Campbell County Farmers,

The slogan, “Behind every great man there’s a great woman.” was a common phrase used during the 1960/70’s. This slogan is still very true for many farm families. As an Extension agent, I’d like to change that slogan to say: “Behind every great extension agent (fair in my case) there is a great secretary.” Here at the Campbell County Extension office we have seven agents and five program assistants who rely on four (now three) secretaries/staff assistants to support our work in the community. They are a vital part of who we are and the programs and activities we conduct. We share secretaries in our office setting and that works well for us. At the same time, most agents have a secretary that does a larger percentage of their individual work.

During the past 17 years, Linda Hanses was my primary “go to secretary” for the bulk of my work. Linda took my agriculture news articles, program flyers, letters and other correspondence and put them into their final, printable and readable format. With my poor grammar that was not an easy task. For this, I will always be grateful. Thanks Linda.

During the past ten 10 years, Linda worked two jobs to pay the bills after her late husband, Rev. Bob Hanses, passed away. During this time, she continued to provide the Extension Service (and me) with her professional and dedicated work. Linda recently got married and will be returning to Oldham County as the wife of her previous employer. She must have done great work for him as well. We will miss Linda but appreciate her years of service and dedication to our Extension Family. Linda Hanses-Harrison is shown holding the last Agriculture Newsletter she did for me.

Don Sorrell
Campbell County Extension Agent for Agriculture and Natural Resources
Timely Forage/Beef Tips for This Fall

For the most part we have been blessed in 2016 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 differ-
ent 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 in 2017?

Cows grazing alfalfa hay field.  Cows and calves grazing stockpiled fescue at Dobbs Shady Meadows Farm.
Mud Control in Feeding and High Traffic Areas

Now is the time to consider mud control options before winter sets in. Mud robs Kentucky’s livestock producers of performance from their cattle herds in winter and spring. Mud is associated with increased hay waste and reduced feed intake and daily gains. To help avoid the problems associated with mud and reduced performance, producers should consider using concrete pads or lower-cost all-weather surfaces wherever animals congregate (e.g., feeding areas, animal traffic areas, and loafing areas). Although concrete is probably the most desirable surface for durability and low maintenance, an all-weather surface can be constructed of geotextile fabric, rock, and fine surface cover for less than one-third of the cost of concrete. Rock over bare soil in Kentucky requires approximately 12 inches of depth for stability, but using rock over geotextile fabrics can reduce rock depth by half. Repeated maintenance usually required for rock pads is also reduced because the fabric keeps the rock in place.

The geotextile fabrics are porous, so water and moisture pass through the material while the rock is held in place. Even with mud and manure buildup on the surface, the animals have a solid footing so that they do not sink in mud. In Kentucky, recommendations are for a 4–6-inch layer of No. 4 crushed limestone rock for the base material. A 2–3-inch cover of sifted lime (lime sand) or “dense grade” material will allow for easier scraping of the surface and less loss of rock through the manure spreader. Using the finer aggregate for surface cover instead of crushed rock also improves animal comfort and welfare and reduces the potential for foot injuries.

For more information on mud control, call Don at 572-2600.

PROPERLY HANDLING VACCINE IMPORTANT

Part of good herd management is to properly handle and store vaccines so they will provide effective disease protection for animals. This will enhance development of a strong immunity to the diseases for which you are vaccinating.

Be sure to buy vaccine from a dealer who uses good storage and handling practices. After purchase, store vaccine in a cool, dark place such as a refrigerator as soon as possible. Do not leave vaccines on the dashboard of your vehicle because warm temperatures, light or freezing will cause inactivation.

Properly store vaccines until you are ready to use them; then, expose only the amount you will use in about one hour. If you will be working several animals, keep vaccines in a cool, insulated container and remove as needed.

Modified live vaccines are especially sensitive to be mishandled. Most of these vaccines must be rehydrated by adding a sterile diluent to the freeze-dried material. Use a transfer needle to remove the fluid and transfer it into the vial containing the vaccine. If you are using a syringe and needle to transfer the diluent, use a clean needle to withdraw vaccine to keep from contaminating the entire vial. In addition to preventing contamination, it may help keep “knots,” or abscesses, from forming at the injection site.

