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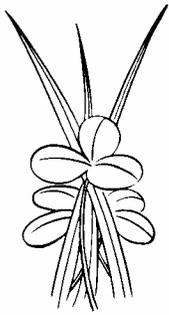
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FORAGE NEWS

SEPTEMBER 2003

Garry D. Lacefield, Extension Forage Specialist • Christi Forsythe, Secretary

GRAZING SCHOOL IN PARIS

OCTOBER 14-15

The fall Kentucky Grazing School will be held **October 14 & 15** at the Bourbon County Extension Office. The two day school will offer both classroom and field activities. Registration is \$100 and includes all materials, grazing notebook, Southern Forages book, breaks and three meals. To register, make check payable to KFGC and send to Rebecca Smith, 400 W.P. Garrigus Building, University of Kentucky, Lexington, KY 40546-0215. For more information, contact Donna Amaral-Phillips (859-257-7542, e-mail – damaral@uky.edu) or Garry Lacefield (270-365-7541, X202, e-mail – glacefie@uky.edu).

KENTUCKY GRAZING CONFERENCE

The 4th Kentucky Grazing Conference is scheduled for November 25. It will be held at the Fayette County Extension Office in Lexington. We expect a full house for this event as it was the last time we met in Lexington. In addition to a full day of practical presentations on many aspects of grazing, we expect our exhibit area to be full along with an expanded "Silent Auction". The Kentucky Forage & Grassland council will have their business meeting following lunch with the Annual Awards as a highlight. Topics and speakers for the conference include:

- 8:00 Registration, Visit Exhibits, Silent Auction
- 8:45 Welcome - Dr. Jimmy Henning
- 9:00 Optimize Grazing – Minimize Stored Feed - Dr. Garry Lacefield
- 9:20 Opportunities for Warm Season Grasses - Mr. Ken Johnson
- 9:40 Break, Visit Exhibits, Silent Auction
- 10:00 Grazing Systems for Beef - Dr. John Johns
- 10:30 Grazing Systems for Dairy - Dr. Donna Amaral-Phillips
- 11:00 Environmental Benefits with Improved Grazing - Mr. David Stipes
- 11:30 Economics of Improved Grazing - Mr. Ed Ballard
- 12:00 Lunch, Visit Exhibits, Silent Auction
- 12:45 KFGC Business Meeting and Awards, Silent Auction Results
- 1:15 Efficient Use of Pastures for Horses - Dr. Bob Coleman
- 1:45 Grazing Systems for Goats - Mr. Terry Hutchens
- 2:15 Efficient Grazing Systems: Putting Pieces Together - Dr. Chuck Dougherty
- 2:45 Discussion
- 3:00 Adjourn

Registration fee is \$15 and includes all materials, proceedings, refreshments and meal. See you in Lexington, November 25.

KFGC AWARDS

The Kentucky Forage and Grassland Council is now accepting nominations for their 2003 Awards. Awards will be presented at the business meeting on November 25 during the 4th Kentucky Grazing Conference in Lexington. Awards will be presented in four categories: Producer, Industry, Public (State) and Public (County). If you would like to nominate someone in any of the above categories, send a one-page nomination to Garry Lacefield, UKREC, P.O. Box 469, Princeton, KY 42445. Nominations will be accepted until October 15.

INFLUENCE OF NITROGEN RATE AND PASTURE COMPOSITION ON TOXICITY, QUALITY AND YIELD OF STOCKPILED TALL FESCUE

Forage yields in November increase substantially when N is applied in August. Despite the dry growing conditions in the autumn of both 2001 and 2002, and regardless of whether plots contained red clover, we obtained a nearly linear response to N rates up to 100 lb/acre. Rates above 100 lb/acre show either little or no increase in forage yield. Although many producers limit late-summer or fall applications of N to 50 or 60 lb/acre, our data show that even in dry years, rates up to 100 lb/acre give yield responses.

Our data suggest that when previous moisture conditions cause limited on-farm hay supplies, a late summer N application might be more cost effective than previously thought. However, we have only two years of data; collecting the data over more years will help with developing accurate recommendations.

Ergovaline is the principal toxin in infected tall fescue and this compound causes metabolic problems for almost all classes of livestock. While we have not had a chance to analyze all of the data yet, we do have some preliminary data from the November 2002 harvest. The ergovaline content of stockpiled tall fescue increased linearly with N rate. When no nitrogen was applied, ergovaline levels were approximately 175 ppb lower in mixed tall fescue/red clover treatments than in treatments where no red clover was present. However, the benefit of red clover declined as N rates increased. This is probably due to the lower percentage of red clover in the mixed sward as N rates increased.

The ergovaline concentrations we found are approximately 25 to 50% lower than those reported by Rottinghaus et al.

(1991) for spring-grown tall fescue. However, the ergovaline concentration in all treatments was in excess of the 150 ppb threshold for livestock reported by Stamm et al. (1994). This suggests that while stockpiled forage has lower ergovaline levels than tall fescue during the growing season, it still is a potential problem for livestock owners in winter and that N fertilizer management plays an important role.

