



# Ranch Management Field Day

Carpenter Cattle Company | Brewster, KS

Thursday, August 17, 2023 | 3:30 pm



*Sponsored by:*



## **CARPENTER CATTLE COMPANY**

The Carpenter family has been farming and ranching in western Kansas for six generations. Today, Wayne Carpenter, his wife, Leisha, and their sons Jarrett and Seth, along with their wives and children, operate Carpenter Cattle Company. The operation is diversified, with both cow-calf and stocker herds, a feedyard and a farming enterprise.

Wayne grew up dryland farming and raising cow-calf pairs before adding feeding cattle as part of the family business in 1980. In the more than 40 years since then, the yard, located near Brewster, has grown to a 15,000-head capacity. The ranch retains ownership on their calves, feeds them in their feedyard and markets them through U.S. Premium Beef (USPB). Carpenter Cattle Company has been a proud member of USPB since its inception in 1996.

Angus-based commercial cows bred to Angus and Charolais bulls make up the majority of the 1,500-head cowherd, spread out on ranches across multiple counties in far western Kansas. On the other side of the state, the Carpenters run stockers on Flint Hills grass before bringing them home to finish in the feedyard. Carpenter Cattle Company buys stocker calves to finish in addition to their own ranch-raised cattle.

Additionally, the family farms both dryland and irrigated crops to use for feed in the feedyard. Jarrett and Seth both contribute to the farming entity of Carpenter Cattle Company, while Leisha handles most of the bookwork. All six grandchildren, ages 2 through 13 years old, own cattle and are involved in the family operation.

# ‘Where’s my grass?’

## Managing Drought and Weedy Species’



**K-STATE**  
Research and Extension

**Keith Harmony,  
Kansas State University,  
Ag. Res. Center - Hays**

**Rain and Stocking Rate are the two most important factors for rangeland yield and livestock production...**



**...both also affect plant species composition, for better or worse.**

**What you see aboveground from drought, with less photosynthesis and less leaf growth, also happens below ground, with less root growth and fewer tillers and buds.**



## Learning from the 1930's

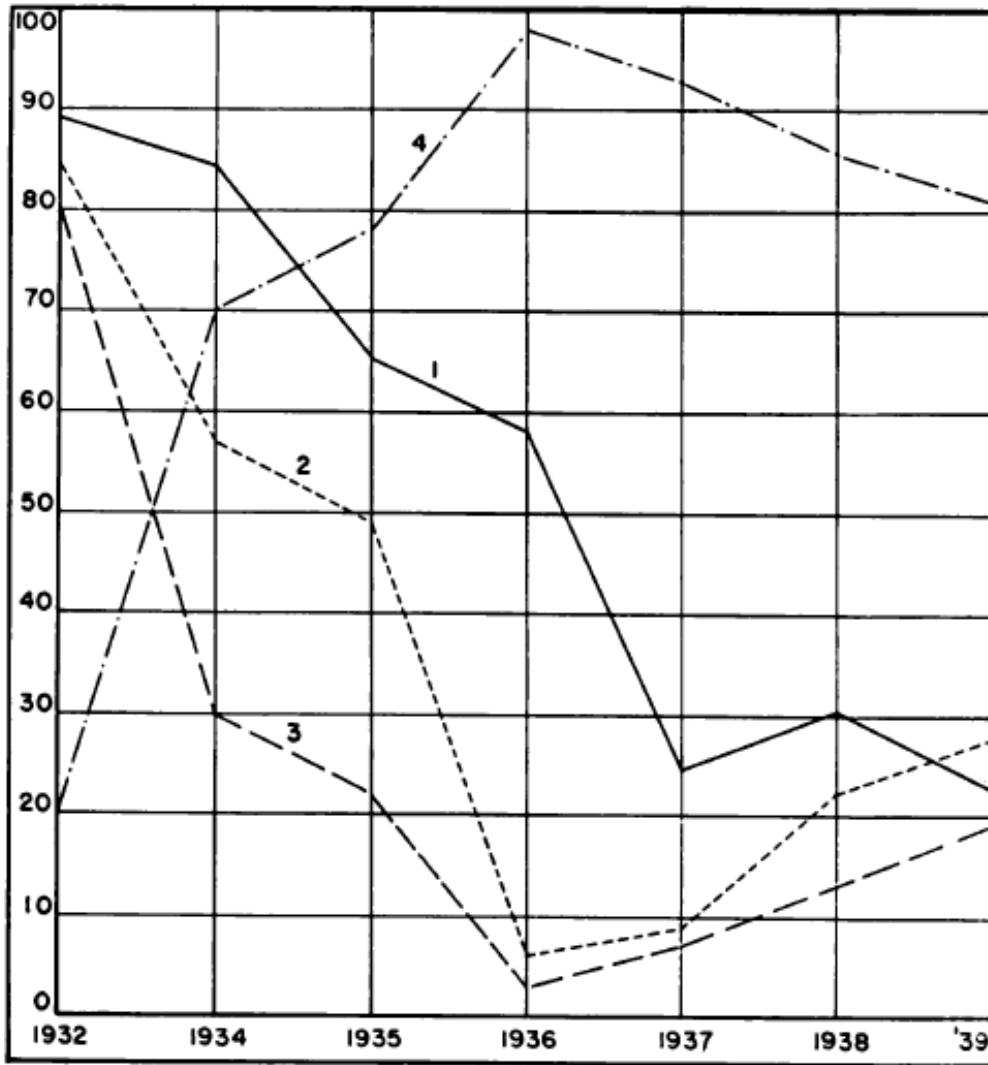


FIG. 28. Decrease in percentage of basal cover in a short-grass type: (1) ungrazed, (2) moderately grazed, and (3) overgrazed. The percentage of bare ground in the overgrazed range (4) reached its maximum in 1936.

