OCTOBER 2003

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

ILLINOIS ANIMAL SCIENTIST TO SPEAK AT KENTUCKY GRAZING CONFERENCE

Mr. Ed Ballard, Animal Scientist Educator at the University of Illinois will speak at the 4th Kentucky Grazing Conference to be held at the Fayette County Extension Office November 25. Ed is back by popular demand to address the topic “Economics of Improved Grazing”. In addition to Ed, nine additional speakers will cover many practical aspects of GRAZING. For programs or additional information contact Garry Lacefield at 270-365-7541, Ext. 202 glacefie@uky.edu or Christi Forsythe at 270-365-7541, Ext. 221 cforsyth@uky.edu.

KFGC AWARDS: DEADLINE OCTOBER 15

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.

FIGHTING TALL FESCUE TOXICITY: IS THERE A SILVER BULLET?

Research indicates that mineral supplementation corrects mineral deficiency (not toxicity) problems on toxic E+ tall fescue pasture. However, mineral supplementation does not correct the negative impacts of fescue toxicosis on animal growth performance. Studies have evaluated the use of antioxidant vitamins, vasodilating vitamins, activated carbon, iron sulfate, selenium, bentonite, fat zeolite, hydrated sodium calcium aluminosilicate, drugs, toxin binders, modified yeast cell wall preparations, antibiotics and growth implants for alleviating fescue toxicosis in livestock. None of these products have been found to eliminate alfalfa toxicosis problems without adverse side effects. (SOURCE: Parrish, J., C. West, J. Jennings, and S. Jones. 2003. “Friendly” Endophyte-Infected Tall Fescue for Livestock Production. University of Arkansas. http://uaex.edu/other_areas/publications/html/fsa-2140.asp)

FORAGE EXTENSION POSITION

We are proud to announce that the U.K. Forage Extension Position formerly held by Dr. Jimmy Henning is open. Applications are being sought with a November 15 deadline.

THE MOST IMPORTANT INVENTION IN 2000 YEARS?

Hay… yes, hay! At least according to one scholar. In a recent review of the most important inventions of the past 2,000 years, physicist and novelist Freeman Dyson, Professor at the Institute for Advanced Study at Princeton University chose hay as the most important invention of the past 2000 years. Why? All civilizations have historically depended upon animals. In ancient times, animal husbandry depended exclusively upon grazing. Civilization could exist only in warm climates where horses and cattle could stay alive through the winter by grazing. At some point in history, according to Dyson, some unknown genius invented hay, which was reaped and stored. Thus civilization moved north over the Alps. The assurance of a year-long feed supply enabled a reliable horse and animal culture. So, according to Dyson, hay gave birth to Vienna and Paris, to London and Berlin, and later to Moscow.
and New York. Hay, the most important invention in 2000 years! (SOURCE: Dr. Dan Putnam, Forage Specialist, University of California-Davis)

**LAST CALL FOR OCTOBER GRAZING SCHOOL**

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 – damaran@uky.edu) or Garry Lacefield (270-365-7541, X202, e-mail – qlacefie@uky.edu).

**A LONG, RICH HISTORY**

Alfalfa is one of the earliest crops domesticated by man and has a long and rich history. Remains of alfalfa more than 6,000 years old have been found in Iran, and the oldest written reference for alfalfa is from Turkey in 1300 BC! Alfalfa has a long association with many ancient civilizations, and continues to contribute to agriculture through present time.

Alfalfa was likely domesticated near present-day Turkmenistan, Iran, Turkey, the Caucasus regions, and other countries in Asia Minor. It was important to the early Babylonian cultures, and to the Persians, Greeks, and Romans. Both Aristotle and Aristophanes wrote about it. Alfalfa was reportedly brought into Greece about 500 BC by invading Median armies to feed their chariot warhorses. The Romans later acquired alfalfa and became known for their forage culture throughout the Mediterranean basin in the ancient world – for alfalfa was tied to military might.

