8-1-2012

Forage News [2012-08]

University of Kentucky Department of Plant and Soil Sciences

COOPERATIVE EXTENSION SERVICE • UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE • LEXINGTON, KY, 40546

FORAGE NEWS

UNIVERSITY OF KENTUCKY College of Agriculture

Research & Education Center
Princeton, KY 42445

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

August 2012

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KFGC Field Day – Hart County – September 6

The Annual KFGC Forage Field Day will be held on the Geralds Farm in Hart County beginning at 3:30 CDT on September 6. The Geralds have one of the top hay farms in Kentucky and son Christopher will be discussing his cattle grazing operation. Additional stops include Baleage: Keys to Success, Alfalfa/Orchardgrass Cutting Heights, Roundup Ready Alfalfa, Hay Testing and Evaluation and Hay Harvesting and Handling Equipment. In addition, there will be a hay judging contest with prices. Ribeye sandwiches with all the trimmings will be served free of charge. Program and a map to the farm is available on our website at: www.uky.edu/Ag/Forage.

Drought and Forages

Last month I mentioned the simple fact "all plants need water for normal growth and development." Some of you have actually received rain, while others including the UKREC in Princeton – Nothing. Nothing new or revolutionary but consider the following reminders:

1) Don't make a bad situation worse by animal losses from nitrates, prussic acid or consumption of poisonous plants.
2) Don't waste the short and increasingly expensive feed supply. Rotational graze to reduce waste and conservative hay feeding to reduce losses are always important but critically important now.
3) Be aware that weaker spots in pastures will likely be occupied by weeds as rain comes in late summer and winter,
4) evaluate pasture and hay fields when rain comes and plan a strategy for, new seedings, weed control in fall and clover next spring, consider winter annuals (rye, ryegrass, etc.) on selected acres.
5) Using appropriate grazing management this fall-early winter. The longer we can graze the cheaper it will be to winter cattle and the less hay/silage that will be required.
6) Be cautious of grazing any corn stalks with high nitrates or fields with johnsongrass (prussic acid), especially when that first frost is likely, and
7) assuming moisture and green-up of tall fescue consider stockpiling selected fields for grazing after all other pastures have been utilized.

You and I have been through tough situations before and we will survive this one. We are Kentuckians and we can do it. It won't be easy. I have visited with several friends in their 80's and 90's this summer and they shared many stories of "tough times". I have also visited with so many of you that have been sources of encouragement to me and a real inspiration as you continue to validate an old saying that I have gone back to many times this summer "It's not what happens BUT how we react to what happens that truly makes the difference.

Choose the Best Variety for Fall Plantings

With the drought this summer many of you will be reseeding or overseeding cool season grass pastures and hay fields. Fall is the ideal time to plant cool season forages. In fact, many plantings can occur during late August and early September. Fall planted alfalfa should be in the ground from mid- to late-August. Cool season grasses should be planted from late August through the end of September. Usually the earlier the planting date the greater your chance of success. See the UK publication called "AGR-18 - Grain & Forage Crop Guide for Kentucky" for all recommended planting dates and planting rates. This publication is the first one under the publication section of the UK Forage Website < www.uky.edu/Ag/Forage>. Make sure that you use improved varieties when you plant.

The University of Kentucky conducts variety testing across the range of forage species that are adapted in Kentucky. This program is conducted by Mr. Gene Olson. The results are published and available through all County Extension Offices and on our Forage Website under variety reports. Look under the 2011 report for each forage species or at any of the past yearly reports from 2001-2010. One of the most useful reports is the Summary Report that contains all of the variety testing information for the last 12 years in easy to read comparative tables. We want to especially thank Mr. Gene Olson for his excellent management of the largest forage variety testing program in the eastern U.S. If you have trouble remembering the Forage Website address, just Google "KY Forages" and it's the first thing that comes up.

Plan to Attend the AFGC Meeting in Covington, KY - Jan. 7-9, 2013

The American Forage and Grassland Council Annual meeting will once again be held in Kentucky from January 7-9, 2013. The AFGC has wanted meeting in a central location last year and this year and Kentucky is definitely a central location for the country and for forages. As always, the meeting will have excellent presentations and you will have the opportunities to meet forage professional from around the country. More details can be found at the AFGC website www.afgc.org.

