Campbell County Farmers,

Hope this finds you, your family and the family farm doing well. In this month’s agriculture newsletter I will once again point out some important management practices for you to consider as we head into fall. I’ll highlight a couple of upcoming programs and hope that you will be able to attend and invite a farmer friend to join you. See the enclosed flyers and articles for more details. As always call me if you have questions or need my assistance in any way. Extension office 572-2600 or cell 250-6665.

**Beef Quality and Care Program, September 21** - This program will replace the traditional classroom program that certifies farmers for Beef Quality (and Care) Assurance (BQA). We will be “working” (chute side) some of Alan Ahrman cows and spring calves as part of this hands-on program. If you are receiving CAIP funds for large animal or selling in a CPH sale you will need to have an up-to-date BQCA number. Costs to be certified is $5.

**Beef Bash 2019, September 26** – The KY Beef Bash is usually held in western KY but his year will be held at the Oran Little Research Station (UK beef research farm) near Versailles. I will provide transportation to this program leaving from the Environmental Education Center at 7:00 a.m. Please call the Extension office at 572-2600 to reserve yourself a spot on the van. If time permits we will stop at the Bluegrass Stockyards near Georgetown on the way back.

**Master Cattleman, Tuesdays September 10 through November 19**

If you want to learn more about managing your beef herd or even getting started into beef production then this program is for you. As you can see from the program flyer this will be a 11 week program focusing on many areas of beef production. Don’t forget to call our office or Grant County Extension office to register for this program. You can pay the registration fee at the first meeting which will be at the Boone County Enrichment Center at 1824 Patrick Drive, Burlington.

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**Upcoming Events**

- **September 9** - Rinse and Return, Pesticide Container Recycling - Southern States, 3 to 5 pm
- **Tuesdays September 10** – Northern KY Master Cattlemen
  November 19, 6:00 to 9:00 pm, See flyer for program details and locations
- **September 21** - Beef Quality and Care Assurance Program (chute side demonstrations), Alan Ahrman Farm, 9:00 a.m. - 12:00 PM
- **September 26** - Beef Bash 2019, UK Beef Research Farm, See flyer for more information.
- **October 17** - Preparing for Winter (classroom session) 6:30 pm. - EEC
- **October 26** - Preparing for Winter (farm tours) Locations TBA. 9:00 am to 12 noon. *Note date change*
- **November 9** - Northern KY Equine Conference - Boone County Enrichment Center, 9am to 3:30 pm
- **November 12** - Campbell County Cattle Association Annual Meeting, 6:30 pm. - EEC

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**Rinse and Return**

September 9th - 3-5pm

All Campbell County farmers are encouraged to participate in the Rinse and Return Plastic Pesticide Container Recycling Project sponsored by the Kentucky Department of Agriculture, Campbell County Extension Service and Southern States on September 9, 2019 between 3 p.m. and 5:00 p.m., to collect and recycle your empty pesticide containers. Containers need to be triple rinsed with lids and labels removed. This is an excellent opportunity for you to dispose of your empty pesticide containers in a more environmentally-friendly way.
CCBA Looking for New Members

The Campbell County Beef Association (CCBA) was established in 2009 as a way to add value/profit to beef producers through the sale of local grown freezer beef. The mission of the CCBA is to provide consumers with high quality, local grown, natural beef raised with no added hormones or antibiotics.

The CCBA is accepting members (whether as owner, manager, or operator) who are interested in supporting the mission of the CCBA.

- Members can sell freezer beef through the organization as well as support the organization through their leadership.
- Members are encouraged to attend quarterly board meetings and provide input into the business of the association which includes: marketing opportunities to increase sales, coordinating on farm production and managing inventory.
- Members are encouraged to participate in local events that help promote the CCBA.

Anyone interested can contact Rock Grogan (President) aangusccc@msn.com 513-253-9349 or Jonathan Neltner (Vice President) jneltner11@gmail.com 859-630-9302.

Spring-Calving Cow Herd

- Rain in July and August has given us fair to good forage production during months when it is usually dry. Keep rotating pastures to permit calves to continue gaining weight. Keep minerals available at all times.
- Repair and improve corrals for fall working and weaning. Consider having an area to wean calves and retain ownership for postweaning feeding rather than selling “green”, lightweight calves. Plan to participate in CPH-45 feeder calf sales in your area.
- Bulls should have been removed from the cow herd by now! They should be pastured away from the cow herd with a good fence and allowed to regain lost weight and condition. It is a good time to evaluate physical condition, especially feet and legs. Bulls can be given medical attention and still have plenty of time to recover, e.g., corns, abscesses, split hooves, etc. Don’t keep trying to get open spring cows bred - move them to fall calving or sell them when they wean this year’s calf.

Fall-Calving Cow Herd

*Prepare for the fall-calving season (usually September). Get ready, be sure you have the following:
- record book
- ear tags for identification
- iodine solution for newborn calf’s navel
- calf puller
- castration equipment

- Dry cows should be moved to better pastures as calving time approaches. Cows should start calving next month. Yearling heifers may begin “headstart” calving later this month. Plan to move cows to stockpiled fescue for the breeding season, so it will soon be time to apply nitrogen fertilizer.

General

- Avoid working cattle when temperatures are extremely high – especially those grazing high-endophyte fescue. If cattle must be handled, do so in the early morning.
- Do not give up on fly control in late summer. You can use a different “type” of spray or pour-on to kill any resistant flies at the end of fly season.
- Provide shade and water! Cattle will need shade during the hot part of the day. Check water supply frequently – as much as 20 gallons may be required by high producing cows in very hot weather.
- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- Take soil samples to determine pasture fertility needs. Fertilize as needed, this fall.
- Select pastures for stockpiling. Remove cattle and apply nitrogen when moisture conditions are favorable. Stockpiled fescues can be especially beneficial for fall-calving cows after calving.

Timely Tips...

