

Osage County Agriculture Newsletter



**OKLAHOMA COOPERATIVE
EXTENSION SERVICE**

March/April 2022

Spring is coming quickly so make sure to get your garden soil test in soon! It is \$10.00 for a routine test, which is Nitrogen, Phosphorus, & Potassium.

Cow/Calf Corner

March 7, 2022

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Increased Uncertainty Clouds Cattle Market Optimism

Derrell S. Peel, Oklahoma State University Extension
Livestock Marketing Specialist

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Mark Z. Johnson, Oklahoma State University Extension
Beef Cattle Breeding Specialist

Upgrade Your Cattle's Reputation with Preconditioning

Paul Beck, Oklahoma State University Extension Beef
Cattle Nutrition Specialist

Increased Uncertainty Clouds Cattle Market Optimism

Derrell S. Peel, Oklahoma State University Extension
Livestock Marketing Specialist

The war in Ukraine has injected much uncertainty into global markets. Markets do not like uncertainty and much of the market reaction thus far is about uncertainty rather than reality. The majority of impacts thus far on cattle markets are indirect rather than direct beef market impacts.

Cattle markets are being impacted by the effect of the conflict on crop markets. Both Ukraine and Russia are major grain producing and exporting countries. With the reality of current disruptions of grain movement from the Black Sea region and the uncertainty of what could happen, crop prices have soared, pushing high feed prices much higher. Just a few more

weeks will determine whether crop planting in the Ukraine will be possible. All crop markets are higher, but the uncertainty is focused on the near term, pushing old crop futures higher relative to new crop contracts in the fall.

The most broad-based impacts relate to energy markets. Russia is a major oil producing and exporting country and potential disruptions in global energy markets are contributing to sharply higher energy prices. Russia is also a major producer and exporter of fertilizer. These will add to inflationary pressures for production costs and are a threat to beef demand as higher gas prices directly impact consumers.

At this point, direct impacts of the conflict on global beef markets are relatively small. Russia is the ninth ranked beef importing country but only accounts for roughly three percent of global beef imports. However, global beef market flows may be impacted more depending on how various countries are affected by the conflict.

All of these external factors combine with the looming threat of widespread U.S. drought on the cattle industry. In just a few weeks, the drought will begin to impact forage production and producers will face rapidly worsening production conditions and additional

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Extension for News and Updates**



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management and marketing challenges. The supply fundamentals of the industry will continue to be supportive with cattle numbers decreasing and beef production declining this year. Beef demand has been strong up to this point but clearly there are more concerns about demand and input prices going forward. A war situation like this has no analog in recent history and there is no way to anticipate when or even if the situation will stabilize in the foreseeable future. Producers have lots to watch in a very dynamic and volatile situation. There is little choice but to stay tuned and try to remain as flexible as possible.

Terminology of Modern Beef Cattle Genetic Prediction

Mark Z. Johnson, Oklahoma State University Extension Beef Cattle Breeding Specialist

Over the past 30 years we have seen the number of Expected Progeny Differences (EPDs) reported by beef breeds expand

An **EPD** is the prediction of how future progeny of an animal (bull or cow) are expected to perform relative to the progeny of other potential parents in a beef breed registry’s database. EPDs are reported in units of measure for that trait, plus or minus. For example, weaning weight is reported in pounds. A Heifer Pregnancy EPD (HP) is reported in percentage units. If comparing the following two bulls:

	<u>WW EPD</u>	<u>HP EPD</u>
Bull A	50	15
Bull B	61	10

Comparing the two bulls as parents, WW EPDs predict Bull B’s offspring to weigh 11 pounds heavier at weaning. HP EPDs predict Bull A’s daughters are 5% more likely to become pregnant as first calf heifers during their first

breeding season.

