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FORAGE NEWS

UNIVERSITY OF KENTUCKY College of Agriculture

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

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Garry D. Lacefield and S. Ray Smith, Extension Forage Specialists • Christi Forsythe, Secretary

KFGC Awards and Forage Spokesman Nominations – Deadline September 23

Nominations are being received for the KFGC Awards and Forage Spokesman contest. Awards will be given to deserving individuals representing producers, industry, public (State & County). To nominate a deserving individual, send a one-page summary about him/her stating why he/she should be considered for this award to Garry Lacefield at glacefie@uky.edu. We also need nominations for our Forages Spokesman Contest to be held in conjunction with the Kentucky Grazing Conference to be held October 13 at the WKU Expo Center in Bowling Green, KY. To nominate a producer, send a half-page nomination to Dr. Ray Smith, raysmith1@uky.edu

Kentucky Grazing School

The Grazing School was held August 15-16 at the Woodford County Extension Office with field activities conducted at the U.K. C. Oran Little Research Center. Twenty-nine participants were treated to excellent weather, great good and the latest grazing information by University of Kentucky faculty and staff, NRCS personnel and Industry. A highlight of the event is always our "former keynote" speakers. This year we had two excellent speakers. Both were Kentucky Grazing School graduates and very successful graziers. Todd Clark from Fayette County and Bill Payne from Lincoln County shared their grazing programs and vast experiences.

Our thanks to Woodford County Agent Adam Probst, Woodford County Cattleman and all the faculty and staff at the C. Oran Little Research Center for all they did to make the school such a success.

Kentucky Grazing Conference

The 12th Annual Kentucky Grazing Conference will be held at the WKU Expo Center in Bowling Green October 13. The committee has put together an excellent program:

- 8:45 Welcome
- 9:00 Benefits of Grazing: More Important Now than Ever - *Garry Lacefield*
- 9:15 RyzUp Smartgrass: Growth Promotion for Forages - *Ray Smith*
- 9:30 Stockpiling Tall Fescue: Cost & Return - *Greg Halich*
- 10:00 Options for Getting Water in every Paddock - *Kevin Laurent*
- 10:30 Break
- 11:00 My Grazing Experience: Reflections & Observations - *Russell Hackley*
- 11:30 Taking "Grazing" to the next Level - *Ed Ballard*
- 12:00 Lunch, KFGC Business Meeting and Awards
- 1:30 KFGC Forage Spokesman Contest
- 2:45 Forage Bowl Competition – State Payoff
- 3:45 Adjourn

We are expecting a full house in the exhibit area and will have a Silent Auction. Registration is only $15.00 ($5.00 for students) and includes all sessions, meal, refreshments and proceedings. No pre-registration is required.

For more information, call Garry (270-265-7541, Ext. 202) or Christi (270-365-7541, Ext. 221) or see your County Extension Agent or see the complete program on our Website at http://www.uky.edu/Ag/Forage/12th%20Kentucky%20Grazing%20Conference%20Program%20columns.pdf

Heat Damage to Moist Hay

Did you bale some hay a little tough due to high humidity and frequent rain showers? If so, your hay could mold, spoil, or suffer heat damage.

Excessive heat can cause hay to be less digestible, especially the protein. Heat damaged hay often turns a brownish color and has a sweet caramel odor. Cattle often eat this hay readily, but because of the heat damage, its nutritional value might be low.

Heat produced by a bale basically comes from two sources. Some heat is produced by biochemical reactions from the plants themselves as hay cures. This heating is relatively minor and rarely causes hay temperature to rise above 110 degrees. Very little damage occurs to hay that gets no warmer than 110 degrees.

Most heat in hay, though, is caused by the metabolic activity of microorganisms. Millions of these microbes exist in all hay and they thrive when extra moisture is abundant.

As the metabolic activity of these microbes increases, the temperature of your hay rises. Hay with only a little excess moisture probably will get no warmer than 120 degrees. Wetter hay, though, quickly can get as warm as 150 degrees. Hay that gets this warm nearly always becomes discolored, and nutritional value can be very low. If hay temperature rises above 170 degrees, chemical reactions can begin to occur that produce enough heat to quickly raise temperatures over 400 degrees and cause fires.

