Campbell County Farmers,

As we turn the calendar to November that means another growing season is coming to an end. 2017 has been another productive year for most farmers. Except for the month of September, we have had ample rain for row crops and forages. We had very few days that reached 90 degrees making this a mild summer as far as temperature. Recent rain and moderate temperature has given a boost to fall grass growth and pasture productivity.

Each fall the Extension Service and Cattle Association host a Farm Issues dinner. I have always said that this is MY most important meeting of the year. It allows you (farmers) to talk about what specific programs and activities are needed in 2018. Once program topics are identified we will prioritize the list and after that leaders/volunteers and I will develop and implement strategic programs to address these issues. For now, get involved by attending the November 30th program. See the program notice below for details.

The following are some of the programs conducted in 2017 that were a result of input from the Farm Issues Dinner and the Agriculture program survey, passed out during the Cattle Association annual meeting during the fall of 2016. Programs include Warm Season Grasses Field Day, Cattle Handling Facilities Field Day, Controlled Breeding Season, Marketing Feeder Calves, Replacement Heifer Development and Pasture and Hay Production Strategies.

Don Sorrell
Campbell County Extension Agent for Agriculture and Natural Resources

Farm Issues Program

Each fall the Campbell County Extension Service Agriculture Council and the Campbell County Cattle Association hosts an evening program to give local farmers and agriculture leaders the opportunity to identify farm issues and agriculture opportunities that exist in Campbell County. Topics identified during this meeting will be used to develop educational programs, field days and tours by the Extension Service and the Cattle Association in 2018. This year’s Farm Issues Program will be on November 30th at the Environmental Education Center on Racetrack Road. We will start with a City BBQ meal at 6:30 p.m. and with open discussion on agriculture issues at 7:00 p.m. Don’t forget to call in meal reservations by noon on November 29. Please call in meal reservations by 4 p.m. on November 29.
Johnsongrass, Fall Grazing, and Prussic Acid

Rory Lewandowski, Extension Educator, Athens County and Buckeye Hills EERA

This has been a good year for johnsongrass growth. Johnsongrass is a perennial weed and it is also a warm season grass. It can be a good feed source for beef animals as hay or in a grazing situation. However, this plant is a member of the sorghum family and graziers need to beware of the potential of prussic acid or cyanine poisoning when it is grazed after a frost. Other familiar forage plants in this sorghum family are forage sorghum, sorghum x sudangrass hybrids and sudangrass.

Prussic acid is very toxic and is rapidly absorbed into the blood. It combines with hemoglobin in the blood to form cyanoglobin, which does not carry oxygen. Prussic acid poisoning symptoms include an increased rate of respiration, increased pulse rate, gasping, muscular twitching or nervousness, trembling, foaming at the mouth, spasms or convulsions. Death occurs from respiratory paralysis and can happen quickly, within a 15 to 20 minute time span.

Prussic acid accumulation is not equal throughout the plant. It tends to accumulate in leaves as compared to stems and is found in higher concentrations in the upper or younger leaves of the plant. In general, young, immature plants pose the greatest prussic acid poisoning threat to livestock.

Of concern to graziers is that frost damage to plants in the sorghum family, including johnsongrass, can lead to prussic acid formation. Livestock should not be allowed to graze any plants in the sorghum family immediately following a frost event. However, because prussic acid is actually a gas, it will dissipate from the plant as the plant dries out and with the passage of time. The general recommendations regarding grazing plants in the sorghum family in the fall of the year are:

* Do not graze on nights when frost is likely. High levels of prussic acid are produced within hours after a frost.
* Do not graze after a killing frost until plants are dry, which is usually 5 to 7 days after the frost event.
* After a non-killing frost, do not allow animals to graze the frosted plants that are shorter than 30 inches in height for 10 to 14 days. Plants above that height can be grazed after a 4-5 day period. New growth may appear at the base of the plant after a non-killing frost. This growth will contain high levels of prussic acid. Do not allow livestock to graze this growth. Wait for a killing frost and then give those plants another 2 weeks before livestock are allowed to graze.

