

5-1-2000

Forage News [2000-05]

Department of Plant and Soil Sciences, University of Kentucky

Follow this and additional works at: https://uknowledge.uky.edu/forage_news



Part of the [Plant Sciences Commons](#)

[Right click to open a feedback form in a new tab to let us know how this document benefits you.](#)

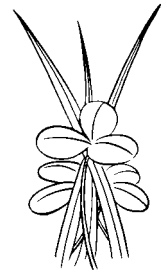
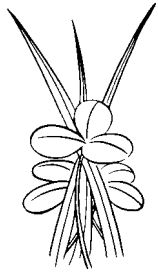
Repository Citation

Department of Plant and Soil Sciences, University of Kentucky, "Forage News [2000-05]" (2000). *Forage News*. 214.

https://uknowledge.uky.edu/forage_news/214

This Newsletter is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in Forage News by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

FORAGE NEWS



In this month's issue:

• 2000 Kentucky Grazing School Overflows • Forages at the U.K. All Commodity Field Day • Preservative Research Results • Program Set for the KFGC/Eden Shale Field Day • Alfalfa is for People • Establishment and Yield of Coated Alfalfa Seed in Commercial Fields • Whole Farm Evaluation of a Seasonal Dairy Grazing System for the Northeastern U.S. • Upcoming Events

May 2000

Garry D. Lacefield and Jimmy C. Henning, Extension Forage Specialists • Christi Forsythe, Secretary

2000

KENTUCKY GRAZING SCHOOL OVERFLOWS

The spring Kentucky Grazing School held April 25-27 in Springfield was full and full of good information. This was the first year of the 'a la carte' grazing school, where you could come to any one, two or all three days. In addition, this was also supported financially by a Kentucky Department of Agriculture Value Added Grant, which allow registration fees to be half of what they have been in the past. Finally, Danny Ray Spalding and the St. Catherine's College farm provided the farm and heifers for the field exercise, which is one of the big learning experiences of the school. Over 60 participated in the grazing school over the three days.

FORAGES AT THE U.K. ALL COMMODITY FIELD DAY

Participants at the U.K. All Commodity Field Day to be held at the U.K. Research & Education Center in Princeton on July 20 can select from approximately 18 different tours throughout the day. This years **Forage Tour** will feature four stops:

- Stop 1: Bermudagrass Varieties - Dr. Monroe Rasnake & Dr. David Ditsch
- Stop 2: Making Round Bale Silage - Dr. Mike Collins
- Stop 3: U.K. Forage Variety Testing Program - Robert Spitaleri
- Stop 4: What's New in Tall Fescue: Friendly Endophytes and Endophyte Free Varieties - Dr. Tim Phillips

PRESERVATIVE RESEARCH RESULTS

In 1997 and 1998, researchers at the University of Wisconsin studied preservatives and ventilation holes for intermediate square bales at moistures from 14 to 28 percent. The preservatives were propionic acid and a bacterial inoculant. Ventilation holes of three and five inches in diameter were two treatments evaluated for reducing dry matter loss and maintaining forage quality. Four different trials or cuttings were evaluated. Following

are their findings:

- bales treated with propionic acid maintain higher moisture during storage
- propionic acid produced less heating at the higher moisture content
- ventilation holes in the bales did not produce less heating
- none of the methods reduced dry matter loss
- dry matter loss was less than 4% when baling at moistures below 15%.

(SOURCE: *The Forager*, Vol. 24, #1, April 2000, Wisconsin Forage Council)

PROGRAM SET FOR THE KFGC/EDEN SHALE FIELD DAY

The details have been set for the June 8 KFGC Field Day at the Eden Shale Farm in Owen County. The field day will begin with supper, which will be served from 5:30 to 6:30. After supper, tours of the farm will begin. The topics covered will include:

- Improved, cost-effective hay storage: See a new design for a hay shed built with lumber from the farm.
- The basics of making haylage using round bales.
- Early weaning: What does it mean and how do I know when to do it?
- How many cows does it take to replace one acre of tobacco?
- Managing for the maximum grazing season.
- Selecting forage varieties: What do we know about variety performance from the Eden Shale forage trials?

In addition, the Kentucky Department of Agriculture's NIR hay testing laboratory will be on hand to test forage samples that day. Take 20 cores to make a good sample.

The farm is located 7 miles east of Owenton on Ky 22 at the intersection of Ky 22 and Ky 845. Supper will be sponsored by the Kentucky Forage and Grassland Council and various corporate members of the forage council. We hope to see you at the field day!

ALFALFA IS FOR PEOPLE

Although alfalfa may not appear on anyone's top-ten list of favorite foods, the payload of protein, vitamins, and

minerals that makes it such a great forage for animals also makes it food for people.

