

# Osage County Agriculture Newsletter



**OKLAHOMA COOPERATIVE  
EXTENSION SERVICE**

December 2022



All our staff here at the Osage County Extension office want to wish you and your family a Merry Christmas and a Happy New year!

## Cow/Calf Corner

In this issue:

### Forage Budgeting with Non-Traditional Sources of Hay

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

### The Value of Vitamin A

Barry Whitworth, DVM, OSU Eastern Oklahoma  
Area Food/Animal Quality and Health Specialist

## Forage Budgeting with Non-Traditional Sources of Hay

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

Determining how much forage cows will eat on a per day and per month basis for the duration of winter always requires a little “cowboy math”. Chapter 16 of the eighth edition of the OSU Beef Cattle Manual is an excellent reference for estimating intake and the nutritional requirements of dry and lactating beef cows. This year, with many “non-traditional” sources of hay such as soybean, milo, cotton and corn fields that were turned into hay out of dire necessity, requires a little additional math to make a good estimate. Making the best estimation of how much hay you will need over the next few months still requires a feed analysis test. The information gained through an analysis, like TDN (energy content) and Crude Protein serve as a guide of two things: 1) how much cows will consume, and

2) how much they will need of a specific hay (or feed supplement) to meet their nutritional requirements.

For example, a 1300 pound, dry cow in the last trimester of pregnancy requires 13.3 pounds of TDN and 1.84 pounds of energy per day. A hay testing with 54% TDN and 7.5% Crude protein consumed at 1.9% of her body weight results in a daily dry matter intake of 24.5 pounds of dry matter. This intake of this hay will meet her daily needs without additional supplementation. If we consider how much actual hay we need to provide each day a few more items need to be taken into consideration:

1. **Hay isn't all dry matter.** Assuming our hay is 90 – 93% dry matter (or 7-10% water). Taking this into account adds another 2-3 pounds of hay per day “as fed”.
2. **Hay will be wasted.** Depending on quality of the hay, weather, type of hay feeder used or feeding method, cows will waste 6 – 20% of each bale fed. If you are feeding a non-traditional hay there may be more sorting by cows. Specifically, the bottom end of the corn or sorghum stalk is very low in nutrient quality, cows will sort out most of this portion and intake will be very low. In the past few weeks, I am hearing estimates from producers feeding cornstalk hay that up to 30-40% of the bale is stalks which cows will not eat. This needs to be taken into consideration. Assuming 20% of each bale is wasted, it adds another

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### The Value of Vitamin A

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### Cattle Market Notes by MSU

### The Seasonality of Calf Prices and Faccxdtors

Unique to 2022 / 2023

By: Kenny Burdine

### Private Applicator Information

-8 pounds of hay per day “as fed”. After taking dry matter content and waste into account we are looking at 34-35 pounds of hay per day needed.

1. What else should you consider? **What does each bale weigh and how much is spoiled?** If you have purchased hay by tonnage, it is easy to calculate the average weight of each bale. Rule of Thumb for estimating how much spoilage per bale: approximately 1/3 of the bale weight of a 5 ½ foot diameter round bale is in the outer 6 inches. Even 2-3 inches of spoilage on the bottom side of the bale can equal a substantial loss.

Hay is highly valuable and in short supply. Use these guidelines to estimate at how much you need to be providing per cow per day and extend it over the winter to decide how much hay inventory is enough.

One final point, feeding waste can be reduced! Open bottom round bale feeders can have up to 30% waste, sheeted bottom feeders can reduce this to 20%. Cone feeders can reduce the waste to less than 10%.