**Fall Grazing of Grass/Clover Pastures After Frost**

Forages such as alfalfa, clovers, and cool-season perennial grasses do NOT produce toxic compounds after a frost. So unlike the sorghum species that produce prussic acid after a frost, clovers, alfalfa, and perennial cool-season grasses are much safer to graze 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 legumes. The bloat risk is highest with grazing pure legume stands, and least when grazing stands having mostly grass and only low amounts of legumes present.

The safest management is to wait a few days after a killing frost before grazing pure legume stands - wait until the forage begins to dry from the frost damage. It is also a good idea to make sure animals have some dry hay before being introduced to lush fall pastures that contain significant amounts of legumes. To reduce the chance of bloat animals can be fed bloat blocks a few days before accessing these types of forages.

Mark Sulc, OSU Extension Forage Specialist
**Low Quality Hay and Forage Testing**

Producing high quality hay depends upon cutting the forage plant at a vegetative stage and then getting enough dry, sunny days to allow the plants to dry. While the frequent rainfalls we received in May and June was good for forage growth, it also hindered quality hay production. This year most first cutting hay was cut at a full bloom or later stage of maturity resulting in reduced forage quality. The potential for reduced livestock performance due to lower quality hay and the cost of energy feeds such as commodities and corn make forage testing more important than ever this year.

Livestock producers have a number of economical reasons to have forages tested before the winter feeding season begins. Knowing forage quality will help maximize animal performance, provide sufficient feed and lower input costs.

Most livestock producers have forages with different qualities on their farms because there is a tremendous variation in the quality of forages harvested at diverse stages of maturity. Also, weather damage and the species itself can affect forage feeding quality.

By having forages tested, you will know the equality of the different forages. 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. This will help you get the best performance from animals, whether it is reproduction, rate of gain, or milk production.

Winter feed comprises about one-half of the total feed costs for a beef herd. Therefore, it is desirable to develop a feeding and management plan to carry the cow herd through the winter at the least cost. You also might want to separate the herd into groups with similar nutrient and management requirements. This will keep you from over- or underfeeding cattle and wasting feed dollars.

The Campbell County Extension Service offers free forage sampling and ration balancing to livestock producers. Give me a call at 572-2600 if you are interested in this program.

**Overgraze Pastures This Fall Before Over-Seeding a Legume**

Now 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 rescue.

The biggest challenge to establishing legumes into an existing grass pasture is competition by the grass on new, slow growing seedlings. Anything you do to reduce competition and slow down grass growth will help. One of the best ways to slow down spring grass growth is to graze it hard now. Heavy grazing this fall prior to frost seeding or no-till seeding next spring will weaken the existing grass, reduce its spring growth and remove much of the old dead thatch. This will give the new legume seedlings a better chance to get started.

If you are frost seeding, close grazing is especially beneficial. Graze to the point where there is very little leaf surface left and some soil is exposed. While you're at it, also collect some soil samples. Then analyze them and apply any needed fertilizer and lime.
Plan to Lower Winter Feed Costs

Winter feeding is probably the single largest expense of maintaining the cow herd. This year will not be an exception due to high input costs (especially grain and concentrates). However, there are several management practices that we can use to lower our feed costs and make our herds more profitable.

The amount of hay and purchased feed needed can be decreased by extending grazing for as long as possible. This year grazing might continue until Thanksgiving, due to improved moisture conditions. Pastures that have received nitrogen and been allowed to accumulate growth can be grazed even farther into the winter, thus delaying the start of winter feeding. Accumulated/stockpiled fescue pastures should be strip-grazed to avoid waste and increase grazing days.