**The result is weak grass plants and potential thinning stands, especially with consecutive years of low precipitation. Heavy utilization before drought reduces these more.**

**The canopy opens up for other plants to grow and take advantage of less grass competition.**

**Many of those plants are broadleaf forbs.**



**Different root structures may allow some native forbs to persist well and may increase following droughts.**





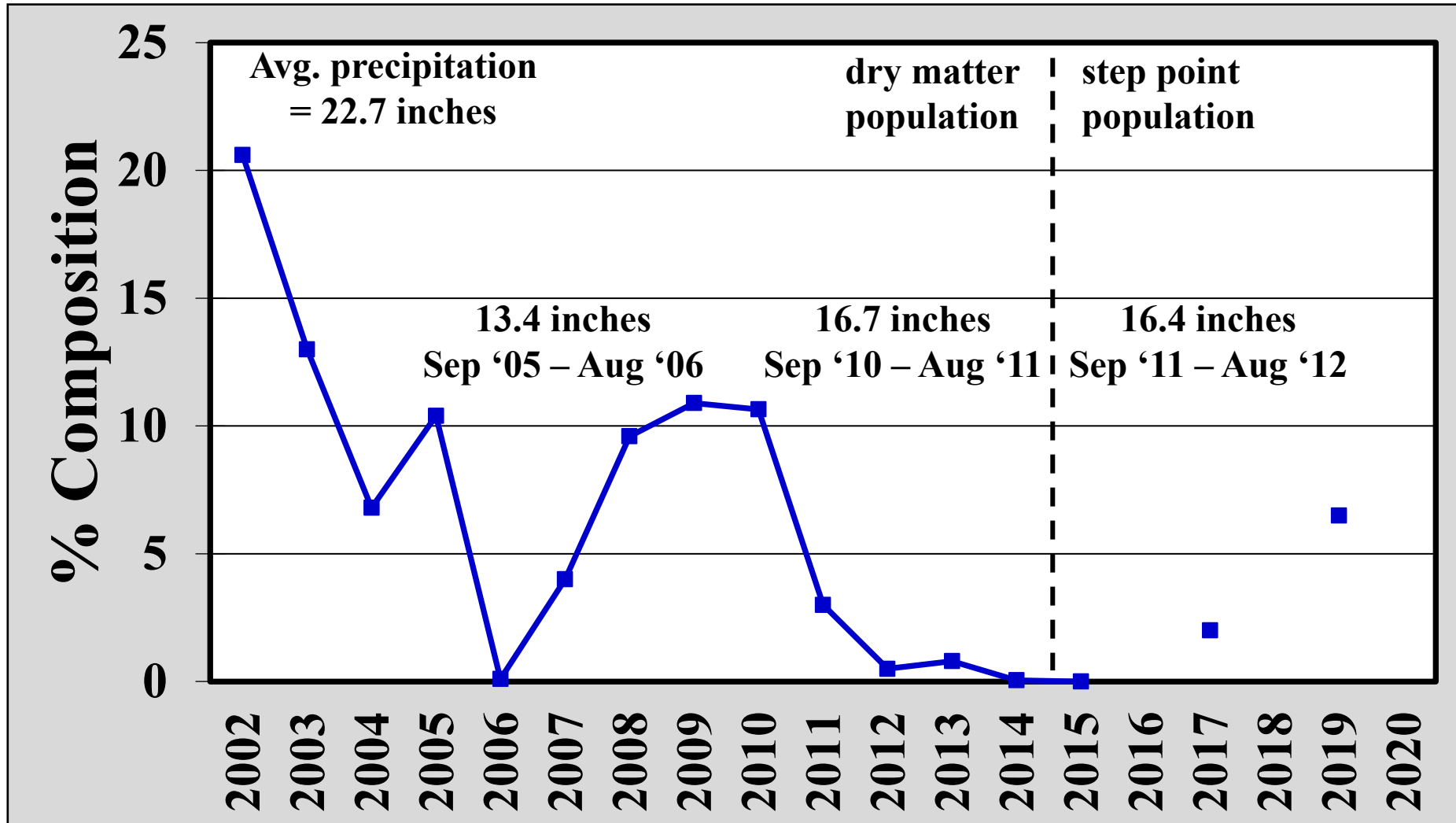


**Just because a  
plant is not a  
grass doesn't  
mean it's a weed.  
Cattle eat high  
forage value  
forbs as 10-25%  
of their diet.**



**Western ragweed  
populations  
decline during  
drought, but it  
and other  
perennials can  
increase following  
drought.**

# Western Ragweed Composition in Short Grass - Mixed Grass Rangeland 2002-2019 Under Moderate Stocking



Population is highly precipitation dependent

# Native shortgrass vs. Western ragweed: Forage quality

		<b>Grass</b>		<b>Ragweed</b>	
		<b>July</b>	<b>October</b>	<b>July</b>	<b>October</b>
		----- <sup>o</sup> / <sub>o</sub> -----			
<b>CP</b>	<b>2021</b>	<b>7.5 a</b>	<b>6.2 b</b>	<b>11.8</b>	<b>10.2</b>
	<b>2022</b>	<b>6.1 b</b>	<b>8.5 a</b>	<b>11.3</b>	<b>15.2</b>
<b>TDN</b>	<b>2021</b>	<b>46.9</b>	<b>46.9</b>	<b>68.7</b>	<b>68.3</b>
	<b>2022</b>	<b>50.0 a</b>	<b>46.0 b</b>	<b>64.6</b>	<b>66.5</b>

Different letters mean that values are statistically different between sample dates.



**Opportunists are  
annual and  
biennial weeds,  
they will establish  
where stands  
have thinned and  
canopies are  
opened.**



**Some opportunists  
are the same as  
crop weeds:**

**Sunflower**

**Kochia**

**Palmer amaranth**

**Russian thistle**

**Marestail**

**Foxtails**

**Crabgrass**

**Lambsquarter**



## **Methods to control opportunists:**

- 1. Grazing**
- 2. Burning**
- 3. Herbicide**
- 4. Time**



**Grazing:**  
**Most of these**  
**annuals have high**  
**forage quality and**  
**are quite palatable,**  
**so flash grazing or**  
**high density grazing**  
**is a main control**  
**option (digestibility**  
**of 60-80%).**





## **Prescribed burning:**

**Not common in western Kansas, but is useful to control annual invading species and encroaching tree and shrub species. Fire historically occurred every 10-15 years.**



## **Herbicide application:**

**Case by case scenario based on the invading species, the level of abundance, and the potential for long term presence and impact.**



**Time:**

**Several species cycle with the weather pattern, and as moisture conditions change, so does the plant population.**



**Other  
opportunists:**



**Japanese brome  
Noxious thistles  
Mullein**



**Common invaders we  
saw after the 2011-2013  
drought period:**

**Russian thistle**

**Marestail**

**Mullein**

**Western ragweed**

**Musk and Bull thistle**

# Herbicides for Broadleaf Weed and Thistle Control in Shortgrass Rangeland

<b>Herbicide</b>	<b>Rate/acre</b>
<b>Aminopyralid (Milestone)</b>	<b>3.0-7.0 oz</b>
<b>Aminopyralid + 2,4-D (GrazonNext)</b>	<b>1.2-2.0 pt</b>
<b>Metsulfuron methyl (Escort, Cimarron)</b>	<b>0.1-1.0 oz</b>
<b>Aminopyralid + Metsulfuron methyl (Chaparral)</b>	<b>1.0-3.3 oz</b>
<b>Dicamba (Banvel, Clarity, others)</b>	<b>0.5-1.0 pt</b>
<b>Dicamba + 2,4-D (Range Star, Outlaw, Latigo, others)</b>	<b>0.5-2.5 pt</b>
<b>Picloram (Tordon 22K)</b>	<b>0.5-1.0 pt</b>
<b>Picloram + 2,4-D (Grazon P+D)</b>	<b>2.0-4.0 pt</b>