Rehydrated modified live vaccines are effective for just a few hours under perfect conditions. Exposure to sunlight and heat will quickly inactivate them, usually within 45 minutes.

When using a modified live vaccine refrain from disinfecting the needle between animals, because the vaccine can be killed if only a drop of disinfectant remains in the needle. Instead, dispose of needles and change syringes between every 10 to 15 animals.

Always read and follow vaccine label directions.
Disposition is Important and Heritable

By Dr. Roy Burris, Beef Extension Specialist, University of Kentucky

I was just out of graduate school and working for Mississippi State University in 1974. My first effort was to participate in a very large crossbreeding project. One of the first bulls we used made a lasting impression on me. He taught me that a bad attitude is contagious and that disposition is very important...and heritable.

This bull came from Arizona. He arrived in a “gooseneck” trailer that was shaking and rattling when it pulled into the experiment station. We cautiously let him out of the trailer. He hit the ground pawing, snorting and bellowing.

A lot of bad bulls will demolish fences and gates. But not this gentleman; he was so athletic that he could clear a 48” fence with room to spare. When “business got slack” he would just go visiting. He’d usually come home on his own, which was a good thing since there was little chance that we were going to get him back into a cattle trailer.

A wild animal is much more difficult to handle and can, in fact, be a definite liability to your operation. So what can you do? You can start by culling problems out of your cow herd. You can start by evaluating calves for disposition every time they come through the chute. Calves can be rated according to their behavior in the squeeze chute:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Docile</td>
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<tr>
<td>2</td>
<td>Restless</td>
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<tr>
<td>3</td>
<td>Nervous</td>
</tr>
<tr>
<td>4</td>
<td>Flighty/wild</td>
</tr>
<tr>
<td>5</td>
<td>Aggressive</td>
</tr>
</tbody>
</table>

Those calves that are rated as 4 or 5 should not go back into a breeding herd. After weaning, continue to watch calves and eliminate problem cattle. It is very expensive to have to cull breeding stock because of disposition problems. The best plan is to select breeding stock that have good dispositions and avoid having to cull them.

In my opinion, we should make disposition one of the most important traits for which cattle are selected. Owners of smaller, more intensively managed herds want docile cattle. I understand that...now.

Pregnancy Check Your Cows . . . Please!

As weaning time approaches, I hope most of you are planning your herd "preg check". The cost of winter feed (hay and supplemental grain) is a large percent of the cost of a beef cattle operation. If you have not incorporated this management practice in the past, please do so this year so that you won’t be feeding non-productive females this fall and winter. When it comes time to cull cows from your herd, pregnancy status is one of the first criteria that will determine whether a cow stays on the farm or goes to the stockyards.

According to the results of a survey conducted by the National Animal Health Monitoring System, fewer than 20 percent of beef cow calf producers used pregnancy testing or palpation in their herd. However, the benefits of this practice are fairly simple to realize. First of all, pregnancy diagnosis allows producers to identify "open" or nonpregnant cows. Compare the roughly $5 per head cost of a pregnancy exam with the $100-200 per head cost of hay alone to feed an open cow through the winter
(if you can find hay for $30 per roll). It's easy to see that pregnancy testing quickly pays for itself.

Second, pregnancy testing will provide a producer an estimation of when cows will be calving based on the age of the fetus at the time of the pregnancy exam. An average calving date can be calculated and the producer can use this information to better supplement the cows through the winter. Remember, the nutrient needs of cows vary throughout their production cycle; cows nutrient requirements are highest immediately before and after calving and are lowest in the second period of pregnancy. Knowledge of the stage of pregnancy can help producers make efficient feeding decisions. For example, most producers will have hay of varying qualities in storage. Since cows in the second period of their pregnancy require less nutrients, producers can target their lower quality feedstuffs for the time when their cows nutrient requirements are the lowest. Alternatively, producers can save their best quality feedstuffs for the post-calving period when a cow's nutrient requirements are the highest. Thus, obtaining the pregnancy status of your cowherd will allow a producer to adjust the supplementation in a timelier manner.