Pregnancy check the spring calving cow herd now and eliminate the wintering of open cows—or move them to a fall-calving group. There are a number of factors to consider when culling cows: pregnancy status, poor performance of offspring, age, mouth, udder, structural soundness, health problems, disposition, etc. By culling unproductive cows you avoid the costs associated with winter feeding. Favorable prices makes this a good time to cull unproductive cows.

Calculate the amount of hay that you need to feed the cows through the winter and obtain forage analysis on your hay supply so that you can estimate your supplemental feed needs. Supplemental feed purchases can be made ahead of time for best prices. Be aware that the nutrient value of purchased ingredients—things like rice hulls, peanut hulls, cottonseed hulls, etc. may have very little feed value. You should know (based on your forage analyses) if you need protein, energy or both and purchase your feed accordingly.

Plan to minimize losses. Consider a feeding pad (geotextile fabric and gravel) with hay feeders to minimize mud and waste. Feed pads or structures will also minimize damage to your pastures during the wet winter months.

Now is the time to consider grazing any top growth of alfalfa, clover and cool season grass hay fields. This time of year the forage quality of standing legumes and grasses is usually better than high quality hay. One thing producers need to be cautious about is not grazing hay fields when they are wet/soft due to precipitation. Avoid physical damage to the fields by removing the animals to traditional pasture fields or feeding areas.

Quote of the Month:
“Information is Not Knowledge” Albert Einstein

Information alone cannot accomplish goals. Information is not valuable until transformed into knowledge that can be used to achieve an objective. When new information is combined with experience and previously acquired information, useful and valuable management tools are created. A productive farmer must have the ability to put accurate information into action in order to develop a profitable and sustainable operations.
Teaching our Urban Neighbors Where Their Food Comes From

Some 23 years ago I started a program called Grow It, Eat It, Wear It. This agriculture awareness program still exists today and the focus remains the same: teach Campbell County 5th grade students about agriculture and where their food comes from. This fall this program reached 616 students from 13 schools.

The Campbell County Backroads Farm Tour is another good example of reaching our urban neighbors with agriculture education. This program is coordinated by the Campbell County Farmlands Workgroup. This year 13 Campbell County Farmers opened their farm gates to an estimate 1,600 individuals.

A new agriculture awareness program that we introduced this fall is the Newport High School Farm to Table 4-H club. This club meets on Fridays after school and includes farm field trips and hands-on-classroom activities to introduce high school students to agriculture and horticulture. Farm tours and classroom topics focus on beef, equine, goats, grain crops and fruits and vegetables. This group is small with only 6 participating students. Hopefully we will get more students involved as this program develops. The photo below is Matthew Seiter with 4 Newport High School students.

We live in a very urban county when you consider our large population and number of cities and towns. I mention these programs to you as a reminder that it is up to each of us (farmers and agribusiness) to take every opportunity to promote agriculture, especially to our urban neighbors.

Timely Tips
Dr. Roy Burris, University of Kentucky Beef Specialist

Spring-calving herds
- Pregnancy test your spring calving cows. We can provide you with blood test tubes to help with this. Winter feeding costs can be minimized by eliminating open cows prior to winterfeeding.
- If you have already done a preweaning working, revaccinate (booster) calves as needed. Treat calves for internal and external parasites. If you vaccinate calves yourself, be sure to store, handle and administer vaccines properly.
- Wean calves before cows lose body condition.
- Obtain weaning weights of your calves and enter this in a record keeping program. Keep good records and treat your cow-calf operation like a business.
- Weaning is the time to do your first round of culling and selecting breeding stock. You can eliminate obviously inferior calves, especially those with wild or nervous dispositions. Consider the number of heifers that you will need to save for your cow herd. Bulls which are old, unsound, roguish, etc. can be culled now. It is not too early to begin thinking about replacements now.
- Evaluate the body condition of your cows and improve their condition prior to winter.