High Nitrates Especially in Drought Stressed Corn

Nitrate toxicity typically occurs during drought conditions when warm season annual grasses including corn have received N applications designed for maximum yield. Nitrate is the form that most nitrogen is taken up into the plant, but under severe drought conditions nitrate accumulates in the plant (particularly the lower 1/3) and cannot be converted into protein. When ruminant livestock consume high nitrate forages, the nitrate is converted into nitrite and once in the bloodstream, nitrite causes a restriction in the ability of the blood to carry oxygen. Without oxygen to the body the animal dies.

All warm season annual grasses have the potential for high nitrates under drought conditions. Much of the corn crop this season is severely drought stressed which has led to a buildup of nitrates. Fortunately, when high nitrate forage crops are ensiled nitrate levels drop by 30 to 60%. If you suspect the potential for high nitrate with silage or haylage, first complete the ensiling process, then sample the forage and send to a certified lab. Remember though that nitrate levels do not drop during the hay making process. We recommend sampling drought stressed corn and annual grasses for nitrates before rolling for hay and especially before grazing. When cattle are turned into a corn or annual grass field there is almost no way to limit their consumption, and dilution is essential when feeding high nitrate forages.

In Kentucky most producers and county agents submit samples for nitrate testing to the UK Veterinary Diagnostic Lab (VDL) in Lexington or the Breathitt Lab in Western Kentucky. Make sure to follow the recommended procedures listed by each lab for submitting samples. Also, labs can use different procedures to test for nitrates and their "safe" levels may be different. Therefore, follow the specific guidelines from the lab before feeding. It is very important to keep the sample cool and make sure it is taken directly to the lab or sent by overnight mail. Improperly submitted samples can give false readings.

Biofuels Will Continue To Drive Feed Prices

"There is no question the number-one factor (driving the future of the livestock and feed industries) is the availability and cost of feed." And, says Joel Newman, American Feed Industry Association (AFIA) president and CEO, while the subset of challenges affecting feed cost and availability are many, the number-one driver is biofuels.

Don't expect that to change, says Robert Wisner, Iowa State University emeritus professor and Extension grain marketing specialist. Wisner headed a team of economists to produce a report, commissioned by AFIA, on the future patterns of U.S. grains, biofuels and livestock feeding.

The future will look much like the recent past. "We expect current U.S. ethanol and biodiesel policies and mandates prescribed through 2022 by the 2007 Energy Independence and Security Act will remain in effect," according to the report, released this week.

However, while corn starch-based ethanol has been the main reason for higher feed prices and a corresponding reduction in cattle numbers, other biofuels may replace it to challenge cattlemen in the future.

Those two challenges are de-oiled distillers grains (DGS) and biobutanol. "De-oiled DGS is a relatively new development stemming largely from government blending mandates for biodiesel and advanced biofuels," the report summary says. "As advanced biofuels mandates increase in the next 10 years, greater production of de-oiled or partially de-oiled DGS is almost certain."

How that will affect cattlemen is in the nutritional composition of what's left over. Should de-oiled DGS become commonplace, the nutritional makeup of the remaining feedstock will require ration changes to compensate for the lost energy.

Then there's biobutanol. "In the mid-term, we're keeping our eyes very closely on the development of biobutanol because that could take the corn-based industry beyond the blend wall and create a second surge of increased production," Newman says.

The blend wall is the market saturation point, which currently is 10% for corn starch ethanol as dictated by government policy, Wisner says. "If E-15 would become widespread, then the blend wall would move up to 15% of the national gasoline supply."

Biobutanol, however, has the possibility of moving beyond that blend wall and essentially eliminating it. That's because biobutanol, while produced from corn, is similar to gasoline alcohol so it doesn't require engine modifications, Newman says. It's not corrosive, so it can be transported in existing pipelines; it's easier to blend; and it potentially has better gas mileage performance than corn starch-based ethanol, he adds.

Biobutanol production results in DGS, Wisner says. However, "we don't know the details, whether or not it's similar to DGS from corn starch ethanol." Just as when corn-based ethanol exploded the market, research will be needed to determine how to utilize the byproduct of biobutanol.

The other major factor looming in the horizon is China. A few years back, China was the second largest corn exporter in the world, Wisner says. "It's now becoming a moderate importer with projections for their imports to double within the next 10 years," he says. Much of China's grain needs will come from the U.S.

