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Forage News

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## Forage News [2009-12]

Department of Plant and Soil Sciences, University of Kentucky

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# FORAGE NEWS

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

## December 2009

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

### GRAZING CONFERENCE PHOTOS

Photo highlights of the 10<sup>th</sup> Kentucky Grazing Conference are now posted on our website at <http://www.uky.edu/Ag/Forage/>. My thanks to Adam Probst for taking the pictures and Christi Forsythe for organizing and posting to the web.



### GROWING ALFALFA IN THE SOUTH

A new publication on Growing Alfalfa in the South has been placed on our website at <http://www.uky.edu/Ag/Forage/ForagePublications.htm>

### HEART OF AMERICA GRAZING CONFERENCE

The 9<sup>th</sup> HOAGC will be held at the Roberts Conference Centre in Wilmington, Ohio on January 20-21, 2010. Program and other information is available on our website at [www.uky.edu/Ag/Forage](http://www.uky.edu/Ag/Forage). Kentucky will host the 10<sup>th</sup> Heart of America Grazing Conference in January 2011.

### ROLE AND IMPORTANCE OF CLOVERS IN KENTUCKY

Clovers have always been a vital part of Kentucky's forage base. They have played an important role in the past and are playing a major role at present; however, I believe their most important role is in our future. Although we have always placed emphasis on clovers, we are going to place "special" emphasis during our Forages at KCA meeting in Lexington January 15. Our program keynote speaker is Dr. Don Ball, Extension Forage Specialist from Auburn University. Dr. Ball is a native of Kentucky and graduated from Western Kentucky University before going to Auburn for his Ph.D. He is senior author of the book "Southern Forages", and has over thirty years experience working with clovers. In addition, we will also feature our own forage extension specialists along with KFGC President Mr. Don Sorrell who will talk about Role of Clovers "Down on the Farm". Don't forget to bring your Southern Forages book if you would like Dr. Ball to autograph it. KFGC will also have books for sale that day. A complete proceedings, along with other clover-related materials, will also be available. Below is the schedule for the program:

- 1:45 Welcome – Dr. Garry Lacefield & Mr. Don Sorrell
- 2:00 Why Grow Clovers? – Dr. Don Ball
- 3:00 Estimating Clovers in Pastures – Dr. Ray Smith
- 3:25 Establishing Clovers in Pastures & Hay Fields – Dr. Garry Lacefield
- 3:50 Role of Clovers "Down on the Farm" – Mr. Don Sorrell
- 4:15 Discussion
- 4:30 Adjourn



### ADVANTAGE OF ROTATIONAL GRAZING CONFIRMED USING TIME LAPSE PHOTOGRAPHY

We have recently developed a short video clip that shows the value of rotational grazing pastures containing orchardgrass. Simply go to the Forage Website ([www.uky.edu/Ag/Forage](http://www.uky.edu/Ag/Forage)) to view or download this video clip (<http://www.uky.edu/Ag/Forage/Forage%20Decision%20Aids.htm>) or you can download a powerpoint that shows daily growth. You will see

the response of one orchardgrass plant that simulates continuous grazing (was clipped at 1 inch weekly for one month to simulate continuous grazing and another plant that was clipped at 3 1/2 inches and given a 4 week rest period to simulate rotational grazing. When you watch this simulation on your computer it will be obvious the benefit of rotational grazing. The rotationally grazed plant shows nearly 5 times more regrowth in just the first week.

### CORN STALK QUALITY AFTER WEATHERING



Fall rainfall is good for wheat and next year's crops, but it does have its drawbacks. One challenge is rain's impact on corn stalk quality. More in a moment.

Rain in the fall usually is welcomed despite the delays it causes with crop harvest. Pastures and alfalfa benefit from extra growth and winterizing capabilities. Wheat and other small grains get well established as do any new fields of alfalfa or pasture. And the reserve moisture stored in the soil will get good use during next year's growing season.

But rain also reduces the feed value of corn stalks in fields already combined, and even on standing stalks. And this fall many fields have had some pretty heavy rain on those stalks.

Rain reduces corn stalk quality several ways. Most easily noticed is how fast stalks get soiled or trampled into the ground when fields are muddy.

Less noticeable are nutritional changes. Heavy rain soaks into dry corn stalk residue and leaches out some of the soluble nutrients. Most serious is the loss of sugars and other energy-dense nutrients, which lowers the TDN or energy value of the stalks. These same nutrients also disappear if stalks begin to mold or rot in the field or especially in the bale. Then palatability and intake also decline.

There is little you can do to prevent these losses. What you can do, though, is begin to supplement a little earlier than usual. Since weathering by rain reduces TDN more than it reduces protein, consider the energy value of your supplements as well as protein content.

