

Fayette County Agriculture & Natural Resources Newsletter

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KFGC FORAGE FIELD DAY

The Kentucky Forage and Grassland Council will hold its Annual Forage Field Day at the C. Oran Little Research Center in Woodford County September 8th. This will be a late afternoon - early evening event with different tours and exhibits.

Flyer of the event is included in this newsletter.



Fayette County Farm Field Day

The Fayette County Farm Field Day will be held on Thursday, September 22, 2011 at Todd and Kristen Clark's farm on Georgetown Road. A flyer is included in this newsletter.

I hope you will take time out of your schedule and attend this Field Day. Also, included in the field day will be an Equine Polo Demonstration. This part of the Field Day will be hosted by Kathy and Ed Armstrong of the Bluegrass Polo Club.

Our meal will be catered by Darrell Slone. Please RSVP by Tuesday, September 20th to the Fayette County Extension Office (859) 257-5582.



12th Kentucky Grazing Conference

October 13, 2011
WKU Expo Center
Bowling Green, KY

Details of the conference included in this newsletter.



Hay Producers: Quality Second Cutting Still Likely

Exceptionally wet weather delayed hay cutting this spring, but producers likely still have time to grow and harvest enough hay to last them through the winter.

While many producers were able to make hay during the hot, dry weather the first two weeks of June, alfalfa and alfalfa-mix grass producers were about a month behind in their first cutting. This delay will likely cost them a cutting this year.

A significant amount of fescue and fescue-mix grasses also are still in the fields, but there's a good chance producers can get a quality second cutting, said Tom Keene, hay marketing specialist in the University of Kentucky College of Agriculture.

"For the fescue-type grasses, this isn't so unusual," Keene said. "We call this 'holiday hay' because it usually doesn't get cut until the Fourth of July, but by that time, any nutritive value it had is gone."

Some livestock producers' hay supplies might be low this

year due to either recent drought or increasing herd sizes. Those producers need to get as much hay from their pastures as possible to ensure their supplies last through the winter. Those wanting or needing more hay can likely get a good-quality second cutting this year, but they need to replace the nitrogen lost from the first cutting, especially if they didn't apply any this spring.

"As long as we continue to get rain, there's a good chance of getting a quality second cutting of grass pastures, but producers need to apply nitrogen - about 40 pounds per acre - to ensure the ground has the nutrients it needs," Keene said. "If they don't want a second cutting, applying nitrogen to fields now will also give producers good late summer pasture for their animals to graze. The biggest risk associated with the nitrogen application is if it stops raining."

Katie Pratt, University of Kentucky, Agriculture Communications Specialist

Low Hay Acres, High Hay Prices

Hold on to your hats. The most recent USDA estimate for hay acreage to be harvested in the U.S. during 2011 has likely set the stage for a wild, upward ride in hay prices for the rest of the year. U.S. growers plan to harvest 57.6 million all-hay acres in 2011, down 4% from 2010, according to the June 30 [Acreage report](#). Harvested acres are expected to be below or equal to last year's figures for most states in the Corn Belt, Great Plains, Pacific Northwest and Rocky Mountain regions, the Ag department adds. Record-low harvested acreages are expected in Iowa, Nebraska, Minnesota, Maine, Pennsylvania and Wisconsin. For alfalfa and alfalfa mixtures, USDA expects a harvested area of 19.3 million acres in 2011, down 3% from that of last year.

Throughout spring, most market watchers had been predicting a large drop in hay acres and that growers would switch to corn, wheat and other crops to capitalize on projected high commodity prices. In its March 31 *Prospective Plantings* report, USDA had forecast all-hay production at 59 million acres.

"That would have been a drop of about 1% from 2010," says University of Wisconsin Extension educator Ken Barnett, who compiles the [Weekly Hay Market Demand and Price Report for the Upper Midwest](#). "Given all the reports we were hearing and reading through the winter about farmers taking land out of hay to plant corn and other crops, I don't think many people really believed that number." Even so, the size of the spread between the March and June acreage numbers surprised many analysts. "Shocking is the only word I can think of to describe it,"

says Matt Diersen, ag economist at South Dakota State University Extension. "It's a big, big drop."

That virtually ensures dramatically lower U.S. hay production overall. Diersen points out that, if this year's yields meet the 10-year average of 2.43 tons/acre, national all-hay production would total 140 million tons, a 7-million-ton drop from production in 2010 and the lowest production since 1988.

A relatively low inventory of hay coming out of the winter promises to tighten supplies even more. Hay stocks on May 1 of this year totaled 22 million tons. "That's not crazy tight like it was in 2007 when May 1 stocks were under 15 million tons," he says. "But when you couple it with the lower production, it will put a lot of pressure on the supply."