References: Chapter 16, page 131. Eighth Edition OSU Beef Cattle Manual

Dr. Mark Johnson discusses proper hay storage on SunUpTV’s Cow-Calf Corner. <https://www.youtube.com/watch?v=TJvKw8ykqC0>

Ranchers Thursday Lunchtime Series presentations over Wintering Cows with Limited Forage from November 17 and December 1, 2022 can be found at the Oklahoma State University Beef Extension website at: <https://extension.okstate.edu/programs/beef-extension/ranchers-thursday-lunchtime-series/wintering-cows->

[with-limited-forage.html](#)

## The Value of Vitamin A

Barry Whitworth, DVM, OSU Eastern Oklahoma Area Food/Animal Quality and Health Specialist

According to Dr. Greg Hanzlicek, with the Kansas State Veterinary Diagnostic Laboratory (KSVDL), Kansas had an unusually high number of stillbirth cases and weak born calves in the spring of 2019. After many laboratory tests, it was concluded that the problem stemmed from a lack of energy, protein, Vitamin A, or combinations of all of these.

Research has shown that low vitamin A levels during pregnancy are associated with abortions, stillbirths, and weak born calves. In addition to playing an important role in reproductive efficiency, vitamin A is essential for vision, bone growth, and maintaining epithelial tissue such as skin and hooves.

Animals obtain vitamin A from consuming green forage and/or the addition of vitamin A supplements to the diet. Lush green pastures contain high amounts of vitamin A. As plants mature and during times of drought, the amount of vitamin A decreases. In general, animals obtain adequate amounts of vitamin A by grazing green forage. Animals grazing green pastures will build a healthy store of vitamin A in the liver. When vitamin A is in short supply, the stores in the liver prevent deficiencies. According to Dr. Lalman, Extension Beef Cattle Specialist Oklahoma State University, the stores should last 2 to 4 months during times of deficiency.

Preventing vitamin A deficiency

depends on producers being attentive to the environmental conditions that favor low vitamin A levels in forage. During these times, producers need to supplement the diet with vitamin A. Producers need to be aware that Vitamin A supplements degrade rapidly, so vitamin A supplements should not be stored for long periods of time. In addition to vitamin A supplementation, research indicates that diets low in protein result in poor absorption of vitamin A. It is important that producers ensure that the rations have sufficient protein levels. Lastly, since colostrum contains high levels of vitamin A, producers need to ensure that newborns obtain adequate amounts of colostrum at birth.

Most of Oklahoma had below average rainfall for the year of 2022. This resulted in pasture quality decreasing earlier than normal. Due to this year’s lack of green forage, liver stores of vitamin A may be inadequate for the animal’s needs. Producers need to ensure that the diets of their cattle have adequate amounts of vitamin A, energy, and protein.

Dr. Dave Lalman, OSU Extension beef cattle specialist, answers questions from producers and offers advice about vitamin A deficiencies in livestock on SunUpTV at [https://www.youtube.com/watch?v=NIbN1qT\\_3IY](https://www.youtube.com/watch?v=NIbN1qT_3IY)

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## Cattle Market Notes Weekly

Josh Maples



James Mitchell



Kenny Burdine



### The Seasonality of Calf Prices and Factors Unique to 2022 / 2023

By: Kenny Burdine

High grain prices have been the focus of much discussion in 2022. As I write this, CME© corn futures are trading in the mid-\$6 per bushel range through next summer. This story is likely best told by looking at the chart above, which summarizes feed cost per lb of gain from Kansas State's Focus on Feedlots data. The most recent feed cost of gain estimate from participating feed yards exceeds \$1.35 per lb. And projected cost of gain is even higher for cattle that are currently being placed. As a comparison, the average feed cost per lb of gain was about \$0.79 from 2016 to 2020. High cost of gain incentivizes the placement of heavier feeder cattle into finishing programs. Current feed prices don't make the placement of light cattle on feed very attractive, which is preventing calf markets from reaching price levels they would reach in a more normal feed cost environment.

I want to use this as a backdrop to discuss how feed price levels impact seasonal price patterns in calf markets. In most years, calf markets reach their highs in the spring as light weight calves are being placed into grazing programs. The lower cost of gain from grazing results in higher calf prices as stocker operators compete for calves. As grazing opportunities disappear in the fall, feed prices become a major driver of calf values and we tend to see calf

markets put in their seasonal lows. The more expensive feed becomes, the lower calf markets go. So, high feed prices tend to amplify the normal seasonal patterns in calf markets. The higher feed prices are, the larger the differential between the spring and fall calf prices.

