

The FARMACY

Master Finisher Program wrap up...

The Master Finisher program final two sessions were held as field days, the April 5th session was held at Asa Phillips Farm in Owenton and the May 5th session was held at Alan Ahrman Farm in Alexandria. Special thank you to both for hosting these field days.



Upcoming Dates:

July 7- 6:30 p.m.

**Campbell County Extension
Field Day-Weinel Farm**

10589 Shaw Hess Road,
Alexandria, KY 41001

See flyer on page 9

Campbell County Extension COOPERATIVE EXTENSION
Hay Day
at Weinel Farm
10589 Shaw Hess Road, Alexandria, KY 41001
Thursday, July 7, 2022 | 6:00 p.m.

Forage Field Day Topics:

- Crabgrass demonstration plot
- Johnsongrass Control
- Chute-Side Cattle Demonstrations
- Minerals and Fly Control

Guest Speakers:
Dr. Jimmy Henning
UK Forage Specialist
Ty McGuire
Western Mineral

VITAFERM

RSVP required for Ribeye Dinner
Compliments of Campbell County Farm Bureau
Call 859-572-2600 or online at
<https://campbell.ca.uky.edu>

Be sure to call to reserve your meal for this program

July 16- 9:00 a.m. - 3:00 p.m.

**Campbell County
Back Roads Farm Tour**

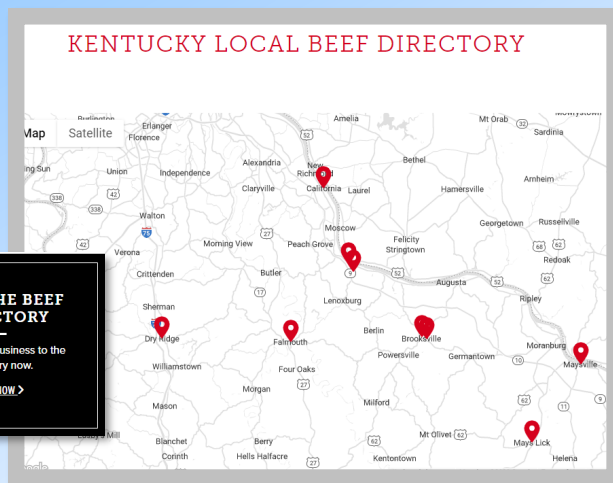
Maps available soon at the
Highland Heights Office and the
Environmental Education Center.

Michelle Simon

Michelle Simon
Campbell County Extension Agent
for Agriculture and
Natural Resources

<https://www.kybeef.com/raising-beef/local-beef-directory>

Join the local beef directory through this website. This is an opportunity for farmers to sell freezer beef via the Kentucky Cattleman's Association.



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This May Be a Year to Think Early About Winter Hay Needs

By: Kenny Burdine, University of Kentucky

Several of our articles have focused on implications of dry conditions in much of cattle country over the last 12 months. I thought it might be worthwhile to briefly discuss the potential implications for forage



impacts that result in lower hay production in those areas as well. The net effect could be a much more limited supply of hay as we enter the winter of 2022 / 2023.

production should current conditions persist. As an Extension economist in a very cow-calf oriented state, I would argue that it is never too early to think about winter hay needs. And, I think that might be especially true this year.

The fact that some producers in drought stricken areas are having to feed hay during a time of year when forage availability is typically not an issue, is significant. The point being that some portion of hay stocks are being drawn down in order to feed cattle this spring. The longer pasture conditions remain an issue, the more those hay stocks could be drawn down.

Second, there is the potential for dry conditions to impact hay production during the growing season. Again, it may seem early to be thinking about this, but we are looking at a very large portion of the US that is battling drought very early in the

growing season. I think it would be naïve to think that there isn't potential for lower hay yields, and increased demand for hay, if the situation continues.

Lastly, I would point out that while hay markets tend to be very regional, the potential for hay availability concerns are not just confined to areas dealing with drought. While hay is expensive to transport, the wider hay value differences across regions become, the more incentive there is to move hay into greater deficit areas. We have seen this in the past and this is one of the ways markets allocate resources when they become scarce. Further, one should not ignore the potential implications of drastically higher fertilizer prices this year. Even in areas that have had ample moisture, it is very likely that producers will apply less fertilizer on hay ground than they normally do. If this occurs, there will be yield

I call Kentucky home and the year 2007 is one that I will always remember. A spring freeze hammered our spring forage growth that year and drought impacted production in summer and fall. As we got into late fall and early winter, it became clear that hay was in much shorter supply than expected. Consequently, average quality grass hay prices more than doubled as producers scrambled to find hay to winter their cow herds. Something else that I remember is that a lot of cow-calf producers ended up feeding commodity feeds, rather than hay, to their cows that winter. At that time, alternative feeds were relatively inexpensive, but that is not going to be the case this year. I am not necessarily predicting something like that for the current year, but I do think it is valuable context and drives home the importance of planning for winter hay needs early.

Managing Corn Earworm in Sweet Corn

Ric Bessin, Extension Entomologist

Sweet corn is our most widely grown vegetable in Kentucky based on acreage. Locally-grown sweet corn is very popular and in some ways, the first local sweet corn of the year signals the start of summer. While many people look forward to sweet corn, no one likes to find corn earworm in their ear. Corn earworm is our most difficult and common sweet corn insect pest in Kentucky. Corn earworm is the caterpillar that feeds on the kernels at the tip of the ear. Husks leaves hide earworm and its damage until they are peeled away. More often than not, only a single corn earworm is found on a damaged ear as the larger caterpillars are cannibalistic on smaller ones. While backyard gardeners may not mind cutting off the tips of damaged ears, earworms can ruin the reputation of a commercial producer.



Figure 1. A corn earworm moth, note the dark spot near the center of the fore wing. Photo: Ric Bessin, UKY

Corn earworm can overwinter locally in the soil and winter weather conditions can impact survival of these. The moths will also migrate in large numbers into the Midwest from southern regions, but these migrants usually arrive later in the summer relative to local populations. Winters with less prolonged bitter cold, and ground freezing past winter mean that local populations likely have

higher survival. But late-planted sweet corn, that tassels in mid-August or later, is always at higher risk to corn earworm infestation due to the southern immigrant moths. One strategy to avoid corn earworm is to plant early.