We all bale hay a little too wet from time to time. Be wary of the fire danger with wet hay and store it away from buildings and other hay just in case. Also, remember the lower feed value that is caused by heat damage in wet hay. Get a thorough forage test and then use this hay accordingly. *(SOURCE: Bruce Anderson, University of Nebraska)*

Forage Quality, Ergot Alkaloid Concentrations, and Species Composition from Toxic Wild-Type and Non-Toxic, Novel Endophyte Infected Tall Fescue Pastures Grazed by Cow-Calf Pairs

Abstract - Producer acceptance of non-toxic, novel-endophyte-infected fescue (**NE+**) has been slow for a number of reasons including questions about long-term persistence. Our objective in this study was to evaluate the effects calving season and grazing strategy on chemical and pasture species composition of toxic *Neotyphodium coenophialum*-infected tall fescue (**E+**) or NE+. Gelbvieh × Angus crossbred cows (n = 178) grazed in 1 of 14 groups representing 5 treatments: 1) fall calving (**F**) on 100% E+ (**F100**); 2) spring calving (**S**) on 100% E+ (**S100**); 3) F on 75% E+ and 25% NE+ (**F75**); 4) S on 75% E+ and 25% NE+ (**S75**); and 5) S on 100% NE+ (**SNE100**). Groups allocated to F100, S100 and SNE100 rotationally-grazed their respective pastures throughout the entire year. Groups allocated to F75 and S75 rotationally-grazed E+ until approximately 28 d prior to breeding and weaning, then grazed their respective NE+ pasture area until available forage was limiting (< 900 lb/acre). Percent fescue was greater, and contamination by warm-season annuals was less ($P <$ 0.05) from SNE100 vs. NE25. Available forage did not differ ($P \geq 0.31$) across treatments. Forage IVDMD, CP, and total ergot alkaloid concentrations were greater ($P \leq 0.05$) from F100 and S100 vs. F75 and S75. Forage CP concentrations were greater ($P \leq 0.05$) from SNE100 vs. S75, but total ergot alkaloid concentrations were greater ($P \leq 0.05$) from S75 vs. SNE100. Therefore, year-round grazing did not appear to negatively affect NE+ pastures, but grazing them intensively

in late spring allowed greater warm-season forage encroachment into NE+ pastures. *(SOURCE: K. Coffey, et al., Univ. of Arkansas IN 2011 AFGC Proceedings & Abstracts, French Lick, IN, June 13-15)*

YIELD RESPONSE OF SUMMER-DORMANT AND -ACTIVE TALL FESCUE TO STOCKPILING

Abstract - Tall fescue [Lolium arundinaceum (Schreb.) Darbysh. = Schedonorus arundinaceus (Schreb.) Dumort.] that originated from Mediterranean regions has the potential to be more adapted to the southern Great Plains region because of a summer dormancy trait. Little information is available on the production characteristics of summer-dormant types of tall fescue compared to 'continental' or summer-active type tall fescue. A field experiment was established near Ardmore, OK. to compare the yield response of Flecha summer-dormant tall fescue infected with a novel endophyte against the summer-active tall fescue types: Ky 31+ infected with a toxic endophyte, Jesup MaxQ and Texoma MaxQ II both infected with a novel endophyte. Secondary objectives were to evaluate the response of tall fescue to nitrogen rate (0, 60, 120, 180 lbs/ac) and the effect of harvest date (November to May from 2008-2010) on forage mass. Two harvests were conducted each year for the November to April harvest dates. The first harvest (Harvest 1) was made approximately the 15th of each month. A second harvest of re-growth was taken on the November to April plots in May. This re-growth harvest mass was added to Harvest 1 mass for total yield (Total). Year had a significant influence on Harvest 1 and Total forage mass. In both years forage mass declined during the winter months. Tall fescue yield was influenced by variety, harvest month, and nitrogen for both Harvest 1 and Total yield in both years of the study. *(SOURCE: J.K. Rogers, J. Mosali, and S.L. Norton, The Samuel Roberts Nobel Foundation, IN 2011 AFGC Proceedings & Abstracts, French Lick, IN, June 13-15)*