At the same time, demand is likely to be stronger than normal in some areas of the country. Severe droughts in Texas, Oklahoma and other parts of the Southern Plains have burned up pastures, forcing livestock producers to feed hay much earlier in the year than normal. "It's really going to put a stress on supply throughout the marketing year, which will only push prices higher," says Diersen. U.S. hay prices as of late May were already at an all-time high, Diersen adds. "It's similar to 2008, when hay prices were high at the start of the marketing year, then stayed high for the rest of the summer."

His bottom line on the *Acreage* report: "It's good news for someone with hay to sell. It's very bad news for anybody on the buyer's side."

SOURCE: Rick Mooney, Editor, eHay Weekly, Jul 5, 2011

Climate Change's Effects on Kentucky Horse Pastures

Rebecca McCulley, PhD, a grassland ecologist and researcher in the University of Kentucky College of Agriculture's Department of Plant and Soil Sciences, is studying how climate change could affect Kentucky pastures' future composition and what those changes could mean for forage quality.

McCulley's study, which she began in 2008, examines how predicted increase in temperatures, changes in rainfall amounts, and a lengthened growing season might impact pastures.

"We are looking at a higher carbon dioxide world," she said. "There is uncertainty, but it will get warmer. An altered climate will affect what horses and cattle eat. We just don't know how the changes will unfold."

A few years into her study, McCulley already can predict that forage quality won't take much of a hit.

"At this stage, a warm and wet Kentucky will be weedier, and it will have a lot of crabgrass," McCulley said. "But tall fescue and Kentucky bluegrass will still be around. Crabgrass will be more prominent in the future pastures of Kentucky; the real test will be to see if animals respond by eating it."

The project, which is based on pasture representative of a typical Central Kentucky landscape, contains common hay field species: tall fescue, Kentucky bluegrass, red clover, white clover, bermudagrass, crabgrass, and other common weed species. McCulley said her team has neither applied fertilizers, nor have they done any reseeding. Johnsongrass, an invasive weeds species, has been removed by hand. The grasses and legumes were planted in 2008, whereas crabgrass and other weedy species were recruited from the seed bank or grew naturally. The project encompasses 20 plots, each receiving one of four different treatments:

- ambient conditions
- added heat
- added precipitation
- added heat and precipitation

For the added precipitation treatment, rain and runoff from an equine barn at the Maine Chance Equine Campus are applied to mimic natural weather patterns, only intensified—researchers apply 30% more precipitation during rainfall events than the long-term

historical growing season amount. They use infrared radiant heaters to warm the air, and added heat and precipitation plots 3 Celsius (5.4 Fahrenheit) degrees above ambient temperatures.



McCulley and her team used traditional metrics to test the forage. They gathered "grab samples," which are randomly collected grasses and weed, whatever is growing in the plot, or enough to fill a large paper bag. The remaining grass is then cut and removed to simulate haying.

The team has measured forage quantity and quality each June, July, and September since 2009.

"There are small shifts in forage quality, but overall the significant changes are in plant species composition," she said. "We are finding that forage quality is okay. Annual crabgrass has become

dominant in the added heat treatments. The added heat plots tend to be weedier, with pretty big weeds."

With another two years left in the study, McCulley said that a nitrogen application is possible. "We're trying to strike a balance between experimental constraints and the real world management scenarios," McCulley said.

Source: Karin Pekarchik University of Kentucky, Agricultural Communications Services: Editorial Officer

**The Fayette County
Extension Office
will be closed
Monday
September 5, 2011
in celebration of
Labor Day**

Late Summer Nitrogen Applications to Pastures, Will they Pay this Year?

We are close to the point where some livestock producers would normally start to apply nitrogen to tall fescue pastures to boost production levels and stockpile for fall and winter grazing. Since there are many factors that will impact the profitability of this practice, the question at hand is: Under what set of conditions will applying nitrogen to pastures pay this year?

To help answer this question, the cost of stockpiling was compared to the cost of feeding hay on a per day basis. Each additional grazing day resulting from nitrogen applications will save the farmer from feeding hay. However, this needs to be compared against the cost of the nitrogen applications. The trick is to figure out at what point adding additional grazing days become more expensive than feeding hay.

The price of nitrogen was evaluated on an elemental basis between \$.65-.85 per unit (\$435-570 per ton ammonium nitrate), with application rates of 40 and 80 units/acre. Three response rates (low, medium, and high) were evaluated, corresponding to various soil moisture conditions. The application cost for spreading the nitrogen was set at \$5/acre.

Farm size and management practices were set at typical Kentucky conditions: 30 cow herd with late winter/early spring calving. Waste rates were estimated at 35% for hay feeding and grazing. Machinery and labor costs were estimated at \$.06 and \$.25 per cow-day for grazing and hay feeding respectively. P and K from the hay were assumed to be recycled back into pastures at a 50% rate at \$.57/lb for

P₂O₅ and \$.52/lb for K₂O.

