

OFF THE HOOF

Kentucky Beef Newsletter – November 2007

Published Monthly by Dr. Les Anderson, Beef Extension Specialist, Department of Animal & Food Science, University of Kentucky

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New Version of Ration Balancer Program and New Instructions are now Available *Kevin Laurent, Beef Extension Associate, University of Kentucky*

A new version of the UK Beef Ration Formulator (UKBRFv31; Dr. Eric Vanzant) and an abbreviated form of instructions are now available to download off the internal web page. The new version is very similar to the original program with a few added features. Two of the most notable changes are the inclusion of trace minerals in the diets along with more flexibility on managing the feed libraries.

In addition to the new program version, Kevin Laurent has provided abbreviated how-to instructions on using the program. These are step by step instructions that were reviewed by ANR Agents Jason Phillips and David Fourqurean and Dr. Roy Burris and Dr. John Johns and should serve as a guide for both new and experienced users of the program.

These how-to instructions on using the program can be downloaded from the Ag Agents section of the Beef IRM site.

Dr Vanzant will be revising the complete user's guide in the near future.

Timely Tips

Dr. Roy Burris, University of Kentucky Beef Specialist

General Management for November

- Evaluate body condition of cows after weaning their calves. Sort thin (less than CS5) cows away from the cow herd and feed to improve their condition. Two and three-year olds may need extra attention now.
- Dry cows in good condition can utilize crop residues and lower quality hay now (but don't let them lose any more body condition). Save higher quality feed until calving time. Keep a good mineral supplement with vitamin A available.
- Culling decisions should be made prior to winter feeding for best use of feed resources. Consider open, poor-producing and aged cows as candidates for culling. We need to "cull" the herd down to a more manageable level.
- Have your hay supply analyzed for nutritive quality and estimate the amount of supplementation needed. Consider purchasing feed now. Remember that, on an energy basis, corn and by-products are a better buy than hay. So, you will be better off basing your feeding program on the amount of forage that you have available and purchasing extra nutrition in the form of concentrates.
- Don't waste your feed resources. Avoid excessive mud in the feeding area. Hay feeding areas can be constructed by putting rock on geotextile fabric. Feed those large round bales in hay "rings" to avoid waste.

Spring-calving cow herd

- A postweaning feeding period will allow you to put rapid, economical gains on weaned calves, keep them through the fall "runs" and allow you to participate in Kentucky CPH-45 sales. Consider this health and marketing program which is designed for producers which are doing a good job of producing high quality feeder calves.
- Replacement heifers require attention during the winter, too. Weaned heifer calves should gain at an adequate rate to attain their "target" breeding weight (2/3 of their mature weight) by May 1.
- If you need to replace cows, consider buying bred heifers in some of the Kentucky Certified Replacement Heifer sales which are being held across the state this month. Don't wait if you have enough feed, they will likely be higher in the spring.

Fall-calving herd

- Continue to watch fall-calving cows this month. Catch up on processing of calves including identification, castration and vaccinations.
- Vaccinate the cows while they are open and prior to the breeding season. Move cows to accumulated pasture or increase feed now.
- Start the breeding season about November 25 for calving to begin in September of 2008. If you are using AI and/or estrous synchronization, get your supplies together now. Don't forget Breeding Soundness Evaluations (BSE) on your bulls. Make final selection of replacement heifers now.

Reminders

- This is a good time to take soil tests and make fertility adjustments (phosphate, potash and lime) to your pastures.
- Graze alfalfa this month after a "freeze-down" (24 degrees for a few hours).
- This is a good time to freeze-brand bred yearling heifers and additions to the breeding herd.

- Don't forget ... ask you County Extension Agent for a 2008 Beef Integrated Resource Management (IRM) Calendar. They can be used to verify age for your 2008 calf crop.

What's Your Goal for This Winter?

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

The current feed shortage has stimulated a lot of "panic buying" of low quality feeds and producers are baling anything that will roll up. We have to ask the question "what is your goal for this winter?" Some people would say "just keep 'em alive until spring". In that case, you might be okay. But, if the goal is to maintain a productive herd, some feedstuffs which are very low in their nutrient content will be a problem. If we don't address this problem, Kentucky beef producers will see the effects of the '07 drought on their 2008 and 2009 calf crops.