Figure 2. Fresh silks attract moths for egg laying. Photo: Ric Bessin, UKY

Corn earworm is attracted to volatiles produced by fresh silks. When the silks emerge, the female moths are attracted to silks for egg laying. As the silks dry, they become less attractive to the moths. It is important for producers to monitor and know when the field begins to silk. It is recommended to begin spraying for earworms when 80 to 90% of the silks have emerged. Growers will need to reapply sprays on a 3 to 7 day interval based on corn earworm pheromone trap catches.



Figure 3. Earworms are generally restricted to the tip of the ear. Photo: Ric Bessin, UKY

There are Bt sweet corn hybrids that are available that provide varying levels of earworm protection. There are three different groups of Bt sweet corn based on the Bt toxins they express, Attribute I, Performance series, and Attribute II. These provide varying levels of protection with Attribute I often sustaining the highest level of damage and Attribute II displaying the highest level of protection. Even when using Bt sweet corn hybrids, producers still need to monitor for earworm and manage them as needed, these are not standalone tactics and may require additional insecticide inputs. Producers using Bt sweet corn must also abide by resistance management plans and destroy stalks within 30 days of the final harvest.

When spraying for corn earworm management, timing and coverage are important. Producers should target the middle third of the plant as the ear is the only part needing protection. A boom sprayer with drop nozzles can properly place insecticides in this target zone. Two nozzles on each side of the row directing spray from above and below the ear can provide excellent coverage. There have been some resistance concerns with pyrethroid insecticides, IRAC group 3 mode of action, particularly during the heat of the summer when this class may not be as active due to high temperature. There are other modes of action that are available including IRAC groups 1A, 5, and 28. See ID-36 for a listing of recommended corn earworm insecticides.

Grass Sawflies in Hay

By Ric Bessin, Entomology Extension Specialist

After the fall armyworm outbreak we experienced last fall in soybeans, alfalfa, pastures, and other crops, producers are wary of insects building up in their pastures and hay fields. Last week, we had a report from a producer in south central Kentucky of large numbers of 'worms' collecting on the tarp over his equipment while cutting his fescue/orchardgrass field (Figure 1). The concern was the number being collected on the equipment and the potential damage to the hay field.



Figure 1. Grass sawfly larvae collecting on producer's equipment while cutting hay field. Note there are just a few true armyworms in the photo (Photo Colby Guffey).

Correct Identification is Essential

The initial question to answer is: what are these insects? While they look like caterpillars, they are not.

Caterpillars belong to the order Lepidoptera (moths and butterflies) while sawflies are in the order Hymenoptera (wasps, ants, and bees). This is a key distinction as many of the controls for caterpillars are completely ineffective against sawflies. You can tell the difference between a caterpillar and sawfly larvae by counting the number of prolegs. Caterpillars will have five or fewer pairs of fleshy pro-legs while

sawfly larvae will have seven or eight pairs of pro-legs (Figure 2). The grass sawfly is light greenish-yellow in color with a light band on each side of the body and greenish-yellow head. Older larvae will have a dark bar across the head.

Sawfly Development



Figure 2. Both caterpillars and sawfly larvae will have three pairs of true legs attached to the abdomen just behind the head; sawflies will have six or more pairs of prolegs attached to the abdomen while caterpillars have five or fewer pairs of prolegs (Photo: Colby Guffey).

Grass sawfly wasps emerge in early April and lay eggs on various grasses, including hay fields and small grain crops. Larval development takes 21 to 30 days after which the larvae burrow into the soil and enter diapause for the summer in the pre-pupal stage. They feed on leaves, and in small grains, they feed on developing stems; when populations are high, they can cause serious head clipping.

Sampling for Sawfly

In terms of sampling for grass sawflies, they blend in with grasses and can be difficult to see. They are sampled with a sweep net or by carefully examining plants on a per square foot basis. In hay and pastures, there is no established

threshold, so I recommend treatments should be considered only if the numbers are comparable to the threshold for fall armyworm, which causes the same type of damage. The action threshold for fall armyworm in pastures is 2 or more per square foot.

According to the University of Maryland, you can scout for sawfly larvae and armyworms in small grains by shaking stems. Shake both sides of 5 linear feet of row and examine any worms that fall off between the 2 rows; also note any head clipping. Repeat for at least 10 sites. The threshold for sawfly larva and armyworm is when the larvae number more than 0.4 per linear foot of row or 0.7 per square foot and are smaller than $\frac{3}{4}$ inch. If the larvae are over 1 inch, have a dark bar on the head capsule, and have clipped many heads, it is probably too late to treat.



Figure 3. Young grass sawfly larvae have a more uniformly colored head, while more mature larvae have a noticeable brown bar across the head (Photo: Ric Bessin, UK).

Management

In terms of sprays for sawflies, products vary somewhat based on the crops listed on the various labels. Generally the pyrethroids (MOA group 3A) and spinosyns (MOA Group 5) are effective against sawflies.

Managing the postpartum interval for breeding season success

Sarah Thorson for Progressive Cattle

Reproduction is arguably the most important economic driver of your farm or ranch. A common benchmark for tracking reproduction in a herd is calving interval – the length of time between the birth of one calf and subsequent birth of the next from the same cow.

The goal should be for each cow in the herd to produce a calf every 365 days, this means that more calves will be born earlier in the calving season, which leads to a heavier, more consistent calf crop and, ultimately, more dollars in your pocket.

After calving, cows experience a temporary period of infertility known as postpartum anestrus. During this time, the uterus returns to its non-pregnant size, shape and position so that it is able to support another pregnancy. The end of the anestrus period is usually marked by a first estrous cycle that is shorter in duration than usual cycles and characterized by decreased fertility. Since the gestation length of a cow is around 283 days, it only has 82 days to recover from giving birth and conceive again to maintain a yearly calving interval. This makes successfully managing the length of the postpartum anestrus period one of the most important things you can do for your bottom line.

