

Agriculture News



MAJOR COUNTY EXTENSION



CEU OPPORTUNITY!

Major County will be a host site for an upcoming Statewide Pesticide Applicator Continuing Education Zoom Series. December 19th from 9 am to 8 pm. At the Major County Fairgrounds Exhibit Building.

There will be three total sessions.

9am-12am—3 CEU's—Topics: Corn Stunt, Corn Leaf Hopper, Wheat Herbicide Resistance, Cotton and Soybean Weed management.

1pm-4pm— 3 CEU's—Topics: Drone Applications & Regulations, Reading and Understanding a Label, The Importance of Pesticide Safety, Understanding Adjuvants.

6pm-8pm—2 CEU's—Topics: New products in Pasture and Range, Pyridine Residuals, Alternative Applications Wick Bar, Alternative Applications with DFI.

You can choose to attend any 1, 2, 3 or a combination of the above.

Please call the office to reserve your spot today.

Major County Extension: 580-227-3786

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PREDICTING PERFORMANCE OF FINISHING STEERS

Paul Beck, Oklahoma State University Beef Cattle Extension Nutritionist

When we are considering keeping some calves through finishing, it would be great if we had an idea about which ones we should keep, and which ones should be marketed to let someone else take the risk of feeding them. Commercial labs have developed genomic testing to determine the genetic merit of livestock by a simple tissue or blood test. The use of genomic testing of feeder cattle prior to feedlot entry may allow for feedlot managers to make enhanced management and marketing decisions or can allow producers to make informed decisions regarding retained ownership of a portion of their calves through finishing.

We conducted research at OSU to determine the predictive value of these tests on postweaning performance and efficiency. This research project utilized the Igenity Beef Index (Neogen, Lansing, MI) to determine its predictive value for performance of beef steers post-weaning. The Igenity Beef Index provides a score on a scale of 1-10 for 17 maternal, performance, and carcass traits. The objective of this study was to determine differences in performance and efficiency of finishing steers utilizing Neogen Igenity Beef scores for average daily gain (ADG). Spring born commercial Angus steer calves from the OSU Range Cow Research Center [n = 83; body weight (BW) = 924 ± 70.3 lb] were placed on feed at the Willard Sparks Beef Research Center on May 5, 2022, after grazing wheat pasture for 155 d. The steers were allocated by scores for genetic growth potential into Low Growth (ADG scores 1 - 4), Medium Growth (ADG scores = 5 - 6), or High Growth (scores = 7 - 10) gain feeding groups based on Igenity Beef ADG Score.

There were no differences in daily gains during preconditioning or while grazing wheat, so there was no difference in initial finishing bodyweight due to Igenity ADG scores. There were no differences in intake or gain during the step-up period between entry into the feedyard and starting of the final finishing diet. Steers with High Growth scores gained weight more rapidly during finishing and weighed more at harvest than steers with Medium Growth and Low Growth steers. Growth score was shown to influence feed intake during finishing with High Growth steers consuming more feed than Medium Growth or Low Growth steers. But High Growth steers were more efficient in utilizing feed due to their greater performance. Steers with High Growth scores had greater hot carcass weights than Medium Growth and Low Growth steers. These data indicate that Igenity ADG scores can be used to select cattle with improved performance, feed efficiency, bodyweight at harvest, and hot carcass weight without impacting carcass quality grade.



SUCCESS ON THE LONG HAULS

Kris Hiney, Oklahoma State University Extension

Competition or even leisure riding may require our horses to trailer long distances. However, the choices we make can directly impact the health of our horses upon arrival to our destination.

1. Trailering is both mental and physical stress. Be sure to give your horse time to rest after arriving to their destination. As best you can, have horses travel with low stress companions or be placed in the trailer next to horses that they like.

2. Consider breaking up long trips. Research has shown that horses should be given rest stops every 4-5 hours. Give your horse a chance to drink, lower their head, and just simply rest. In the article summarized in this newsletter, at 5 hours, horses began to fatigue and increase their balance maneuvers.

3. Monitor pre-loading health carefully. Trailering long distances suppresses the horse's immune system. Horses with underlying respiratory conditions are more susceptible to disease.

4. Train your horse to load and unload with ease. This lowers the stress on the horse. If your horse is acting inappropriately, seek help that improves your horse behavior, not just gets them in the trailer. There is a difference!

5. Don't tie too high! Horses need to be able to lower their heads to clear their airways. At the very least, untie your horse's head (safely) to allow them to lower their head during rest stops.

6. Bring enough forage to last your trip! If you can't haul enough, consider using forage products that are available throughout the states you will be traveling to minimize digestive upsets.

7. Encourage water intake. Bringing water from home, adding salt to feed, or soaking hay can all encourage your horse to keep drinking.

8. Consider supplementation of electrolytes (if hot temperatures), gastric support supplements, or antioxidants for longer hauls.



