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FORAGE NEWS

For more forage information, visit our UK Forage Extension Website at: <http://www.uky.edu/Ag/Forage>

September 2013

Garry D. Lacefield and S. Ray Smith, Extension Forage Specialists • Christi Forsythe, Secretary

KFGC FIELD DAY

Over 120 from throughout Kentucky and several states attended the Kentucky Forage Field Day in Oldham County on August 1. Rivercrest Farm in Prospect served as the host farm and farm owner Caldwell Willig along with Farm Manager, Danny Jacobs were most gracious hosts. Field Day Chairman Traci Missun and her committee put together several tours with stops covering warm season grasses, pasture for poultry, pasture establishment, hay quality and hay testing. A delicious meal followed the tour and the keynote address focused on "Making Forages Work on Your Farm". The Kentucky Forage and Grassland Council presented appreciation plaques to Caldwell and Danny for hosting the annual field day.



Dr. Garry Lacefield (center) presents plaques to Caldwell Willig (right) and Danny Hughes.

CHOOSE FORAGE VARIETIES WISELY

Choosing the best variety or varieties for new forage seedings can make an important agronomic and economic impact on your future forage program. Kentucky farmers are very fortunate relative to most other states in this area in that we have an outstanding Forage Variety Testing Program. The program is under the leadership of Mr. Gene Olson and I don't know of anyone who works harder than Gene. He tests most forage grasses and legumes in several locations across Kentucky and results are available at your County Extension Office and on our website at:

<http://www.uky.edu/Ag/Forage/ForageVarietyTrials2.htm>

ORCHARDGRASS PUBLICATION

A new publication on Orchardgrass has just been released by the Oregon Seed Commission. It was written by Dr. Don Ball and myself and covers the basic establishment – production – harvesting practices. A new section has been added to emphasize the importance of cutting/grazing height. Cutting-grazing height has been the most important factor influencing stand persistence and speed of regrowth following cutting or grazing. It is available on our website at [http://www.uky.edu/Ag/Forage/OOC%20Orchardgrass%20brochure%20\(3\).pdf](http://www.uky.edu/Ag/Forage/OOC%20Orchardgrass%20brochure%20(3).pdf). If you need copies for educational meetings contact me or the Oregon Orchardgrass Commission <http://www.orchardgrass.org/>

14TH KENTUCKY GRAZING CONFERENCE

The 14th Kentucky Grazing Conference will be held at the Fayette County Extension Office in Lexington October 10, 2013 beginning at 8:00 EST with registration. Registration fee is \$15.00 (students \$5.00) and covers proceedings and all handouts, refreshments and meal. There will be a silent auction and our exhibit hall will be full of educational and commercial exhibits. No pre-registration is required. The committee has put together an excellent program with timely, practical topics:

- 8:00 a.m. EST Registration, Visit Exhibits, Silent Auction
- 8:45 Welcome
- 9:00 Pastures: One of Kentucky's Untapped Resources – Dr. Jimmy Henning
- 9:30 Role of Legumes in Pasture Program – Dr. Garry Lacefield
- 10:00 The Role of Weed Control in Profitable Pastures – Dr. Scott Flynn
- 10:30 Break, Visit Exhibits, Silent Auction
- 11:00 Pasture for Goats and Sheep - Mr. Greg Brann
- 11:30 Pastures for Horses – Dr. Robert Coleman
- 12:00 Lunch, Awards, Visit Exhibits, Silent Auction
- 1:00 Can we Graze 300+ days? - Dr. Glen Aiken
- 1:40 Silent Auction Results
- 1:45 Forage Spokesman Contest – Don Sorrell
- 3:00 Adjourn

For more information and directions to the Conference, visit our website at

<http://www.uky.edu/Ag/Forage/14th%20Kentucky%20Grazing%20Conference%20Program%20columns.pdf>

NUTRIENT REMOVAL AND TISSUE TESTING ALFALFA

Alfalfa has nutrient requirements for good growth just like all other plants and animals. Table 1 shows the amount of nutrients removed (in pounds) per ton of hay produced. These nutrients must be replaced for adequate growth of following crops.