ROUND-BALE FEEDER DESIGN AFFECTS HAY WASTE AND ECONOMICS DURING HORSE FEEDING

Abstract - Many horse owners find round bales convenient, less labor intensive and expensive than other hay types, but report hay waste and horse weight gain. The objectives were to compare hay waste, horse intake and economics of nine round-bale feeders and a no feeder control when used in horse feeding. Nine round-bale feeders were tested: Cinch Net, Cone, Covered Cradle, Hayhut, Hay Sleigh, Ring, Tombstone, Tombstone Saver and Waste Less. Each feeder design was placed on the ground in a dirt paddock. Using a crossover design, 5 groups of 5 horses fed in rotation for a 4-d period. Every fourth day, groups of horses were rotated among paddocks and a new round bale was fed. Five paddocks were used: 5 feeder designs were installed for days 1 through 20, and the remaining 4 feeder designs and no-feeder control were installed for days 21 through 40. Groups of horses were sequentially assigned to feeders using two 5x5 Latin Squares. Horse groups of similar age, weight, breed, and gender were formed from 25 Quarter Horse and Thoroughbred geldings and open mares. Hay on the ground surrounding the feeder was considered waste, collected daily, dried and weighed. The total amount of hay removed around each feeder for a 4-d period was considered waste. Dry matter intake was estimated as the difference between hay disappearance and waste. Months for waste reduction to pay back feeder cost (payback) were calculated using hay valued at $100/ton and mean difference in waste from the no-feeder control. Feeder effects were compared using Proc Mixed of SAS. Feeder design did not affect horse intake; all feeders resulted in 2.0 to 2.4% of body weight (BW). The no-feeder control resulted in less intake at 1.3% BW (P=0.001). Mean percent hay waste differed (P<0.01); Waste Less, 5%; Cinch Net, 6%; Hayhut, 9%; Covered Cradle, 11%; Tombstone Saver, 13%; Tombstone, Cone and Ring, 19%; Hay Sleigh, 33%; and no-feeder control, 57%. Feeder design also affected payback (P<0.01). The Cinch Net paid for itself in less than 1 month; Tombstone and Ring, 2 months; Hayhut and Tombstone Saver, 4 months; Hay Sleigh, 5 months; Waste Less, 8 months; Cone, 9 months; and Covered Cradle, 20 month. The use of a round-bale feeder is necessary to avoid excessive hay waste and reduced intake during horse feeding. *(SOURCE: K. Martinson, J. Wilson, K. Cleary, W. Lazarus, W. Thomas and M. Hathaway, Univ. of Minnesota, IN 2011 AFGC Proceedings & Abstracts, French Lick, IN, June 13-15)*

DETERMINING PROFITABILITY IS A COST THING

What determines profitability in a cow-calf operation? More than price paid for calves, more than weaning weight, more than any other factor, cost management determines the difference between high and low-profit operations.

That's the result of a study by Kevin Dhuyvetter, Kansas State University ag economist that looked at the financial performance of 88 ranches that are part of the Kansas Farm Management Association Enterprise Analysis.

The differences were stark. High-profit operations had about a $250/cow advantage over low-profit farms and a $119 advantage over the mid-profit operations, Dhuyvetter says in his analysis. In fact, 72.4% of the average difference in net return to management between high- and low-profit operations is due to cost differences. The remaining 27.6% is due to gross income/cow, part of which is because high-profit operators tend to receive higher prices for their calves and/or that higher-profit operations tend to wean heavier calves.

Bottom line – high-profit operations had a cost advantage in every cost category compared with low-profit operations.

As any cattleman knows, however, many of the factors that contribute to profit and loss are beyond control. "Given that factors at the macro level – interest rates, fuel and feed prices, trade policies and consumer demand – are basically uncontrollable by producers, it stands to reason that variability of returns over time is inherent to the industry," Dhuyvetter says.

However, even in the bad years, producers who are able to manage costs tend to fare better. The variability across producers at a point in time is much larger than the variability over time, he says. "In other words, even in the 'good years,' some producers are losing money and even in the 'bad years,' some producers are making money."

So, while numerous factors beyond the producers' control impact the absolute level of profitability, producers' management abilities impact their relative profitability. "In a competitive industry that is consolidating, such as production agriculture, relative profitability will dictate which producers will remain in business in the long run," Dhuyvetter says.

In looking at the cost side of the equation, feed costs represent almost half of the total costs for an operation. However, Dhuyvetter says managing non-feed costs is important as some of the operations in the top third of the analysis have higher feed costs than some of the bottom third operations.

Generally, larger operations tend to have lower costs/cow. That was particularly true in some of the other cost categories, such as labor, machinery and depreciation, where larger operations were able to spread those fixed costs over more animals.

"This research suggests that while both production (weight) and price do impact profit, they are much less important in explaining differences between producers than costs," Dhuyvetter says.

"In the data analyzed, economies of size exist such that larger operations tend to have lower costs and hence are more profitable than smaller operations. However, it's important to point out that being a large operator doesn't guarantee low costs and high profits, as a number of mid-sized to smaller operations were competitive."

To read the complete report, go to www.agmanager.info/livestock/budgets/production/beef/Cow-calf_EnterpriseAnalysis%28Jun2011%29.pdf *(SOURCE: BEEF Cow-Calf Weekly, July 22, 2011)*

UPCOMING EVENTS

SEPT 8	KFGC Forage Field Day, C. Oran Little Research Center, Woodford County
OCT 13	Kentucky Grazing Conference, Western Kentucky University Expo Center
2012	
JAN 9-11	American Forage & Grassland Council Annual Conference, Crowne Plaza Hotel, Louisville
FEB 23	32nd Kentucky Alfalfa Conference, Cave City Convention Center, Cave City

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