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Forage News [2004-09]

University of Kentucky Department of Plant and Soil Sciences

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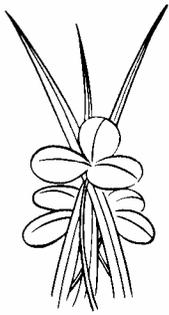


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FORAGE NEWS

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

SEPTEMBER 2004

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

FORAGE SPOKESMAN NOMINATIONS

The Kentucky Forage and Grassland Council will select a State Forage Spokesman following the contest in Bowling Green October 26 in cooperation with the 5th Kentucky Grazing Conference. Forage Spokesmen will speak for approximately 12 minutes on their forage program. The winner of the State Contest will represent Kentucky at the American Forage & Grassland Council National Contest in Illinois in 2005. If you would like to nominate a farmer for the contest, send a one paragraph nomination to Ken Johnson, e-mail Ken.Johnson@ky.usda.gov phone 270-487-6589 or Garry Lacefield, e-mail glacefie@uky.edu phone 270-365-7541, Ext. 202.

KENTUCKY GRAZING CONFERENCE

We are excited about our 5th Kentucky Grazing Conference to be held in Bowling Green on October 26. In addition to four leading scientists from Kentucky, we are delighted to have Dr. Don Ball from Auburn University and Dr. Gary Bates from the University of Tennessee. Also scheduled for his first presentation on the Grazing Conference is Dr. Glen Aiken. Glen is a nationally recognized USDA/ARS Animal Scientist. We are fortunate to have him as part of the new Forage-Livestock Unit in Kentucky. Dr. Aiken will address the important topic "Stocking Decisions: They Make or Break You". We will also present the KFGC Awards and conduct the Forage Spokesman Contest.

For more information, contact Christi Forsythe (270-365-7541, X221 cforsyth@uky.edu) or Garry Lacefield (270-365-7541, X 202 glacefie@uky.edu). You can also find a copy of the program and directions to the Expo Center on our website at <http://www.uky.edu/Ag/Forage>.

FORAGES AT KCA

The Kentucky Cattlemen's Convention will be held at the Executive Inn Hotel & Convention Center in Owensboro, January 7-8, 2005. As has been the case for the past nine years, we will begin the Convention with a special "Forage Program". The program committee has selected three important topics for this year's program. The first topic is "Importance of Forage Quality", followed by "Corn as a Grazing Crop". Dr. David Ditsch, Extension Agronomist from the U.K. Robinson Station will discuss his research and experiences. Our keynote address will be given by Mr. Jason Tower, Superintendent of the Southern Indiana-Purdue Agricultural

Center. His topic will be "Improved Grazing Systems Make Dollars & Sense". The program begins at 9:00 on Friday, January 7 and will conclude in time for you to visit exhibits before lunch. A proceedings and other material will be available and there is no registration fee for the Forage Program.

SWITCHGRASS AND HORSES

Pastures dominated by switchgrass are abundant throughout Nebraska and adjoining states. Managed correctly, these pastures can be a good source of grazing or hay for cattle. Unfortunately, the same can not be said for horses.

Switchgrass can cause serious health problems for horses. It contains chemical compounds called saponins. These compounds can cause severe reactions in horses, including photosensitization, destruction of red blood cells, and live disease, which eventually can lead to death of the horse. Fortunately, if affected animals are removed from switchgrass early enough, they recover normally.

The main saponin in switchgrass is called diosgenin. It's not known exactly how this compound reacts in horses. In fact, it was only four years ago that that danger to horses was discovered, and it took several months after that to discover the likely cause as diosgenin.

Because the discovery of this danger to horses is so new, it's difficult to know what conditions are most dangerous. The compound apparently is stable when dried, so switchgrass hay may be just as dangerous as pasture. Although there may be a small risk in pastures where switchgrass is part of a mixture, I think the danger is quite low, otherwise we would have seen more problems many years ago.

So for now, avoid pasture or hay with your horses where switchgrass is the main plant. Since horses don't like switchgrass very well anyhow, it probably will never be a problem to you. (SOURCE: Bruce Anderson, University of Nebraska Forage Specialist)

CUTTING ALFALFA IN AUTUMN INCREASES ANNUAL YIELD, DOESN'T HURT STANDS, BUT IS UNLIKELY TO INCREASE PROFITS

Alfalfa (*Medicago sativa* L.) growers wanting to maximize annual yields are often tempted to harvest during or just after the "critical autumn period". Our overall objective was determine if harvesting alfalfa an "extra" time in autumn

impacts long-term yield and stand persistence. A sub-objective was to determine if harvest frequency during the growing season alters the response of alfalfa to an extra harvest in autumn. There were six treatments consisting three harvest frequencies during the growing season (28, 35, or 42 days between harvests) as main plots and two autumn management regimes (either harvested or not harvested in early November) as sub plots. Autumn harvest treatments were applied annually for 5 yr. Stand persistence was not altered by any of the treatments. Net yield (autumn yield minus the change in yield at the first harvest in spring) was low for all treatments averaging just 0.25 tons/acre. An economic analysis of fall harvest treatments shows that the low net yields do not justify harvesting this forage. (SORUCE: R.L. Kallenbach, C.J. Nelson, J.H. Coutts and M.D. Massie IN AFGC Proceedings, Vol. 13, p. 41, June 2004)

advocates a public policy that encourages and rewards wise stewardship and management of these grasslands and rangelands. (AFGC is the nation's leading organization for economically and environmentally sound forage-focused agriculture. AFGC's 4,637 members—representing producers, private industry, and public institutions—live and work primarily in the Humid East region of the United States, the half of the U.S. lying east of the 100th meridian, which runs north-south through the middle of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas.)