Dr. Les Anderson, Beef Extension Professor, University of Kentucky
2019 NKY MASTER CATTLEMEN

**MASTER CATTLEMAN**

**WHO**
- New Producers
- Experienced Producers

**HOW**
- Call your local Extension office to register

**COST**
- $50 per producer covers all materials and excellent meals

**TO COMPLETE**
- Must attend 8 of 10 sessions
- Be Beef Quality Assurance (BQA) Certified

### 2019 NKY Master Cattlemen Program Schedule
6-9pm

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Location</th>
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<tbody>
<tr>
<td>9/10</td>
<td>Genetics</td>
<td>Boone CES</td>
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<tr>
<td>9/17</td>
<td>Nutrition</td>
<td>Kenton Lands</td>
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<td>9/24</td>
<td>Reproduction</td>
<td>Owen CES</td>
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<td>10/1</td>
<td>Herd Health</td>
<td>Pendleton CES</td>
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<td>10/15</td>
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<td>10/29</td>
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<td>Marketing</td>
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<td>11/19</td>
<td>Video</td>
<td>Boone CES</td>
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Call the Grant County Office 859-824-3355 to register.
Grazing livestock require many different nutrients to support growth, milk production, and body tissue maintenance. Often minerals are separated into two categories. The minerals that are required in relatively large amounts are called major or macro minerals. These minerals are often listed on feed tags with a percentage sign following them. Those needed in lesser amounts are called micro, minor, or trace minerals and usually listed in parts per million (ppm).

These terms have no relationship to the metabolic importance of the specific mineral in the diet. A trace mineral can be just as important to health and performance of an animal as a macro mineral.

Factors that influence the amount of specific minerals that cattle need include age, rate of growth, stage of pregnancy, and stage and level of lactation.

The essential macro minerals for beef cattle are calcium, phosphorus, chlorine, magnesium, potassium, sodium, and sulfur. The trace minerals that are needed are copper, chromium, cobalt, iodine, iron, manganese, nickel, molybdenum, selenium, and zinc. The above minerals may function as structural components of bones and teeth, electrolytes in body fluids, metabolism of nutrients, nerve conduction, reproduction, immune response, and many more functions.

Various body functions require different amounts of minerals. The daily intake of trace minerals needed for maximum immune response is greater than the amount required for optimal growth or reproduction. Cattle can have sufficient trace mineral intake to support optimal growth or reproduction. However, cattle may not consume adequate trace minerals for maximum immune function. Intake and absorption of minerals must be adequate to meet all the animal's body functions.

Although many factors affect the intake and absorption of minerals by cattle, a major factor is the mineral content of the forages they consume. The first step in developing a mineral supplementation program is to determine the feed or forage mineral content. It is important to understand that the bioavailability of minerals from forages may be low. As a general rule when figuring mineral values in forages, the suggested usefulness should be divided in half to account for potentially low bioavailability. For example if a forage has a concentration of 0.2% of X mineral, the amount of mineral absorbed would be 0.1%. Mineral supplements are calculated making adjustments for the bioavailability of the sources.

Producers should always read the mineral product label. Key things to note: target species (beef cattle, dairy cattle, etc.), mineral levels (percentage or ppm), target intake (ounces per day), feeding method (free-choice or mixing), and the ingredients or source of the minerals. Because a mineral's source greatly influences absorption or bioavailability, mineral supplements must contain sources of high bioavailability. The levels listed on the feed tag as well as the targeted intake must then be considered. There can be various mineral mixtures with both different mineral levels and intakes. The supplement should provide adequate intake of the various minerals to balance the supply from the forage and the animal’s needs while also being cost effective.

For further information about minerals and their functions see: Trace Mineral Supplementation for Kentucky Beef Cattle publication available at your local extension office or online at http://www2.ca.uky.edu/agc/pubs/asc/asc155/asc155.pdf.

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**Agriculture Websites**

Information is only a few key strokes away for most farmers with access to the internet. The following are websites that I would highly recommend for you to bookmark on our computer for easy access and credible agriculture information. The first two websites are for beef cattle newsletters developed by UK and Ohio State University Extension folks. The third website is the UK forage website and the last website is for the KY Department of Agriculture. Enjoy!!

- [http://afs.ca.uky.edu/beef/extension/newsletters/offthehoof](http://afs.ca.uky.edu/beef/extension/newsletters/offthehoof)
- [http://beef.osu.edu/beef/archive.html](http://beef.osu.edu/beef/archive.html)
- [http://www.uky.edu-Ag-Forage](http://www.uky.edu-Ag-Forage)
Beef calves often experience stress during the time of weaning, and limiting this stress can help daily gain. Four main types of stress affect calves: physical, environmental, nutritional, and social. These issues can be avoided or at least minimized with proper calf management.

Physical stress can occur during long periods of standing in working facilities, mishandling in the working chute, hauling to weaning facility, etc. Castration and/or dehorning can also increase the level of stress experienced at weaning if these processes occur at weaning time. Castration at birth and vaccinating before weaning will help decrease this stress.

Another form of stress is environmental, which can be either man-made or climatic. The weaning pen is the main human-induced environmental stress. Transferring calves from a clean pasture to a dry-lot can add stress as they are not familiar with these new surroundings. Also, moving calves to a dusty dry-lot where they walk around in a confined space turning up dust can cause respiratory problems and decreased weight gain. Climatic issues such as rain and cold weather are out of our control, but we can try to plan weaning time to avoid these conditions. Social stress is the removal of the calf from its mother. This is inevitable when weaning, but the amount of stress can be decreased by using cross-fence weaning.

The cross fence weaning method is where the calves are separated from the cows by a good fence that will keep them apart. Remaining in “nose to nose” contact with the cow keeps calves calmer and separation is not such a large factor. This can be effective even with a small distance between the cows and calves, but where they are still able to see each other.

Nutritional stress occurs when calves are changed from a milk and pasture diet to a stored forage and grain diet. Having high quality pasture available to calves at weaning time is important both in the spring and fall. For fall weaning, calves can graze fields cut for hay which are beginning to regrow, or stock-piled fescue fields. Pastures used for fall weaning should be grazed or clipped between mid-August and mid-September to allow enough time for regrowth. For spring-weaned calves, vegetative growth provides an excellent quality forage as long as the grasses are maintained and not grazed too young or too mature. Recommendations are to turn calves into a pasture when grasses are 8-12 inches tall and graze until grasses are 3-4 inches.