Fall-calving herds
- The calving season should be winding down for fall calvers. Continue to check cows frequently. Identify calves and commercial males should be castrated and implanted.
- Put fall-calving cows on accumulated pasture or hay fields (if you have any) before the breeding season.
- It is time to get everything ready for the fall-breeding season, too. Line-up semen, supplies, etc. now and get your bulls ready to go (don’t forget their breeding soundness evaluation).

Stockers/Backgrounders
- Manage to keep newly weaned and/or purchased calves healthy. Calves should be penned in a small lot with adequate feed, water and shade to reduce stress. Careful handling and comfortable, uncrowded conditions can decrease stress.
- If you are purchasing weaned/stressed calves, have your receiving/feeding program in place. Feed a stress ration which contains at least 13% protein and is fairly energy dense.
- When newly-weaned calves are purchased in the fall, sickness and death loss can be a big problem. Work with your veterinarian or myself on a health and receiving program.
- Watch calves closely for a few weeks after their arrival. Have a treatment program ready for any health problems. Early recognition of sick cattle improves their chance of recovery. Watch for drooped ears, hollow appearance, reluctance to rise, stiff gait, coughing and dull or sunken eyes. A good “receiving” program is essential to profitability.
Firewood and Dead Ash Trees

The winter heating season is just around the corner and the sound of chainsaws buzzing in the woods is a common thing. As you begin to select what trees are best for burning it is important to know that all firewoods are not created equal. When choosing between species of woods, realize that they provide different amounts of heat per unit size. Wood is made up of air and cellulose (wood fiber). Some firewood logs have more air space than others. The more air space, the less amount of wood to burn. When looking for firewood, cut or purchase the heaviest/densest per unit volume. The better woods to choose from would be oak, hickory and black locust. These would be the densest of the firewoods in Kentucky. Yellow-poplar, silver and red maple would provide much less heat per unit volume, but are great woods for starting fires in the fireplace.

One major caution is to make sure you practice safety when felling trees and especially dead ash trees. Most ash trees have been dead for three years and the limbs of these tree are very brittle. YOU may see these trees as standing firewood but you should be looking at them as a major safety hazard. Limbs up to 6 inches in diameter can be seen under most dead ash trees. Never cut down trees by yourself and at least wear a hard hat.

The term "seasoned", when referring to wood, means how much water is in the wood. The more water you have in the firewood, the less heat you are going to have generated to heat a room. The heat generated from wet wood will have to go towards evaporating any moisture that might be found in the wood. Seasoned wood takes about six to twelve months to dry or cure properly. Seasoned wood is going to have splits in the end of the log and have a gray color. Having logs split into sections will help in speeding the drying process.

It is always suggested that you have a professional check your fireplace system before you build your first fire. This is a real must if you have not used the system for a few years.
Feeding Chickens

The simplest way to feed a small flock of chickens is to purchase a complete feed from a feed store. Complete feeds provide nutritionally balanced diets for chickens. Commercial feeds from a reliable feed store have all the nutrients in the right proportions that chickens need. A balanced diet is necessary for optimal growth and production. If you use a good diet that meets the dietary needs of your flocks, supplementing with other items will upset the balance of the diet. The ingredients used in different types of feed are similar, but the proportions vary depending on the particular chickens being fed. Each bag of feed is labeled with its specific use such as chick, grower and layer feeds.

Common mistakes made with supplements include the following:
- Providing vitamin and electrolyte supplements for more than 10 days
- Supplementing complete feeds with cracked corn, oats, or other grains
- Regularly adding green chops, lettuce, or other low nutrition ingredients to the diet
- Administering inappropriate or unnecessary medication

A chicken’s daily consumption of feed depends on the composition of the diet. Chickens typically adjust their feed intake in order to meet their energy requirements. As the energy content of a diet increases, feed intake decreases, and vice versa. Environmental temperatures also play an important role in determining how much feed a flock will consume. During hot weather, feed intake decreases. Feed intake increases during cold weather as chickens consume more to supply the extra energy needed to maintain regulation body temperature.