Bob Dollison, president of Leaf Nutrient, Inc., says alfalfa protein has done wonders for hundreds of undernourished Mexican children. Over the past decade, the charitable organization Dollison heads has made it possible for people in more than 100 poor rural villages in Mexico to extract protein from locally grown alfalfa and add it to tortillas, pasta, cakes, and other foods they customarily prepare.

Within a matter of weeks, Dollison says, children who regularly get supplemental alfalfa protein are noticeably more alert and begin to perform better in school. Adding just one tablespoon of alfalfa-juice concentrate to their food each day, helps them grow and develop normally and decreases their susceptibility to communicable diseases, Dollison notes.

Two simple, low-cost machines invented by University of Wisconsin agricultural engineers are used to extract the protein. One is a hammermill-like device used to grind up whole, freshly cut alfalfa plants. The second is a hydraulic press that squeezes most of the juice out of the ground plant material.

Heating the protein-rich juice to 170 degrees F for about 10 minutes removes the characteristic grassy taste and coagulates the protein and other nutrients. The coagulated material can then be used fresh or stored in either dried or frozen form.

The remaining pulp is fed to cattle. University of Wisconsin research has shown that the processing equipment breaks down the plant material more effectively than chewing. Even after the juice is removed, cattle get more nutrients from the pulp than they ordinarily would from unprocessed alfalfa. (SOURCE: Karl Kessler, *The Furrow*, 1999 Special Forage issue)

ESTABLISHMENT AND YIELD OF COATED ALFALFA SEED IN COMMERCIAL FIELDS

Coated alfalfa seed (*Medicago sativa*), specifically Rhizo-KoteXL™, has been evaluated in small replicated trials in numerous locations throughout the United States and elsewhere. Anecdotal information reported from commercial field plantings sometimes does not match the results from small replicated trials. Commercial vs. research trial seedbed preparation, seeding equipment, seeding depth, time of seeding and other factors may induce differences in the response from seed coating. A series of large (several acres per treatment) strip trials planted with grower equipment were established in several states to quantify seedling establishment and yield differences under commercial conditions. The commercial seeders used were calibrated to insure equal planting pounds of product between preinoculated and Rhizo-KoteXL™. Both seed treatments included Apron® (metalaxyl) fungicide. The stand establishment counts for 1998 trials indicated a similar number of plants per square foot for coated alfalfa seed (38.2) and preinoculated seed (39). The coated seed started with two thirds of the pure live seed of the preinoculated, but provided a 15.8% increase in emergence from actual seed planted. The first cutting dry matter yields indicated an increase of 7.6% for coated alfalfa seed over preinoculated seed. At current hay prices, a grower could obtain a \$10.00 to \$20.00 per acre increase in revenue per cutting without incurring any additional production costs. The data collected from these trials and large strip trials conducted over the last several years indicated a positive

trend for stand establishment, survival and yield increases in commercial fields; especially under less than ideal establishment or production conditions. (SOURCE: Kelly Rooney, Joel Canestrino and John Walsh IN SRM/AFGC Abstracts, February 1999, p. 69)

WHOLE FARM EVALUATION OF A SEASONAL DAIRY GRAZING SYSTEM FOR THE NORTHEASTERN U.S.

A 200-acre, all grass dairy farm was recently established in south central Pennsylvania. A low-cost production system is used that includes management-intensive grazing, overwintering of animals, and a spring calving cycle. This type of production system was compared to other management options using 25-year simulations with a dairy farm model (DAFOSYM). With this low-cost system, a herd of 140 cows producing 13,000 lb/cow and 85 replacement heifers maintained a long-term phosphorus balance on the land and a nitrogen leaching loss of 10 lb/ac. Income from milk, animal, and excess feed sales provided an annual net return over production costs of \$325/ac. A herd of 110 cows and 75 heifers on the same land base producing 18,000 lb/cow using non-seasonal calving and winter confinement provided a net return of \$305/ac with a similar phosphorus balance and a 25% increase in nitrogen leaching. An alfalfa and corn cropping strategy on the same land with full confinement of 100 cows and 78 heifers producing 20,000 lb/cow maintained a long-term phosphorus balance, a nitrogen leaching loss of 40 lb/ac, and a net return of \$150/ac. Data on pasture production, animal performance, and nutrient loss are being collected on actual farms to validate the model predictions. The validated model will provide a tool for evaluating alternative cropping and grazing strategies for dairy farms. (SOURCE: C.A. Rotz, M.A. Sanderson, and W.L. Stout IN SRM/AFGC Abstracts, February 1999, p. 70)

UPCOMING EVENTS

JUN 8	KFGC Field Day, Eden Shale Farm, Owenton
JUL 16-19	AFGC, Madison, WI
JUL 20	U.K. All Commodity Field Day, Princeton

Garry D. Lacefield Jimmy C. Henning
Garry D. Lacefield Jimmy C. Henning
Extension Forage Specialists
May 2000