Pregnancy diagnosis is a quick and simple procedure. Three practical methods for pregnancy diagnosis can be used in beef cattle: 1) rectal palpation and 2) trans rectal ultrasonography 3) blood sampling. Rectal palpation is most common and is an accurate form of pregnancy diagnosis that can be performed after day 45 of pregnancy. Many veterinarians are proficient at rectal palpation, and this procedure requires little time in the squeeze chute. Trans rectal ultrasonography, commonly referred to as ultrasound, can be used to detect pregnancy as early as 28 days with a high degree of accuracy. This method can be employed just as quickly as rectal palpation when done by a skilled technician and may provide additional information that cannot be determined by rectal palpation. Using trans rectal ultrasonography, the technician is actually "looking" at the fetus and can determine the viability of the fetus and the incidence of twins. It is also possible to determine the sex of the fetus between days 60 and 90 of pregnancy.

The blood test method to determine pregnancy is simple and accurate. **Blood sampling kits can be picked up at the Campbell County Extension office at no charger/(free) to the producer.** Cows must be at least 30 days pregnant and 90 days from calving for the test to work. Pulling blood samples from the tail head of cows is a very simple process. I can assist with showing producers how to pull blood samples and mailing these samples to the lab. The cost for the test is $3.00 per cow. The results are normally obtained within 2 working days and the accuracy of the test is very high. If the test calls the cow open, then the producer is 99+% sure the cow is open. When the test determines a cow pregnant, you can be 93-95% sure they are pregnant. This test will not determine stage of pregnancy (i.e. 90 days versus 120 days).

**Dr. Les Anderson, Beef Extension Specialist, University of Kentucky**
I am not a big fan of creep feeding as a blanket recommendation in most years. Excessively conditioning replacement heifers, inducing acidosis and foundering calves, and getting feeders too fleshy are a few of these issues that make some swear off creep feeding.

However, with proper management, creep feeding can be an effective way of putting on pounds pre-weaning. As we think about creep feeding, increased pounds at weaning does not necessarily result in a direct increase in profitability. Feed costs, price slide, equipment investment, and labor are inputs that should be accounted for to more accurately look at the potential increase in profit. In general, creep feeding is profitable if feed costs are low and feeder calf prices are high. Look familiar? This is a year that proper creep management should allow for a nice return if things stay near the range they are currently. In general, creep feeding should be provided for at least the last 30 to 60-days before weaning. Now is the time we should be considering to creep those calves to be weaned in November.

Creep feed utilization is optimized at lower rates of supplementation. Partial feed conversions tend to be better when supplement rates are near the 0.5-0.75% of body weight on a dry matter basis (three to 4 pounds of feed per day for a 400 to 500 pound animal) while intakes in the 1.5% of body weight range are less efficient. Creep feeds are generally higher in crude protein to overcome protein limitations in the forage being consumed. Young calves are in a lean phase of growth and supplementing marginal forage can improve calf performance. Often creep feeds will be at least 14% crude protein with some approaching 25% for lower targeted intakes. The protein level should be a function of the expected intake while balancing the protein supply from milk and forage to the calves needs. With ample forage regrowth this fall in our area, energy supplementation is needed more so than protein for many operations. Therefore, a 14-18% crude protein range would be acceptable in creep feeds to complement available pasture forages.

With the availability of low-starch coproduct feeds such as soy hulls, corn glutted distillers grains, the risk of acidosis is much less when feeding these co-products compared to grain-based, high starch creep supplements. However, a mixture of grains and coproducts can be used. The composition of the forage, predicted or desired creep supplement intake, and the requirement of the calves needs to be factored in when designing a creep supplement. Also, don’t overlook the possibility of creep grazing as it can be a cost effective strategy to add some inexpensive gains.

Below are a few basic considerations when putting together a creep supplement and managing the feeder.

* Keep the fines and dust to a minimum
* Consider feedstuffs and if they will lead to sorting/settling that may lead to inconsistent intakes and nutrient balance
* Avoid non-protein nitrogen sources such as urea
* When starting to creep, limit the amount placed in feeder and monitor it frequently
* Keep feeders on a high traffic use pad or concrete to avoid muddy conditions around feeder.
**TIMELY TIPS**

### Spring-Calving Cow Herd

- Be sure that cattle have plenty of shade, mineral supplementation, fly control, good pasture in addition to good water. Nursing calves should continue to gain during this “summer slump.”
- Bulls should have been removed from the cow herd by now! They should be penned 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.
- Fescue pastures are not likely to produce much this month. Pasture, other than fescue, can be beneficial. If it looks like pastures will run out, provide emergency feed such as a neighbor’s idle pasture or hay.
- Repair and improve corrals for fall working and weaning. Consider having an area to wean calves and retain ownership for post weaning feeding rather than selling “green” calves. Plan to participate in CPH-45 feeder calf sales in your area.