A range of hay prices were evaluated to determine which prices, if any, would result in profitable nitrogen applications. In general, there appear to be relatively few opportunities for profitable nitrogen applications this year. Using ammonium nitrate at \$.75/unit (\$500/ton), hay prices needed to be at or above \$50/ton and soil moisture conditions good to excellent (high response rate) to offer moderate savings. Hay prices need to be at or above \$70/ton with fair to good soil moisture conditions (medium response rate) to offer moderate savings.

Cost savings did not occur in the mixed fescue-clover stands even with the best soil moisture conditions when evaluated at the most likely hay and nitrogen prices (\$50/ton and \$.75/unit respectively). Hay prices need to be around \$70/ton before savings occur with the high response rate, combined with an effective nitrogen price of \$.65/unit. Additionally, any potential savings in the fescue-clover stands need to be balanced against the potential loss of clover due to N applications. As a consequence, it does not appear that mixed fescue-clover stands would be good candidates for N applications this year.

For more detailed results, consult the publication "Profitability of Nitrogen Applications for Stockpiling Tall Fescue Pastures – 2011 Guide" that can be found at: <http://www.ca.uky.edu/agecon/index.php?p=169>.

Source: Greg Halich University of Kentucky, Economic and Policy Update

"Tobacco Worm" Scouting Report

The second and most damaging hornworm brood of the season is underway. On 8/11, 34 tobacco and tomato hornworm larvae and 12 eggs were found while examining 400 plants in one Fayette County research plot. Two of the larvae were over 3 inches long, the last of the first brood. They soon will burrow into the ground to spend the winter as pupae. The rest (all less than 0.5 inch long) are the beginning of the second brood which is normally most numerous between mid-August and mid-September. More eggs will be laid, so there is a lot of feeding left to be done.

Weekly field checks will allow detection of infestations that justify treatment. Look carefully at the lower surface of leaves in the upper third of groups of 5 plants at 10 randomly chosen locations in each field. Check for hornworm eggs and small larvae, and record the numbers and approximate size of the hornworms that are present. In some cases, there can be damage, but no worms, grackles or other predators can eat them. Hornworms with white egg-like cocoons on their back are parasitized by a small wasp. These worms will not cause any more yield loss. By late August, up to 90% of the hornworm population may be parasitized.

An insecticide application is usually profitable if there is an average of 5 or more hornworms per 50 plants. Higher rates provide longer residual protection and usually are more effective against larger hornworms. Bt-based insecticides are best used when most larvae are small, but control is usually not as good against large ones.

Hornworm moths will be flying over the next 4 to 6 weeks. A single insecticide application may not provide control from topping until harvest. It is best to check for hornworms and apply a cleanup spray if necessary to prevent carrying these insects into the barn. Check the restricted entry interval (REI) and harvest interval on the insecticide label before treating.

The yellowstriped armyworm can be found feeding on tobacco and many other crops. Eggs are laid in masses, so several may be found on a group of plants. They feed for about 3 weeks, full grown larvae are about 1.75 inches long, which helps to determine about how much more growing is in store for them.

By Lee Townsend, University of Kentucky Entomology

H2A Record Keeping Requirements

Many farmers despise paperwork, but if they utilize the federal H2A program, paperwork is an ever-increasing part of their job. Without the temporary agriculture workers the H2A program provides, many of the state's tobacco farmers would have difficulties producing a crop. Farmers who utilize this program are well aware of the housing, transportation and tool requirements.

Generally, farmers have done a good job of completing those requirements. Recently the Department of Labor (DOL) began more stringent labor audits. Several of the audits resulted in fines being issued by the DOL. The primary goal of record keeping is to be prepared for any audits that may follow; for that reason, it is necessary that farmers keep up-to-date on any and all records that may be required. Below is a good list of these requirements.

Items to keep in the employee file of H2A workers:

- Copy of the contract, specifying wage rate or piece rate wage, contract length, etc.
- Copy of the visa and passport; some farmers find it beneficial to keep these for their workers during the contract time frame
- Copy of the Social Security Number
- Foreign address

Items to keep in resident employees' files:

- Up-to-date address; we find it beneficial to have the employee fill out a form when they start employment
- I-9; proof of citizenship
- W-4; form designating employee's federal tax situation (exemptions, status, etc). Needs to be updated yearly.
- K-4; Kentucky form designating state tax situation. This also needs to be updated yearly

Most producers are keeping this information, but that information alone will not satisfy a DOL labor audit. Payroll forms are another area where farmers must be certain that they provide sufficient information to their employees. It is common practice for farmers to write a check to the employee with the hours worked in the memo line. This may satisfy the employees, but it does not satisfy the DOL requirements. Employees must be provided the following on their paystub or other statement.