MONITORING NUTRITION REQUIREMENTS OF THE COWHERD

MARK Z. JOHNSON, OKLAHOMA STATE UNIVERSITY EXTENSION BEEF CATTLE BREEDING SPECIALIST



Knowing the nutritional needs of our cows helps us cost effectively meet their needs. Over feeding or underfeeding both rob the profit potential from cow-calf operations. During the normal production cycle cows should gain some weight/body condition during the dry stages and lose some weight/body condition while nursing a calf. With that in mind, having cows at a BCS 5 – 6 going into calving season is optimum. This means that cows are in good shape and have ample energy reserves to draw upon when the “spike” in Crude Protein (CP) and energy (TDN) requirements occur post-calving as the cow begins lactation. Cows need to be in good shape at the beginning of calving season to reduce the rebreeding interval and stay on schedule to breed, calve and raise a calf to weaning each 12 months.

Assuming we have an ample supply of good quality water and an adequate vitamin/mineral supplementation program, the two primary nutritional requirements of cows are CP and Energy (in the form of TDN). In normal weather, there are three primary influences on the daily requirements of both:

- 1 – Mature Weight 2 – Level of Milk Production 3 – Stage of Production

Cow-calf operations should assess where their cowherd is now in the production cycle and be proactive in making management decisions regarding feeding and supplementation. The example below follows a 1,300 pound cow through a normal production cycle during the middle trimester of pregnancy, the final trimester of pregnancy, and the first 90 days post-calving based on her level of milk production.

- ◆ During the middle third of pregnancy, the 1,300 pound mature cow needs:
 - ◆ CP = 1.64 pounds per day
 - ◆ TDN = 11 pounds per day
- ◆ The same 1,300 pound cow in the final third of pregnancy needs:
 - ◆ CP = 1.84 pounds per day
 - ◆ TDN = 13.3 pounds per day

The increased nutritional needs reflect not only the cow's maintenance requirements but also the increased growth and development of the fetus as calving draws near.

After calving, during the first 90 days of lactation, the same 1,300 pound cow will have increased nutritional requirements based on how much milk she is producing:

- ◆ If giving 25 pounds of milk per day at peak lactation, she will need:
 - ◆ CP = 3.4 pounds per day
 - ◆ TDN = 19.3 pounds per day
- ◆ If giving 35 pounds of milk per day, she will need:
 - ◆ CP = 4.2 pounds per day
 - ◆ TDN = 22.2 pounds per day

In summary, the same cow has a dramatic rise and fall in protein and energy needs over the normal production cycle. Knowing these requirements is essential to cost effective feeding of the cow herd. Managing our nutritional program correctly plays a huge role in reproductive performance and cow productivity. More details about nutritional requirements of beef cows can be found in the fact sheet referenced below.

Reference: Nutritional Requirements of Beef Cattle. OSU Cooperative Extension Fact Sheet E-974

RECENTLY ON SUNUP:

Liberty Galvin, OSU Extension weed specialist, says cooler soil temperatures can lead to growth in winter annual weeds like Italian ryegrass.

Brian Arnall, OSU Extension soil nutrient management specialist, discusses why nitrate levels in the soil may appear to be low due to recent rain, but could still be present. He also discusses N-Rich strips and invites viewers to the Winter Crops School on Dec. 16-18 in Stillwater.

State climatologist **Gary McManus** analyzes the positive impact of recent rain on Oklahoma.

Mark Johnson, OSU Extension [v]beef cattle breeding specialist, explains why you may want to keep beef on the menu for Thanksgiving dinner.

John Michael Riley, OSU agricultural economist, says the recent rain has dramatically improved Oklahoma's wheat crop.

SUNUP learns about **new research on women and hunting** conducted by OSU's Department of Natural Resource Ecology and Management in collaboration with the Oklahoma Department of Wildlife Conservation.

Finally, the SUNUP team and our OSU Agriculture colleagues have some fun talking about our favorite (and least favorite) Thanksgiving foods. Oklahoma Agriculture Starts at SUNUP!

Weekly Statewide Broadcast:

Saturday at 7:30 a.m. & Sunday at 6 a.m.
on OETA (PBS)

Stream Anytime: YouTube.com/SUNUPtv



SOIL TESTING OPPORTUNITY

The project team is looking across the U.S. for landowner participants to contribute to a dataset of over 13,000 soil samples. Participants will be asked to share general information through an online survey for how fields have been managed the last 10 years. This information will be obtained through a facilitator-led online Zoom Meeting that takes about 45 to 60 minutes. Participants will also need to grant access to fields for hand-probe soil sampling, typically 2 or 3 sampling sites from each field. Sampling will typically occur within 6-9 months of the survey.

In Oklahoma, about 160 agricultural fields will be selected, on a first-come basis.

Participating landowners will receive:

- A personalized soil health report of their field(s).
- An appreciation gift card (\$170)
- A copy of a book called "Probing Our Country's Soil Health". This will be a hard-copy photo book illustrating soil health across the country and the outcomes to this project.

To enroll as a landowner participant, select a time from this schedule link:

<https://scheduler.zoom.us/kaitlin-flick/oklahoma-shape-land-mngt-survey>

Want to know more about the project, see the attached flyer.