Use body condition score to manage postpartum anestrus

The biggest single factor in how long it takes for a cow to return to cyclicity after calving – and the one you have the most control over – is nutrition, which is tied closely to body condition score (BCS). Cows that calve at a BCS 3 or 4, on average, exhibit first estrus at approximately 80 days post-calving, making it very



difficult for you to maintain a one-year calving interval. On the other hand, females that calve at a BCS 5 or 6 average 55 days to first heat post-calving (Table 1).

BCS	Postpartum interval (days)
3	89
4	70
5	59
6	52
7	31

Source: Body condition scoring your beef cow herd, University of Nebraska – Lincoln, Learning Modules

What if cows are thinner at calving than you would like?

Managing for a moderate body condition prior to calving is the most

BCS status	Pregnancy %
Thin (< 5) and increasing BCS	100
Fleshy (> 5) and increasing BCS	75
Thin (< 5) and decreasing BCS	69
Fleshy (> 5) and decreasing BCS	94
Moderate (4.5 – 5.5) and maintaining	100

Source: Houghton, et al. Effects of body composition, pre- and postpartum energy level and early weaning on reproductive performance of beef cows and preweaning calf gain, Journal of Animal Science, May 1990

efficient method to control the length of postpartum anestrus; however, the good news is that while BCS at calving can influence rebreeding performance, it doesn't necessarily mean thin cows will always exhibit decreased

reproductive performance. Research tells us that the direction and magnitude of bodyweight change after calving and through breeding play a large role. A thin cow that gains condition has an increased probability of becoming pregnant, meaning the effects of poor body condition (less than 4) can be overcome by improved nutrition (Table 2).

The quandary of it all is that during early postpartum a cow is experiencing some of the highest maintenance energy requirements of her life, which means additional supplementation will likely be needed. If you have the ability and pen space, the most economical strategy is to sort cows into management groups by BCS. This enables you to strategically provide additional nutrient resources to your thin cows while not overconditioning the fleshy cows.

The bottom line is that while it is more economical and easier to manage thin cows for increased body condition in mid-to-late gestation, if you find yourself with cows that are a little thinner than you would like at calving, it's not too late to start managing for optimum body condition, which will help set you up for success come breeding season.

Livestock Health: Foot Rot - Prevention and Treatment

Source Dr. Lew Strickland, Associate Professor and Extension Livestock Veterinarian,
Department of Animal Science, University of Tennessee, Institute of Agriculture

An anywhere there is moist wet abrasive environmental conditions; there is a problem with foot rot. The incidence of foot rot varies according to the weather, season of the year, grazing periods. The disease incidence may increase up to 25 percent in high-intensity beef or dairy production units depending on housing systems. Approximately 20 percent of all diagnosed lameness in cattle is actually foot rot.

Causes

Cause of foot rot can vary. Normally, the skin between the hoofs protects the interdigital space from the outside world, but an injury of some type, mechanical (abrasions caused by rough surfaces rough terrain, hard stalks, and sharp gravel) occurs and continuous exposure to wet conditions results in infection. This perfect storm, if you will, is the typical cause of entrance points for infectious agents. A quite common bacterium known as *Fusobacterium necrophorum* is the organism most often isolated from infected hooves. The majority of *F. necrophorum* isolated belong to one of two types (types A or B) which produce toxins that cause necrosis (death) or decay of the infected tissues. *F. necrophorum* appears to act cooperatively with other bacteria, such as *Bacillus*, *Staphylococcus aureus*, *Escherichia coli*, and *Truperella pyogenes*, thereby decreasing the infective amount of *F. necrophorum* necessary to cause disease.

Regardless of the source, once loss of skin integrity occurs, bacteria gain entrance into subcutaneous tissues and begin rapid multiplication and



production of toxins that stimulate further continued bacterial multiplication and penetration of infection into the deeper structures of the foot.

Clinical Signs

Foot rot occurs in all ages of cattle, with increased case incidence during wet, humid conditions. Focus attention to areas where cattle congregate. These areas are often crowded and extremely wet from urine and feces deposited as cattle gather around hay bales or in small, shaded areas during hot weather. The first signs of foot rot, following a growth and development period of the organism for a period of five to seven days, are lameness, acute swelling of interdigital tissues, and swelling evenly distributed around the hairline of both hooves. Eventually the interdigital skin cracks open, revealing a foul-smelling, necrotic, core-like material. Untreated, the swelling may progress up the foot to the fetlock or higher. More importantly, the swelling may invade the deeper structures of the foot such as the navicular bone, coffin joint, coffin bone, and tendons and result in serious infection.

Diagnosing the Problem

Diagnosis of foot rot is typically made by examination of the hoof, looking

at the characteristic signs of sudden onset of lameness (usually one limb), swelling between the digits (claws), and separation of the interdigital skin. A potential problem is there are other conditions that can cause lameness in cattle. This can be easily mistaken for foot rot and would require different treatment. These include interdigital dermatitis, sole ulcers, sole abscesses, sole abrasions, infected corns, fractures, septic arthritis, and inflammation or infection of tendons and tendon sheaths. All of which generally only involve one claw of the foot and not the areas of skin or soft tissues between the toes or claws.

Treatment

Treatment of foot rot is usually successful, especially when instituted early in the disease course. Treatment should always begin with cleaning and examining the foot to establish that lameness is actually due to foot rot. Some very mild cases will respond to topical therapy and supportive care only. Most cases require the use of systemic antimicrobial therapy. I typically recommend a long-acting antibiotic to properly penetrate tissues and lessen trips through the chute. However, consult with your local veterinarian on recommended antibiotics and dosages for each situation.

Affected animals should be kept in dry areas until healed, if possible. If improvement is not evident within three days to four days, it may mean the infection has invaded the deeper tissues. Infections not responding to initial treatments need re-evaluation by your veterinarian in a timely manner. In the more severe cases,

management of the animal will be between salvaging for slaughter (following drug withdrawal times), claw amputation, or in valuable animals, claw-salvaging surgical procedures.