There are at least three areas of concern for this coming winter/spring. They are: (1) very low protein levels prior to calving can cause weak calves, (2) low energy levels and poor body condition can cause cows to produce low quality colostrum milk that is much lower in maternal antibodies causing lower calf survival rates, and (3) poor body condition of the cows in the spring will dramatically decrease pregnancy rates.

These problems can be anticipated with extended feeding of corn stalks, CRP residue and soybean stubble. These "feeds" are generally lower than 5% crude protein and 50% TDN. Intake by cows will also be much lower than for good quality hay. In a demonstration at Princeton, cows which were offered 28 lb of baled corn stalks daily actually consumed about 18 lb and refused (wasted) 10 lb of the stalks.

According to NRC requirements, an 1100 lb cow would have the following nutrient needs according to her stage of production:

| Stage | CP, lb/day | TDN, lb/day |
|--------------------------------------|---------------|----------------|
| Mid 1/3 Gestation | 1.4 | 10.0 |
| Last 1/3 Gestation | 1.6 | 11.1 |
| First 60 days Lactation (20 lb milk) | 2.9 | 15.9 |

There is a dramatic increase in nutritional needs of the postpartum cow during the first 60 days of lactation. About 18 lb of stalks, for example, will provide only 0.9 lb CP and 9 lb of TDN compared to the required 2.9 and 15.9 lb of CP and TDN, respectively. That leaves a lot of protein and energy which must come from other sources. This difference can not be met by simply providing a pound or so of a protein supplement. Cows will lose weight/condition rapidly without a great deal of supplementation after calving. We simply must meet their energy and protein needs at this time.

In my opinion, the best approach is to limit feed good quality hay and provide the needed supplementation. Low quality feedstuffs can also be limit-fed successfully but are worth considerably less than good hay and require a lot of supplementation. On a "per nutrient basis" commercial feeds are also a better buy than low quality roughage at current prices.

If we don't feed the cows adequately this winter, we can expect increased calving losses in 2008 and decreased pregnancy rates in the spring which will impact the 2009 calf crop. The following table illustrates the effect that body condition at breeding can have on pregnancy rates:

| BCS | 3 | 4 | 5 | 6 |
|-------------|----------|----------|----------|----------|
| % Pregnancy | 51 | 76 | 92 | 100 |

*JAVMA 207:1292

If cows are permitted to lose weight or if thin cows don't regain weight before calving, low pregnancy rates will result. Body condition scores of 3 may not be uncommon on many Kentucky farms. Thus, pregnancy rates of about 50% can be expected unless we (1) purchase more nutritionally dense feeds than the nontraditional feedstuffs like corn stalks, (2) have good quality hay available, or (3) feed limited amounts of roughage with adequate energy and protein supplementation. It's really a matter of "pay now or pay (more) later".

Corn Stalks and a Protein Block.....That All You Got?

Kevin Laurent, Beef Extension Associate, University of Kentucky

Feeding the cow herd this winter will be a challenge that will have farmers looking at all options for meeting the nutritional needs of their cattle. Corn fields are dotted with large rolls of baled corn stalks, which have prompted even non-farm folks to wonder about this unusual sight. We know from the numerous questions we get that many producers plan to use stalks as a significant part of their winter feeding program.

How good are rolled corn stalks as winter feed? Will stalks and a protein block be enough? How much stalks will a cow eat? These are just a few of the many questions we are receiving daily.

To help answer these questions, we decided to do a quick demonstration with four cows at the research farm in Princeton. Not a controlled trial but just a quick test to get a handle on how cows would adjust and perform when placed on a rolled corn stalk diet.

Jay Stone, CEA in Christian County, was very helpful in locating, delivering and ultimately donating the stalks for the trial. The bales weighed from 30 to 40 lbs each and were weighed individually before feeding each day. Feed bunks were cleaned each day and stalks that the cattle refused were also weighed to get an estimate of waste or refusal. A certain amount of stalks were pulled out of the bunk and into the pen and was not weighed due to soiling by the cattle. The cattle chosen for the trial were two dry cows with an average weight of 1265 lbs. and two lactating cows with newborn fall calves that averaged 1280 lbs. The pairs were penned separately from the dry cows and both pens had access to a 37% protein block (19%NPN) throughout the three week period. The pens had concrete floors and were bedded with sawdust so cows had access to no other feed or dry matter.