As we think about this fall and the coming spring, I wanted to mention two other factors that are relevant, but more unique to this year. While grazing opportunities are primarily a consideration in the spring, grazing cattle on winter wheat pasture is certainly an exception.

Given the dry weather in the Southern Plains, one would reasonably expect that fewer calves have been placed on wheat pasture than normal, which has likely also hampered calf prices this fall / winter. Had wheat grazing conditions been more favorable this year, I think we would have seen a slightly higher calf market.

Secondly, the amount of carry in CME© feeder cattle futures will have an impact on price improvement between now and spring. Calves that are being placed into backgrounding programs now will be sold in the spring of 2023, while calves being placed into grazing programs next spring will be sold in the fall of 2023.

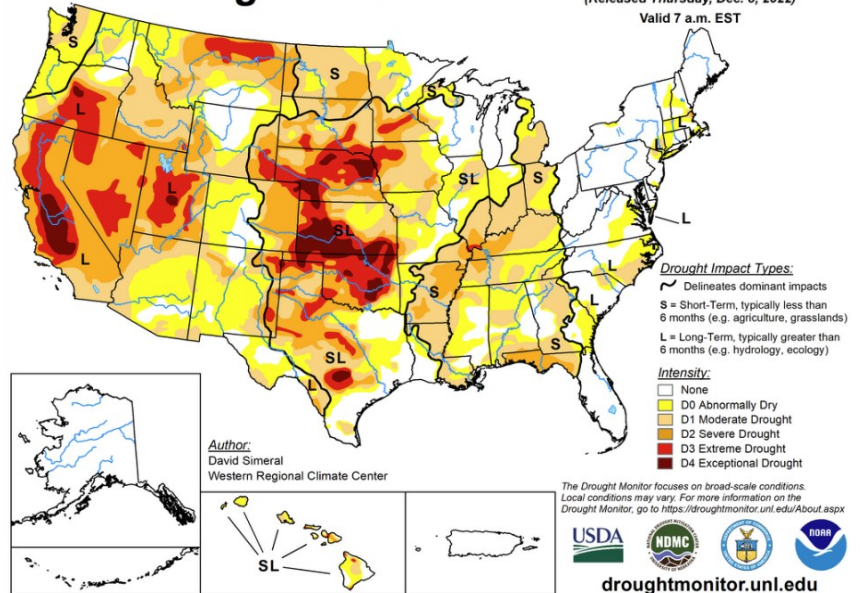
Currently, fall 2023 futures contracts are trading at a \$10 to \$15 premium over spring 2023 futures contracts. This is a significant difference in expected value that should also be reflected in higher calf prices this spring. Put simply, if normal grazing opportunities exist, a great deal of improvement should be seen in the calf market over the next several months.

Futures Prices		12/9/22	12/2/22
<b>Live Cattle</b>	December	\$153.68	\$153.35
	February	\$155.55	\$155.88
	April	\$159.35	\$159.57
<b>Feeder Cattle</b>	January	\$183.93	\$182.45
	March	\$185.10	\$185.27
	April	\$188.60	\$188.63
<b>Corn</b>	December	\$6.35	\$6.35
	March	\$6.44	\$6.46

