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Forage News

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## Forage News [2010-12]

University of Kentucky Department of Plant and Soil Sciences

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# FORAGE NEWS

Research & Education Center  
Princeton, KY 42445

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

## December 2010

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



### REGISTER NOW FOR GRAZING CONFERENCE

The 10<sup>th</sup> Annual Heart of America Grazing Conference is returning to Kentucky. It will be held January 25 & 26 at the Holiday Inn Hurstbourne in Louisville. The Conference rotates among five states (Illinois, Missouri, Indiana, Ohio and Kentucky).

The program will feature leading speakers from all five states concerning topics of interest to all producers interested in grazing. In addition to informative presentations, a silent auction and trade show will be featured. The program gets underway January 25 at 2:00 p.m. EST with exhibit set-up. Registration begins at 3:00 p.m. Program includes:

#### January 25, 2011

- 2:00 p.m. Exhibit Set-up
- 3:00 p.m. Registration, Exhibits and Silent Auction
- 5:30 Welcome, Invocation & Dinner
  - Dr. Garry Lacefield, University of Kentucky Kentucky Agriculture
  - Dr. Jimmy Henning, University of Kentucky Forages Around the World: Observations & Reflections
  - Dr. Garry Lacefield

#### January 26, 2011

- 7:00 a.m. Registration, Exhibits, Silent Auction
- 8:15 Welcome – Dr. Garry Lacefield
- 8:30 From Confinement to Grazing
  - Mr. Bill Payne, Producer, Lincoln Co. KY
- 9:00 How much Pasture do I have and how long will it Feed my Cows?
  - Dr. Ray Smith, University of Kentucky
- 9:30 Tall Fescue – Endophyte – Animal Performance
  - Dr. Glen Aiken, USDA/ARS, Kentucky
- 10:00 Break, Exhibits & Silent Auction
- 10:30 Organic Dairying: Role of Grazing
  - Mr. Jake Schmitz, Ohio Valley Regional Coord., Organic Valley Coop.
- 11:30 Mob Grazing, High Density Grazing, Management-intensive Grazing; What's the Difference?
  - Mr. Mark Kennedy, NRCS, Missouri
- 12:00 Lunch
- 1:00 Silent Auction Results
- 1:15 Integrated Weed Management for Enhancing Productivity of Grazed Pastures
  - Dr. J.D. Green, University of Kentucky
- 1:45 Grazing Goats and Cattle and Other Co-species Grazing
  - Mr. Jason Tower, Purdue University
- 2:15 Grazing Corn, Brassicas, Chicory, Eastern Gamagrass, Ryegrass, Oats and Other Non-Traditional Forages
  - Mr. Jeff McCutcheon, Ohio State University
- 2:45 Extending the Grazing Season and Reducing Stored Feed Needs
  - Mr. Ed Ballard, University of Illinois
- 3:15 Adjourn



### FORAGE SPOKESMAN CONTEST AND KFGC AWARD NOMINATIONS

Nominations are being received for the KFGC Awards and Forage Spokesman contest. Awards will be given to deserving individuals representing producers, industry, public (State & County). To nominate a deserving individual, send a one-page summary about him/her stating why he/she should be considered for this award to Garry Lacefield at [glacefie@uky.edu](mailto:glacefie@uky.edu). We also need nominations for our Forages Spokesman Contest to be held in conjunction with the 31<sup>st</sup> Kentucky Alfalfa Conference February 24, 2011 in Lexington, KY. To nominate a producer, send a half-page nomination to Dr. Ray Smith, [raysmith1@uky.edu](mailto:raysmith1@uky.edu) or mail to Plant and Soil Science Dept., N222E Ag. Science N, University of Kentucky, Lexington, KY 40546-0091. **Deadline December 17.**



### PFGC CELEBRATES 50<sup>TH</sup> ANNIVERSARY

The Pennsylvania Forage and Grassland Council celebrated their 50<sup>th</sup> Anniversary at the Shady Maple Banquet and Conference Center in East Earl, Pennsylvania November 22, 2010. PFGC is the oldest State Forage Council and the first to affiliate with the American Forage and Grassland Council. The Kentucky Forage & Grassland Council was formed in 1964 and became an affiliate of AFGC in 1969. To commemorate the 50<sup>th</sup> Anniversary, Dr. John Baylor (one of the founders of PFGC) put together a comprehensive history of PFGC "50 Years of Achievements 1962-2010". PFGC has been a leader in forage activities having impacted not only Pennsylvania, but regionally, national and international forage-livestock programs. **Congratulations PFGC!**  
**Editor's Note** – During the conference, Dr. John Baylor was presented the "Golden Award" by PFGC and a special award from the Forage & Grassland Foundation for 50+ years of service to forages at the state, national, international level. Congratulations Dr. Baylor and all the fine folks in Pennsylvania for this historical milestone.