Scratch Grains: Chickens are compelled to scratch at the ground. They use their toes to mix up litter or scrape the ground in search of various seeds, greens, grit, or insects to eat. Spreading scratch grains (cracked, rolled, or whole grains such as corn, barley, oats, or wheat) encourages this behavior. Scratch grains are relatively low in protein and high in energy or fiber, depending on which grain is used. When scratch grains are fed with complete feeds, they dilute the nutrition levels in the carefully formulated diets. Scratch grains are like French fries—chickens that eat too many scratch grains have less of an appetite for more nutritious feed. If you are using scratch grains, feed them to chickens in the afternoon after birds have eaten complete feed, and then provide only as much scratch grains as chickens can finish in 15 to 20 minutes.

When feeding scratch grains to chickens, it is also important to provide grit to help the chickens grind and digest the grains properly (since chickens do not have teeth). If chickens have access to the ground, they can typically find enough grit in the form of small rocks or pebbles, but it is helpful to supply commercial grit, which is available in chick or hen size. Fine gravel is an acceptable substitute for commercial grit. Oyster shell should not be used as grit since it is too soft and does not aid in grinding. In addition, growing chickens have a lower calcium requirement, and too much calcium can adversely affect their kidneys.

Grit should also be provided to pasture-raised chickens. Grit is important for breaking down the grass chickens consume.

Table Scraps: Chickens are often fed table scraps (peelings, stale bread, and leafy vegetables) as treats, but excessive table scraps and greens can adversely affect egg production. The total supplementation of table scraps and scratch grains should be no more than chickens can finish in 20 minutes. Make sure that the scraps are not allowed to rot, or botulism might result. It is also recommended that scraps with strong taste, such as onions, not be fed to laying hens because eggs might take on those flavors.

Medicated Feeds: Medicated poultry feeds, which typically contain a coccidiostat and/or an antibiotic, are no longer available at your local feed stores unless you have a veterinarian prescription. Coccidiosis can be hard to control through sanitation practices alone. Chickens benefit from being fed a coccidiostat at low levels. Mature chickens develop a resistance to coccidiosis if allowed to contract a mild infection of the disease. Chickens raised for replacement can be fed a coccidiostat-containing feed for the first 16 weeks of life. The medicated feed should then be switched to a non-medicated feed.

Feeding and Storage: The way the chickens are fed is as important as the feed itself. Supply enough feeder space for all the chickens to eat at one time. With limited feeder space, some chickens do not get enough to eat. Place the feeders so that the trough is at the level of the chickens’ backs. This will reduce feed spillage. Feed should not be stored for more than two months. It is also important to keep it in dry, cool place. Old feed can lose its nutritional value and is susceptible to mold.
Adjust Light for Laying Hens and Young Pullets

For most small flock production, chicks are purchased in the spring, grow through the summer on natural day length, and start producing eggs in the fall. But then come the short, dark days of November and December, and those eager young females begin to lag in their egg output. Although a light-day of 11 to 12 hours will initiate egg production, this amount of light is not sufficient for sustained, high production. Poultry keepers who had great expectations regarding fresh eggs for the table become disillusioned. When natural day length falls below 15 hours per day, this is the time for the lights to come on!

Use increasing light after 20 weeks Regardless of which lighting system was used during the growing period, pullets should be on a schedule of increasing light by the time they are 20 weeks of age. For the heritage breeds it may be preferable to wait until 22 weeks of age. When you provide artificial light, do it in an orderly manner. Don’t confuse your birds by changing their day length from 10 hours of light to 13 hours of light all in one day. Birds can be given an increase of 15 to 30 minutes each week until they reach 14 to 16 hours a day. Please note that light periods longer than 17 to 18 hours may actually depress production because of the lack of sufficient time for rest.

You can set your timer so that birds receive light in early morning until sunrise, and then again in the afternoon at sunset. This will save a bit in electricity costs. On the other hand, an advantage to adding all artificial light during morning hours is that it allows the birds to naturally go to roost with the setting of the sun.