## **My list for long-term species of most concern:**

- 1. Trees and brush: Eastern redcedar, Honeylocust, Salt cedar, Russian olive**
- 2. Old world bluestems: Caucasian and Yellow (King Ranch) bluestems**
- 3. Biennial thistles: Musk and Bull thistles**
- 4. Mullein**
- 5. Yucca**
- 6. Sericea lespedeza (if it gets established)**
- 7. Herbicide resistant annuals from crops**



**A healthy grass stand  
is the best defense  
against stand loss  
during drought and  
invading species.**

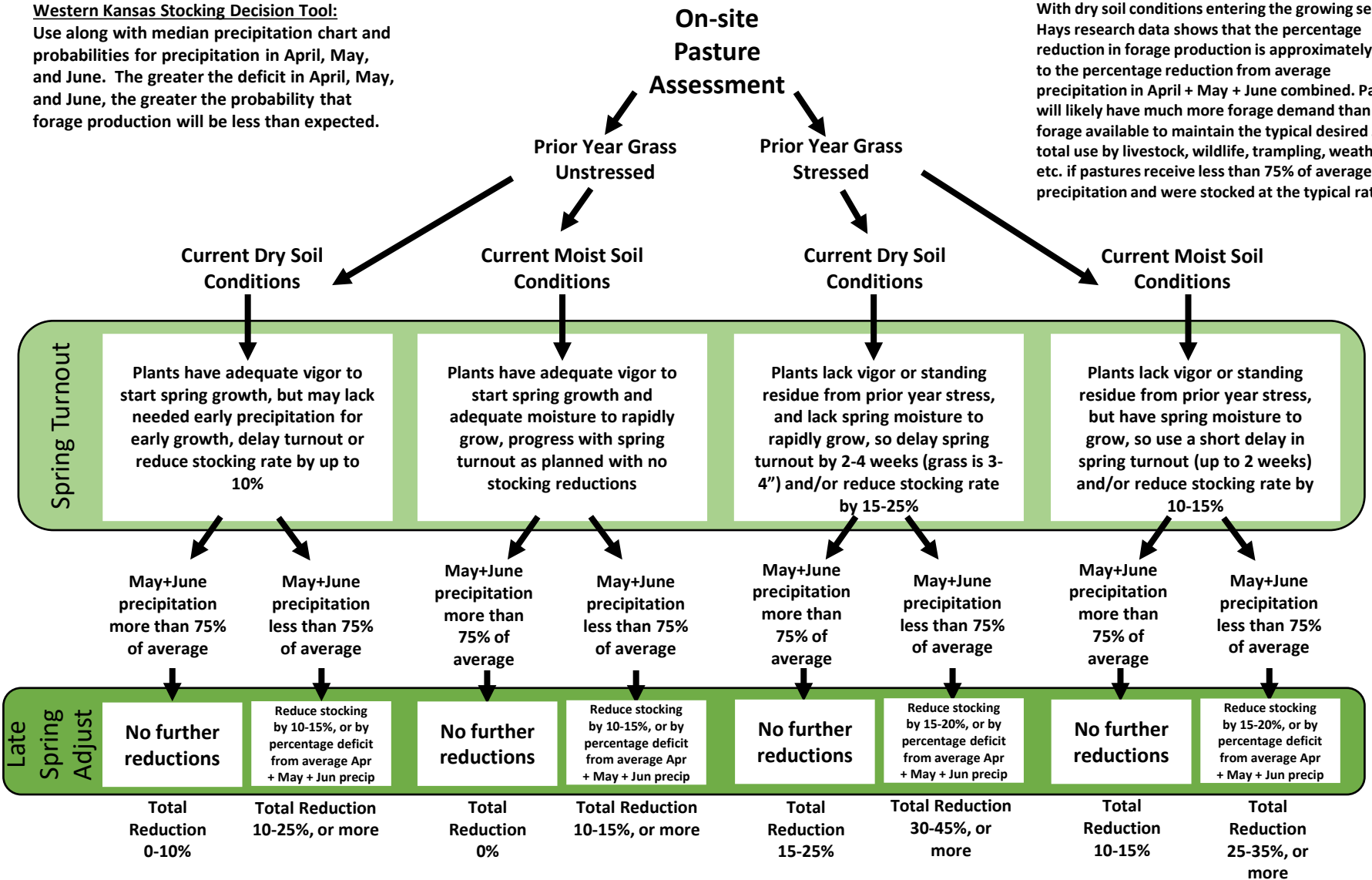


**Match stocking rate with expected forage production, and make adjustments based on precipitation, especially April-June precipitation.**



**Western Kansas Stocking Decision Tool:**  
 Use along with median precipitation chart and probabilities for precipitation in April, May, and June. The greater the deficit in April, May, and June, the greater the probability that forage production will be less than expected.

With dry soil conditions entering the growing season, Hays research data shows that the percentage reduction in forage production is approximately equal to the percentage reduction from average precipitation in April + May + June combined. Pastures will likely have much more forage demand than forage available to maintain the typical desired 50% total use by livestock, wildlife, trampling, weathering, etc. if pastures receive less than 75% of average precipitation and were stocked at the typical rate.





