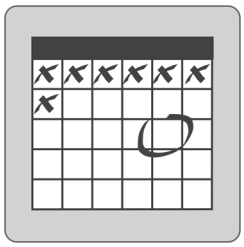
FALL 2021 ISSUE

BEEF & FORAGE NEWS

DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

A NEWSLETTER FOR THE CATTLE PRODUCERS OF CLARK COUNTY AR

In this Issue:



Mark Your Calendars!

Pesticide Applicator Training will be held at 6PM on December 7th, 2021 and February 8th, 2022. The training will be held in the EHC Kitchen at the Clark Co. Fairgrounds, there is a $20 fee, and the training lasts around 2 hours. Call the office at 870-260-2281 if you plan to attend.

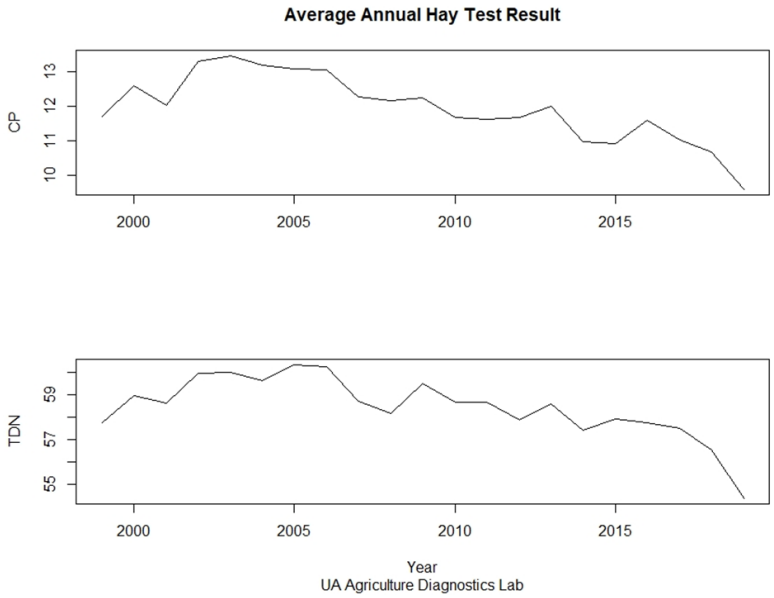
Be Prepared for Winter Feeding by Hay Testing Now

We are seeing a downward trend in hay quality.

Generating the trend-year is not a calendar year but a forage harvest and feeding cycle from May, yearX thru April, yearX+1. TDN was calculated across all years using the same warm- and cool-season specific
equations currently being used by the lab. Our nutrition specialist plans to update the graph soon with 2020 data.

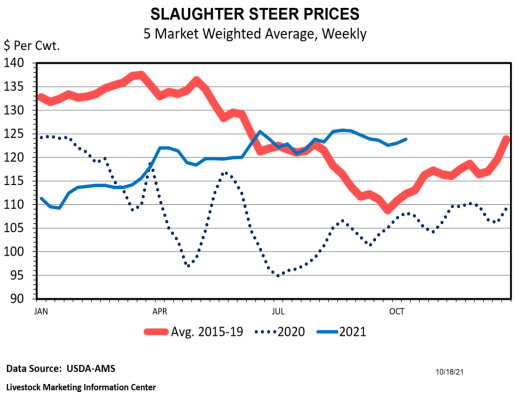
If you haven't done so already, testing your hay now will still allow time for winter feed planning.

Contact me at 870-246-2281 to set up a time to have your hay sampled.



Does This Fall Market Offer Post-weaning Opportunities?

By: Kenny Burdine, University of Kentucky

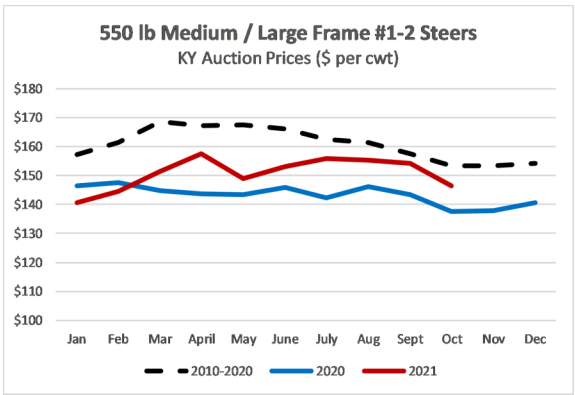


Last week, Josh discussed the record beef export levels that were seen for August. International trade continues to be a bright spot for cattle markets and fed cattle prices have not yet pulled back, as they often do in the fall. Note the seasonal decrease that is usually seen from summer to fall in the red line on the chart above as compared to blue line for 2021. However, calf markets have not managed to avoid their seasonal decreases, as can be seen in the KY price chart below for 550lb steer calves. Fundamentals continue to look encouraging for improved calf markets next year, but we are seeing calf prices decline seasonally.