Hold day length for laying birds: Laying birds must never see a drop in day length. If you are flicking the switch by hand and forget to turn on lights for just one day you may see a drop in production. If the power is out for two days or more the birds may go into a molt, which can affect production for up to six weeks. If birds seem nervous and flighty, try reducing the level of light by using a smaller bulb size. Nervous birds may resort to cannibalism and egg eating.

Light levels: For small laying flocks, one 60-watt ceiling light (9-watt fluorescent) for each 200 square feet of floor space is adequate. For ceilings over ten feet, a 75-watt bulb (15-watt fluorescent) can be used. Remember to use a “warm” wavelength bulb, as “cool” bulbs are less stimulating to the hens. Be sure to check bulbs daily. It is well to remember that the shadows cast by equipment, cages, and dropping boards will cut down on light efficiency. Light lost from dusty bulbs can cause a real decrease in intensity. Be sure that there are no dark areas under nest boxes and roosting areas. These darkened areas are an invitation for females to lay on the floor rather than in the nest box. Try to darken the nest box and then place a few wooden eggs in the nests as an invitation to visit. Do this before the birds come into lay. Give them the idea of depositing eggs in the nest boxes before they think of laying on the floor.
Stockpiling Fescue Field Day
Saturday, November 18, 10:00 AM
Dobbs Lane, California
Shady Meadows Farm
Gene and Marcy Dobbs

Topics of Discussion:
- Why and How to Stockpile Fescue?
- Forage Yield and Quality Results
- Grazing and Utilizing Stockpiled Fescue
- Economics of Stockpiling Fescue

1 Mile North of California Market on Route 10
Watch for Field Day Signs

Sponsored by:
Campbell County Extension Service
Campbell County Cattle Association
University of KY College of Agriculture, Food and Environment

Don Sorrell
Campbell County Extension Agent for Agriculture and Natural Resources
Beef Quality and Care Assurance Program

Tuesday, December 5, 6:30 p.m.

Wednesday, December 6, 9:30 a.m.

Campbell County Environmental Education Center
1 Mile east of US 27 on 824 or Race Track Road

(This program is good for CAIP/Beef Quality Assurance Certification)

The goal of this program is to educate beef producers on best management practices for handling cattle and providing for their well-being.

Topics will include:
- Genetic influence on health and care
- Proper handling techniques
- Proper nutrition
- Treating animal disorders
- Management for good herd health
- Management during weather extremes
- Administering vaccines
- Properly implanting cattle
- Maintaining proper records

Don Sorrell
Campbell County Extension Agent for Agriculture and Natural Resources
Beef Quality and Care Assurance Program

One of the major issues facing the beef industry is the proper vaccinating, handling/working and care of beef cattle. Cattlemen have long recognized the need to properly care for their livestock animals. Sound animal husbandry practices, based on decades of practical experience and research, are known to impact the well-being of cattle, individual animal health, herd productivity and eventually the end product. To address this issue the University of Kentucky Beef IRM Team and representatives of the KY Beef Network have developed a new program called Beef Quality and Care Assurance program. New learning modules have been developed to improve on the traditional Beef Quality Assurance program and the most recent Cattle Handling and Care Program. This program is designed to inform producers of the best management practices for handling cattle and providing for their well-being. This program will complement the Beef Quality Assurance program while addressing such issues as genetic influence on health and care, proper handling techniques, proper nutrition, best management practices for processing cattle, treating animal disorders such as bad eyes and lameness, managing weather extremes and proper euthanasia.

If you need to be BQA certified then this program will qualify for certification or recertification. Some of the CAIP livestock cost share programs require BQA (soon to be known as BQCA) certification. There is a $5 cost for BQCA certification. If you would like a BQCA gate sign that would be an additional $5. If possible, please bring a check verses cash to pay for this educational program.