Weathered corn stalks still are economical feeds. Just supplement them accordingly. (SOURCE: Bruce Anderson, University of Nebraska)

### KENTUCKY LAND VALUES BUCK THE TREND



U.S. farm real estate values reached a historical high during 2007, and started to decline during 2008. According to information released by USDA in August, the value of farmland and buildings on farms across the US averaged \$2,100 per acre on January 1, 2009. This \$2,100 value is 3.2 percent (\$70/Ac) less than the record high of \$2,170 set last year. The declines were widespread. Crop land values went down by \$100 per acre (4.0 percent) to \$2,650 per acre. Pasture land declined less, dropping \$20 per acre (1.8 percent) to \$ 1070 per acre.

These changes seem to reflect the profitability challenges facing all sectors of the agricultural economy. It is also reflective of the general economy and a reduced demand for recreational and investment purposes. All of these factors have contributed to the general decline of US land values.

As indicated in the following table, Kentucky's average value of agricultural land was \$2,850 per acre as of January 1, 2009, unchanged from 2008. This result is somewhat surprising as all surrounding states experienced lower farm land values during 2008. Both Missouri and Tennessee experienced the greatest decreases of 4.3 percent. Illinois had the smallest decline of 0.4 percent.

The reason for the stability of Kentucky land values is uncertain. It may be a result of the mix of crop, livestock, and tobacco enterprises that make up our agriculture. It could be related to the relative small size of land parcels that typically change ownership across the commonwealth. Smaller parcels typically sell at higher prices per acre than do larger parcels. Another possible influence could be the urban demand for recreational land across the state. For whatever reason, Kentucky land values have obviously maintained their current level to a greater extent than that of surrounding states.

A survey of Kentucky County Extension Agents was conducted in October 2008 to supplement the USDA information. According to the survey, participating agents estimated Kentucky farm real estate values to be higher than indicated by the USDA. The average value of Kentucky farm land, according to the agent survey, was estimated to be \$4,155 per acre, which is \$10 per acre (0.2 percent) less than in 2007. Regional estimates were as follows: East Region - \$4,316, Central Region - \$4,547, and West Region - \$3,528.

Falling commodity prices, combined with dramatic increases in cost of production have resulted in falling agricultural profit margins. Combining this with a recession in the general economy, the land market seems to have cooled off recently. If these conditions continue or become more pronounced, we should expect Kentucky land values to move lower, as has been the case across the US. This would also be consistent with expectations expressed by agents in our October 2008 survey. (*Dick Trimble, UK Extension Economist*)



### RESULTS OF THE 1<sup>ST</sup> YEAR FOR A GRAZING EVALUATION OF KYFA9302 TALL FESCUE, WITH AND WITHOUT THE AR584 NOVEL ENDOPHYTE

**ABSTRACT:** A wild-type endophyte (*Neotyphodium coenophialum*) that infests tall fescue (*Lolium arundinaceum*) imparts tolerances to environmental stresses, but also produces ergot alkaloids that adversely affect performance and physiology of cattle. Novel endophytes have been developed that do not produce toxic alkaloids. A 2yr grazing experiment is being conducted to evaluate weight gain and physiology for yearling steers grazing a novel endophyte tall fescue, AR584-KYFA9301 (NE9301; not commercially released), in comparison with AR542-'Jesup' (MaxQ), endophyte-free KYFA9301 (EF9301), and wild-type 'Kentucky 31' (KY31) tall fescues. Entries were assigned to 1.0-ha pastures in a completely randomized design with three replications. Pastures were planted in September of 2006. Grazing with variable stocking (4 testers) was initiated in 2008 in May and terminated in July. Shrunk bodyweights were taken at the beginning and end of the grazing season. Rectal and skin temperatures were recorded on days 28, 56, and 77. Average daily gains were similar ( $P < 0.05$ ) among MaxQ (0.87 kg/d), NE9301 (0.74 kg/d), and EF9301 (0.74 kg/d), which were greater ( $P < 0.05$ ) than KY31 (0.57 kg/d). Rectal and skin temperatures among NE9301, EF9301, and MaxQ were similar ( $P > 0.10$ ), and these measures for the non-toxic entries were less ( $P < 0.05$ ) than for KY31. Carrying capacities were similar ( $P > 0.10$ ) among entries (431 ± 19 steer d/ha). Results in the first year indicated steer performance and body temperature responses for NE9301 and EF9301 were similar to those for MaxQ. (*SOURCE: Jennifer Johnson, G. Aiken, Tim Phillips, and Mike Barrett IN Proceedings 63<sup>rd</sup> Southern Pasture and Forage Crop Improvement Conference, Lexington, KY 2009*)



### CUTTING ASH CONTENT

If you have clouds of dust trailing your rake, you're probably adding unnecessary ash to your forage. That can lower its quality and, if it's fed to dairy cows, the amount of milk produced, says Dan Undersander, extension forage specialist at the University of Wisconsin (UW).