Pasture weaning offers a low-stress alternative to the conventional dry-lot weaning programs. Pasture weaning reduces the environmental and nutritional stress because calves are accustomed to pasture and the diet does not change. Demonstrations have shown that calves weaned on pasture and supplemented gain more weight than calves that are weaned in a dry-lot. University of Kentucky Beef Specialist, Jeff Lehmkuhler, conducted a field demonstration with two different herds. One herd was weaned on pasture with supplement while a second herd was weaned in dry-lot pens. Gains for pasture weaned calves were near 4 pounds per day and only 1.2 lb. for dry-lot calves during the first 7-9 days post-weaning. During the fall of 2013, Lehmkuhler worked with a producer in Anderson County where calves were weaned on pasture with supplement. Calves gained about 2.25 lb./day the first 19 days after weaning. Other studies have shown that pasture weaning is an effective way to keep beef calves healthy and productive during the weaning process.

We will talk about weaning feeder calves during the September 21, Beef Quality and Care Field Day.
Consider a number of factors before retaining calves for backgrounding.

Backgrounding is the growing of steers and heifers from weaning until they enter the feedlot for finishing. Backgrounding and Stocker cattle are similar although backgrounding is sometimes associated with a drylot, and stockering cattle is thought of as pasture-based system. However any system that takes advantage of economical feed sources can be investigated.

Why might someone consider backgrounding or growing cattle?

The producer has time and economical feed resources

The market at weaning is not as favorable and is investigating alternative marketing times

Some feedyards prefer buying/feeding yearlings. They can expect fewer health problems and can feed two turns of cattle in a year.

It could be a way of upgrading mismanaged cattle so as to add value.

Since the cattle can be on feed for several months, they can fit the preference by some feeders for preconditioned cattle

There are many systems for backgrounding. A common one is calves are retained or bought in the fall and sold a few months later. A backgrounding system can be part of a cow-calf operation or part of a finishing operation.

You can handle about 1.4 calves on the feed needed for one beef cow. Since the cattle are not owned very long in typical backgrounding and stockering operations, buying and selling skills are very important.

You may own/retain the cattle for a relatively short time, therefore what you buy (or the price you could get at weaning) and the selling price as a backgrounded calf is very important. Rate of gain increases in importance the longer you own the cattle. Have an idea of the value of the feed resources you have on hand in addition to those you purchase. Investigate the use of implants and feed additives for growing cattle to optimize feed efficiency.

One might budget for 2% death loss to protect yourself. Skills in detecting sick cattle are essential. Take time to observe the cattle during feeding using proper bunk management. Work with your veterinarian in having a health management plan. Work with your local auction facility to see if they offer a preconditioning sale. If so make plans to utilizes this sale.

Rate of gain needs to allow for growth but you do not want the cattle to become fat. Historically, this has been around 1.5 to 2.0 pounds of daily gain. With larger frame cattle we can approach 2.5 pounds a day gain. Faster rates of gain can reduce cost per unit of gain. Since these are young cattle they can respond to high quality forage based diets. Cattle backgrounded in the fall and winter that are destined for pasture should not be fleshy if gaining 1.5 to 2.0 pounds per day.

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To file a complaint of discrimination, contact Tim West, UK College of Agriculture, 859-257-3879; Terry Allen or Martha Alexander, UK Office of Institutional Equity and Equal Opportunity, 859-257-8927; or the USDA, Director Office of Civil Rights, Room 326-W Whitten Bldg., 14th & Independence Ave. SW, Washington, DC 20250-9410, 202-720-5964.
Field Day!

Beef Quality and Care Assurance

Location: Alan Ahrman Farm  
661 Kenton Station Road (Grants Lick)

September 21, 2019 - 9:00 a.m. – 12 p.m.  
(Watch for Field Day Signs)

Visual and Hands-on-Demonstrations:
- Selecting a Vaccine and Wormer for Your Cows and Calves
- Needle Selection - Giving Subcutaneous and Intermuscular Shots
- Timing of Vaccines and Wormers
- Pregnancy Testing Using Blood Samples
- Body Condition Scoring
- Options for Weaning Calves

Other Opportunities to See:
- Spring Seeded Roundup Ready Alfalfa  
  (Yes, it was worth the extra expense)
- Fenced Line Feeding System

Ky-BQCA
KENTUCKY  
BEEF QUALITY & CARE ASSURANCE

Participants will receive educational credit and BQCA certification which is needed for CAIP programs.

Farmers needing Beef Quality and Care Assurance (BQCA) certification should bring $5 to pay for the KCA processing.  
Farmers who receive BQCA certification will also receive a BQCA farm sign at no charge.
For the most part we have been blessed in 2019 with a good growing season. Most field crops, hay and pasture fields have had adequate rainfall to keep them productive and our livestock animals well fed. As the warmth of summer comes to an end, it is important that we implement the management practices that are best made during the fall. The following is a short list of fall best management practices.

Evaluate pastures and hay fields for clover content and make plans for renovating pastures or hay fields with legumes. Fall is the time to be thinking about pasture renovation in February and March. Adding legumes to cool-season pastures next spring is the best way to increase forage quality and animal performance. Legumes increase protein, forage digestibility and intake when added to a grass pasture. As a bonus, legumes make their own nitrogen which reduces fertilizer costs and reduces the negative impact of endophyte fescue.

The biggest challenge to establishing legumes into an existing grass pasture is competition by the grass on new, slow growing seedlings. One of the best ways to slow down spring grass growth is to graze fields (that will be renovated next spring) hard in the fall and early winter. Graze to the point where there is very little leaf surface left and some soil is exposed. This will weaken the existing grass, reduce its spring growth and give the new legume seedlings a better chance to get started next spring.

Grazing hay fields this fall is an excellent way of harvesting hay fields that are too short to justify harvesting by equipment. Even if you have to purchase electric fence equipment, this will be offset by not having to use hay harvesting equipment.