Prevention

If you have been in any of my Master Beef meetings, you have heard me say “the best offense is a good defense”, this is the case here as well. Center preventive measures on the prevention of mechanical damage to the foot as caused by sharp gravel, brush, stubble, and minimizing the time cattle must spend standing in wet areas. Other preventive measures presently used include the use of footbaths (most often used in confinement beef or dairy operations, 10 percent Zinc Sulfate – 16 lbs per 20 gallons of water or 10 percent Copper Sulfate – 16 lbs. per 20 gallons of water). Footbaths are not commonly very practical in open pasture as the labor and difficulty of moving cattle through them prohibit their use.

When cattle are moderately to severely deficient in dietary zinc and iodine, there may be an increased incidence of foot rot on that operation. Adequate dietary zinc/iodine should be provided in the form of a well balance trace mineral nutritional program to help minimize foot rot and other types of lameness. As a word of caution, the required levels of zinc/iodine and the toxic levels are very similar. Adding additional zinc and or iodine above the recommended levels may result acute or chronic toxicity of cattle.

A commercial vaccine approved for use in cattle as a control for foot rot

is available. Reported results by producers and veterinarians have been mixed from their use of this product, and controlled studies have not been conclusive in the efficacy of the vaccine.

Take Home Message

Foot rot is a costly frustrating condition, which results in extra labor and expense on your operation. Keep in mind that it is necessary to have a break in skin integrity for foot rot to occur, and early intervention

results in quicker response to treatment. The most important preventive measures are centered on the protection of interdigital skin health. Close detail to environmental conditions and feeding a well-balanced dietary program nutrition are key in prevention. Consult with your veterinarian or Extension agent on a prevention program for your farm.

CAMPBELL COUNTY COOPERATIVE EXTENSION SERVICE

OPEN HOUSE



Discover Extension

Saturday
September 10, 2022
10:00 am - 2:00 pm

Activities for everyone...

- Tour the Beautiful Garden
- Activities for Children
- Complimentary Gifts
- Farm animals on display
- Educational Demonstrations
- Food and drinks available



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Campbell County Cooperative Extension Office
3500 Alexandria Pike | Highland Heights, KY 41076
859-572-2600

3 Tips for Farm Management During Rising Inflation

Jennifer Rogers | KFBM Area Extension Specialist | jennifer.rogers@uky.edu

With input prices on the increase and so many things changing with our economy, it is important that producers think about how to manage during rising inflation. There is nothing that we can do to control the prices that we have to pay for products, we can only make sound management decisions about what we purchase and how we manage cash, and the cost of money that is borrowed.

1. Hold onto Cash

Many grain producers currently have more cash on hand than in the past. A phenomenal growing season last year, coupled with increasing prices for stored crops helped to create this cash influx. Many times when there is excess cash available, producers look for ways to use that cash to benefit them over the long run. Producers may be tempted to pay off some long-term debts or pay cash for large capital purchases. During this current environment, it may be wise to hold onto larger reserves of cash. The high input prices associated with the 2022 crop and the current uncertainty around getting the crop planted have caused much stress over this year's crop being able to cash flow. Therefore, cash reserves may be needed to offset any shortfalls in being able to pay back associated expenses. Having cash reserves will potentially prevent, or limit, the need to refinance operating expenses over a longer period.



2. Lock in Interest rates

Interest rates are on the rise as well. This typically means that any long-term debt that you have now, may be at a cheaper rate than you could borrow money for in the future. Therefore, there is less incentive to pay off debts at these low rates to turn around and need to borrow money at a higher rate. If you have term loans that are not at a fixed rate, or that will have to be refinanced for a balloon payment in the next few years, it may be wise to talk with your lender about locking in these rates now. Securing lower interest rates for the future could save your operation a substantial amount of interest cost over the life of the loan.

3. Operating Efficiently

Operating efficiently is key during times of rising costs. We have already seen this to be vital in regards to fertilizer. All fertilizer costs have increased dramatically over the price paid for last year's crop. This has caused producers to be prudent about how much fertilizer they intend to put on the

crop. Decisions have been made about the rate applied. Some producers have even decided to use some of the "excess" fertility that they have been banking over the past. Efficiency is also needed in labor resources. Good farm labor is becoming harder and harder to find and even more expensive to keep. Make sure you are using your labor to their best ability. As hard as the decision can be to eliminate

positions, it may be necessary. Efficiency can also be applied to machinery. Not only does the size of the equipment make it efficient, but also the need for equipment. Evaluate your mechanical needs. If there are idle pieces of equipment sitting around the farm, you may need to look into selling them. This will provide an additional source of cash and also eliminate insurance and upkeep expenses. Your farm business is just that, a business. You should always be looking for ways to operate at a lower cost while maintaining your profitability goals.

Operating and thriving during a time of rising inflation is difficult. We have all either lived through or heard the horror stories of farming in the 80's when inflation was high and interest rates were through the roof. Thankfully, we have the benefit of learning from that experience and can start making decisions now that will help manage the risk that we face.

Safely Handling Chicks

Source: Jacqueline Jacob, UK extension poultry project manager

The intestinal tracts of all mammals have various types of bacteria as part of their natural intestinal microflora. There are many opportunities for people, especially young children, to be exposed to these bacteria, such as pets, friends, etc.

Some types of bacteria may cause diseases like salmonella in susceptible humans. When dealing with animals in any situation personal hygiene is important. This is especially true when handling chicks in your backyard and small poultry flocks. Here are some reminders of proper hygiene practices.

Hand-washing is necessary to reduce any risk of bacterial infections. Wash your hands after coming in contact with any animals, birds or eggs. Proper hand-washing techniques include using soap and warm running water and rubbing your hands together vigorously for at least 20 seconds. Make sure you wash the back of your hands and wrists, in between fingers and under your fingernails. Rinse well and thoroughly dry your hands with a paper towel. Turn off faucets with your elbow or a paper towel.