**Contact me at  
[kharmone@ksu.edu](mailto:kharmone@ksu.edu) if  
you have questions or  
would like to visit.**



# Ranch Management Field Day

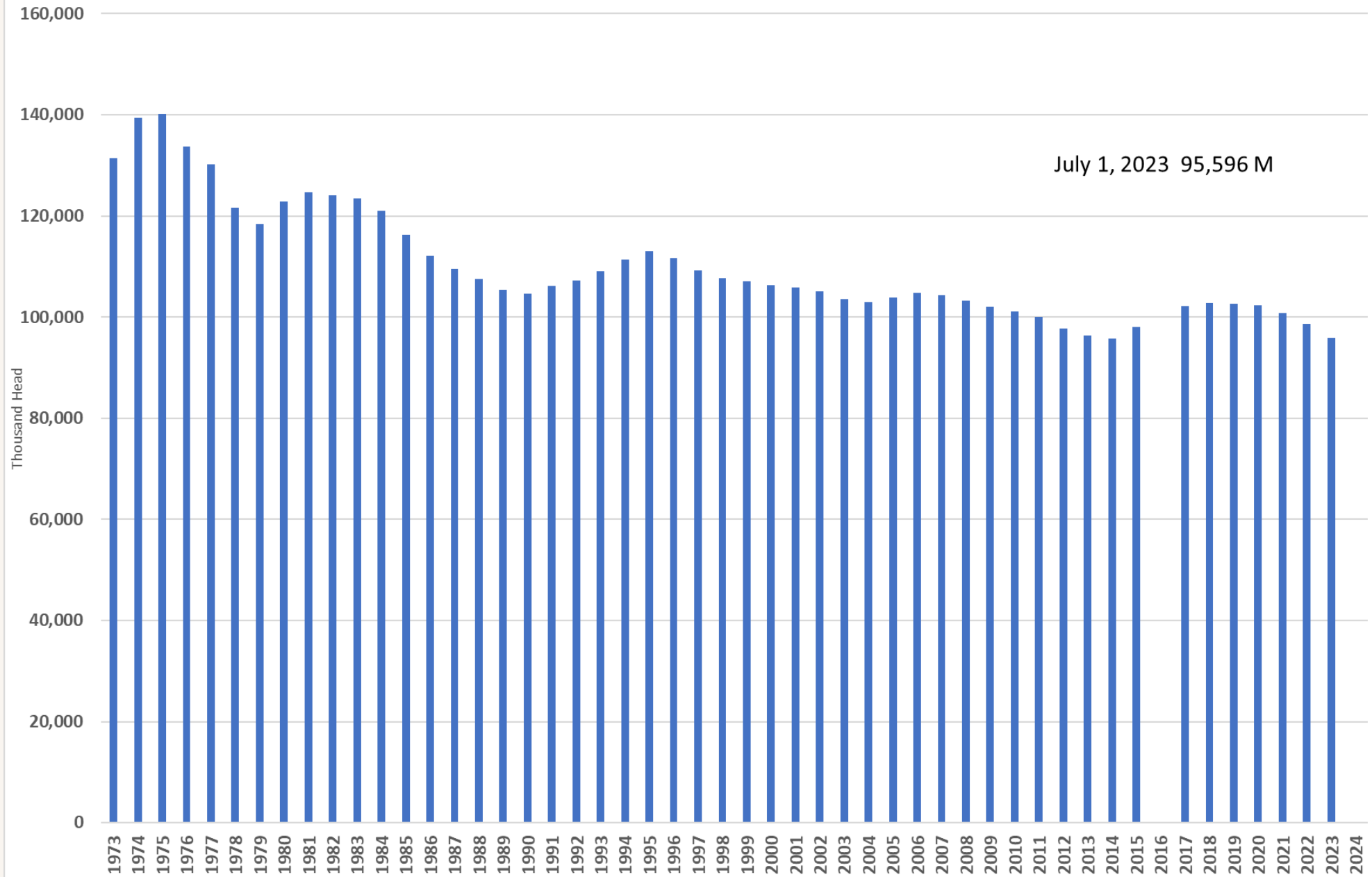
Everyone is Talking a Bull Market, Here's WHY!