The results of this 3 week trial are in the table below:

| Performance and Intake of Cows Fed Rolled Corn Stalks | | |
|--|-----------------|-----------------------|
| | Dry Cows | Lactating Cows |
| Beginning wt, lbs | 1265 | 1280 |
| Ending wt, lbs | 1274 | 1264 |
| ADG, lbs | .43 | -.76 |
| Corn Stalks intake, lbs | 13.5 | 13.6 |
| Protein intake, lbs | 2.2 | 2.8 |
| % refused or wasted | 29.2% | 37.2% |
| Intake last 10 days, lbs | 17.9 | 19.8 |

These data indicate that building a winter feeding program around rolled stalks and protein blocks is not a very sound option. Energy supplementation will be needed to allow even dry cows to gain adequate weight for spring calving. A very high degree of waste or refusal will likely be associated with feeding rolled stalks. Cattle performance may even be worse for producers using CRP hay. Most of the CRP hay samples have been consistently yielding TDN values lower than corn stalks. Following are sample scenarios using rations calculated with the UKBRF program.

| Feeding Examples 90 Days to Calving – Corn Stalks |
|--|
| <ul style="list-style-type: none"> • 1100 lb dry cow mid-gestation BCS 4.0 <ul style="list-style-type: none"> - Needs to gain 200 lbs by February |
| <ul style="list-style-type: none"> • Ration 1: Stalks + 2.2 lbs of 37% protein block <ul style="list-style-type: none"> - Predict. ADG .83 lbs/day = 75 lbs, (125 lbs short of 200!) |
| <ul style="list-style-type: none"> • Ration 2: Stalks + prot. Block + 5 lbs soyhulls <ul style="list-style-type: none"> - Predict. ADG 2.0 lbs/day = 180 lbs, (20 lbs short of 200) |

| Feeding Examples 90 Days to Calving – Poor Hay |
|--|
| <ul style="list-style-type: none"> • 1100 lb dry cow mid-gestation BCS 4.0 <ul style="list-style-type: none"> - Needs to gain 200 lbs by February |
| <ul style="list-style-type: none"> • Ration 1: Poor Hay + 2.2 lbs of 37% protein block <ul style="list-style-type: none"> - Predict. ADG -.15 lbs/day = -14 lbs (214 lbs short of desired weight) |
| <ul style="list-style-type: none"> • Ration 2: Poor Hay + prot. Block + 7.5 lbs soyhulls <ul style="list-style-type: none"> - Predict. ADG 2.0 lbs/day = 180 lbs, (20 lbs short of desired weight) |

The next 90 days will be very critical for producers with spring-calving herds to ensure that their dry cow feeding program adds enough condition to drought stressed cattle.

Volunteer Corn

Dr. Garry Lacefield and Dr. Ray Smith, Extension Forage Specialists, University of Kentucky

We have never seen volunteer corn as thick or as tall at this time of the year. Dry conditions during harvest resulted in more shatter of grain and rain after harvest permitted rapid germination, emergence and growth. Many people were grazing by mid-October and several cut for hay before the rain. Although nitrates can be a problem, we have not seen many samples that were tested with high nitrates. It is academically possible for corn to contain Hydrocyanic (prussic) acid; however, we are not aware of any animal losses. We have also checked with extension and research personnel in Nebraska, Iowa, Wisconsin, Alabama and Georgia and none have seen prussic acid problems with growing corn. CAUTION!!! Our biggest concern is Johnsongrass in corn fields (edges of field, fence rows, drawing areas, etc.). Johnsongrass can be lethal from the prussic acid standpoint and is the biggest problem the first light non-killing frost. **Do not graze fields that contain Johnsongrass or any plants in the sorghum family for two (2) weeks following a frost.** Plants can be grazed 48 hours after a KILLING FREEZE, assuming the entire field (all plants) have been killed. Be sensitive to protected areas, tree lines, etc. **If in doubt, DON'T GRAZE.**