If there is no access to running water, you should use antibacterial hand sanitizers or wipes with at least a 99 percent bacterial kill rate and then wash your hands as described above as soon as possible.

Supervise children when handling birds or animals. Don't allow them to nuzzle or kiss animals, chicks and ducklings. Don't allow children to touch their mouths or eyes with their hands during or after handling animals and birds prior to hand washing. Make sure children don't eat and drink before thoroughly washing their hands.



incubating eggs and only set clean

You can do a few other things to reduce your risk of exposure of bacteria. Always clean and sanitize an incubator prior to

eggs from a reliable source. To prevent the potential transmission of bacteria from adults and children to your chicks or eggs, make sure to wash your hands prior to handling the eggs or birds. You should always thoroughly clean any surfaces that have been contaminated with animal feces. Clean and sanitize the incubator immediately after use and properly dispose of the shells and eggs that do not hatch.

Campbell County Extension COOPERATIVE EXTENSION
University of Kentucky
College of Agriculture, Food and Environment

Hay Day

at Weinel Farm

10589 Shaw Hess Road, Alexandria, KY 41001

Thursday, July 7, 2022 | 6:00 p.m.

Forage Field Day Topics:

- Crabgrass demonstration plot
- Johnsongrass Control
- Chute-Side Cattle Demonstrations
- Minerals and Fly Control

Guest Speakers:
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VitaFerm Mineral



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Michelle Simon
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Campbell County Extension Agent for Agriculture and Natural Resources

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Disabilities accommodated with prior notification.

10 Tips for Managing High Feed Prices.

Dr. Katie VanValin, Assistant Extension Professor, University of Kentucky

We have all heard the phrase, “it’s the little things”. The saying applies to the beef industry as well. There is no single management practice, feed ration, or genetic trait that drives profitability. Profitability is really a summation of lots of little things coming together to create a profitable system. Whenever profitability is challenged whether from greater input prices like we are seeing now, or lower calf prices, I start to get questions about decreasing feed costs. This should come as no surprise, as feed costs are one of the biggest expenses facing beef cattle operations. Below is a list of some of those little things, that can really add up!

1. Preg checking: Our cows should be working for the operation. Thus, an open cow is one that is not pulling her weight on a cow-calf operation. Today producers have more options than ever before for preg checking their herds. New chute side blood tests can be completed right on the farm in about 10 minutes, there are also commercial labs that will run blood tests giving you results in just a couple of days, and of course there is always ultrasound which gives you a real time answer but does depend on scheduling and availability. Culling open cows not only decreases purchased feed costs but can also make our available forage resources go farther as well.
2. Buy in bulk: The ability to buy purchased feeds in bulk can allow producers to take advantage of bulk discounts offered by many feed retailers.

Also having the ability to store feed on the farm can allow producers to purchase feed stuffs at the time that they are most economical as opposed to waiting until it is needed to be fed.

3. Get your hay tested: When talking with cow-calf producers about feed costs, one of the first things I ask them is, “Did you get your hay tested?”. Getting hay tested allows us to make strategic decisions about hay feeding. Cattle’s nutrient requirements fluctuate throughout the year, so making sure that hay with the highest energy and protein concentrations is fed to the cattle on our farm with the highest energy and protein requirements can go a long way in decreasing our supplemental feed costs. For example, hay test results from two different lots of hay are shown in the [Table 1](#).

Assuming that we are feeding 1250 lb cows with a body condition score of 5, [Table 2](#) shows the amount dried distillers grains that would be required to meet the energy and protein requirements of these cows in either mid-gestation, late gestation, or lactation.

Now, assuming that DDGS cost \$280/T, [Table 3](#), shows the cost to supplement 30 cows per day.

These calculations show the importance of feeding the right hay, to the right cow, at the right time. Feeding Hay A during mid-gestation and saving hay B to be fed during lactation can have a drastic impact on the cost of supplementing the

cow herd while also maintaining adequate body condition score. This calculation was simple and does not take into consideration things like environmental factors or age that can impact the energy and protein requirements of the cow herd. In Kentucky many of our county extension offices of hay testing probes and may offer assistance with submitting hay samples to the lab. Work with your county agent, or use the University of Kentucky Beef Cow Supplementation tool online to help make management decisions based on your hay test results

4. Compare costs based on nutrients: When comparing feed stuffs, it is critical that comparisons are being made apples to apples. It is not enough to just look at cost per lb or ton. There are many factors that can impact the cost per lb or ton of a feed ingredient. One of the biggest things to remember is that feed stuffs can have vastly different moisture contents, so how much of the feedstuff is actually water? For example, in Kentucky, stillage is a widely available feedstuff and has a moisture content of about 90-94%, whereas dried distiller grains would only have a moisture content of about 10-12%. It’s reasonable to expect the price per ton for those high moisture feeds. to be less than drier feeds, but is it a better deal? To answer that question, we must compare the price of feeds on a cost per lb of protein or energy basis.

- For example, **Table 1. Hay test results from two separate lots of hay.**

consider dried distiller grains at 90% dry-matter, and 28% crude protein for \$280/T.

	Dry-matter, %	CP, %	NDF, %	TDN, %
Hay A	87.1	7.7	65.5	52.9
Hay B	86.7	13.1	55.1	60.1

Table 2. Amount of dried distillers grains needed to meet the protein and energy requirements based on stage of production

- First calculate the lbs of CP in one ton of dried distiller grains (on a DM basis).

	Mid-gestation	Late-gestation	Lactation
Hay A	0	1	5.6
Hay B	0	0	0.7

a truly more economical option in

Luckily, technology has allowed

Table 3. Cost to supplement 30 cows per day with DDGS.

- 2000 lb * 0.90 = 1,800 lbs of DM in a Ton; 1,800 lb DM * 0.28 = 504 lbs of CP in ton.

	Mid-gestation	Late-gestation	Lactation
Hay A	0	4.20	23.52
Hay B	0	0	2.94

- Now calculate the cost per lb of nutrient. Divide the cost of the feed by the lbs of the nutrient in one ton.

