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Forage News

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Department of Plant and Soil Sciences, University of Kentucky

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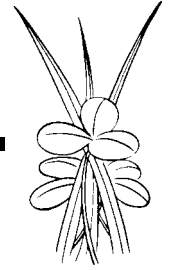
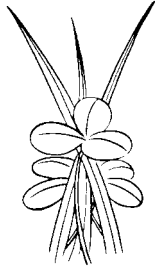
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# FORAGE NEWS



**In this month's issue:**

! KY Grazing School ! How much Can you Afford to Pay for a Hay Barn? ! 23<sup>rd</sup> KY Alfalfa Conference ! Stockpiled Tall Fescue Provides Lower Cost Wintering System ! First Hay Cut Approaching ! Upcoming Events

**May 2002**

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

## KENTUCKY GRAZING SCHOOL SETS RECORD

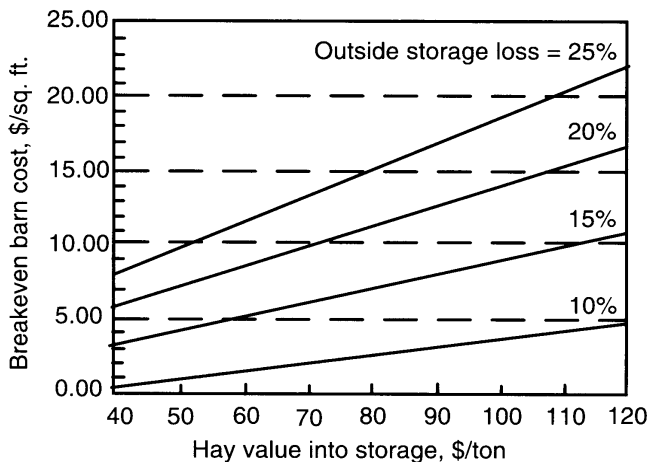
The Spring Kentucky Grazing School was held in Lincoln County, April 17 & 18. Local arrangements chairman, Dan Grigson and his staff, did an excellent job in hosting the school. Fifty people attended the two-day school setting a new attendance record. Our THANKS to all who made the school such a success.

## 23<sup>RD</sup> KENTUCKY ALFALFA CONFERENCE SET FOR FEBRUARY 20, 2003

The 23<sup>rd</sup> Kentucky Alfalfa Conference has been set for February 20, 2003. It will be held at the remodeled Cave City Convention Center. With the extra room, we will be able to expand the trade show and have afternoon breakout sessions. Mark your calendar for Thursday, February 20, 2003 and plan to join us in Cave City.

## HOW MUCH CAN YOU AFFORD TO PAY FOR A HAY BARN?

The following figure provides breakeven cost for barn construction at various hay loss levels, costs/square foot, and hay value:



### Breakeven barn cost for various levels of storage loss and varying hay value at harvest. (Inputs other than storage loss and hay value are not included.)

Note: This analysis includes the following assumptions: in-barn stacking height of 3 bales, 10-year barn life, and barn construction cost of \$7.50/sq.ft.

(SOURCE: Forage Crop Pocket Guide, D.M. Ball, C.S. Hoveland and G.D. Lacefield published by Potash & Phosphate Institute/Foundation for Agronomic Research, Second Printing, March 2000)

## STOCKPILED TALL FESCUE PROVIDES LOWER COST WINTERING SYSTEM FOR FALL CALVING COWS

Stockpiled tall fescue dominant pastures have been shown to provide low cost opportunity for wintering dry, pregnant spring calving cows. There has been some question whether stockpiled pasture would provide adequate nutrition for lactating cows during the winter months. The first year of this study has clearly shown the adequacy of the diet. The primary input cost for stockpiled pasture is nitrogen fertilizer.

The table below shows results of work conducted by Jim Gerrish and his staff at the University of Missouri Forage Systems Research Center. It confirms the important role for stockpiling.

| Cost of forage source, cow maintenance, and calf gain for two alternative winter forage systems. |                    |             |
|--|--------------------|-------------|
|  | Stockpiled pasture | Hay         |
| Forage cost  | \$22.33/acre       | \$56.00/ton |
| Days on pasture  | 125                |             |
| Cost per day on pasture  | \$0.29             |             |
| Days on hay  |                    | 147         |
| Cost per day on hay  | \$1.23             | \$1.23      |
| Wintering cost per cow   | \$63.31            | \$180.81    |
| Wintering cost/cow/day   | \$0.43             | \$1.23      |
| Cost per lb of calf gain   | \$0.188            | \$0.609*    |

\*Does not include creep feed cost which was about 6.5 ¢/lb of gain

SOURCE:Gerrish, Jim. 2002. Forage System Update, Vol. 11, #2.