Do not graze summer annuals, such as sorghum sudangrass or pastures with high populations of johnsongrass, for 2 weeks after a non-killing frost (between 28 °F and 32 °F) to reduce the threat of cyanide (prussic acid) poisoning. If there is a killing frost (when temperatures are below 28 °F) wait until the plant material is completely dry (toxins usually dissipate in 72 hours) before grazing.

Forages such as alfalfa and clovers do NOT produce toxic compounds after a frost. However, there is one concern when grazing alfalfa or clovers after a frost - and that is the risk of bloat. For one or two days after a hard frost, the risk of bloat is higher for animals grazing hay or pasture fields with a large percent of legumes.

You can turn livestock into the stockpiled pasture after November 1 (preferably later) after other pastures and hay fields have been grazed. For best results use the strip grazing method where temporary fence is used to provide 2 to 3 days of forage.

Don’t overgraze fall pasture. Fall is the time when the perennial plant stores energy reserves in the root system for winter. These root reserves help the plant to survive and to regenerate new growth the following spring. If you graze too close you remove leaf area that is critical in carrying on photosynthesis, which produces the carbohydrate reserves. Livestock producers should avoid the situation where a grass plant is grazed off low with little or no residual leaf area in the fall of the year. Your goal should be to manage pastures to leave at least 3 to 4 inches of leaf growth during the fall. Once the plant is truly dormant and leaf growth has ceased for the year, the plant can be completely grazed off.

To reduce soil erosion, compaction and damage to forages, remove animals from wet pastures. Consider utilizing a sacrifice pasture during wet periods.

Forage testing: Knowing forage quality will help you manage your winter feeding program while maximizing animal performance. By having forages tested, you will know the quality of the different forages on your farm. Then you can match forage quality to livestock who have diverse nutritional needs and different management requirements that are influenced by age and stage of production.

Soil testing: Your soil is not a checking account with unlimited resources. Managing soil fertility is one of the most important management practices that you can implement. Profit and loss is often determined by soil productivity. Fall is the optimum time to take soil samples for fertility analyses. The turn-around time for test results is much faster in the fall. Fall sampling gives you plenty of time to follow fertility recommendations before next spring’s planting season. You can also apply all the recommended fertilizers, except nitrogen, in the fall. Fertilizer prices are generally cheaper in the fall.
Fall is an optimum time to evaluate your cow herd. The best method to evaluate the nutritional status of your herd is to do body condition scores. A body condition score is an estimate of the degree of body fatness of an animal, which gives us an estimate of the amount of body energy reserves available to the cow. Body condition scoring is a tool to help plan your supplemental feeding program so you can maintain adequate productivity in your herd. Cows with an inadequate body condition (less than 5) should be separated from the rest of the herd and fed a higher quality forage or a grain supplement.

Before the winter feeding program starts, separate the herd into groups with similar nutrient and management requirements. This will keep you from over- or underfeeding cattle and wasting feed dollars.

Compare forage needs vs. inventory. Farmers should evaluate their forage supply in relation to their forage needs. By planning now, the costs associated with purchasing feed can be spread over several months and/or the farmer can find forages at a more economical price if purchased early in the feeding season. When calculating the amount of forages needed, remember to account for storage and feeding losses.

Minimize hay feeding waste: If hay is stored and fed properly, hay loss can be minimized. Hay loss from winter feeding can range from less than 5% to as much as 60%. Feeding losses can occur from trampling, chemical and physical deterioration, fecal contamination, and livestock refusal. Continued feeding in the same area without the use of concrete or high traffic pads can result in excessive sod destruction, muddy conditions and excessive forage waste, not to mention reduced animal performance. In university studies the use of cone shaped round bale feeders with a metal skirt on the bottom will reduce hay losses up to 43% compared to traditional round bale feeders.

Pregnancy test your spring calving cows and cull open cows. You don’t want to be feeding non-productive females this fall and winter. Can you afford to hold onto a cow that is open and will not make you any money?
## Beef Bash 2019 Schedule

### BEEF BASH 2019 SCHEDULE – SEPTEMBER 26, 2019 – UKARC, VERSAILLES, KY

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>Calving Barn</th>
<th>Paddocks</th>
<th>Intensive Research Center</th>
<th>Handling Facility/Nutrition Center</th>
<th>Pasture</th>
<th>Farm Tour</th>
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<tr>
<td></td>
<td>Vans 2-2</td>
<td>Vans 3-4</td>
<td>Bus 1</td>
<td>Bus 2</td>
<td>Wagon</td>
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<table>
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<tr>
<th>Time</th>
<th>Session</th>
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| 9:00 am | UKARC Breeding Programs  
Mr. Kirk Vanzant  
Dr. Darrell Bullock  

Evaluating Cattle Structure:  
Feet and Legs  
Mr. Kevin Laurent  

Extending the Grazing Season Using Multiple Options  
Dr. Jimmy Hennig  
Dr. Ray Smith  

USDA-ARS Forage Research:  
Ergot Alkaloids and Isoflavones  
Dr. Jimmy Klaw  
Dr. Michael Fite  
Dr. Brittany Harlow  

Ruminant Nutrition: Current Research and Overview  
Dr. Kyle McLeod  
Dr. Dave Harmon  

Using Distillery Feed Products  
Dr. Jeff Lehmkuller  

What Happens to Cull Cattle; Uses and Meat Products Made from Cull Cattle  
Dr. Greg Rentfrow  

Potentially Poisonous Weeds and Trees in Kentucky Pastures  
Dr. Michelle Arnold  

Control of Cocklebur and Other Summer Annual Weeds  
Dr. J. D. Green  

UK C. Oren Little Research Center:  
Farm Tour Overview  
Dr. Tony Pescatore |
| 10:00 am | PRF Insurance  
Dr. Kenny Burdine  

Nutrient Value of Different Hay Feeding Strategies  
Dr. Greg Halich  

Fencing Display  
Dr. Morgan Hayes  

Cattle-Drone Interaction  
Dr. Josh Jackson  

The Form of Supplemental Selenium in Free-Choice Vitamin-Mineral Mixes Affects Symptoms of Fescue Toxics  
Dr. Janie Matthews  