KDA Hay Hotline

Dr. Ray Smith and Tom Keene, Forage Extension Specialists, University of Kentucky

The Kentucky Department of Agriculture initiated a Hay Hotline in 2007 in response to drought conditions throughout the state and resulting hay shortages. The hotline can be accessed by calling 1-888-567-9589 or going to the website: <http://www.kyagr.com/marketing/forage/HayForageDroughtRelief.htm>. The website contains a listing of "Hay for Sale" and a listing of those that "Need to Buy Hay". It also lists information on local hay auctions and out-of-state sources of hay.

University of Kentucky Forage Information - The University of Kentucky maintains a Forage Website containing a range of forage publications, upcoming events, and websites that contain more information. One of these websites lists Out-of-State sources of hay which takes you to the following links. If you cannot find hay in the state, then try one of these hay listings.

www.haybarn.com www.hayforsale.net
www.hayexchange.com www.nationalhay.org
www.bid4hay.com/index.php
www.nebraska-alfalfa.com (check under inventory)

If You Procrastinate, It May Be Too Late.

Tom Keene, Hay Marketing Specialist, University of Kentucky

During the National Hay Association Annual Convention last month, the underlying tone was that of short hay supplies and increasing prices. Several areas of the country have experienced drought this year while other areas saw record rainfall and had trouble making hay. All of which leads to a hectic and uncertain winter feeding season. In Kentucky we know first hand about the effect of drought. Most of the state is currently in an "extreme hydrological drought". That coupled with the early April freeze means that hay supplies for many producers are inadequate for the upcoming feeding season. Anyone needing or wanting to purchase hay for their livestock feeding needs should not "wait to see what the market will do". National supplies are low (except for pockets of hay in states like Arkansas, Missouri, Oklahoma and

Texas) and prices are on the rise. Determine what your hay needs are going to be and try to lock in a supply right now rather than waiting. If you find hay that will work for your operation, visit with the producer or broker to insure that the hay will be available for your entire feeding period. However, be careful about “putting money down” or “up front” to hold the hay. If a grower or broker asks for up front money, make sure that you have some type of collateral or security that you will indeed receive the hay. On more than one occasion, up front money has been taken and the hay sold to someone else. Also, if you agree to take X number of bales or tons, make sure that you also honor your obligation by taking the hay. Once you receive your hay, have it tested. When you receive the results, visit with your County Agent, nutritionist or veterinarian and formulate a ration that will allow you to maximize the utilization of that hay and insure that your livestock receive the necessary nutrition to make it through until spring.

For more forage information, visit the UK Forage Extension Website at: <http://www.uky.edu/Ag/Forage>

Sources for Hay

Dr. Ray Smith, Forage Extension Specialist, University of Kentucky

All farmers and cattlemen know that the easiest and usually the least expensive source of hay is from your neighbors, but over the last year weather conditions have often limited local supplies. There are a number of ways to find and secure hay from other parts of the state and country. Obvious sources are local newspapers, farm and cattleman newsletters and magazines, and websites. Hay brokers in your area are often listed in your local yellow pages. Other sources for hay that you may not be familiar with are described below: **KDA Website of Tested Hay Available for Sale** - The Kentucky Department of Agriculture (KDA) offers a hay testing service and a list of hay that is available for sale from Kentucky producers. Simply go to the website <http://www.kyagr.com/buyky/corral/haylistingpara.asp> to find hay sorted according to type of hay and county. Even if you are not purchasing, hay we encourage you to have your own hay tested by KDA by calling 1-800-248-4628