- Farm name they are under contract with
- Farm address
- Farm tax identification number normally an Employee Identification Number (EIN)
- Employee's name
- Employee's **Foreign Address**
- Employee's Social Security Number
- Number of hours worked
- Wage Rate or Piece Rate, which ever applies

If more hours were offered to then employee than they worked that needs to be noted

Lastly, it is mandatory that U.S. Citizens completing the same tasks need to have a higher wage rate than the H2A workers. A copy of this information should be kept by the employer as well. If you would like more information on requirements please visit the DOL website at www.dol.gov/whd/.

Source: Evan Conrad, University of Kentucky, Economic Policy Update



2012 Kentucky's Fruit & Vegetable Conference and Trade Show

January 5th - 6th, 2011

See enclosed program of detail information regarding
AgGenius Awards

Horse Flies and Deer Flies – Can They Be Controlled?



Female horse flies and deer flies slash the skin with blade-like mouthparts to create small pools of blood where they feed. Both groups of these closely related flies can be serious pests of cattle, horses, and

humans. Horse flies range in size from 3/4 to 1-1/4 inches long and usually have clear or solidly colored wings and brightly colored eyes. Deer flies, which are more likely to bite humans, are smaller with dark bands across the wings and colored eyes similar to those of horse flies.

Attack by these persistent flies can make outdoor work and recreation miserable. Seldom thwarted, they attack persistently to get enough blood to make a batch of eggs. The numbers of flies and the intensity of their attack vary from year to year. Numerous painful bites from large populations can interrupt grazing and result in violent efforts by the animals to try to stop or escape from the attacks. In addition to blood loss, these biting flies can transmit anaplasmosis on contaminated mouthparts.

Vision is a key factor in host-finding by these insects. Female horse flies and deer flies feed during the day, responding by sight from their resting spots to large, dark moving objects within their range. While body temperature, CO₂, and other chemicals released by animals may play a role in the final decision to bite, the long range attraction means that insecticides or repellents play no role in protection until the fly lands.

Pyrethrins and pyrethroids have an irritating effect on insects but may not be at full strength or effective enough to interrupt feeding until after the painful skin cut has been made. In addition, only the flies' feet are in contact with a treated surface so the insect will bite and may get its meal before becoming irritated enough to move.

Several types of traps are sold for horse fly control. They may have some effect in protecting animals in a relatively small space but the impact is likely to be reduced in large pastures.

By Lee Townsend, University of Kentucky, Entomology

Corn Knocked down by Storms



Strong winds this past weekend knocked down corn in central Kentucky. Much of that corn was in the dent stage (growth stage R5) and had not reached blacklayer (growth stage R6). Those kernels will prematurely reach black layer and will be lightweight. Furthermore, these kernels will be above 35 percent grain moisture, but drydown will be

hindered. Many fields across the Midwest had downed corn in July and that corn was at growth stages where it could recover, some, from the damage. Corn at R5 and R6 is too far along to

recover from the damage. The only thing now is to salvage the crop for either grain or silage.

Corn kernels attached to ears that are near or on the ground will not dry down as quickly as kernels on upright plants with exposure to more air movement. Furthermore, downed ears are at greater risk for ear molds and mycotoxins. Corn for grain is still an option, but the corn will have to be harvested wet and dried in a bin. The grain moisture could be as high as 35 percent which requires a lot of drier use. Take the next several days to be certain your bins and driers are ready for use. Then, monitor your fields and harvest once they reach blacklayer.

If possible, segregate harvest loads. Up to 5 percent damaged kernels are allowed for U.S. no. 2 corn. Grain harvested from downed corn is more than

likely going to be above that threshold and you do not want to penalize your grain from good fields with grain from the damaged ones. If the grain is harvested early and ear molds are not a problem, then the corn grain should be fine to feed to livestock. A test for mycotoxins is an excellent idea, just to be safe. Test weight may be less and rations may need to be adjusted to the lower test weight.

Silage may be a better option for some producers, especially those who feed the corn to their livestock. If ear picking was the primary harvest method, the whole ears would need to be picked at high moistures. The high moistures will not dry very well in cribs.

However, much of this corn was close to the proper growth stage for silage. Whole plant moisture should be around 65 to 70 percent for bunker silos and when the kernels are about 3/4 milk line.

Before making any harvest plans, contact crop insurance adjusters, if applicable.

For more guidelines on harvesting options for downed corn, contact Fayette County Extension Office.

Source: Chad Lee and Jim Herbek, University of Kentucky, Extension Agronomists