Selenium and Female Reproduction Function  
Dr. Phil Bridges  

Influence of Temperament on Growing and Finishing Cattle Performance  
Dr. Eric Vanzant  

Ear Sensor Technology: Data Collection and Management  
Dr. Eric Vanzant  
Mr. Kirk Vanzant  

Composting Management and Infrastructure Designs  
Dr. Steve Higgins  

Composting Management and Infrastructure Designs  
Dr. Steve Higgins  

UK C. Oren Little Research Center:  
Farm Tour Overview  
Dr. Richard Coffey |
| 11:00 am | Lunch / Featured Speakers / Agent and Grad Student Posters |
| 1:00 pm  | UKARC Breeding Programs  
Mr. Kirk Vanzant  
Dr. Darrell Bullock  

Evaluating Cattle Structure:  
Feet and Legs  
Mr. Kevin Laurent  

Extending the Grazing Season Using Multiple Options  
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Control of Cocklebur and Other Summer Annual Weeds  
Dr. J. D. Green  

UK C. Oren Little Research Center:  
Farm Tour Overview  
Dr. Tony Pescatore |
| 2:00 pm  | PRF Insurance  
Dr. Kenny Burdine  

Nutrient Value of Different Hay Feeding Strategies  
Dr. Greg Halich  

Fencing Display  
Dr. Morgan Hayes  

Cattle-Drone Interaction  
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The Form of Supplemental Selenium in Free-Choice Vitamin-Mineral Mixes Affects Symptoms of Fescue Toxics  
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Farm Tour Overview  
Dr. Tony Pescatore |
Select the field that you are going to use for stockpiling fescue. Selecting the field or area to be allocated for stockpiling fescue in August allows one to adjust grazing rotations or management as needed ahead of time.

During the fall months (August-October), cattle will need to be kept off the field that is being stockpiled. Some may even consider feeding hay during this time instead of waiting until the winter months. It will not be as muddy and cold when setting out hay bales. Also, hay will have less exposure to weather when stored outside, which will lower hay losses.

When selecting the field be sure that cattle will have readily available access to water, especially during cold periods when open water sources could freeze.

Prepare field(s) for stockpiling in August:

Graze, harvest for hay, clip or mow the pasture in August to remove previous forage growth to a height of 3 to 4 inches. This field will not be placed into the grazing rotation until November or December after all other fields have been grazed.

Apply nitrogen in late August to pastures after they have been grazed, harvested for hay, or mowed, assuming adequate moisture is available. Recommended nitrogen rates range from 40 to 80 pounds of actual nitrogen per acre or 100 to 200 pounds of urea. Other nutrients (i.e. P & K) and lime should be added based on soil test recommendations.

Plan on beginning to graze in November or December:

As alternative forages are being grazed, begin thinking about the date to begin using the stockpilled fescue.

Don't wait too late to begin grazing stockpiled fescue. Stockpiled fescue will decline in quality over time due to weather conditions, so grazing should begin during late November or December. Stockpiled fescue is generally higher quality than the average stored hay, and should be used before that quality declines. Use it or lose it! Once a killing frost occurs, fescue goes dormant until the next spring. Use the forage that is there because it will only be wasted if you don’t.

Stockpiled fescue should be strip grazed or rotationally grazed. Strip grazing is achieved by fencing off a small portion of the pasture using temporary fencing supplies and forcing cattle to be less selective. Once this area is grazed, the fence is then moved to include more of the ungrazed pasture. Plan your movements to your schedule while ensuring sufficient forage is available to maintain cattle (i.e. moving fence every day or two for maximum efficiently, or you may only wish to move the fence on weekends only).

Remember that providing mineral while cattle are grazing stockpiled fescue is still important, and the use of a portable mineral feeder may be needed depending on field design.

Always have hay in reserve. Ice and deep snow can limit or prevent grazing of stockpiled forages and hay will be required to supplement the grazing.
In some ways, USDA’s July Cattle Inventory report brought some welcome news to cattle producers. Flat beef cow inventory and a decrease in beef heifer development suggested that the expansion phase of this cattle cycle may finally be over. I have always put more stock in the January inventory number, but this is the first report that clearly suggests a halt in expansion. Beef cow numbers were unchanged from a year ago and beef heifer development was actually down a little more than 4%.

Most all other estimates line up with this general overview. A slight decrease in the expected size of the 2019 calf crop is also good news for cow-calf operations who continue to struggle to see attractive returns to labor and capital. Cattle-on-feed numbers remain above 2018 levels, but this is largely a function of last year’s calf crop. A summary table from the inventory report can be found below.

<table>
<thead>
<tr>
<th></th>
<th>2018 (1,000 hd)</th>
<th>2019 (1,000 hd)</th>
<th>2019 as % of 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cattle and Calves</td>
<td>103,000</td>
<td>103,000</td>
<td>100</td>
</tr>
<tr>
<td>Cows and Heifers That Have Calved</td>
<td>41,800</td>
<td>41,700</td>
<td>100</td>
</tr>
<tr>
<td>Beef Cows</td>
<td>32,400</td>
<td>32,400</td>
<td>100</td>
</tr>
<tr>
<td>Milk Cows</td>
<td>9,400</td>
<td>9,300</td>
<td>99</td>
</tr>
<tr>
<td>Heifers 500 Pounds and Over</td>
<td>16,300</td>
<td>16,400</td>
<td>101</td>
</tr>
<tr>
<td>For Beef Cow Replacement</td>
<td>4,600</td>
<td>4,400</td>
<td>96</td>
</tr>
<tr>
<td>For Milk Cow Replacement</td>
<td>4,200</td>
<td>4,100</td>
<td>98</td>
</tr>
<tr>
<td>Other Heifers</td>
<td>7,500</td>
<td>7,900</td>
<td>105</td>
</tr>
<tr>
<td>Steers 500 Pounds and Over</td>
<td>14,500</td>
<td>14,700</td>
<td>101</td>
</tr>
<tr>
<td>Bulls 500 Pounds and Over</td>
<td>2,100</td>
<td>2,100</td>
<td>100</td>
</tr>
<tr>
<td>Calves Under 500 Pounds</td>
<td>28,300</td>
<td>28,100</td>
<td>99</td>
</tr>
<tr>
<td>Calf Crop</td>
<td>36,403</td>
<td>36,300</td>
<td>100</td>
</tr>
<tr>
<td>Cattle on Feed</td>
<td>13,300</td>
<td>13,600</td>
<td>102</td>
</tr>
</tbody>
</table>