Calf prices make their lows in fall / early winter for several reasons. First, calf runs pick up as most spring calvers are selling weaned calves during this time. The timing on this is often weather driven, but usually happens in October / November. Secondly, changing weather patterns can create health challenges for calves, which tends to lower their market value. Based on local conversations, I do think this is an issue this year as well. Third, calf values become more impacted by feed-based programs once we move past the traditional grazing season. While wheat grazing operations are active placing calves in the fall / winter and some operations may have stockpiled pasture to start calves on, a large number of calves that move through markets in the fall are placed directly on feed. While this is very common, significantly higher feed prices this year are leading to a stronger preference for heavier feeders.

While declining calf prices in the fall is very typical, I do want to point out something unique about market conditions right now. Calves that move through markets in the fall, and go into growing operations, are driven by the cost of growing those calves through winter and their expected value in the spring. There is no question that the cost of growing calves on purchased feeds will be higher this winter, but the expected value of heavy feeders is also expected to be very strong come spring. As I write this on October 18, 2021, spring CME© feeder cattle futures are trading in the low $160's. Basis can be very different across the south, but I would encourage everyone to consider what a spring CME© futures price in the $160's suggests about the likely price of an 800lb steer in their region for spring 2022. A quick glance at the chart below reveals that 550lb steer calves have dropped below $150 per cwt in several southeastern states over the last few weeks. Using typical spring basis expectations, the market is currently suggesting that 800lb steers in the spring may sell at a very similar price per cwt to a weaned steer this fall. This suggests very high value of gain on lbs that are added to calves this winter.

From my perspective, this has implications for cow-calf operators and winter backgrounders. First, if cow-calf operators have the ability to wean calves on the farm and retain ownership of them for a period of time, this may be a good year to consider doing that. A lot of the southeast has been blessed with adequate rainfall and many areas have stockpiled forage available to add some inexpensive post-weaning gains to calves. However, there is potential that feeding programs may also look attractive this winter due to expected higher value of gain. Operators want to avoid feed price "sticker shock" and not make their decisions based on feed prices alone. While feed prices are high, and winter cost of gain will be higher than we have seen for a long time, this must be compared to the expected value of gain on those lbs that could be added. This can only be done by running a detailed budget. Markets generally evolve with changes in cost of gain and we are seeing that occur this year. Spring CME© feeder cattle futures are suggesting a strong spring feeder market, and I think potential exists for good returns to growing programs this winter, despite current feed prices.



Beef and Forages Field Day set Oct. 29 at Southwest Research and Extension Center

By John Lovett

Fast facts

· Calf weaning study and hay quality presentations part of program

· County extension agents will show cool-season and warm-season grass demonstrations

HOPE, Ark. — Ways to improve cattle health and reproduction are features of a Beef and Forages Field Day at the University of Arkansas System Division of Agriculture's Southwest Research and Extension Center in Hope.

The field day will be beneficial to both new and veteran cattle ranchers, SWREC Director Daniel Rivera said.

"There is enough data there for experienced producers to come away with something, but at the same time, there is enough basic info a new person would be able to learn something as well," Rivera said.

The in-person event will be held 10 a.m. to 3 p.m. on Oct. 29 at the research and extension center, 362 Highway 174 North, about 5 miles northeast of downtown Hope. There is no cost to attend the Beef and Forages Field Day, but registration is required by Oct. 26. Call Sherri Pote at (870) 777-9702 to register.

Five presentations will be given during the field day, with complimentary lunch provided by Farm Credit of Western Arkansas.

Presentations will include:

- Cattle market update – James Mitchell, extension livestock economist
- Herd improvement using reproductive technology – Charles Looney, extension beef cattle improvement specialist
- SWREC research programs overview – Daniel Rivera, SWREC director
- County extension agent demonstrations
- Understanding your hay quality – Shane Gadberry, extension livestock nutrition specialist

Many producers rely on hay to supply nutrients to cattle for four to six months out of the year, Gadberry said.