In the next 3-7 years, however, ethanol will continue to significantly impact feed prices. "Ethanol blending mandates will increase more slowly from the current 13.2 billion gals. to a maximum of 15 billion gals. in 2015," the report summary says. "To meet those mandates, an additional 380-400 million bu. of corn will be needed in 2015 than are projected to be processed into ethanol in the 2011-12 corn marketing year. From 2015 onward, the ethanol mandates remain constant," meaning corn usage should level off.

The report summary notes that high feed prices, while not the sole cause, have been the primary contributor to intermittent financial losses, downsizing and restructuring in the livestock industry. But with help from Mother Nature, the economists predict that corn yields will return to the longer-term upward trend, resulting in adequate corn supplies in the coming years to meet the demand for biofuels as well as livestock feed and exports.

"However, when U.S. or major foreign crop yields are low, the biofuels mandates and highly inelastic demand for biofuels will set the stage for additional sharp feed price spikes," the report says. *(Source: BEEF, Jul 19, 2012)*

Mother Nature Throws A Wrench Into 2012

Ranchers and farmers are used to fickle weather and its consequences. But the dramatic deterioration of grass and grain crops across the U.S. in the past two months has stunned the agricultural community.

Few folks forecasted the widespread drought that's battered crops since May. The irony is that early 2012 held so much promise, as Texas and Oklahoma saw an end to their historic drought, and pasture conditions and crops responded well to spring rains. Meanwhile, ideal conditions throughout the Corn Belt led to one of the fastest and earliest plantings in decades.

USDA subsequently forecasted a yield of 166 bu/acre, a record crop of 14.790 billion bu., and an average price of $4.60/bu. Given that the average price of the 2011-2012 crop might be $6, such a decline would have brought much-needed relief to cattle feeders and other corn users.

These prospects have now evaporated, just like the moisture throughout much of the central U.S. By early July, drought was the number-one story for U.S. agriculture and the beef industry. Pasture conditions were deteriorating, forcing more young cattle into feedlots and causing more beef cows to be culled than expected. The condition of the corn crop was deteriorating as well, as hot, dry weather persisted.

Yet there appeared to be no immediate relief in sight as the crop entered its critical pollination stage. At the time of this writing (July 6), the 30-day forecast for much of the central U.S. was for temperatures to moderate but to remain average to above average for this time of year. More critical was that moisture was to remain below average. So the crop might suffer permanent damage during pollination, which would slash yields and keep corn prices well above $6.

In fact, USDA slashed its crop forecast on July 11 to 12.970 billion bu. with a 146 bu./acre yield and forecast prices at $5.40 to $6.40/bu.

Comparisons are already being made with 1988, which saw a disastrous decline in corn yields. In the last 52 years of yield data, 1988 produced the largest deviation, which was 29.1 bu./acre below trend line yields.

This year's trend line yield is 163 bu./acre. USDA's forecast was above this, but this fit with the fact that yields since 1960 have been above the trend 60% of the years and below the trend 40% of the years.

It's likely a coincidence that Indiana's corn crop in early July was in its worst condition since 1988. But one can only pray that yields for the 2012-2013 crop don't fall as much below the trend as they did in 1988. This would mean a yield of 134 bu./acre. The lowest forecast I've seen is 146 bu., which is just below last year's yield of 147 bu./acre.

Lack of rain has caused pasture conditions to deteriorate in much of cattle country. USDA on July 2 reported that 72% of the continental U.S. was in some stage of abnormally dry conditions, with more than 51% of the country in moderate or worse drought.

Of pastures, 43% were in poor or very poor condition, compared to 34% a week earlier and 27% the same week last year. Again, there was nothing in the weather forecasts that offered any moisture relief, apart from in New Mexico.

The implications are ominous for the beef industry. Any thought of net heifer retention and the start of herd rebuilding have likely dried up. Even before the drought began to spread, the national herd wasn't expected to start growing until 2015 at the earliest.

Now, any growth appears to be postponed another year. This will put more pressure on a cattle feeding sector already struggling with significant over-capacity and negative margins due to high feeder-cattle and corn prices, and on the packing sector, which suffers from over-capacity as well.

The bottom line is that the entire infrastructure of the industry will keep shrinking unless it starts raining soon. *(SOURCE: BEEF, Jul. 19, 2012)*

Upcoming Events

SEP 6	KFGC Field Day, Hart County
SEP 27	UK Beef Bash, U.K. Research & Education Center, Princeton
OCT 30	Kentucky Grazing Conference, U.K. Research & Education Center, Princeton

2013

FEB 21	33rd Kentucky Alfalfa Conference, Fayette County Extension Office, Lexington

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