The best method for soil pH, phosphorus and potassium is to soil test and fertilize accordingly. However, we are increasing seeing deficiencies in other nutrients. These nutrient deficiencies cannot be accurately determined by soil testing. The best method is to test the tissue of the alfalfa and if the plant has adequate content of the nutrient in the leaves and upper stems we can feel confident that adequate nutrient is present for good growth. The approach is to sample the top six inches of alfalfa just prior to harvest. If the minerals are at levels shown in table 2, then adequate levels are present for good growth. (SOURCE: Dan Undersander, Univ. of Wisconsin)

Nutrient	Lb removed/t
Phosphate (P ₂ O ₅)	14
Potash (K ₂ O)	55
Calcium	30
Magnesium	6
Sulfur	6
Boron	0.8

Table 2. Alfalfa Tissue Nutrient Adequacy Levels

Nutrient	Top 6"
	-- % of DM --
N	2.50 – 4.00
P	0.25 – 0.45
K	2.25 – 3.40
Ca	0.70 – 2.50
Mg	0.25 – 0.70
S	0.25 – 0.50
	--- ppm ---
Fe	30 – 250
Mn	20 – 100
B	25 – 60
Cu	3.0 – 30
Zn	20 – 60
Mo	1 – 5

KENTUCKY GRAZING SCHOOL

Thirty-six farmers participated in the Kentucky Grazing School held August 21-22 at the Woodford County Extension Office and C. Oran Little Research Center in Versailles, Kentucky. Participants experienced both classroom and field activities related to practical, hands-on grazing practices. The school is taught by U.K. faculty and staff in Plant and Soil Sciences, Animal Sciences, Veterinary Sciences along with NRCS Grazing Specialists and Industry representatives. Our thank to Mr. Adam Probst, County Extension Agent for Agriculture in Woodford County and faculty-staff at the C. Oran Little Research Center for hosting this important event. Appreciation is extended to our Kelly Kramer, Master Grazer Program Coordinator, for handling all the details for the school.

EXPECT TIGHT FORAGE SEED SUPPLIES THIS FALL

Company reps advise buying alfalfa, grass varieties early

Growers who want to plant particular forage varieties this fall should shop for seed early. Supplies look to be tight at least until seed harvest later this fall, warn seed company representatives.

Winterkill, wet weather and delayed plantings in the Upper Midwest contributed to "outstanding" and "excellent" spring alfalfa seed sales there, say Dave Robison, forage and cover crop manager for Legacy Seeds, and Matt Fanta, Forage Genetics International president.

Potential weed issues and late planting dates may have led more Midwestern growers to use Roundup Ready alfalfa as well, Fanta says. Roundup Ready alfalfa seed has traditionally been planted largely in the West, he adds.

Growers may not see their favorite conventional or transgenic alfalfas well at hand in fall, agrees Robin Newell, DuPont Pioneer senior business manager for forages and National Alfalfa & Forage Alliance chair.

Toward the end of the year, he says, "you always have a variety or two that gets on the short side."

"We have a fair-to-good supply of all our varieties, especially our hybrid alfalfa," reports Dairyland Seed's forage product manager, Tim Clark. He encourages growers to order seed early.

"We're going into the fall planting period with a much lower-than-average carryover position," adds Cal West Seeds General Manager Paul Frey. Alfalfa seed inventories are planned a year or more ahead of time, he says. "You try to hit a sweet spot, and then Mother Nature throws you a curveball."

Although the cool-season grass seed supply is adequate, Robison says, meadow fescue and meadow bromegrass are in "extremely short supplies" because of seed-crop production failures. Orchardgrass and tall fescue seed supplies will also be "somewhat tight until fall seed harvest," he says.

Italian ryegrass is in good supply and annual ryegrass looks to be in very good supply as it's harvested in late August, says Robison.