In 126 BC, the Emperor of China dispatched an expedition to the Near East to collect specimens of the highly prized Persian horses, at which time alfalfa was brought to China. It contributed greatly to Chinese agriculture and is still widely grown there today.

The Romans introduced alfalfa into Europe as early as the First Century AD. The Arab empires of the Middle Ages spread alfalfa throughout many regions of Europe and North Africa, and especially Spain. In many of these cultures, alfalfa was associated with the horse; the name ‘alfalfa’ comes from Arabic, Persian, and Kashmiri words meaning ‘best horst fodder’ and ‘horse power’. The Spanish and Portuguese later spread alfalfa to the New World during the conquest of Mexico, Peru, and Chile.

Although there is ample evidence that eastern US colonists, Thomas Jefferson and George Washington, grew alfalfa on a few acres, it was not widely adopted in the US until its introduction into western states in the early 1850s. ‘Chilean clover’ (alfalfa brought from Chile), was introduced during the gold rush of 1849-1850 and was instantly adapted to the warm sun and rich soils of California. Horses, beef and milk cows were valuable, and everything was animal powered! From California, alfalfa spread eastward to Nevada, Utah, Kansas, Nebraska and other states where it rapidly took hold. Within a few years, alfalfa was a key crop in the expanding West of the 19th Century. The names Alfalfa County, OK, Lucerne, CA and Alfafla, WA, are testaments to its importance in those regions. In 1900, 98% of the alfalfa in the US was grown west of the Mississippi River. Cold-tolerant introductions from Germany (‘Grimm’ alfalfa) and plant breeding later allowed alfalfa to be adapted to the cold and wet conditions of the East. This enabled US acreage to expand 15-fold to 30 million acres by 1950, mostly in the upper Midwest and Eastern states.

From its humble origins as a deep-rooted, drought resistant perennial legume growing wild on the Steppes of Asia, alfalfa has spread throughout Asia, Europe, Australia, Northern Africa, North and South America. Many farmers and cultures value its high productivity, wide adaptation, and life-sustaining nutritional characteristics. (SOURCE: Dr. Dan Putnam, Forage Specialist, University of California-Davis)

**EVALUATING HAY QUALITY**

The most practical way to determine the nutrient content of hay is to have it tested for nutritive value. If hay is stored so a representative sample can be taken and submitted for analysis, results can be used to assess quality and to determine amount and type of supplementation needed for the desired level of animal production. The use of a hay probe to obtain a core sample of hay is the most reliable methods of getting a representative sample for analysis.

**Haylage Testing:** The mobile and stationary forage labs of the Kentucky Department of Agriculture can now test haylage made from forage crops, specifically round bale haylage as well as chopped material. They cannot do corn silage. They have gone through an extensive verification process where their NIR equations have been corrected with actual ‘wet chemistry’ data, and will continue to do test samples to ensure future accuracy. This service will be run similar to that for testing hay, with a fee of $10 per lot of haylage tested. Due to the slowness of the drying process, please allow more lead time on-site if several samples are to be tested as part of an educational event.

You can have your hay and haylage tested through the Department of Agriculture by calling 1-800-248-4628. For $10 per lot of hay tested, the Department of Agriculture will send someone to your farm to sample your hay. Results from one of the three state Hay Testing Laboratories are returned to you within a few days of the sample.

Determining hay quality and matching the quality to different classes of livestock based on nutrient requirements can lead to a more efficient forage-livestock program.

**UPCOMING EVENTS**

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<td>Kentucky Grazing School, Bourbon County Extension Office</td>
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<td>NOV 25</td>
<td>Grazing Conference, Fayette County Extension Office, Lexington</td>
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<td>DEC 7-10</td>
<td>National Conference on Grazing Lands, Nashville, Tennessee</td>
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<td>2004</td>
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<td>JAN 9</td>
<td>Forages at KCA, Bowling Green</td>
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<td>JAN 22</td>
<td>Heart of America Grazing Conference, Evansville, IN</td>
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<td>FEB 26</td>
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**Garry D. Lacefield**

Extension Forage Specialist

October 2003