Over the next two years we will continue our research on the impact of N on stockpiled tall fescue. Specifically, we are interested in determining the rate and extent of forage degradation over winter, with a special focus on ergovaline concentrations. Based on previous data published by Kallenbach et al. (2003), ergovaline levels are expected to drop over winter in stockpiled tall fescue. Although the influence of N rate on this process is unknown, we would like to develop prediction equations that could guide producers, fertilizer dealers, crop consultants and others about the potential toxicity and use of stockpiled tall fescue in winter. In addition, we will be able to determine the impact of fall fertilization on red clover growth in tall fescue pastures the following spring. (SOURCE: Robert L. Kallenbach and Robert L. McGraw, *Plant Sciences Unit, University of Missouri IN Forage Systems Update, Vol. 12, No. 3, July 1, 2003*)

REVISED PUBLICATIONS

Three AGR publications have been revised and are available. These include: AGR-59 Tall Fescue, AGR-58 Orchardgrass and AGR-64 Establishing Forage Crops. A new publication on Annual Ryegrass will be available soon.

VARIETY INFORMATION AVAILABLE ON WEB

To obtain the latest information on our Forage Variety Test, you can choose to receive a hard copy available at all U.K. County Extension Offices or visit the web at <http://www.ca.uky.edu/agc/pubs/respubs.htm>

FEED COST #1

Sixty-three percent of the annual cost for keeping a beef cow in "feed". The average annual feed cost was \$205.44 in Illinois Standardized Performance Analysis program for their top producers. Over 57% of variation in profitability among producers was explained by variations in feed cost. In their analysis, an average grazer can feed cows cheaper than a very efficient user or stored feed. (SOURCE: Alan Miller, *University of Illinois, Dudley Smith Farm Field Day, June 2003*)

CAN IT PAY TO GRAZE HIGH VALUE LAND?

You can economically justify the use of any land for grazing dairy cattle if you can economically justify using it to raise almost any crop consumed by dairy cattle.

There are some non-agricultural uses that will pay a higher price for land than any dairy enterprise can pay. There are even some agricultural enterprises that can pay a higher price for land than any dairy enterprise can pay. However, all such agricultural enterprises are specialty or niche products such as strawberries, ginseng, herbs, etc. which have a very limited or special market.

In eight years of actual farm financial performance comparisons, Wisconsin grazing dairy farms generated more Net Farm Income From Operations (NFIFO) per forage acre used when compared to Wisconsin confinement dairy farms. Wisconsin grazing dairy farms averaged about \$300 of NFIFO per forage crop acre used. Several graziers have exceeded \$500 of NFIFO per forage crop acre used. \$300 of NFIFO per

acre is much higher than typically generated by an acre of alfalfa, corn or soybeans, even when these crops are grown on class one soil. The average grazing dairy farm in these comparisons could pay a higher price than the average confinement dairy farm could pay for land.

In a recent research project at the University of Minnesota, dairy heifers grazed on class one soil returned more dollars of NFIFO per acre than either corn or soybeans raised on adjoining acres of class one soil. Dairy heifers generally produce more dollars of NFIFO per head than beef cattle but much less than dairy cows typically generate.

Soil designated as class one by the USDA Natural Resource Conservation Service is typically the highest value land from an agricultural point of view. It also is the kind of land that is least subject to erosion.

Since class one soil is very scarce, few graziers have class one soil which means that they generate their impressive levels of NFIFO per forage crop acre harvested on less productive land than corn and soybeans are often planted on.

The above numbers do show that grazing dairy cows is economically competitive with most agricultural enterprises common in Wisconsin, even when using the highest value land.

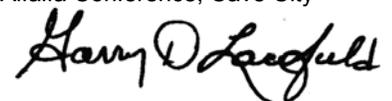
While grazing is a very economically competitive use of class one soil, grazing may have an even greater advantage on less desirable soil because many alternate uses perform poorly on less desirable land. For example, class four land is quite steep and erosion prone. This makes class IV soil a poor choice for raising row crops. Class four can be quite productive for grazing dairy cattle.

Class one soil is rather scarce and there is not nearly enough of class one or even class two soil to support all of the agricultural activities needed to feed the world (or even the local community in an area where class one and two soils are found). Consequently, from a global perspective, it makes sense for most of the class one and two soils to be used for growing row crops and the more erosion-prone, lower-value soils to be used for grazing.

This does not change the following fact for the individual farm: while grazing may have its biggest margin of economic advantage on lower value land (due to the non-competitiveness of alternatives on lower value land), grazing dairy cows is also economically competitive with many other alternatives on high value land. (SOURCE: Tom Kriegl, *University of Wisconsin Center for Dairy Profitability*)

UPCOMING EVENTS

- OCT 14-15 Kentucky Grazing School, Bourbon County Extension Office
- NOV 25 Grazing Conference, Fayette County Extension Office, Lexington
- 2004**
- JAN 9 Forages at KCA, Bowling Green
- JAN 22 Heart of America Grazing Conference, Evansville, IN
- FEB 26 24th Kentucky Alfalfa Conference, Cave City



Garry D. Lacefield
Extension Forage Specialist
September 2003