- \$280 (\$/Ton)/504 (lbs of CP/T) = 0.56/ lb CP.

Use this value when comparing feed stuffs to one another. Another important consideration is that sometimes we can't take full advantage of a feed stuff in a ration. For example whole cotton seeds are high in protein (~24%), but it is also very high in fat (~18%). Recently I was working on a ration for a producer, and whole cottonseed what less expensive than other protein sources when comparing them on the cost per lb of protein. However, because of the high fat content, inclusion of whole cottonseed in the diet must be limited. At the end of the day, the low inclusion level of whole cottonseed, prevented it from being

this situation. Working with a nutritionist can be beneficial when evaluating the economics of feed ingredients.

5. Improve record keeping: The best cattle managers are often the best record keepers, and that is not coincidence. We can't manage what we do not measure. Record keeping allows us to truly track feed costs, it can be a great way to subjectively identify those less efficient cows in the herd. You know the one, she's had a few calves and she gets rebred, but a closer look at records might show that her calving interval is more like 425 days vs. the goal of 365 days. For example, if we had two 7-year-old cows and one had an average calving interval of 370 days and the other 425 days, the cow with the shorter calving interval would have had 5 calves vs. only 4 calves for the cow with the longer calving interval.

record keeping to be easier than ever! Many of these programs help producers track performance metrics, that can help to identify those less efficient or productive animals in the herd. The University of Kentucky has recently launched X10D, which is a new program that encompasses whole farm record keeping along with educational resources from University of Kentucky Cooperative Extension, and forums to connect with other producers. For more information about X10D, visit www.X10D.org, or ask your local county extension agent.

6. Cut the fluff: I'm talking about body condition score (BCS). Body condition score highly correlated to reproductive performance. Cows with a body condition score of less than 5, have a much lower chance of being bred. What about those heavy cows? Each BCS equal to

(continued on page 12)

10 Tips for Managing High Feed Prices *(continued from page 10)*

Dr. Katie VanValin, Assistant Extension Professor, University of Kentucky

6. about 75-100 lbs of live body weight. When cows' BCS increase their maintenance requirements increase, feed intake increases, and even their susceptibility to heat stress increases. Thus, the cost to maintain that cow at a BCS of 7 or 8 will be greater than if she were maintained at BCS 5 or 6. One solution for managing BCS of the cow herd is to sort cows by BCS. Keep those cows that are thinner or heavier separate from the rest of the herd. This allows us to feed those cattle either more or less energy and protein to increase or moderate their BCS.
7. Prevent feed waste: Feed wastage is just money wasted. Now, understand that we will always have some feed wastage but there are ways to limit this wastage and thus, limit the economic impact it has on the operation. Preventing feed wastage starts long before we start feeding. Storing hay under roof is one of the first things we can do to prevent wastage. For a 5 x 5 bale, 33% of the weight of that bale is found in the outermost 6". When bales are stored outside and on the ground, we can easily see weathering of that outer 6". Feed waste can also occur when feeding hay, using hay rings can help prevent some losses, but not all bale rings are created equal. Designs that have solid metal skirting around the bottom are better than those that are open.
8. Keep back only what you need: Developing heifers can be a pricey undertaking. Keeping back only the number that you need can help to decrease the overall cost of developing heifers on the operation. However, sometimes it can still be advantageous to purchase bred heifers. I think about this, especially in years where forage resources may not be as abundant. We have truly been blessed here in the mid-south over the last several years, with at times having too much rain. However, years like 2012 are still in recent memory. This is a scenario that might require a little pencil pushing, but I encourage you to consider the costs of developing heifers on your operation vs. purchasing bred heifers. Also remember, that especially when input costs are high, keep back only what you need for your operation.
9. Extend the grazing season: Finding ways to extend the grazing season (efficiently), can be a great way to decrease your feed bill. One of the easiest ways to this is taking advantage of tall fescue's ability to stockpile. One common misconception when it comes to stockpiling fescue is that it requires nitrogen application. With today's nitrogen prices, that might sound like a deterrent. Although fescue responds well to nitrogen application, it will still stockpile (to a lesser degree) even without this step. Use strip grazing to efficiently utilize stockpiled tall fescue and extend the grazing season.
10. Don't cut the minerals: Minerals are a required nutrient, just like energy and protein. It can be easy to forget about minerals or cut back on mineral supplementation when feed costs increase. The problem with this is that many feedstuffs are deficient in at least one or more minerals. In Kentucky we are especially concerned with selenium and copper. These are the two most common deficiencies observed in cattle in the state. Supplements like white salt blocks and even trace mineralized salt blocks, simply do not have enough of these (and other) minerals to ensure that the animal's requirements are being met. Minerals are extremely important for optimal reproductive performance, and growth. Unfortunately, early mineral deficiencies can be difficult to diagnose. This is because at first symptoms of mineral deficiency are what we call sub-clinical. This means that we aren't losing cattle to mineral deficiencies and lab tests are not sensitive enough to detect these sub-clinical deficiencies. However, when herds have sub-clinical mineral deficiencies, we are undoubtedly leaving performance on the table. To avoid, sub-clinical mineral deficiencies provide a good quality complete mineral supplement to the herd 365 days of the year. The University of Kentucky Beef IRM mineral recommendations are developed to give producers across the entire state a good starting place for selecting a good

quality mineral supplement. Dr. Lehmkuhler and I meet at least once a year to discuss the mineral recommendations and take into consideration the latest mineral research, as well as economic and supply chain

considerations when revising these recommendations.

This is by no means an exhaustive list of strategies to manage feed costs, but it is a start and should give producers some things to evaluate on their own operation. Remember

the small things and manage the things that we can control on our operations to help improve profitability. If you have any questions about these strategies, please reach out to your local county extension office.