"Last year some people sold out (of annual ryegrass), so this year people are buying earlier," says Peter Ballerstedt, forage product manager for Barenbrug USA.

Ballerstedt advises growers to check grass seed availability soon. Do the same when shopping for small grains to be used as forages, suggests Chad Hale, Byron Seeds research and acquisitions manager and president of the American Forage & Grassland Council.

"Small grains, it appears, are going to be shorter than they were last fall, so growers need to order soon if they want to get their favorite varieties," he advises.

For more on seed supply, see *Hay & Forage Grower's* August issue story, "Alfalfa, Grass Seed Supplies Tight." (SOURCE: *Fae Holin, Hay & Forage Grower, Aug. 6, 2013*)

ERGOT IN PASTURES

Ergot is a fungal disease of worldwide distribution that is common in the northern two-thirds of North America. Ergot affects wild and cultivated grasses, as well as small grain crops such as wheat, oats, barley and especially rye. The ergot pathogen produces alkaloid toxins that are mostly vasoconstrictors. This means that the compounds produced as a result of ergot reduce blood flow in mammals. If these alkaloids are ingested they can result in convulsions, hallucinations, gangrene, and death. The effect of ergot is cumulative; poisoning may develop slowly if lesser quantities are eaten regularly. In animals such as cattle the first symptom of alkaloid toxicity is lameness, 2 to 4 weeks after exposure, as

a result of the reduced blood flow to the extremities. The reduced blood flow will eventually lead to complete blockage of blood vessels with terminal necrosis of the extremities such as hooves and ears. This can be exaggerated in very hot or cold conditions.

Signs of ergot first appear as droplets of a sticky exudate (called honeydew) on immature grain heads. Honeydew contains asexual spores of the ergot fungus. Over 40 species of insects are attracted to honeydew and can carry spores from infected to healthy



Figure 1. Production of honeydew (red arrow) and sclerotia (white arrows) are typical of ergot.

plants. After approximately two weeks, infected grains are replaced by dark, compact fungal structures (called sclerotia). Sclerotia range in size from 1/16 to 3/4 inches in length, and often look like seeds, rodent droppings, or insect parts.

Ergot is caused by several species of the fungus *Claviceps*, most commonly *Claviceps purpurea*. Sclerotia of these fungi survive in soil and harvested grain. Sclerotia require a one to two month period of cold temperatures (32 to 50°F) after which they germinate to form small, mushroom-like structures that produce sexual spores. Germination is most common in cool (57 to 84°F), damp weather and is inhibited at higher temperatures. Sexual spores are blown to developing grain heads where infection occurs. Humid weather (> 90% relative humidity) contributes to honeydew production. Ergot is also often more severe if frosts occur at the time of spore production.

Management of ergot should include rotation with at least one year between small grain crops. Use crops that are not susceptible to ergot (e.g., soybeans, alfalfa, corn) in years when small grains are not grown. Plant seed that is free of ergot sclerotia. Ergot-resistant varieties are not available, but avoid longer-flowering varieties as they tend to be more susceptible to infection. Keep weed grasses under control. Also, mow areas adjacent to small grain fields to prevent grasses from flowering and prevent development of ergot in these areas. In fields where ergot becomes a problem, consider clean, deep plowing that will bury ergot sclerotia to at least three to four inches, thus preventing sclerotia from germinating. (SOURCE: Adapted from Damon Smith and Dan Undersander, UW-Madison/Extension)

UPCOMING EVENTS

OCT 10 Kentucky Grazing Conference, Fayette County Extension Office, Lexington

2014

JAN 12-14 AFGC Conference, Memphis, TN
JAN 13 AFGC Dow Pasture Symposium, Memphis, TN
JAN 15-18 Kentucky Cattlemen's Association Convention, Lexington
JAN 17 Forages at KCA, Lexington
FEB 4-7 NCBA, Nashville, TN
FEB 20 34th Kentucky Alfalfa Conference, WKU Expo Center, Bowling Green


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