FEEDING BIRDS

DAVID HILLOCK SENIOR EXTENSION SPECIALIST OSU

Gardening Corner



It's time to remember our fine, feathered friends for the winter months. If you already have bird feeders, it's a good time to clean them. Wash them in soapy water, then rinse in a 10% bleach solution and allow them to dry completely.

It's important to match your birdfeeders to the type of bird you want to attract. Smaller birds such as chickadee, tufted titmouse, and finches prefer the tube feeders. Larger birds such as cardinals and blue jays prefer hopper or platform feeders, and birds such as the mourning dove eat seed on the ground. Just as people prefer different types of food, birds prefer different types of

food. Thistle and black oil sunflowers are good for smaller birds, cardinals like sunflowers of all types and millet is good for ground feeding birds. A good general bird feeding mix is white proso millet and black oil sunflower. Suet is good for woodpeckers and nuthatches.

Water is also an important feature, not only for the birds to drink, but also to keep them clean as clean feathers insulate better from the cold weather. If you have a birdbath heater, be sure that it will shut off automatically when the water reaches about 40°F, so it doesn't get too warm. It is also important to keep the water and the birdbath clean. For more information on attracting birds to the landscape see the OSU Extension Fact Sheet HLA-6435 – Landscaping and Gardening for Birds.

TILLING THE GARDEN IN WINTER

DAVID HILLOCK SENIOR EXTENSION SPECIALIST OSU

Most would not think about tilling a garden plot, for vegetables or annuals, during the winter months. However, this is an excellent time to amend garden soil. Working the soil can be done in the spring too, but usually you are dealing with cold, wet soil then. It is wise to avoid working in wet soil because it destroys the soil structure. Of course, working in dry soil can be difficult too, so it is best to work in moist soil. If the soil is dry, water it several days before you plan to till it.

Applying two to four inches of organic matter such as leaf material, preferably chopped up or shredded, will help improve soil conditions as the organic material continues to break down through the winter months. In addition to improving soil tilth, tilling the garden during winter can expose overwintering pests such as insects to the freezing temperatures and reduce the potential for problems next spring.



SELECTING & CARING FOR YOUR FRESH CHRISTMAS TREE

DAVID HILLOCK SENIOR EXTENSION SPECIALIST OSU

Selecting a fresh Christmas tree is important so that you can enjoy the tree longer and reduce the risk of a hazard.

Check for freshness by gently bending the needles on the tree. If the needles bend easily and don't break, then the tree is fresh. Another way to check for freshness is to lift the tree several inches off the ground and then drop it on the stump end; if an abundance of outer green needles falls off, the tree is not very fresh. Of course, you can always visit a local "Choose & Cut" Christmas tree farm ensuring freshness of your tree.

Once you get your live tree home, it should be placed in water as soon as possible so it won't dry out. If you purchase a tree from a retail store, cut one inch off the bottom of the trunk to create a fresh cut that will absorb water. A tree purchased from a Choose & Cut farm should be placed in water as soon as you get home. Do not let the stump dry out or you will have to make a fresh cut.

A new tree will take up quite a bit of water the first few days so be sure to check the container or tree stand frequently and keep it full of water. Never let your tree get dry or it quickly becomes a hazard.

The best way to ensure that you are getting a fresh Christmas tree is to buy one directly from one of the many Christmas tree farms in Oklahoma. Each one offers a different experience, but one that is always a fun and memorable one for the family. Some of the farms offer more than just Christmas trees – wreaths, garland, table decorations and gifts may be available too. To make the experience more memorable, some also offer free hot cider, hot chocolate, coloring books and candy canes as well as children's activities.

The Oklahoma Christmas Tree Association provides a list of farms currently selling Christmas trees as well as other information. Currently there are 15 locations in 11 different counties. These Oklahoma grown trees are beautiful, fresh, green Christmas trees which were carefully planted and nurtured for years specifically for you this Christmas. For more information about Oklahoma Christmas trees go to <http://www.okchristmastrees.com>.

GARDEN TIPS FOR JANUARY

- If precipitation has been deficient (1" of snow = ~ 1/10" of water), water lawns, trees, and shrubs, especially broadleaf and narrowleaf evergreens. Double check moisture in protected or raised planters.
- Check on supplies of pesticides. Secure a copy of current recommendations and post them in a convenient place. Dilution and quantity tables are also useful.
- Check that gardening tools and equipment are in good repair—sharpen, paint, and repair mowers, edgers, sprayers, and dusters. · Inspect your irrigation system and replace worn or broken parts. (HLA-6615)
- Control overwintering insects on deciduous trees or shrubs with dormant oil sprays applied when the temperature is above 40°F in late fall and winter. Do not use "dormant" oils on evergreens. (EPP-7306)
- A product containing glyphosate plus a postemergent broadleaf herbicide can be used on dormant bermudagrass in January or February when temperatures are above 50°F for winter weed control. (HLA-6421)



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AGRICULTURE



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EXTENSION