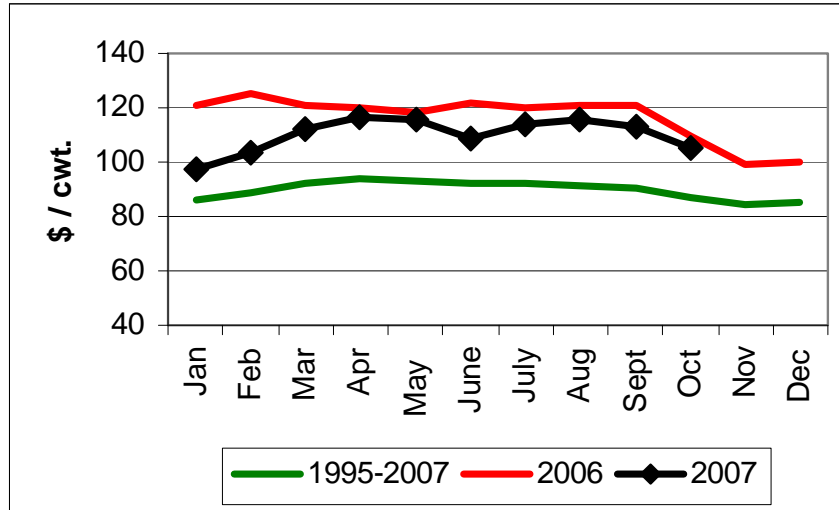
Kentucky Beef Cattle Market Update

Kenny Burdine, Beef Extension Specialist, University of Kentucky

Kentucky cattle prices softened from September to October, especially on lighter calves. State average calf prices were down by \$7-\$10 per cwt. from September, while yearlings were down slightly less. Despite some huge runs of cattle in September, October still saw year over year increases in marketing numbers through the middle of the month. Even with the drought effects, 2007 prices have followed a very similar patten to 2006 (see chart below).

Rising feedstuff prices have not helped the value of feeder cattle any. Corn prices softened a bit in late September, as ending stocks came in larger than expected. But since early October, December corn futures have rallied back above \$3.50 per bushel. Rising feed prices are also presenting a challenge for backgrounders, and even cow-calf producers as they look to supplement a short hay supply this winter.

Despite lower prices, the market still seems to be favoring heavier cattle. Price slides are narrower as sale weight increases. Slides really start to shrink for cattle above 600 lbs. This is no doubt a function of higher grain prices. Producers looking to wean calves in November should consider pre-conditioning programs as a way to add some additional lbs and hopefully get a more attractive price for their calves. Those who do plan to pre-condition should budget very carefully, as feed costs are likely to be up by nearly 50% from last fall.



Roberts Agricultural Commodity Market Report

Mike Roberts, Commodity Marketing Agent, Virginia Tech University

LIVE CATTLE closed up on Monday. The DEC'07LC contract finished at \$97.575/cwt, up \$0.275/cwt. The FEB'08LC contract closed at \$99.100/cwt, up \$0.125/cwt. Short covering and hedge lifting provide support as fund buying extended gains. Cash cattle traded higher last week and traders expect more of the same this week. USDA reported the 5-area average price up \$1.25/cwt-\$2.00/cwt between \$93.00/cwt and \$93.50/cwt. Last week, the southern Plains markets were between \$94.00/cwt and \$94.50/cwt. Larger-than-expected placements put pressure on prices, running 109% of last year. On-feed supplies showed at 96% of last year despite the larger placements. On Monday, USDA put the choice boxed beef cutout at \$143.72/cwt, down \$0.88/cwt. Even though packer's margins are still negative, they kept up their kill pace with USDA estimating Monday's cattle slaughter at 129,000 head compared to 130,000 last week at the time and 122,000 a year ago. According to HedgersEdge.com, the average beef plant margin for Monday was estimated at a negative \$25.00/head, \$1.20/head worse than last Friday but \$8.75/head better than a week ago. Cash sellers should hold sales until cattle are ready. It might be a good idea to price some near-term corn inputs if you can.

FEEDER CATTLE contracts at the CME were up on Monday with the exception of the October contract. OCT'07FC futures closed at \$111.450/cwt, \$0.050/cwt lower than last Friday. The NOV'07FC contract finished at \$111.625/cwt, up \$0.325/cwt but \$1.600/cwt lower than last week. Lower corn futures and higher live cattle futures countered short covering. The latest CME Feeder Cattle Index for October 18 was put at \$112.32/cwt, down \$0.230/cwt. If you have grass it would be a good idea to hold onto those feeders for a little bit.