As we move into the 21st century, our nation is facing critical national and local problems, such as a faltering farm economy, endangered rural communities, groundwater contamination, soil erosion, and non-renewability of major energy sources. We believe that our nation's forage, grassland, and range resources can play an important role in solving these problems. Yet current public policy fails to take full advantage of these valuable resources. As a result, we are failing to reap the full economic, environmental, recreational, and aesthetic benefits. Even worse, we are jeopardizing the long-term health of the grassland agriculture system that has served as a foundation of all sustainable agriculture and of human civilization for millennia.

Wise management decisions require an understanding of soils, plants, water, animals, nutrients, economics, business management, and more. Grasslands are at the center of a complex system, and each aspect of the system can affect other aspects. Wise stewardship, therefore, requires the sharing of knowledge, expertise, and successful practices among and between all members of the stewardship chain—scientists, educators, industry, producers, and members of the general public.

We therefore propose, within each of three benefit-generating areas, a priority need of major concern for the future, with management as the catalyst:

1) **Grassland Agriculture for Revitalized Rural Communities** - Forage Crop and Grazing Management is a priority need that will lead to increased efficiencies in plant:animal systems, improved profitability, and enlivened rural communities.

2) **Grassland Agriculture for Environmental Protection** - Nutrient Management attacks a growing problem that threatens our environment. Through research, extension, resident teaching, and technical assistance, we can develop nutrient management solutions that will protect our streams, rivers, and groundwater resources.

3) **Grassland Agriculture for Resource Conservation** - Resource Conservation Management, being everyone's business, is a priority need waiting to be reborn and adopted. Grassland agriculture brings solutions, not problems, and ensures through education and research that our resources will be conserved. (SOURCE: <http://www.afgc.org>)

UPCOMING EVENTS

OCT 3-5	Fourth Eastern Native Grass Symposium, Lexington
OCT 26	5 th Kentucky Grazing Conference, Bowling Green
2005	
JAN 7	Forages at KCA, Owensboro
FEB 24	25 th Kentucky Alfalfa Conference, Cave City Convention Center
JUL 28	UK All Commodity Field Day, Princeton



Garry D. Lacefield
Extension Forage Specialist
September 2004

NITROGEN RATE AND SOURCE EFFECTS ON THE YIELD AND NUTRITIVE VALUE OF STOCKPILED TALL FESCUE

Grazing stockpiled tall fescue is a cost effective alternative to feeding hay during the winter months. Fertilizing tall fescue in late summer increases forage accumulation and grazing days. However, little work has considered the effectiveness of various nitrogen sources for stockpiling tall fescue. The objective of the current study was to evaluate the effect of nitrogen rate and source on the yield and nutritive value of stockpiled tall fescue. Nitrogen was applied in mid August 2002 and 2003, at a rate of 0, 40, 80, 120 lb/A as either ammonium nitrate, ammonium sulfate, and complete fertilizer produced the most dry matter per unit of nitrogen applied. Urea produced similar yields up to 80 lb nitrogen per acre, but production did not increase for higher rates of nitrogen. Urea, urea ammonium nitrate and broiler litter produced approximate 15-20 less dry matter at the highest nitrogen rate. Nitrogen rate and source had no effect on forage quality. Although ammonium nitrate, ammonium sulfate, and complete fertilizer produced the most forage per unit of nitrogen applied, the cost of the fertilizer must also be considered. In some cases applying higher rates of urea or urea ammonium nitrate may prove to be more economical. (SOURCE: C.D. Teutsch and J.B. Daniel IN AFGC Proceedings, Vol. 13, p. 72, June 2004)

STEWARDSHIP FOR THE 21ST CENTURY: A REPORT ON AMERICA'S FORAGE AND RESOURCES AND NEEDS - EXECUTIVE SUMMARY

Our nation's forage, grassland, and range resources benefit every American. Covering about 55% of the land area of the United States, these resources are found in all 50 states. These sustainable resources provide valuable benefits in many areas, including:

- *Food and clothing from plant and animal products, including meat, milk, and wool*
- *Abundant wildlife habitats and aesthetically pleasing landscapes for recreation, enjoyment, and appreciation*
- *An alternative source of energy and industrial raw materials*
- *Environmental protection for soil, water, and air*

The economic value of these benefits is very significant. For example, the forage-livestock industry contributes more than \$60 billion in farm sales annually, and the \$11 billion hay crop is the third most valuable crop after corn and soybeans. Equally important, although difficult to quantify in dollars, are the environmental, aesthetic, and recreational benefits, which provide an invaluable public good.

To maintain and enhance these many important public benefits, the American Forage and Grassland Council (AFGC)