### Fall-Calving Cow Herd

- It will soon be time for fall calves. 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.

### General

- Provide shade and water! Cattle will need shade during the hot part of the day. Check water supply frequently.
- 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.
- Keep a good mineral mix available at all times. The UK Beef IRM Basic Cow-Calf mineral is a good choice.
- Select pastures for stockpiling. Remove cattle and apply nitrogen when moisture conditions

With average beef cattle prices, livestock producers should consider adding all the weaning weight possible to calves. Producers can increase calf weaning weight by properly using growth-producing implants, rotational grazing and creep feeding and reducing calves’ exposure to parasites. Using an approved implant can increase weaning weight up to 40 pounds per calf.

By the time calves are three to four months old the majority of their nutrients should come from something other than their mother’s milk. Rotational grazing will help keep pasture in front of the calf fresh and vegetative. This will increase both pasture digestibility and calf rate of gain.

Another way to increase weaning weight is to creep feed by using concentrates to supply extra nutrition to calves. However, the most economical method is to creep feed for the short term, the last 45 days prior to weaning. This will stimulate growth almost as much as season-long creep feeding. If pasture is short but good quality, a limit-feed, high-energy creep feed is preferred. Salt is a good method to control creep feed intake. Pink eye and exposure to parasites will reduce calf weaning weights. You will lose 30 to 70 pounds of weaning weight for every calf that has pink eye. Spring-born calves have increased parasite exposure this time of year. Parasite contamination decreases calf grazing. This lowers dry matter intake and the nutrient use efficiency, resulting in decreased weaning weight.
Some Thoughts on Mineral Supplementation

Dr. Roy Burris, Beef Extension Professor, University of Kentucky

Mineral nutrition of beef cattle is poorly understood. Or, at least, there are a lot of differing opinions. And, there are major minerals and trace minerals, different form and availability of minerals, antagonists, interrelationships and ratios, additives, expensive and cheap minerals, different mineral needs for various classes of cattle and stages of production which all can be considered. We also have FDA regulations that govern what we can legally do. Don’t despair. We can still take what we know about mineral nutrition and meet the animals’ needs as economically as possible.

First, individual mineral consumption can be quite variable. The biggest thing that effects consumption is the supply. Minerals should be available at all times. It isn’t the end of the world if cattle go a few days without minerals but a pattern of empty feeders will not allow the cows to “level off” their mineral intake. Feeders should be located near shade and/or water so that cattle will come in contact with minerals frequently. Most mineral supplements are formulated for 2 to 4 ounces of intake and are, of course, best if consumed at that level. Salt is the primary driver of intake so DON’T add salt to the feeders.

Speaking of feeders – they need to be covered. I heard a presentation recently about looking for the most “weather-fast” mineral supplements. Supplements were being tested for their stability in open feeders. I have a thought on that, too. Loose minerals are too expensive to feed in open tubs. They should be protected from the weather. “Bull proof” feeders, with a flap on top like the one in the picture, work well for this purpose.
Calcium (Ca) and phosphorus (P) are the individual minerals that we think of first. We prefer about a 2 to 1 ratio of Ca to P. Forages are usually high in Ca and need some extra P added. Phosphorus is expensive and calcium (think limestone rock) is cheap. So this can add to the cost. However, when feeding grain or grain by-products the opposite is true. Phosphorus is high and we need to add ground limestone to raise the calcium level for prevention of “water belly”. This is getting more common in this area, with the feeding of grain by-products and some finishing of cattle and sheep.

Trace minerals are important, too – especially Copper (Ca), Selenium (Se), Zinc (Zn) and Manganese (Mn). They should be included at the required levels and in the required form to be most available and beneficial. Interestingly, we got really interested in mineral supplementation in Kentucky many years ago when we found that copper oxide was the primary form used for copper and that it was not available to the cattle, so we started a more active research and education program in beef minerals.

