be done to enhance, but by no means guarantee, success. These are listed below.

- *Plant adapted forage species.* Plant forages that are well adapted to Kentucky and the soils and drainage found on your farm. Tall fescue, red clover, and ladino clover are, by far, the best adapted and most versatile forage species for pastures in the Commonwealth. If this area is disturbed again, then investment in novel endophyte tall fescue varieties is not recommended. Information on the best adapted varieties for Kentucky can be found on the University of Kentucky Forages webpage.
- *Consider leaving legumes out of the mix*. While legumes are an important part of grassland ecosystems, herbicide options for controlling weeds in grass-legume mixtures are limited. Leaving legumes out will allow you to apply selective herbicides to control broadleaf summer annual weeds. For specific herbicide recommendation, you can visit with your local Extension Agent.
- *Use the high end of the recommended seeding rate*. Seeding rates are normally given as a range (Table 1). For spring seedings, make sure and use the high end of this range. Rapid canopy closure is critical to suppressing summer annual weeds.
- *Plant as early as possible*. Spring seeded cool-season forages should be planted starting in early to mid-March. Early plantings will have more time to emerge and form a canopy that can shade summer annuals weeds. Early planted grass seedlings will also have additional time to develop a root system that can sustain the new planting during the summer months.
- *Plant in two directions*. If drilling, cut seeding rates in half and plant in two directions. This will aid in obtaining quicker canopy closure, helping to reduce the germination of weed seeds.
- *Use a shallow seeding depth*. Small seeded cool-season forages should not be planted deeper than ½ inch. Make sure to check and recheck your seeding depth. Seeding deeper than ½ inch will delay emergence, result in uneven stands, and in many cases cause complete stand failure.
- *Control broadleaf weeds in cool-season grasses*. Once seedlings have four collared leaves, some herbicides can be applied. Always consult and follow label directions. For the most up to date information on using herbicides on new seedings, contact your local Extension Agent.
- *Clip or flash graze new stands*. Summer annual weeds compete very aggressively for light, water, and nutrients with cool-season grass seedlings. If not controlled, plantings will likely fail. The most effective control of competition is to flash graze paddocks before weeds get well established. Flash grazing is accomplished by placing a large

number of animals in small areas for a short period of time. This reduces selective grazing and increases grazing uniformity.

Next week- Using Warm Season Annual Grasses

KATS PLANTER CLINIC

The planter clinic at the U.K. Research Center scheduled for April 4th has been **postponed.** More information will be made available, once the clinic has been re-scheduled.

- March 28 – Italian Ryegrass Control Field Day; Caldwell, Co. Extension Office, Princeton; 8:30 till 11:30 a.m.
- April 25 – Ky. Fencing School; Graves Co. Extension Office, Mayfield; 8:00 a.m. till 4:30 p.m.
- April 30 – May 1 - Beginning Grazing School; Central Presbyterian Church; Princeton;8:00 a.m. till 4:00 p.m. each day