Heifer retention is usually the focus of discussions about beef cow inventory, but I want to talk for a minute about cow slaughter. Beef cow slaughter was up more than 8% for 2018, which was much more than expected given the size of the cow herd. This was an early sign that herd expansion was coming to an end. This general trend has continued as beef cow slaughter is up 2% for the first six months of 2019. I think we can trace a lot of this back to drought in the Southern Plains from 2011-2013. Weather forced beef producers to cull very hard for a few years and the result was a younger cow herd. That has caught up with us now as a larger share of our cows are older, which means we are being forced to cull this cow herd harder.

Finally, there is still a lot we don’t know about the impact of fire at the Tyson Plant in Kansas. It sounds like the damage was substantial and the plant is unlikely to be back on line soon. This was a very large plant that accounted for a significant share of fed cattle slaughter. So, there is no way to paint a pretty picture of this. Cattle markets are going to be impacted as that supply has to be absorbed by other plants. CME© live cattle futures for 2019 contracts were limit down on August 12th and 13th (when I wrote this article). August feeder cattle futures fell by $11 per cwt over those two days. Markets will adjust over time, but this is a significant shock on a market that is already struggling.

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**Kentucky Beef Cattle Market Update**

*Dr. Kenny Burdine, Livestock Marketing Specialist, University of Kentucky*

As the story goes, the company CEO sent a message to the Human Resources department asking, “How many employees are approaching retirement age?” The literal-minded and entirely accurate HR Manager sent the following reply, “All of them.”

The 2017 Census of Agriculture asked the same question…with the same reply. The better question, perhaps, is, “How many farmers are NEARING retirement age?” The answer, “A lot, and some of them appear to have passed it.”

This question of the aging of American farmers has long been a topic of discussion. We are, of course, all getting older. It’s the average age of farmers that some find troublesome, and it has been increasing for a good while, by about nine years over the last eight census cycles since 1977.

It is important to note in census terminology that this is “principle operator.” Principle operator has been defined as the person on a farm who made the most decisions. In the 2017 census the term “principle operator” was changed to “primary producer” while other persons involved in decision making on the farm were designated “principle” or “non-principle” producers.

Data were collected on up to four “producers” with one being designated the “primary producer.” For most farms this is likely to be an older producer. Thus, the Age of Principle Operators overstates the average age of all producers. For 2017 the
average age of “all producers” was 57.5, still the oldest occupational category in the U.S.

The Bureau of Labor Statistics which collects data across hundreds of occupational categories reports that Farmers, Ranchers, and Other Ag Managers have a median age of 56.4. That is the highest median age occupation reported by BLS. The next five are Judges (56.0), Motor Vehicle Operators (55.9), Tailors (54.3), Clergy (53.4), and Bus Drivers (53.2). Want to work with young people? Lifeguards, Restaurant Hostesses, and Counter Attendants are all under 22.

The distribution of primary producers across age categories is a better indicator of how many farmers are approaching retirement.

The second figure reflects the distribution of producers across three age categories. The values on the columns are the number (by 1,000s) of primary producers in each age category. Over the past four census cycles the percentage of farmers over 65 has increased from 26% of the total to 38% of the total while the percentage of those under 45 has decreased from 23% to 16%.

Problem or opportunity? With nearly two in five primary producers over 65, it is clear that transition of assets and management will soon occur on a significant scale. For while we all get older, none of us live forever. Transition planning should already be under way, regardless of age, for “all of them.”
As warm-season plants in the pasture naturally begin to die back, cool-season weeds will sprout: chickweed, henbit and purple deadnettle will fill the voids. Other weeds such as buttercup and musk thistle will likely be more prevalent in the next spring.

One option to tackle weed problems is to apply broadleaf pasture herbicides in mid to late fall or early next spring. However, herbicides alone may not be the best solution to revitalize pastures for the next grazing season.

The first step to determining your weed management options is to do a critical evaluation of pasture fields. Not only do you need to take an inventory of the current weeds present, but you also need to scout the field to look for any developing weed problems in their seedling growth stages. Identify areas of the field with potential problems such as musk or other biennial thistles, poisonous hemlock, buttercup and common chickweed. Also, you should assess the growth of desirable forage grasses and legumes.

Your primary question then becomes—does the existing stand of desirable forages appear adequate and potentially competitive enough against any emerging weed problems? If the forage stand is acceptable and weed pressure is light, the best course of action likely is to follow routine pasture management practices. However, if you see developing weed problems, you may want to take action to begin correcting the problem. In some cases, you may have no good solutions to correct all your weed problems. Here are some points to consider as you make those decisions.

After you evaluate the pasture, you must decide whether to drill or overseed more forages into existing pasture to improve the stand of desirable forage grasses or to spray herbicides to control emerging broadleaf weeds. You will not be able to do both at the same time since most pasture herbicides have the potential to injure newly emerging forage grasses or legumes.

For pasture herbicides that contain only 2, 4-D, general recommendations are to wait four to six weeks after spraying before reseeding forage crops. Other broadleaf herbicides may require waiting six months or more between the application and seeding forage legumes; make sure and check the label of the specific herbicide product you use. As a general rule of thumb, if you decide to spray this fall, you will need to wait until next spring before seeding additional forages. If you reseed first, then you should wait until the new seedlings have well-established root systems before applying herbicides. It’s important to note that anytime you use broadleaf herbicides, you’ll likely kill any clovers or other desirable legumes in the treated areas.

One alternative to consider in some situations is using a total-pasture renovation technique to control or suppress growth of the weedy vegetation followed by interseeding more forage grasses or legumes. This assumes that you don’t need the field for grazing animals until the newly seeded forages become well established. In this approach, you apply an herbicide product containing either paraquat or glyphosate to “burn back” or kill all existing vegetation before reseeding. Since paraquat and glyphosate have no soil-residual activity, you can immediately interseed desirable forages into the soil after herbicide application.