"Hay quality is fixed but cow requirements are changing throughout the hay feeding period," Gadberry said. "This presentation pulls together our knowledge of hay quality and cow requirements to identify shortfalls that could lead to economic losses in production and options to overcome those shortfalls."

Rivera said the topics for the field day are timely and include cool-season grasses, weaning systems, as well as hay sampling and supplement formulation.

As part of the SWREC research overview, Rivera will discuss various Arkansas Agricultural Experiment Station research projects, including a weaning calf study that is currently underway. He also hopes to show a new SmartFeed system that is programmed to automatically feed cattle specific amounts based on RFID chips in their ear tags.

Rivera also said the county extension agent demonstrations will include information on various cool-season and warm-season annual grasses.

"The agents have done a fabulous job getting their demos setup," Rivera said. "I really can't speak highly enough of them and the work they put into getting this field day going and their demos going."

Making Safe Jerky

by Original Author: Anna Harlan, Stone County. Provided by: JoAnn Vann, Clark County

The crisp fall air has settled in and hunters all over the United States are hoping to add fresh game to their freezers. Enjoying the harvest is simple but many are not fully protecting themselves from harmful pathogens during the jerky making process.

Jerky is a lightweight, dried meat product that is a handy food for backpackers, campers, and outdoor sports enthusiasts. It requires no refrigeration. Jerky can be made from almost any lean meat, including beef, pork, venison, or smoked turkey breast. (Raw poultry is generally not recommended for use in making jerky because of the texture and flavor of the finished product.)

Avoid contamination when cutting and handling raw meat

Raw meats can be contaminated with microorganisms that cause disease. These harmful bacteria can easily multiply on moist, high protein foods like meat and poultry and can cause illness if the products are not handled correctly. If pork or wild game is used to make jerky, the meat should be treated to kill the trichinella parasite before it is sliced and marinated. This parasite causes the disease trichinosis. To treat the meat, freeze a portion that is 6 inches or less thick at 0ºF or below for at least 30 days. Freezing will not eliminate bacteria from the meat.

When preparing jerky from wild game, it is important to remember that the wound location and skill of the hunter can affect the safety of the meat.

If the animal is wounded in such a way that the contents of its gut come in contact with the meat or the hunter's hands while dressing the meat, fecal bacteria can contaminate the meat. It is best to avoid making jerky from this meat and use it only in ways that it will be thoroughly cooked. Animal carcasses should be rapidly chilled to avoid bacterial growth.

How to safely handle meat when making jerky

Follow these recommendations for safe handling of meat:

- Always wash hands thoroughly with soap and running water for at least 20 seconds before and after handling raw meats.
- Use clean equipment and utensils.
- Keep meat refrigerated at 40ºF or below.
- Use ground beef within 2 days, red meats within 3 to 5 days or freeze for later use.
- Thaw frozen meat in the refrigerator, not on the kitchen counter.
- Marinate meat in the refrigerator. Do not save and re-use marinade.

What temperature should meat get to make safe jerky?

The risk of foodborne illness from home-dried jerky can be decreased by allowing the internal temperature of the meat to reach 160ºF, but in such a way as to prevent case hardening. You can use two methods: -heating meat strips to 160ºF in marinade before drying or -heating the dried jerky in an oven to 160ºF after the drying process is completed. When you heat strips in a marinade before drying, you can reduce drying time. Color and texture will differ from traditional jerky. More on these methods below.

How to prepare meat for jerky

If you are preparing sliced jerky, partially freeze meat to make slicing easier. The thickness of the meat strips will make a difference in the safety of the methods we recommend.

- Slice meat no thicker than ¼ inch.
- Trim and discard all fat from meat because it becomes rancid quickly.
- For chewy jerky, slice with the grain. Slice across the grain for a more tender, brittle jerky.

Making ground jerky

If using ground meat, one option is to roll out meat using wax paper and a rolling pin. A jerky gun can also be used to form strips or sticks from ground meat. Maintain a common thickness level to promote even drying.

I chose to scoop out one tablespoon of meat and form a ball. Then I rolled out the meat to a thin round that will easily fit inside a quart size freezer bag when dehydrated. I also chose to form large squares of meat that I can cut into strips when the drying process is complete.

You can also use a tenderizer and follow the package directions. The meat can be marinated for flavor and tenderness. Marinade recipes may include oil, salt, spices and acid ingredients such as vinegar, lemon juice, teriyaki, soy sauce or wine. Season your strips with crushed red or black pepper for an extra kick.