Source: CME Group

## U.S. Drought Monitor

December 6, 2022  
(Released Thursday, Dec. 8, 2022)  
Valid 7 a.m. EST



<b>Cattle Market Report</b>		For Weeks Ending On			% Chg	% Chg	
Prices \$/cwt. Sources: USDA, LMIC, and CME		12/9/22	12/2/22	12/10/21	Prev. Week	Prev. Year	Chg Prev. Week
<b>500-600 lb. Feeder Steers</b>	Mississippi M/L #1-2	\$160.63	\$161.63	\$143.51	-1%	12%	(\$1.01)
	Arkansas M/L #1	\$179.84	\$181.47	\$166.17	-1%	8%	(\$1.64)
	Kentucky M/L #1-2	\$172.65	\$172.24	\$155.56	0%	11%	\$0.41
	Oklahoma City M/L #1-2	\$183.67	\$185.70	\$166.96	-1%	10%	(\$2.03)
	Alabama M/L #1	\$176.09	\$169.43	\$159.37	4%	10%	\$6.66
	Tennessee M/L #1-2	\$168.58	\$164.69	\$157.42	2%	7%	\$3.89
	Missouri M/L #1-2	\$182.49	\$182.29	\$163.14	0%	12%	\$0.20
<b>700-800 lb. Feeder Steers</b>	Mississippi M/L #1-2	\$135.89	\$141.53	\$128.49	-4%	6%	(\$5.64)
	Arkansas M/L #1	\$159.88	\$160.75	\$141.81	-1%	13%	(\$0.88)
	Kentucky M/L #1-2	\$158.71	\$160.33	\$146.49	-1%	8%	(\$1.63)
	Oklahoma City M/L #1-2	\$166.81	\$171.35	\$156.62	-3%	7%	(\$4.54)
	Alabama M/L #1	\$157.48	\$159.35	\$136.49	-1%	15%	(\$1.87)
	Tennessee M/L #1-2	\$152.17	\$145.66	\$135.53	4%	12%	\$6.51
	Missouri M/L #1-2	\$170.55	\$169.34	\$149.50	1%	14%	\$1.21
<b>Negotiated Fed Steers</b>	Live Price	\$155.79	\$156.42	\$139.69	0%	12%	(\$0.63)
	Dressed Price	\$246.82	\$248.55	\$219.71	-1%	12%	(\$1.73)
<b>Boxed Beef Cutout</b>	Choice Value, 600-900 lb.	\$246.23	\$253.53	\$266.75	-3%	-8%	(\$7.30)
	Select Value, 600-900 lb.	\$220.37	\$225.78	\$254.11	-2%	-13%	(\$5.42)



**Private Applicator Information/CEU Information**

Just a reminder that you can only receive 10 hours of credit in a year so if you need 16 before 2023 is over make sure to get in contact with Cheyenne Patrick or Rick Clovis to find out when the next CEU's will be available. The flyer below is a CEU meeting happening in Kay County. Make sure to RSVP.



**KAY COUNTY  
EXTENSION**

**LAST CHANCE**

**Private Applicators CEU Meeting**


**Friday, December 30<sup>th</sup>, 2022**

**Kay County OSU Extension Office**

**226 S. Maple Ave.**

**Newkirk, OK**

**Call to RSVP 580-362-3194**

 **EQUITY BANK** of Newkirk will be sponsoring a Donut Breakfast

9:00a.m.

- OK20210542 Weed ID & Winter Broadleaf and Grass Herbicide Options – Josh Bushong & Gary Strickland (1 CEU of 1a)
- OK20210122 Weed Control – Justin McDaniel (2 CEU of 1a)

Break for Lunch at Noon

1:00p.m.

- OK20210123 Brush Control – Brian Pugh (1 CEU of 1a, 10)
- OK20210457 Transportation, Storage & Security of Pesticides, & PPE – Justin McDaniel (2 CEU of 1a, 3a, &6)

**Double Check Course Numbers to make sure you have not taken the course yet.**

**ODAFF will not allow “Doubling up” on courses.**

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The pesticide information presented in this publication was current with federal and state regulations at the time of printing. The user is responsible for determining that the intended use is consistent with the label of the product being used. Use pesticides safely. Read and follow label directions. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

## For more information on these program please contact Rick Clovis or Cheyenne Patrick at the Extension office or by email.

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- **January 17th-** Canning Class, how to make apple butter and pepper jelly.
- **January 20th–** All Day Beginners Bee Keeping Program at the Osage County Fairgrounds
- **February 14th–** Calving Simulation program at 10:00 at the Osage County Extension office.

### UPCOMING EVENTS



OSAGE COUNTY  
EXTENSION

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