Farmers Market Squash Sauté

UK College of Agriculture,
Food and Environment

Servings: 8

Serving Size: 1 cup



Ingredients:

- 2 cups whole grain rotini pasta
- 3 boneless chicken breasts
- 1 tablespoon olive oil
- 2 medium zucchini, diced
- 4 medium carrots, peeled and diced
- 2 medium yellow squash, diced
- 2 garlic cloves, minced
- 2 tablespoons fresh chopped basil
- ¾ cup light Alfredo sauce
- 2 tablespoons shredded Parmesan cheese

Nutrition facts per serving:

230 calories, 7g fat, 2.5g saturated fat, 40mg cholesterol, 210mg sodium, 27g carbohydrate, 4g sugars, 18g protein.

Directions:

1. Cook pasta according to package directions.
2. Roast chicken breasts at 400 degrees F to an internal temperature of 165 degrees F, about 25-35 minutes; Let cool.
3. Dice chicken into bite sized pieces.
4. In a large saute pan, add olive oil, zucchini and carrots.
5. Saute until slightly cooked.
6. Add yellow squash and garlic and saute until all vegetables are tender.
7. Remove from heat and stir in basil, diced chicken and pasta.
8. Add Alfredo sauce and toss until ingredients are evenly coated.
9. Reheat by tossing the ingredients in the saute pan for 3-5 minutes over medium heat.
10. Sprinkle with Parmesan cheese and serve.

Source: *Plate it up! Kentucky Proud Project.*

Crabgrass for Summer Grazing...Have you lost your mind???

Chris Teutsch, UK Research and Education Center at Princeton

Crabgrass is a summer annual grass that often shows up in pastures, especially in thin stands that have been damaged by hay feeding or overgrazing. To flourish in a pasture, crabgrass needs a six-inch opening. This means if you have a strong and vigorous sod, crabgrass will be difficult to establish and maintain.

When cool-season pastures are grazed closely and often during the summer months, the composition of these stands tend to shift toward crabgrass. Unfortunately, these volunteer stand of crabgrass are often not managed to their full potential. The objective of this article is to give you a few pointers that will help you get the most out of volunteer crabgrass stands.

Not all crabgrass is created equal. We tend to lump all crabgrass into one category, but there are several species and even improved varieties. Some crabgrass species and even local ecotypes are more productive than others and respond better to improved management. If you want

to ensure that you have the most productive crabgrass species, then consider overseeding your volunteer stands with an improved variety of crabgrass (Table 1). More data on crabgrass varieties can be found by clicking on the "Variety Trial" icon found on the UK Forages webpage.

Mix crabgrass with a carrier.

Uncoated crabgrass seed can bridge in drills and seeders so the seed can be mixed a carrier, like pelleted limestone or even some red clover and annual lespedeza seed and broadcast onto closely grazed pastures in late winter or spring. The crabgrass seed will begin to germinate in early to mid-May as soil temperatures start to rise. Although crabgrass seed seems expensive, relatively low seeding rates are used. For overseeding pastures, 3-4 lb/A of uncoated seed or 4-6 lb/A of coated seed should be used.

Drag closely grazed pastures to stimulate crabgrass stands.

Dragging closely grazed pastures helps to get volunteer seed from the previous season or seed that you

have broadcast onto the pasture into contact with soil. Good soil to seed contact is essential for germination and emergence. Any tillage or dragging should be shallow since crabgrass is a very small seed and should be covered no deeper than ¼ inch.

Apply 60-80 lb N/A to volunteer stands. Research conducted in Virginia found that like other summer annual grasses, crabgrass responds well to nitrogen fertilization (Figure 1). Nitrogen fertilizer not only increased dry matter yield, but also the crude protein concentration in crabgrass forage (Figure 2).

Control broadleaf weeds. Once crabgrass seedlings have 3 to 4 collared leaves, then light applications of 2,4-D can be applied to control broadleaf weeds that have germinated. These may include spiny pigweed and cocklebur. Make sure and always following instructions on the herbicide label.

Allow crabgrass to reach a height of 6-8 inches before grazing. Allowing

Table 1. Crabgrass performance at UK Research and Education Center at Princeton in 2020. The complete report can be found on the UK Forage webpage.

Variety	Proprietor/ Distributor	Maturity ¹ Jul 16	Plant Height (in) Jul 16	Yield (tons/acre)			
				Jul 16	Aug 6	Sep 9	Total
Commercial Varieties-Available for Farm Use							
Red River	Noble Foundation	41.5	22	2.04	0.74	2.15	4.92*
QuickNBig	Noble Foundation	41.5	20	2.01	1.06	1.81	4.87*
Impact	Barenbrug USA	41.5	20	1.77	1.02	2.19	4.84*
Mojo	Barenbrug USA	41.5	22	1.69	0.80	2.21	4.70*
Mean		41.5	21	1.86	0.90	2.08	4.83
CV,%		0	12	15.72	25.25	12.58	8.78
LSD,0.05		0	4	0.47	0.37	0.44	0.72

¹ Maturity rating scale: 37 = flag leaf emergence, 45 = boot swollen, 50 = beginning of inflorescence emergence, 58 = complete emergence of inflorescence, 62 = beginning of pollen shed. See Table 3 for complete scale.

*Not significantly different from the highest numerical value in the column, based on the 0.05 LSD.

Nitrogen application: 60 lb/acre of actual nitrogen on July 22 and August 13 (Total of 120 lb of N/acre).

crabgrass to become well established before grazing will increase season long productivity.

Stop grazing at 3-4 inches. By leaving residual leaf area, the regrowth of crabgrass will be more rapid and overall productivity will be increased. Crabgrass pastures can be grazed again once they reach a height of 6-8 inches.

Apply 30-40 lb N/A in mid-summer. If you are getting plenty of rain, you might consider applying a small amount of nitrogen in mid-summer. This will increase late summer growth and improve crude protein levels.

Allow stands to go to seed at least once during the growing season. Crabgrass is a summer annual grass that behaves like a perennial through prolific reseeding. This means that it must come back from seed each year. Therefore, allowing it goes to seed ensures that there will be plenty of volunteer seed for next year.