A certain amount of ash is unavoidable. Grass plants contain about 6% ash, and alfalfa holds nearly 8%. But the harvesting and handling of hay or silage, on average, adds 4% more ash, for an average of 10-12% ash, according to UW-Marshfield lab results. That's about 2% too much, Undersander believes. Some results show even higher amounts of ash – one sample contained 18% ash, he says. "That guy was feeding 1 lb of dirt for every 4 lbs of hay. Do you think his cows produced a lot of milk? I suspect not," he says.

By limiting added ash to just 2%, "you've improved the quality of your product," Undersander adds.

Here are his suggestions to meet that goal:

- Cut the crop at least 3-3½" high. "If you cut alfalfa shorter you get a little more tonnage, but as you go below 3",

especially when the soil is dry, you're going to be picking up more dirt."

- Change your disc mower knives from standard to flat. "The standard knife has a 14-degree angle and it creates a little vacuum. On first cutting when the ground is wet, it doesn't make any difference; on second and third, when the ground is dry, you can easily pick up 1-2% ash."
- Switch from narrow to wide swaths if you haven't already. "When you go to a wide swath, that swath stays on top of the stubble. If you make a narrow windrow it sinks down onto the ground, and when you pick up the windrow, you see a layer of dirt on the underside."
- Keep rake tines from scraping the ground. "It's worthwhile to have a level field," he adds.
- Be careful when feeding out of bunker silos on bare ground during rainy weather.

"This is one of the reasons why we've always encouraged people to put their bunkers either on asphalt or concrete," says Undersander. (*SOURCE: Fae Holin, Hay & Forage Grower, February 2009*)



### KFGC UPDATE

We had a productive Kentucky Forage and Grassland Council Board meeting on October 28 at the Western KY Research and Education Center which was followed by the KY Grazing Conference the next day.

Once again thanks to the following newly elected Board members for their willingness to support KFGC: **Producers: Buddy Smith, Charlie Powell and Roy Reichenbach; Industry: Terry Ginn, Adam Probst and Jeff Medlin and Public: Keenan Turner and Kenny Burdine.**

One of the highlights of the Grazing Conference was the Forage Spokesperson Contest. This program allows forage producers from across KY to give a fifteen minute presentation on their forage operation. Congratulations to **Caldwell Willig** of Oldham County, who was this year's winner. The following is an overview of Caldwell's diversified farming operation: Located on 300 acres along the Ohio River, Rivercrest Farm raises Angus – Tarentaise cross beef cattle. The farm consists of approximately 115 acres of pasture and 75 acres of river bottom which is leased for row crop production. The balance of the farm is in woodlands.

Pastures include 6 acres of grazing type alfalfa, 5 acres of eastern gamagrass, 2 acres of bermudagrass, with the remainder in cool season grasses and ladino clover. The pasture acreage is moderately sloping Crider silt loam. Pastures are rotationally grazed using portable electric fencing and both permanent and portable waterers. Rivercrest Farm has a herd of 75 cows divided between spring and fall calving. In addition to raising and selling freezer beef, the farm produces and sells eggs from a flock of 50 laying hens. This farm also had its first harvest this October of pasture raised Cornish cross broiler chickens.

Caldwell Willig will represent the KY Forage and Grassland Council at the American Forage and Grassland Council annual conference in June of 2010 in Springfield, Missouri. Special thanks to Vince Rawe of Campbell County who also participated in the forage spokesperson contest.

Mark your calendars for these upcoming forage programs: Forages at KCA (Kentucky Cattlemen's Association) annual convention scheduled for January 15, 2010 in Lexington and the 30th Kentucky Alfalfa Conference on February 25, 2010 at the Cave City Convention Center in Cave City, KY.

For information on these and other forage programs go to [www.kfgc.org](http://www.kfgc.org) or UK's forage website at [www.uky.edu/Aq/Forage](http://www.uky.edu/Aq/Forage).

### UPCOMING EVENTS

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|-----------|---|
| JAN 12    | 2010 Kentucky Small Ruminant Grazing Conference, Fayette County Extension Office, Lexington |
| JAN 15    | Forages at KCA, Lexington   |
| JAN 20-21 | Heart of America Grazing Conference, Wilmington, OH   |
| FEB 25    | 30 <sup>th</sup> Anniversary: Kentucky Alfalfa Conference, Cave City Convention Center      |



*Garry D. Lacey*

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December 2009