Food and Drug Administration (FDA) regulates how we use mineral supplements and the claims that can be made. For example, there is a huge difference between free-choice and feed mixing mineral supplements. If directions are given for mixing into a feed, it isn’t cleared for free-choice feeding – meaning the work hasn’t been done to prove efficacy or intake. We shouldn’t go off label. We are also governed by the veterinary feed directive (VFD) for antibiotics which are also used for humans.

Here’s something to watch for – the FDA regulates (approves or disapproves) label claims that are proposed for products. However, a company can avoid this by naming their mineral supplement as they please. That is a big deal here in the “fescue belt”. Since I could name my mineral supplement “Best Fescue Mineral” which implies that I have a label claim for improved performance when I might not. Look for approved label claims and pay less attention to testimonials and names of products. Naming products suggestive names and/or calling them “feed mixing” minerals circumvents the process of getting products approved and labeled properly.

Proper mineral supplementation is important for optimum growth, reproduction and immunity of beef cattle. I have added a feed tag of the mineral supplement that we use at UK-Princeton. You can use it as a guide for free-choice mineral.

**UK BEEF IRM COW-CALF MINERAL**

50% SELPLEX 50% SELENITE

FREE CHOICE MINERAL FOR BEEF® CATTLE

**GUARANTEED ANALYSIS**

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Minimum</th>
<th>Maximum</th>
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<tbody>
<tr>
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<tr>
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</tr>
<tr>
<td>Salt</td>
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<tr>
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<td>Potassium</td>
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</tr>
<tr>
<td>Sulfur</td>
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</tr>
<tr>
<td>Zinc</td>
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</tr>
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</tr>
<tr>
<td>Iodine</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Selenium</td>
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</tr>
<tr>
<td>Vitamin A</td>
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</tr>
<tr>
<td>Vitamin E</td>
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</table>

**INGREDIENTS**

Dicalcium phosphate, calcium carbonate, salt, distillers dried grain with solubles, magnesium oxide, copper sulfate, copper proteinate, zinc sulfate, manganese sulfate, ethylenediamine dihydroiodide, cobalt carbonate, cane molasses, mineral oil, vitamin A supplement, vitamin E supplement, sodium selenite, selenium yeast, brewer's dried yeast.

**FEEDING DIRECTIONS**

For free choice feeding to beef cattle on pasture. Place in covered mineral feeders to protect from weather. Place feeders near the animal’s water supply and/or feeding area. Maximum trough height should be 20 inches. Consumption should be 3 ounces per head per day which will provide the maximum daily intake of 3 mg of selenium per head per day. Feed only according to label directions. This mineral is designed for a specific use in beef cattle on pasture.

This mineral meets the University of Kentucky Beef IRM recommendation for a Basic Cow-Calf Mineral.

CAUTION: Contains added copper, do not feed to sheep.
Weaning Calves on Pasture

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.

The calves are weaned across the fence from their mothers to reduce stress and increase gains.

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, ice, and snow 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. Grasses will generally start vegetative regrowth in April and May when temperatures begin to get warmer. 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. New Mexico researchers reported that calves weaned on pasture had daily gains of 1.57 lb./day while drylot weaned calves gained 0.95 lb./day during the first 3 weeks post-weaning. The advantage was lost at the end of the 42-45 day backgrounding period. 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 drylot pens. Gains for pasture weaned calves were near 4 pounds per day and only 1.2 lb. for drylot 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./d 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.

Weaning calves on pasture is an option for cow-calf producers in Kentucky which can improve health and performance of calves during the weaning period. For this method to be successful, planning has to be done in advance regarding pasture quality and availability. Providing calves with a high quality forage and a clean environment is critical to performance during weaning. When weaning try to keep the stress at a minimum to improve ani-

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Rinse and Return

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 14, 2017 between 4 p.m. and 5:00 p.m., to collect and recycle your empty pesticide containers. Return containers to Southern States. Containers need to be triple rinsed with lids and labels removed. This is an excellent opportunity for your to dispose of your empty pesticide containers in a more environmentally-friendly way.