**Presented By**

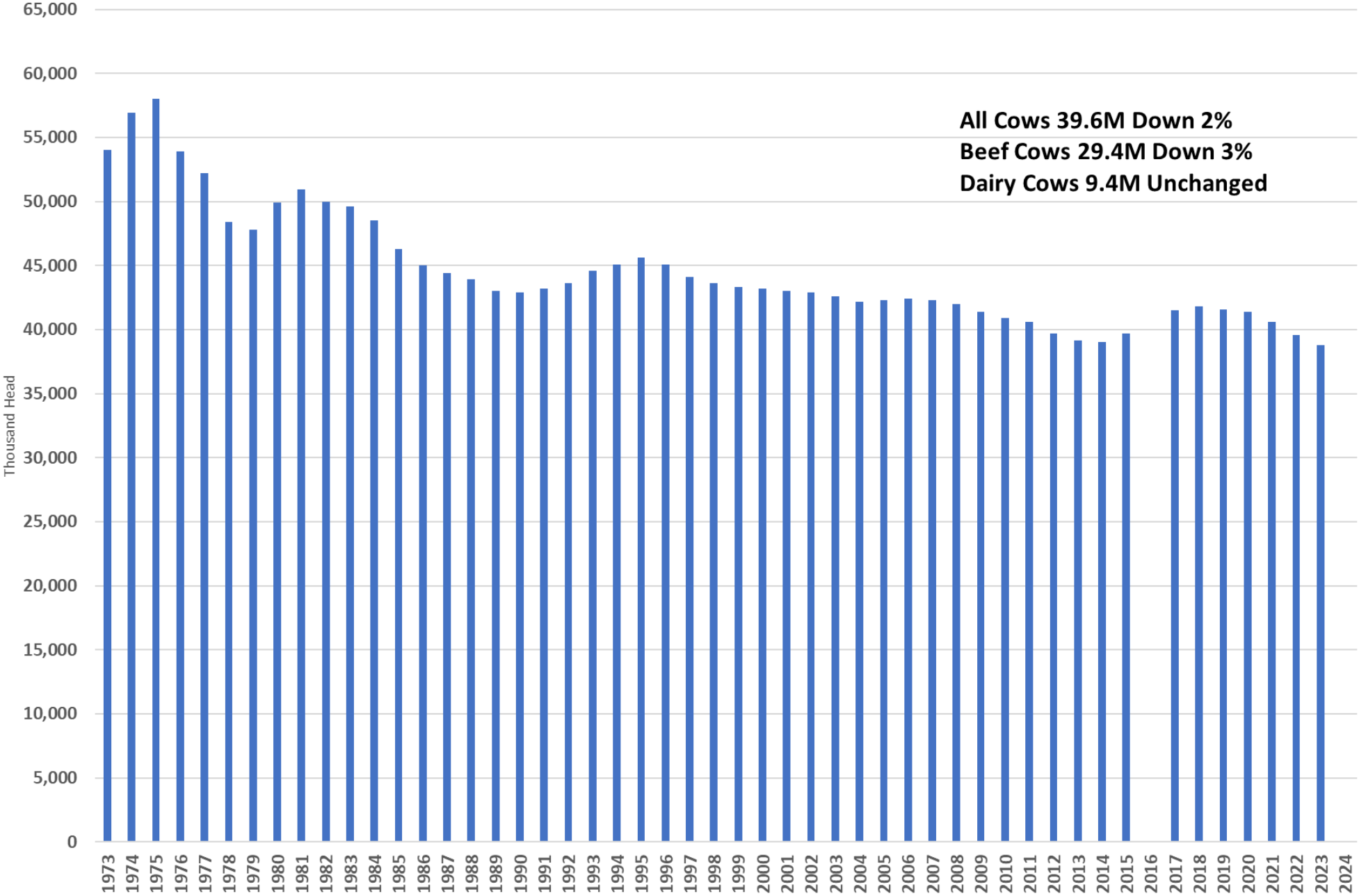
**Don Close**

*August 17, 2023*

# July 1, All Cattle & Calves

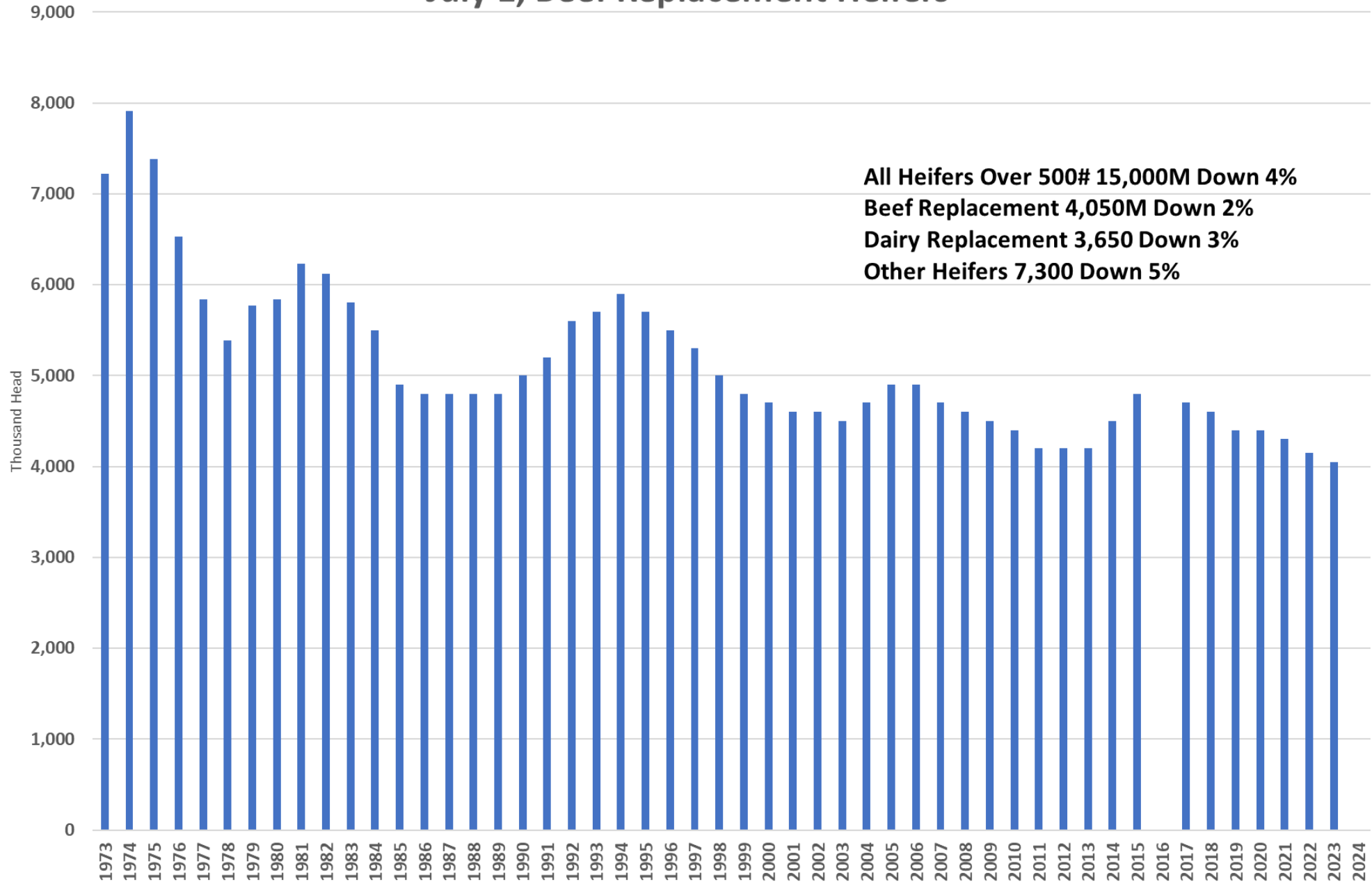


# July Inventory, All Cows



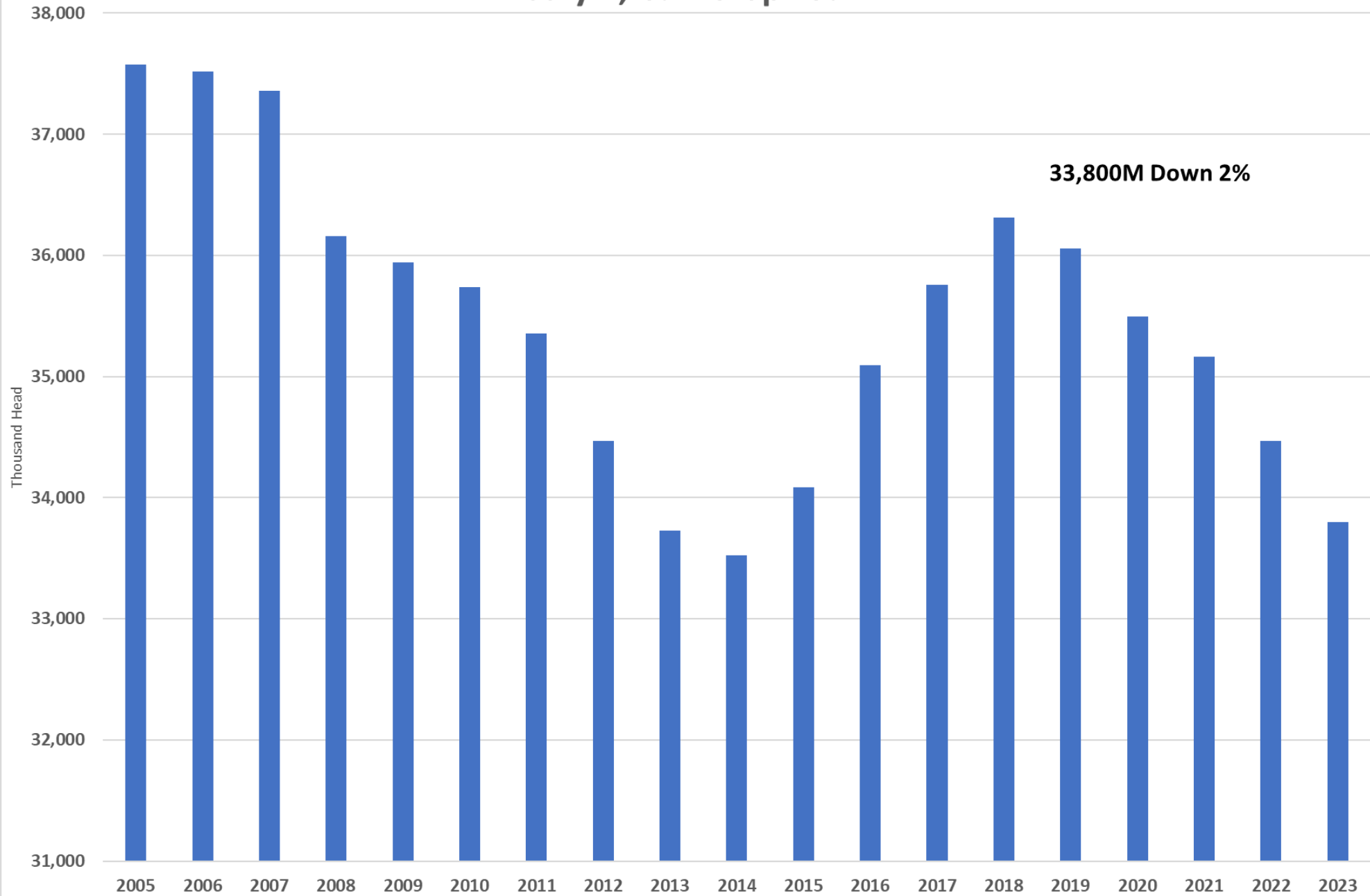
**All Cows 39.6M Down 2%**  
**Beef Cows 29.4M Down 3%**  
**Dairy Cows 9.4M Unchanged**

# July 1, Beef Replacement Heifers