# FIRST HAY CUT APPROACHING

As we approach our first hay harvest for this growing season, many decisions will be made that impact yield and quality. Of all the controllable factors, stage of plant maturity when harvested will have the greatest impact on hay quality. Consider the following:

| Stage of Harvest                      | Dry Matter Intake lb/day | Percent Digestibility | Percent Protein | lb of Hay Fed per lb Gain | lb of Gain per day |
|---------------------------------------|--------------------------|-----------------------|-----------------|---------------------------|--------------------|
| Late boot to head, cut May 3          | 13.0                     | 68                    | 13.8            | 10.1                      | 1.39               |
| Early bloom stage, May 14             | 11.7                     | 66                    | 10.2            | 13.5                      | .97                |
| Early milk stage—seed forming, May 25 | 8.6                      | 56                    | 7.6             | 22.5                      | .42                |

\*Holstein heifers were used, average weight: 500 pounds.  
SOURCE: Personal Communication, Monty Montgomery, University of Tennessee.

|                           | Good | Fair | Poor  |
|---------------------------|------|------|-------|
| Crude Protein             | 18.7 | 15.9 | 13.7  |
| Crude Fiber               | 29.4 | 35.4 | 46.7  |
| <b>Animal Performance</b> |      |      |       |
| Hay Consumed, lb/day      | 17.1 | 16.5 | 13.8  |
| Gain, lb/day              | 1.85 | 1.49 | -0.06 |

\*550 lb beef steers  
SOURCE: A.S. Mohammed et al., 1967. Tennessee Farm and Home Science Progress Report 61. Pages 10-13. University of Tennessee Agricultural Experiment Station, Knoxville.

| Stage of Harvest | Protein (%) | Average daily gain per animal (lb) |
|------------------|-------------|------------------------------------|
| Boot             | 18          | 2.0                                |
| Full head        | 12          | 1.4                                |
| Milk             | 9           | 0.4                                |

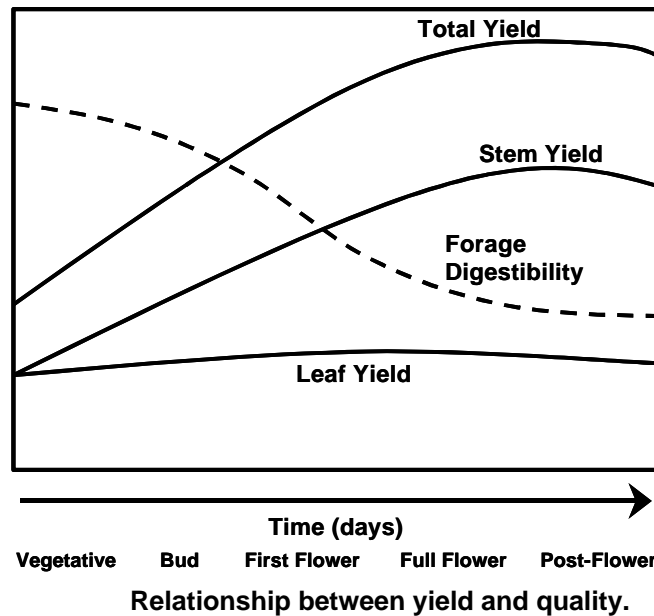
SOURCE: University of Tennessee

| Cutting Interval | Daily dry matter intake per animal (lb) | Percent digestibility (%) | Average daily gain per animal (lb) |
|------------------|---|---------------------------|------------------------------------|
| 4 weeks          | 11.8                                    | 55                        | 1.2                                |
| 8 weeks          | 9.3                                     | 53                        | 0.9                                |
| 13 weeks         | 9.5                                     | 45                        | 0.0                                |

SOURCE: Georgia Ag. Research

| Plant Species  | Time of Harvest   |
|--|---|
| Alfalfa  | Late bud to first flower for first cutting, first flower to 1/10 bloom for second and later cuttings. |
| Bluegrass, Orchardgrass, Tall Fescue, or Timothy               | Boot <sup>1</sup> to early head stage for first cut, aftermath cuts at 4- to 6-week intervals.        |
| Red Clover or Crimson Clover                                   | First flower to 1/10 bloom.   |
| Oats, Barley, or Wheat   | Boot to early head stage.   |
| Rye and Triticale  | Boot stage or before.   |
| Soybeans   | Mid- to full-bloom and before bottom leaves begin to fall.  |
| Annual Lespedeza   | Early bloom and before bottom leaves begin to fall.   |
| Ladino Clover or White Clover                                  | Cut at correct stage for companion plant.   |
| Sudangrass, Sorghum Hybrids, Pearl Millet, and Johnsongrass    | 40-inch height or early boot stage, whichever comes first.  |
| Bermudagrass   | Cut when height is 15 to 18 inches.   |
| Caucasian Bluestem, Big Bluestem, Indiangrass, and Switchgrass | Boot to early head stage.   |

<sup>1</sup>Boot is stage of growth of a grass just prior to seedhead emergence. This stage can be identified by the presence of an enlarged or swollen area near the top of the main stem.



## UPCOMING EVENTS

- JUL 14-16 American Forage & Grassland Conference, Minnesota
- JUL 18 UK All Commodity Field Day, Princeton
- 2003 FEB 20 23<sup>rd</sup> Kentucky Alfalfa Conference, Cave City

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May 2002