Yet another course of action is a “wait and see” approach. But, keep in mind that weeds are much easier to control when they are small and immature. Although you have several options to consider for managing weed problems in the fall, few of these options are viable without adequate rainfall.

For more information on pasture weed management, give me a call at 572-2600.
GROWING PAWPAW TREES

with Kentucky State University Specialist Sheri Crabtree

Thursday
September 12, 2019
10:30am-Noon

A FREE CLASS
presented by the
Campbell County Cooperative
Extension Service
3500 Alexandria Pike
Highland Heights, KY

Join us and learn about this native Kentucky fruit. K.S.U. specialist, Sheri Crabtree will discuss best growing methods and uses of pawpaw. Light refreshments provided.

Class Size is Limited to 20 Participants. Registration Required!
For more information, call (859) 572-2600
Or
Register online at www.ca.uky.edu/campbell
Water is the most essential nutrient in the diet of cattle and during hot and dry weather, it is especially important to monitor water quality if using farm ponds for livestock. What is a “harmful algae bloom” or “HAB”?

During periods of hot and dry weather, rapid growth of algae to extreme numbers may result in a “bloom”, which is a build-up of algae that creates a green, blue-green, white, or brown coloring on the surface of the water, like a floating layer of paint (see Figure 1). Blooms are designated “harmful” because some algal species produce toxins (poisons) when stressed or when they die. The majority of HABs are caused by blue-green algae, a type of bacteria called “cyanobacteria” that exist naturally in water and wet environments. These microorganisms prefer warm, stagnant, nutrient-rich water and are found most often in ponds, lakes, and slow moving creeks. Farm ponds contaminated with fertilizer run-off, septic tank overflow or direct manure and urine contamination are prime places for algae to thrive. Although blooms can occur at any time of year, they happen most often in the warmer months between June and September when temperatures reach 75 degrees or higher and ponds begin to stagnate. HABs can reduce water quality and intake, but more importantly, they can be deadly when ingested by livestock. Windy conditions can push algal blooms along water edges, increasing the risk for livestock to ingest algae when they drink.

Are all algal blooms poisonous to cattle?

Of the more than 2000 species of blue-green algae identified, at least 80 are known to produce toxins (poisons) that can affect animals and humans. Blue-green algae toxins are released when algal cells are damaged and die in the water (for instance, after water is treated with an algaeicide such as copper sulfate), or when ingested water reaches the animal’s digestive tract and algal cells are disrupted, releasing the toxins. The most common species of blue-green algae in North America associated with livestock poisoning are Anabaena (also known as Dolichospermum), Aphanizomenon, Oscillatoria, and Microcystis. Microcystis is the most common bloom-forming genus, and blooms are typically a greenish, thick, paint-like (sometimes granular) material that accumulates along shores Be aware that just having a blue-green algae bloom present in a pond does not automatically mean toxins are being produced but it is best to assume the water could be dangerous if used for livestock drinking water.

What are the most common signs of poisoning in cattle from blue-green algae?

Livestock are most at risk when drinking contaminated water or licking algae from their hair coat. Most cattle exposed to blue-green algae toxins die quickly and are often found dead very near the water source. Cyanobacterial toxins (“cyanotoxins”) primarily harm the liver and/or nervous system and have been implicated in both human and animal illnesses and deaths worldwide. Some algae produce potent neurotoxins (toxins affecting the nervous system), most often the toxin Anatoxin-A, that may cause cattle to exhibit muscle tremors, difficulty breathing, wobbly gait, seizures, profuse slobbering, diarrhea, and rapid death within minutes to hours. Other algae types produce hepatotoxins (toxins...
Frequently Asked Questions about Harmful Algal Blooms (HABs) in Farm Ponds used to Water Livestock

Ruminant Extension Veterinarian (UKVDL)

affecting the liver), most commonly the microcystin toxin, that can cause sudden death or a more delayed onset of death after signs of liver failure develop, including lethargy, diarrhea, and weakness. Cattle that survive the acute stages of liver damage may develop photosensitization, a skin condition in which white (light or non-pigmented) areas of skin along the back, face, sides of udders, muzzle, underside of tongue, lips, eyelids, and ears will become red and swollen then will become crusty and peel. The only treatment for exposure to any cyanotoxin is supportive care and medications to alleviate the symptoms.

Unfortunately, testing water for the actual toxin is problematic because toxins are not uniformly distributed in the water source, testing can be quite expensive, and there are many blue-green algae toxins for which no diagnostic tests exist. Many algal blooms in Kentucky are composed of harmless green algae which may look like underwater moss, stringy mats or floating scum. There are a couple of simple field tests a pond owner can do to quickly assess the likelihood of blue-green algae in the water. The instructions from the Kansas Department of Health and Environment for the "Jar and Stick Tests" may be found at http://www.kdheks.gov/algae-illness/download/Jar_Test.pdf. Remember these field tests are not even close to 100% accurate so follow-up testing is recommended to definitively determine what algae species are present.

How do I prevent poisoning from Blue-Green Algae for livestock and pets:

1. Always assume that a blue-green algal bloom is toxic.
2. Provide constant access to clean, clear fresh water and fence off or otherwise prevent access to stagnant, scum-covered ponds. Fencing off surface water sources and providing alternative clean water sources is the best option for healthy cattle for many reasons, not just HABs.
3. Do not allow animals to contaminate the water with feces and urine. Prevent fertilizer or manure runoff from entering water sources. Phosphorous is particularly important in fueling cyanobacteria growth (see Figure 2).
4. If a water source is treated with an algaecide such as copper sulfate, prevent animal access to the water for at least a week or longer to allow degradation of any released toxins in the water. It is best to wait until the pond is no longer stagnant and test the water before allowing animals to drink from it.
5. Creating and maintaining natural buffers such as grass strips, trees and shrubs between farmland, housing developments and waterways can help filter out excess nitrogen and phosphorus before they reach the water.