### FORAGE VARIETY TEST REPORTS

Gene Olson, coordinator of UK's forage variety testing program, has been working hard over the last month to complete the 2010 Forage Variety Test reports. These will be available over the next month at the UK Forage Website [www.uky.edu/Ag/Forage](http://www.uky.edu/Ag/Forage) under the "Forage Variety Trials" section. Your local county agent will also have copies of these reports or he/she can easily print them off for you. We continue to publish our summary report which includes the average performance of all the named varieties that UK has tested over the last 12 years. The summary report is the best way to compare variety performance over years and to narrow down the varieties that will work best on your farm. Our individual reports contain the detailed yield, maturity, and persistence data from all the entries in our current trials. If pasture

survival is an important criteria for you in selecting a variety, refer to the Grazing Tolerance Reports to determine which varieties show the best long term survival in pastures.

We are often asked where you can buy seed for specific varieties that have performed well in our UK Forage Trials. Unfortunately, companies from across the U.S. enter varieties in our trials; therefore some varieties are not commercially available in KY. The best recommendation is to first find out what varieties are sold by your local dealers, then refer to the appropriate variety report or the summary report to determine which of these varieties produce the highest yield and show the best survival in KY.



### FEED COSTS AND MEAT PRODUCTION

The price of corn is expected to average about \$5/bu. for the 2010/11 crop year, about \$1.50/bu. over last year's price. Over 40% of the corn crop is expected to go to food and industrial uses (sweeteners and ethanol), about 15% will be exported and the rest (a little less than 40%) will be used as livestock feed. As more corn is used in ethanol, less is available for use in the livestock sector, and that has long run consequences.

Obviously, the dramatic increase in feed cost is going to have a significant impact on the meat industry. The first impact is on profitability. According to Bruce Babcock at Iowa State University, production cost for hogs will increase by \$0.15/lb., about 25% of the farm level price; the cost of finishing cattle in feedlots will go up by \$.24/lb., also about 25% and broiler cost of production will be 8% higher (\$.07/lb.). (You can read Dr. Babcock's article at: [http://www.card.iastate.edu/publications/show\\_policy\\_brief.aspx?id=1149](http://www.card.iastate.edu/publications/show_policy_brief.aspx?id=1149).)

These are major increases in costs, but because prices have been at or near record high levels, there will not be major negative impacts in the near future.

Retail meat prices are also at or near record level prices. The average retail price of Choice beef was about \$4.50/lb., up 4% from last year. Pork price was at a record high level (\$3.40/lb.) and 15% above the 2009 level. Chicken prices were up 4% to \$1.80/lb., which is a small amount compared to the other meats. The reason for the high retail prices is a combination of stronger demand (willingness to pay) and tight supplies.

The big picture is of concern to the meat sector. The meat industry does not simply pass on higher production costs to consumers, even though it would like to. Currently, high farm level prices are covering much of the higher production costs, but that may not last. If prices do decline, producers will begin to lose money, which means there will be fewer cattle, hogs and chickens produced. The lower animal numbers will lead to a smaller overall meat supply as a result of higher feed costs.

Because of the differences in feed use and efficiency between the three meat species (beef, pork and chicken), they will be impacted differently. Broiler production is much more efficient – with a conversion rate of 2 pounds of feed per pound produced. For hogs, the conversion is about 4:1 and for beef it's about 7:1. Of course, for beef cattle, that is only relevant for the last third of the production process. About two-thirds of the beef weight is added on pasture and forages. Because of the efficient conversion rate of chicken, higher corn prices will have less of an impact than the other species, especially hogs. In the long run, pork prices will increase more than chicken prices and consumers will respond. The beef industry has been downsizing for several years as farmers cut back on the number of cows in their herds, a trend that is likely to continue.