**All Heifers Over 500# 15,000M Down 4%**  
**Beef Replacement 4,050M Down 2%**  
**Dairy Replacement 3,650 Down 3%**  
**Other Heifers 7,300 Down 5%**

# July 1, Calf Crop Est.

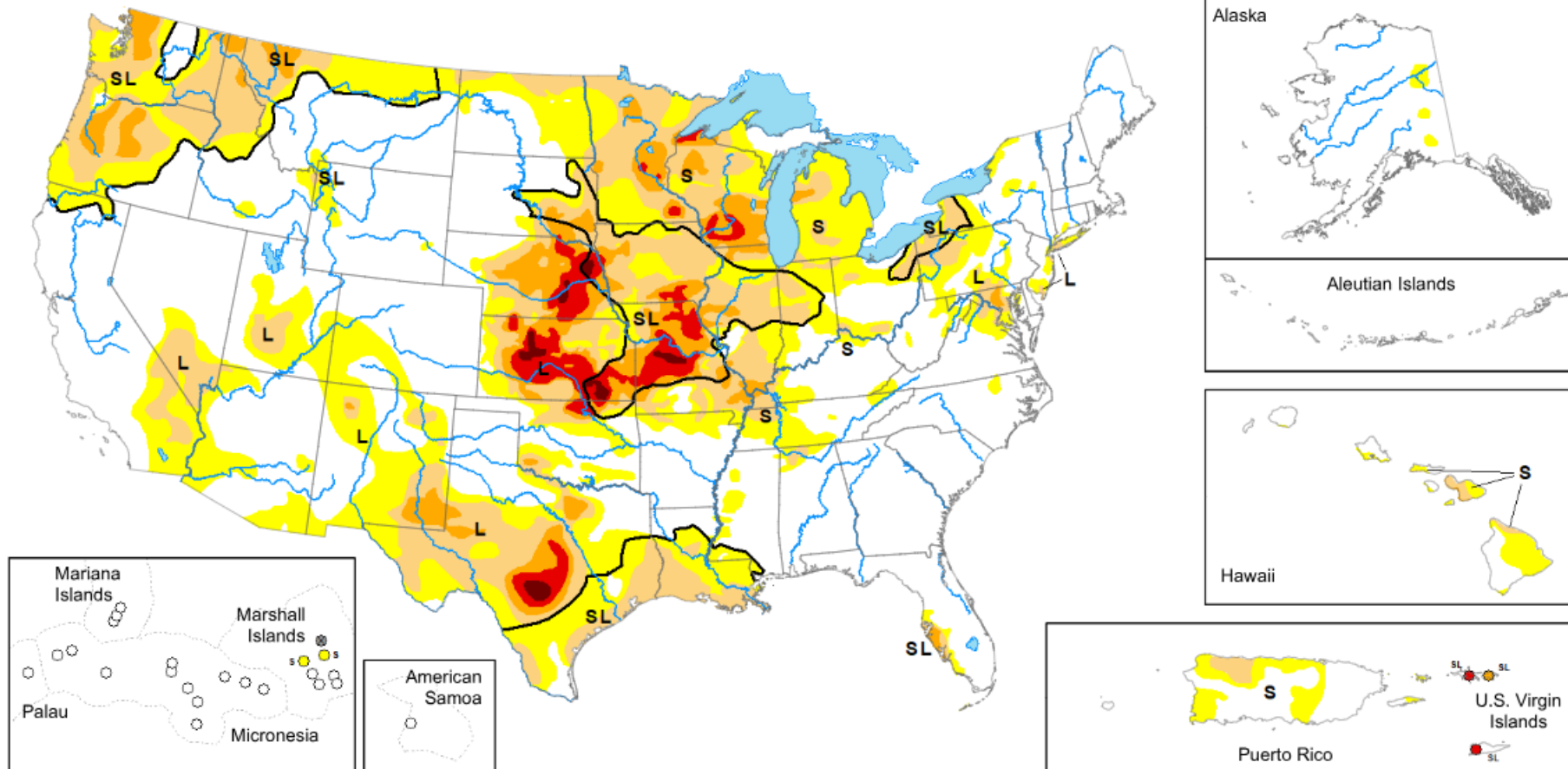




Map released: July 20, 2023

Data valid: July 18, 2023

View grayscale version of the map



United States and Puerto Rico Author(s):