Figure 2: Cattle contribute excess nutrients to surface water by urinating and defecating in or around ponds and streams. Excess nutrients can also enter waterways as runoff from fertilized fields or manure laden pastures. Figure by Donnie Stamper, Biosystems and Agriculture Engineering, University of Kentucky.
Late summer is the best time to establish cool-season forages
Source: Jimmy Henning, UK Extension Forage Specialist

The period from late summer into early fall is the best time to establish common cool-season grasses such as orchardgrass, tall fescue, timothy and bluegrass for pasture or hay in Kentucky. These four grasses make up 95 percent of our pasture acreage.

Many years of research have shown this period provides the best chance for successful establishment. Mother Nature has a hand in this because seed produced in late spring remains dormant until late summer, and early fall rainfall provides the moisture necessary for the seed to germinate.

To increase your success rate, remember these four points:

First, address soil fertility needs by applying lime and fertilizer based on a current soil test. Inadequate levels of phosphorous, potassium or limestone will limit the success of late-summer seedings. For pure grass stands, apply nitrogen at the rate of 40 to 60 pounds per acre. (100 to 125 pounds of urea/46-0-0 per acre) at the time of seeding.

Second, control competition. Late-summer seedings most often fail from competition and lack of water. When you control existing vegetation with herbicides or tillage, the emerging seedlings will have access to whatever water and nutrients are present without having to compete with weeds.

To maximize the success of seedings, use a burn-down herbicide ahead of planting to kill annual weeds. Translocated herbicides can be used where labeled to kill or suppress perennials such as johnsongrass.

Remember to wait two to three weeks after spraying translocated herbicides before you plant in no-till situations. This will allow time for killed weeds to dry out and for residual effects of the herbicide to decay.

Third, select high quality seed of an adapted variety. Planting high quality seed is an essential step toward establishment and longevity of a pasture. These seeds have high percentages of germination, low percentages of weed seed and freedom from noxious weed seed.

Use varieties that have a proven track record of performance in Kentucky. The University of Kentucky conducts extensive research on varietal performance, which can be found on the UK Forages website, https://forages.ca.uky.edu/variety_trials. Here you will find all of the current results for the major forage crops in Kentucky, including cool-season grasses.

Look for varieties that have performed well across several test years and locations. These varieties will have improved yield, quality, persistence, disease resistance or other positive traits.

If you’re uncertain about a variety’s adaptation and performance, you can obtain information on the leading performers in the UK forage variety tests by contacting Don Sorrell at 572-2600 or 250-6665.

Fourth, seed at the proper time and depth. Seed legumes and grasses before mid-September. Grasses are less sensitive to later seeding than legumes. The major cool-season grasses will not do well if you simply broadcast them onto existing overgrazed or mowed pastures. Forages should be seeded no deeper than one-fourth to one-half inch.

Don’t forget there is a Land Pride no-till drill that can be rented from Southern States to assist you with your fall seeding projects.
Conference Program
8:00am-8:50am
Registration & Visit Trade Show
8:50am-9:00am - Welcome

— General Session —
9:00am-10:10 am
Federal and State Vehicle Regulations
How they affect horse owners
Sgt. J. Morris, KY State Police
10:10am-10:50am
Indoor Arenas are more than walls & a roof
practical considerations for an effective
facility. Staci McGill, Master Student,
University of Kentucky
10:50am-11:10am
Morning Break & Visit Trade Show
11:10am-11:50pm
Managing Water and Mud Issues
Dr. Morgan Hayes, University of Kentucky
11:50am-12:50pm
Lunch & Visit Trade Show
12:50 pm -1:30 pm
Horses are Risky Business
What to watch out for.
Katy Ross, Executive Director,
Kentucky Horse Council
1:30 –1:45
Afternoon Break & Visit Trade Show

— Afternoon Breakout Sessions —
1:45 pm to 3:15 pm

Session One
• Happy Barn, Happy Horses
  Dr. Bob Coleman, University of Kentucky
• Stall Fans and Horses
  Staci McGill, Master Student, University of Kentucky
• Ventilation in horse facilities, it is more than
  just moving air.
  Dr. Morgan Hayes, University of Kentucky

Session Two
• Using a Pre-purchase Exam Effectively
  Emma Adam DVM, University of Kentucky
• Getting Started – that first horse, Beth Powers
  Past President Certified Horsemanship Assoc.
• Getting Started – lessons that are safe,
  effective and fun, Tami Gainer President
  Certified Horsemanship Assoc.
3:15 - 3:30
Conference Survey and Closing Comments

Saturday, November 9, 2019
Boone County Enrichment Center
1824 Patrick Drive, Burlington, KY

Registration includes:
• Program
• Lunch
• Trade Show

For more information or
questions about this conference,
call or e-mail Don Sorrell
(859) 572-2600 | dsorrell@uky.edu

Register Online!
www.nkhn.info
Registration Information

Registration includes: Program, Lunch and Trade Show

Register on line at nkhn.info

Pre-Registration: $20 per adult - until November 1, after November 1 and at door - $30 per adult

Students: $10 – 18 years old and under, and college students with proper ID.

4-H Horse Club Members: Free but counties will be asked to pay $10 for each 4-H youth registered from their county. 4-H Horse Club members should register with their leader(s) or their 4-H Youth Development Agent.

Free 2020 Northern Kentucky Horse Network individual membership for new members with conference registration.

Payment: PayPal online or Mail-In Check* Proceeds from the Northern Kentucky Equine Conference will be used for the NKHN Equine Scholarship program.

If paying by Mail-In Check, please cut off and fill out the form below and mail with your check.

Vendors:
Existing business members may set up free of charge
Non-business members may set up for $35.
Contact Jim Mayer at (859) 496-4976 to register as a vendor.

Northern Kentucky Equine Conference - Saturday, November 9, 2019

Name(s):________________________________________

Address________________________________________

Phone:____________________  E-mail:____________________________

NKHN member:  ____ Yes  ____ No

Total number attending:  Adult____  Student____  4-H Horse Club Member____

Make check payable to NKHN mail to:
NKHN, 3500 Alexandria Pike, Highland Heights, KY 41076