Making Safe Jerky

Ingredients:

- 1 ½ - 2 pounds of lean meat (beef, pork, or venison)
- ¼ cup soy sauce
- 1 tablespoon Worcestershire sauce
- 2 teaspoons hickory smoke flavoring
- ¼ teaspoon each of black pepper and garlic powder
- ½ teaspoon onion powder
- 1 teaspoon salt

Directions:

Combine all ingredients. Place strips or ground meat in a shallow pan and cover with marinade. Cover and refrigerate 1-2 hours or overnight. Products marinated for several hours may be more salty than some people prefer. If you choose to heat the meat prior to drying to decrease the risk of foodborne illness, do so at the end of the marination time. To heat, bring strips and marinade to a boil and boil for 5 minutes before draining and drying. If strips are more than ¼ inch thick, the length of time may need to be increased. If possible, check the temperature of several strips with a metal stem-type thermometer to determine that 160ºF has been reached. See below for method used for ground meat.

Drying

Remove meat strips from the marinade and drain on clean, absorbent towels. Arrange strips on dehydrator trays or cake racks placed on baking sheets for oven drying. Place the slices close together, but not touching or overlapping. Place the racks in a dehydrator or oven preheated to 140ºF. Dry until a test piece cracks but does not break when it is bent (10 to 24 hours for samples not heated in marinade). Samples heated in marinade will dry faster. Begin checking samples after 3 hours. Once drying is completed, pat off any beads of oil with clean, absorbent towels and cool. Remove strips from the racks. Cool. Package in glass jars or heavy plastic food storage bags. Vacuum packaging is also a good option.

If the strips or ground meat were not heated in marinade prior to drying, they can be heated in an oven after drying as an added safety measure. Place strips on a baking sheet, close together, but not touching or overlapping. For strips originally cut 1/4 inch thick or less, heat 10 minutes in an oven preheated to 275ºF. (Thicker strips may require longer heating to reach 160ºF.)

Jerky can be made from ground meat using special presses to form or shape the product. Disease-causing microorganisms are more difficult to eliminate in ground meat than in whole meat strips. (If ground meat is used, follow the general tips for safe handling of meat above.) Be sure to follow the dehydrator manufacturer's directions when heating the product at the end of drying time. Again, an internal temperature of 160ºF is necessary to eliminate disease-causing bacteria such as E. coli O157:H7, if present.

Beef Cattle Handling Facilities

Well-designed and structurally sound facilities are critical to safe cattle handling and cattle welfare. If you are thinking of rebuilding are creating new facilities, consider these common recommended dimensions:

Feeding lot

- Surfaced lot with shelter = 20 sq ft/head in shelter and 30 sq ft/head in lot
- Surfaced lot without shelter = 50 sq ft/head in lot
- Non-surfaced lot = 150+ sq ft/head depending on soil type and drainage

Sunshade

- 20-25 sq ft/head

Feeder space (assuming all animals eat at once)

- 18-22 in/head for calves up to 600 lb
- 22-26 in/head for growing and yearling cattle
- 26-30 in/head for mature cattle

Sick pen

- 40-50 sq ft/head

Post depth

- 36 to 48"

Crowding pen

- 6 sq ft/head for calves up to 600 lb
- 10 sq ft/head for growing and yearling cattle
- 12 sq ft/head for mature cattle/cow-calf

Working chute/alley - straight sided

- 18" width for calves up to 600 lb
- 22" width for growing and yearling cattle
- 26" width for mature cattle

Working chute/alley - sloped sides

- 15" @ bottom, 20" @ 4' for calves up to 600 lb
- 15" @ bottom, 24" @ 4' for growing and yearling cattle
- 16" @ bottom, 28" @ 4' for mature cattle

Fencing height

- 60" for gentle cattle
- 72" for flighty cattle

Alley width

- accommodate 10' gates when working on foot

Budbox

- 12' wide and 20' minimum length when working on foot
- 16' wide and 30' maximum length when working on horseback

Loading chute

- 15" for stock trailer
- 48" for tractor-trailer

Holding area

- 14 sq ft/head for calves up to 600 lb
- 17 sq ft/head for growing and yearling cattle
- 20 sq ft/head for mature cattle/cow-calf

Amy Simpson

County Extension Agent -Staff Chair

asimpson@uada.edu

870-246-2281

640 S.6th St., Ste B Arkadelphia, AR 71923