[Richard Tinker](#), NOAA/NWS/NCEP/CPC

Pacific Islands and Virgin Islands Author(s):

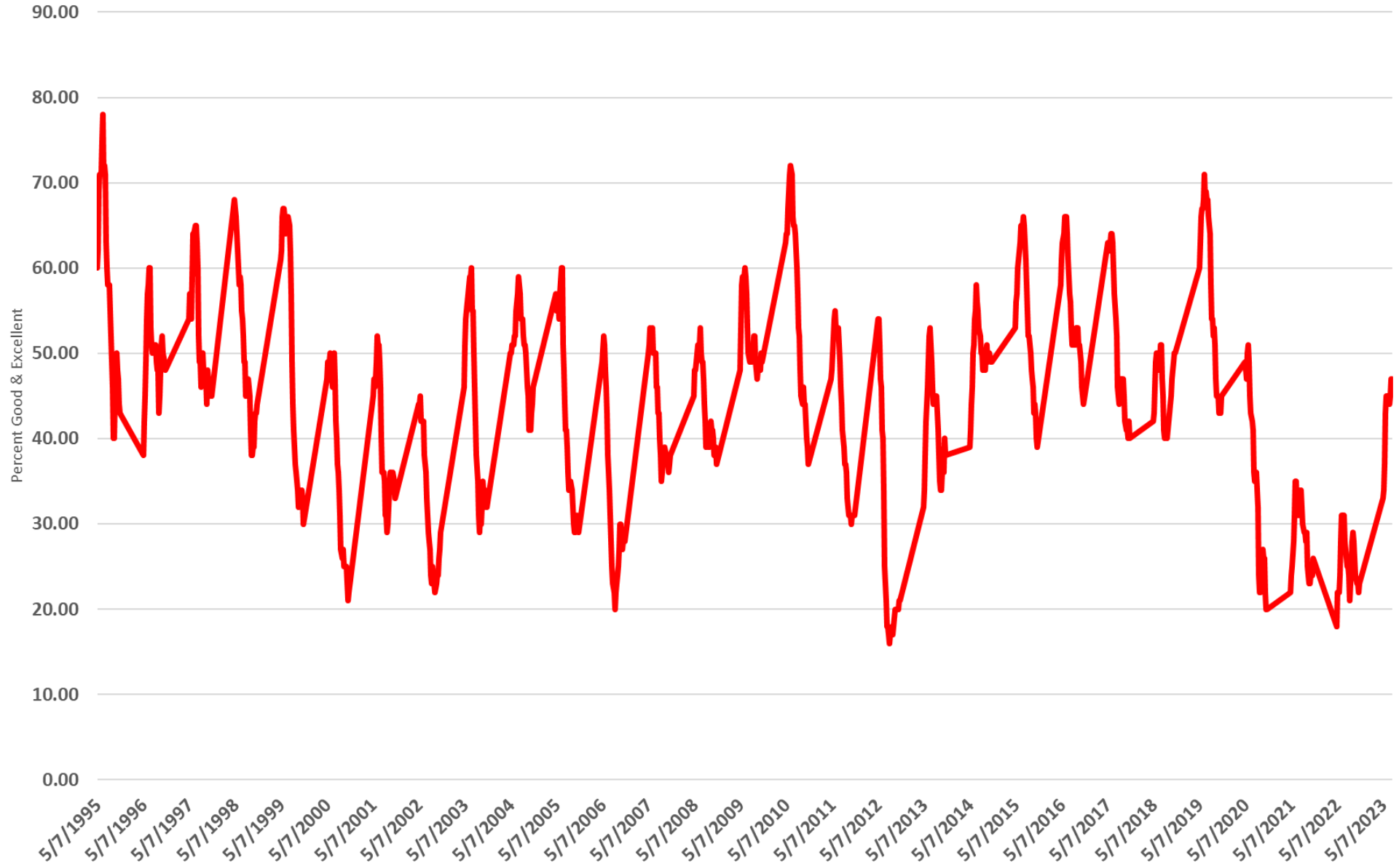
[Brad Rippey](#), U.S. Department of Agriculture

More maps and statistics:

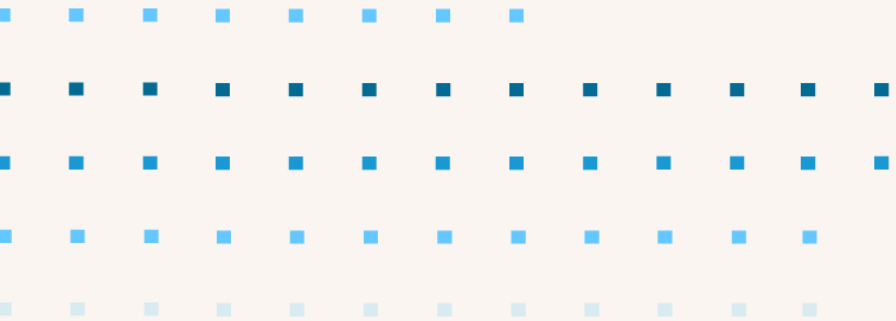
- U.S. States and Puerto Rico
- Continental U.S.
- Regions ▾

The data cutoff for Drought Monitor maps is each Tuesday at 8 a.m. EDT. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