Plant a winter annual in late summer or early fall. Crabgrass is productive from June until September. Planting a winter annual grass like annual ryegrass or a small grain can provide late fall or early spring grazing. As these winter annuals are grazed out, crabgrass will germinate and fill in.

- OR -

Thicken stands up in the fall by interseeding cool-season perennial grasses. If you want to get more cool-season perennial grasses in the pasture, interseeding the pastures in the fall is the best option. This avoids competition from crabgrass and other summer annuals grasses and broadleaves. This interseeding is best accomplished using a no-till drill.

I realize that crabgrass isn't for everyone, although most everyone has it in their pastures. It is just another resource that you might be able to use to make it through those hot and humid summer months!

2022 Summer Reading

TOWER TUESDAYS

Tower Park's Amphitheater, Fort Thomas @ 10 am

- June 7 - Honey Hill Farm Mobile Petting Zoo
- June 14 - Police and Fire Appreciation
- June 21 - Family Concert with David Kisor
- June 28 - Shark Tank Science
- July 12 - The Children's Theatre Presents *Jacqueline and the Beanstalk*
- July 19 - Cincinnati Circus Juggling Show
- July 26 - Kentucky Reptile Zoo

WATKINS WEDNESDAYS

Barnadatta Watkins Park, Newport @ 10 am

- June 8 - Good Green Earth Farm Traveling Petting Farm
- June 15 - Play, Explore, Build!
- June 22 - Cincinnati Museum Center Presents Coral Exploration Station
- June 29 - Kentucky Reptile Zoo
- July 13 - Family Concert with David Kisor
- July 20 - Giant Yard Game Day
- July 27 - Honey Hill Farm Mobile Petting Zoo

JOLLY THURSDAYS

A.J. Jolly Park's Stapleton Pavilion, Alexandria @ 10 am

- June 9 - Kentucky Reptile Zoo
- June 16 - Family Concert with David Kisor
- June 23 - *The Children's Theatre presents Jacqueline and the Beanstalk*
- July 14 - Honey Hill Farm Mobile Petting Zoo
- July 21 - Madcap Puppets presents *Fantastic Fairy Tales*
- July 28 - Kentucky Shakespeare presents *Much Ado About Nothing*



Slow Planting Progress Contributing to Increased Corn Price Expectations

By: Josh Maples

Higher feed prices are a concern for cattle producers in 2022-2023 and recent increases in corn prices continue to add fuel to that concern. U.S. corn planting is underway and estimates of corn production are impacting market price expectations.

The combination of acres planted and expected yield are the major drivers of corn production expectations. In early April, Kenny discussed the Prospective Plantings Report which estimated U.S. corn acreage in 2022 would be lower than a year ago. Last week, the USDA World Agricultural Supply and Demand Estimates (WASDE) provided their first estimates for the 2022-2023 corn marketing year and the estimated yield came in lower than many expected.

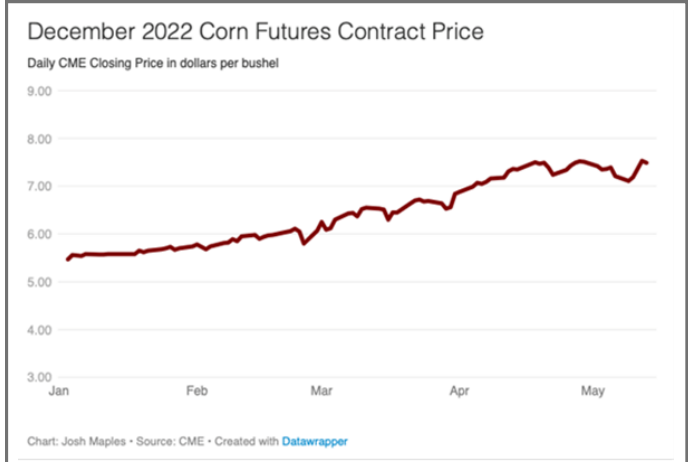
WASDE estimated the corn yield for 2022/23 to be 177 bushels per acre which is 4 bushels per acre lower than the 181 bushels per acre estimate that was presented at the USDA Agricultural Outlook Forum back in February. The WASDE noted: "The very slow start to this year's planting in the major corn producing States and the likelihood that progress by mid-May will remain well behind normal reduce yield prospects."

The latest Crop Progress report was released this afternoon and suggests that only 49 percent of corn has been planted in the 18 states that together make up more than 90 percent of total corn acreage. Fortunately, this has more than doubled from the 22 percent that was planted just a week ago. However, it is still behind schedule compared to recent years. 78

percent of corn was planted at this time last year and the five-year average for planting at this point is 67 percent.

The initial WASDE farm price estimate for corn in 2022/23 is \$6.75 per bushel. This estimate is for the average price received by farmers during the corn marketing year which begins on September 1st. For comparison, the estimate for the current marketing year (2021/22) farm price is \$5.90 per bushel and the average for the 2020/21 marketing year was \$4.53.

It is still early in the corn growing season and, as always, the weather



over the next few months will be the major driver of corn production and price. Corn markets are typically volatile during the growing season as the market absorbs more information about crop progress. But the latest estimates suggest higher feed costs could remain a challenge for cattle producers into the new crop year.



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2022



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Highland Heights*— Tuesdays
Senior Citizens Activity Center
3504 Alexandria Pike
May 17 thru October 25
3:00 p.m. to 6:00 p.m.

Fort Thomas— Wednesdays**
Mess Hall in Tower Park
801 Cochran Avenue
March 23 thru December 14
3:00 p.m. to 6:00 p.m.
Hours extend to 7:00 p.m. June-September (Senior shopping begins at 2:45 p.m.)

Alexandria*— Fridays
Southern Lanes Sports Center
7634 Alexandria Pike
May 20 thru October 28
3:00 p.m. to 6:00 p.m.

Newport*— Saturdays
Next to Pepper Pod Restaurant
709 Monmouth Street
May 21 thru October 29
9:00 a.m. to 12 noon

* Accepts WIC, SNAP and Senior Farmer's Market Nutrition Program
** Accepts SNAP only Supplemental Nutrition Assistance Program