The bottom line is that until more corn is produced and/or the demand for corn to convert to ethanol is reduced, the livestock industry is going to be the sector where the adjustment happens – and that means it will get smaller. (SOURCE: Lee Meyer, UK Agricultural Economist)



### CORN NITROGEN FERTILIZER REPLACEMENT VALUE OF ALFALFA IN NORTHERN ILLINOIS

**Abstract** - To minimize corn (*Zea mays* L.) fertilizer costs and environmental effects, farmers need to account for nitrogen provided by nitrogen-fixing crops in the rotation such as alfalfa (*Medicago sativa* L.). With newer, improved alfalfa varieties, higher yielding corn hybrids, higher nitrogen fertilizer prices, and the availability of the presidedress soil nitrate test (PSNT) to estimate nitrogen supply to the corn crop, the need was identified to revisit the topic of nitrogen credit for corn from alfalfa. Our objective was to determine the first year nitrogen credit for corn harvested as grain following alfalfa. This study was conducted over five site-years during 2007 to 2009 in northern Illinois. Alfalfa stands were assessed (plants

per square foot) prior to corn planting. Nitrogen rates of 0, 40, 80, 120, 160, and 200 lb/acre were applied early postemergence and PSNT samples were collected prior to nitrogen application. Response to nitrogen rate differed considerably over the five sites. The relationship between PSNT values and optimum nitrogen rate per acre is shown as a linear response. PSNT may be a very cost-effective way to adjust nitrogen rates when the presence of nitrogen in the soil is suspected. In this study, each part per million (ppm) nitrate-N in the top foot of soil reduced the applied fertilizer nitrogen need by about 10 lb/acre. The optimum nitrogen rate was zero when PSNT values were greater than 20 ppm. (SOURCE: J.A. Morrison, F.G. Fernández, and E.D. Nafziger IN AFGC Proceedings, Springfield, MO, June 2010)



### COMPARISON OF SEEDING RATES AND COATING ON SEEDLING COUNT, ROOT LENGTH, ROOT WEIGHT AND SHOOT WEIGHT OF CRIMSON CLOVER

**Abstract** - Cool season annual legumes, especially clovers are utilized throughout the Southeast as winter pasture for livestock or as a cover crop. A majority of the clover seed that is sold is coated in order to protect the inoculation with *Rhizobium* bacteria. The coating can account for 30-40% of the seed weight. Crimson clover (*Trifolium incarnatum* L.) coating is typically 33% of the total weight. Therefore a bag of coated seed versus uncoated will have fewer actual seeds. The typical seeding rate recommendation for crimson clover is 12-20 lbs/acre. The objective of this two-year study was to evaluate the effect of various crimson clover-seeding rates (8, 12, 16, 20 and 24 lbs/acre) and seed coating on seedling count, root length, root weight and shoot weight. Our data indicates that coated seed did not result in higher yields or heavier root and shoot weights. Planting coated seed may reduce possible damage to *Rhizobium* bacteria however it does not result in increased yields. Seeding rate had no impact on yield for either year of the experimental period. According to our data, planting crimson clover at a high seeding rate (24 lbs/acre) does not result in higher forage yields. (SOURCE: V.A. Corriher, G.W. Evers and P. Parsons IN AFGC Proceedings, Springfield, MO, June 2010)



### EFFECT OF MACRONUTRIENT DEFICIENCY ON THE ANTIOXIDANT CAPACITY OF LESPEDEZA CUNEATA (CV. AU GRAZER) AND LOTUS CORNICULATUS (CV. PARDEE)

**Abstract** - Sericea lespedeza (*Lespedeza cuneata* Dum. Cours. cv. AU Grazer) and birdsfoot trefoil (*Lotus corniculatus* L. cv. Pardee) are good sources of antioxidants that may improve the health of small ruminants under grazing conditions. Antioxidants may be affected when these forages are cultivated in soils poor in nutrients. However, there is little information available on the effects of poor soil nutrition, or drying, on the antioxidant capacity of these valuable forages. In this work we have evaluated the effects of P, K, and Mg deficiencies on antioxidant capacity of sericea lespedeza and birdsfoot trefoil, and the effect of drying methods on the antioxidant capacity of sericea lespedeza. Deficiency treatments reduced shoot concentration of the treatment minerals, but did not affect plant height or shoot biomass of either forage when compared to the control plants receiving complete fertilizer. Phosphorus deficiency significantly increased antioxidant activity of lespedeza, but not of trefoil. Drying method presented no difference in antioxidant capacity of sericea lespedeza. Under the conditions of this short-term experiment, biomass production and antioxidant capacity were not affected by mild mineral deficiencies of P, K, and Mg, and the antioxidant capacity of lespedeza was unaffected by drying procedure. (Source: J. F.S. Ferreira IN AFGC Proceedings, Springfield, MO, June 2010)

### UPCOMING EVENTS

JAN 14	Forages at KCA, Lexington
JAN 15	KY Small Ruminant Grazing Conference, Elizabethtown
JAN 25-26	Heart of America Grazing Conference, Louisville
FEB 24	31 <sup>st</sup> Kentucky Alfalfa Conference, Lexington



Merry Christmas  
and best wishes  
for a Happy New  
Year!

Garry D. Lacefield  
Extension Forage Specialist  
December 2010