\$Value Indices or \$Values serve as an economic selection index. A \$Value assigns an economic weighting to several traits pertaining to a specific breeding objective or marketing endpoint. Accordingly, selection based on \$Values will change several traits at once. Relative to a specific marketing goal, all the EPDs for traits that have economic impact on the value of offspring at that marketing endpoint are weighted and the genetic value is expressed as a single numerical value in dollars per head of offspring. For example, in Angus cattle, a Beef Value (\$B) is a terminal index expressed in dollars per carcass. This index assumes commercial operations will retain ownership of all progeny through finishing and market fed cattle on a carcass value basis. As such, EPDs for the traits of yearling weight, dry-matter intake, marbling, carcass weight, ribeye area and external fat thickness receive an economic weighting. If comparing two bulls:

	<u>\$B</u>
Bull A	225
Bull B	201

assuming the specific marketing endpoint for all progeny sired defined above, Bull A’s offspring should result in \$24 more per carcass value.

Accuracy (ACC) indicates the reliability of the EPD and is based on the amount of data that has been taken into account in predicting the genetic value. EPDs based on the records of more ancestors, relatives, progeny and DNA will have higher accuracy values. ACC values range from 0 to 1 with values closer to 1 indicating more reliability (based on more data taken into account).

Genomically Enhanced EPDs (GE-EPDs) have taken DNA test results into account to enhance the ACC of EPDs. GE-EPDs are generally higher in ACC because DNA information is in addition to the pedigree, individual and progeny data. While EPDs are our best estimate of the breeding value of an animal in a breed registry for a trait regardless of ACC, GE-EPDs increase the accuracy of selection of young animals that have not yet sired or produced offspring.

More information and definitions of all genetic values reported by respective Breed Associations can be found in that breed’s Sire Summary or on their website.

Upgrade Your Cattle’s Reputation with Preconditioning

Paul Beck, Oklahoma State University State Beef Cattle Nutrition Specialist

Our customers (stocker operators and feedlots) want matched sets of calves that are weaned, castrated, dehorned, familiar with water and feed sources and immunocompetent. What is “immunocompetent”? That is simply a fancy way of saying that the calves can respond appropriately to stressors and disease challenges, and if they get sick, their immune system will be able work with the antibiotics we provide to answer the challenge. Calves need to have a sound, balanced nutritional program and be free from internal parasites in order to have an immune system fit enough to withstand the marketing and transportation channels of our beef production system. Bob Levalley, Beef Quality Assurance Coordinator for the Oklahoma Beef Council states “From a Beef Quality Assurance perspective, following approved BQA production practices associated with preconditioning, should result in cattle

with few carcass defects. This should lead to higher quality, higher value cattle.” Research at Oklahoma State University in the late 90’s showed that finished steers treated for bovine respiratory disease gained less and had lighter carcasses, costing the feedlot operator \$20/head for steers treated only once to \$75/head for steers that were treated multiple times, the reduction in returns is related to reduced performance and carcass quality (79%) and only 21% of the reduction in profit was related to medicine costs. Other research conducted at Oklahoma State University showed that gains, feed efficiency, ribeye area, and marbling decreased significantly as the number of treatments for BRD increased.

There is variation in the thoughts of what constitutes preconditioning. There are many commercial and academic entities with preconditioning programs. The Oklahoma Quality Beef Network (OQBN) Vac-45 program is one example. The OQBN Vac-45 program requires:

- The calves must be weaned for 45 days or longer.
 - The calves must be ranch raised (not purchased and put together).
 - Bull calves must be castrated and healed.
 - Calves must be dehorned and healed.
 - Calves must be identified with OQBN ear tag.
- Calves must have been vaccinated in accordance with preset protocols

For the OQBN there are three options for vaccination protocols depending on the timing of vaccine delivery. The first option includes a respiratory disease vaccine including IBR, BVD, BRSV and PI3 and clostridial/blackleg at branding and again at weaning with the addition of a *Pasturella pneumonia* vaccine. The second option has the same vaccine requirements but the first vaccination can occur 2 to 6 weeks prior to weaning with the second booster vaccination oc-

curing at weaning. With the third option, the initial vaccination can occur at weaning and the booster 14 to 28 days post-weaning.

Buyers are taking notice of the benefits of purchasing preconditioned calves. Since 2011 in Oklahoma, OQBN certified calves have received an average premium of \$12.62/cwt (ranging from \$10.37/cwt in 2013 to \$19.20/cwt in 2014) over calves marketed at the same sale with no preconditioning. From 2012 to 2016 in Alabama, calves sold in a certified preconditioned sale at 500 pounds brought a \$32/cwt premium to non-preconditioned calves, while calves sold at 700 pounds only had a premium of \$21/cwt for preconditioned calves. While it is true that we probably should precondition cattle because it is the right thing to do for the calf, the economics of preconditioning indicate it can be profitable for the cow-calf producer. If producers can efficiently feed calves to gain 1.75 to 2 pounds per day, the additional weight sold, reduction in shrink, and the increased value of the calf will more than cover the cost.



The Osage Nation’s farm Harvest Land has been putting their new buildings to use. On February 28th they harvested 131 lbs. of tomatoes out of their greenhouse. They make canned goods out of these as well as posted them on their website to purchase. The link to their website is below. You can also access their website through Facebook.

<https://www.tendfarm.com/harvest-land>

GARDEN TIPS FOR MARCH!

David Hillock, Consumer Horticulturist
Flowers & Vegetables

- Cultivate annual flower and vegetable planting beds to destroy winter weeds.
- Apply mulch to control weeds in beds. Landscape fabric barrier can reduce the amount of mulch but can dry out and prevent water penetration. Thus, organic litter makes the best mulch.
- Prune roses just before growth starts and begin a regular disease spray program as the foliage appears on susceptible varieties. (HLA-6403 & EPP-7607)
- Avoid excessive walking and working in the garden when foliage and soils are wet.
- Start warm-season vegetable transplants indoors.
- Divide and replant overcrowded, summer and fall blooming perennials. Mow or cut back old liriopie and other ornamental grasses before new growth begins.
- Your cool-season vegetables like broccoli, cabbage, carrot, lettuce, onion, peas, spinach, turnips etc. should be planted by the middle of March.

Livestock \$strategies That Make \$ents!

NE Oklahoma Exclusive Meeting Series!

This program will be held in 2 sessions in each county across NE Oklahoma. Join us to obtain current information on strategies to reduce the effects of rising input costs on your cowherd.

- Livestock Production** – Implants, Ionophores, Hay Feeding, Optimizing the Cowherd
- Animal Health** – Vaccines, Dewormers, Reproductive Success, Disease Mitigation
- Ag Economics** – Livestock & Asset Inventory, Fertilizer \$, Markets, Culling Decisions
- Agronomy** – Forage Budgets, Legumes, Strategic Fertilizer & Grazing, Lime, Herbicides

March 21st @ 6:00 pm AND March 22nd @ 6:00 pm

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Please RSVP by March 14th

For Additional Information Contact:

Cheyenne Patrick Osage County Extension Educator
918-287-4170 or Cheyenne.Patrick@okstate.edu

Scan for a complete list of host sites



Ag\$ense 2022

Strategies to Mitigate Rising Input Costs



EXTENSION

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Special Accommodations: Persons with disabilities who require alternative means for communication or program information or reasonable accommodation need to contact Cheyenne Patrick at 918-287-4170 at least two weeks prior to the event. OSU



EXTENSION

Osage County Extension

Gardening Classes

April 11th—Vegetable and Fruit gardening

May 2nd—Soil and Turf management

David Hillock, OSU Extension Horticulture specialist, will be speaking on Vegetable and Fruit gardening as well as Soil and Turf Management.

This is a great time to touch up on your gardening knowledge.

Both classes will be held at 6PM at the Osage County Extension office at the Fairgrounds.

Please call the Osage Co Extension office to register for these classes before April 7th

918-287-4170



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UPCOMING EVENTS

March 21 & 22nd– AgSense program

April 11th & May 2nd– Gardening classes

Thank you to those of you who came out and supported the Osage County Junior Livestock Show, it was a success!

If you would like to receive this newsletter electronically, please let Cheyenne Patrick know at cheyenne.patrick@okstate.edu

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