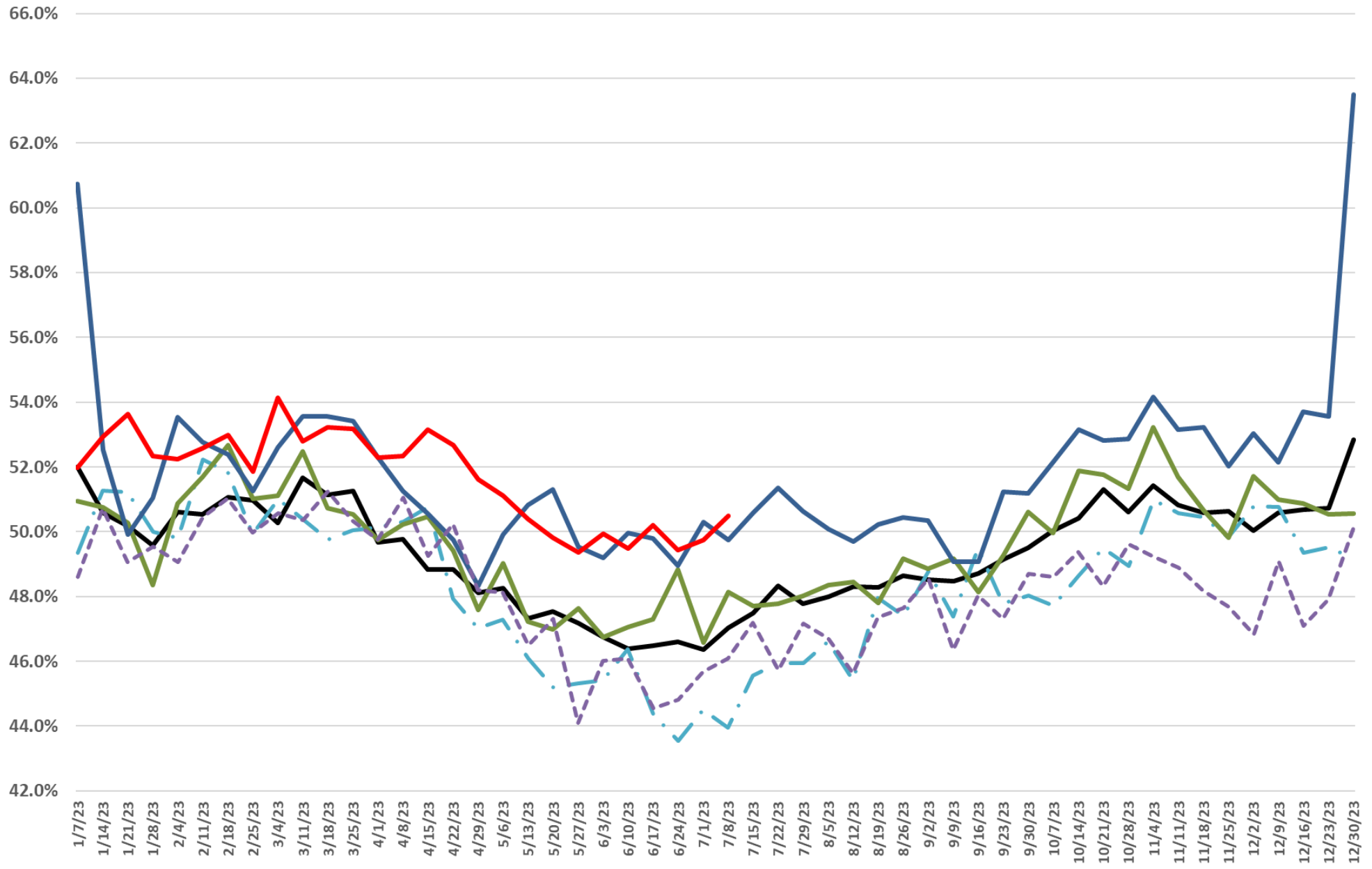
# Pasture & Range Condition Score Percent Good & Excellent



# Slaughter



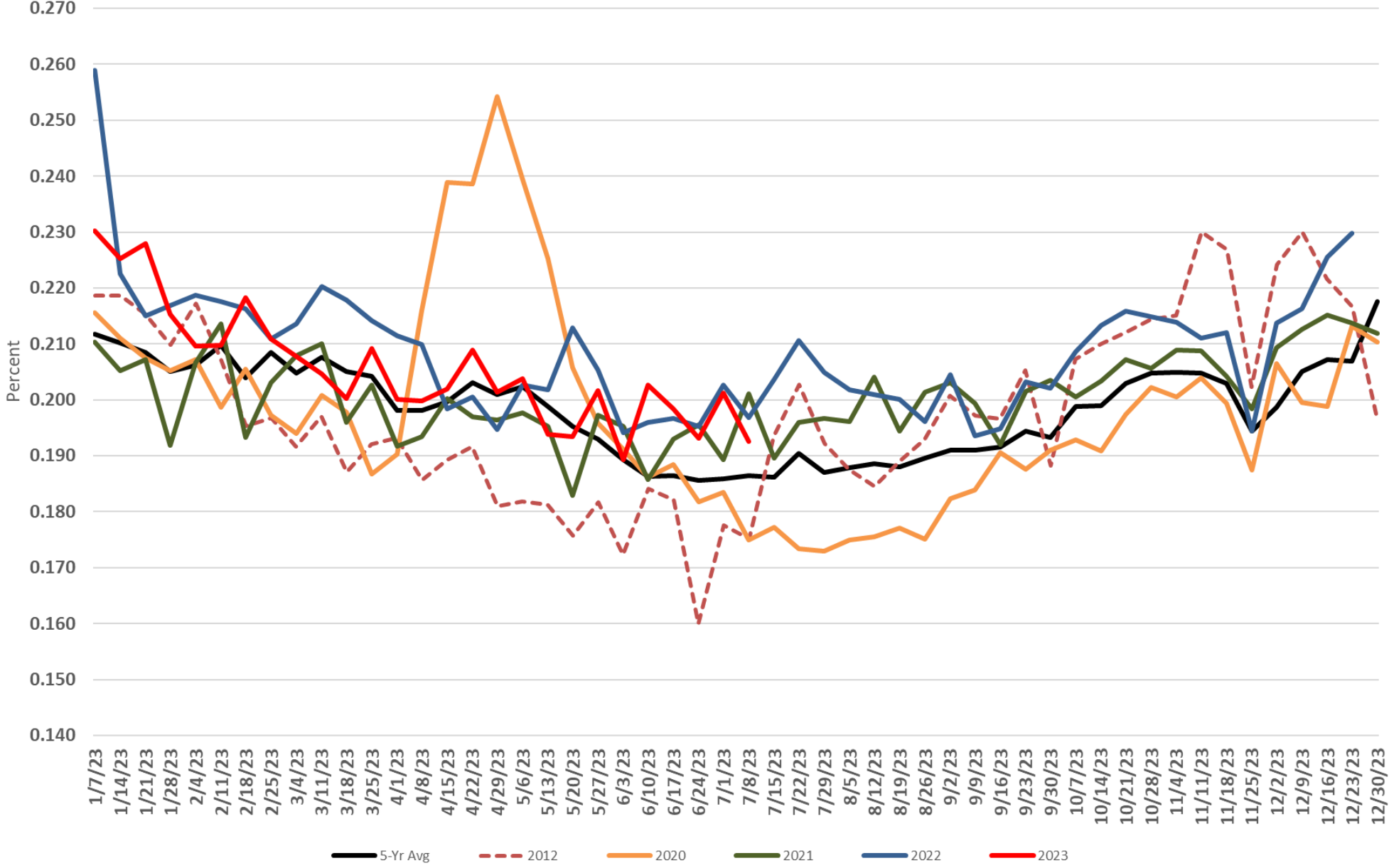
# Fed Heifers and Cows as a % of FI



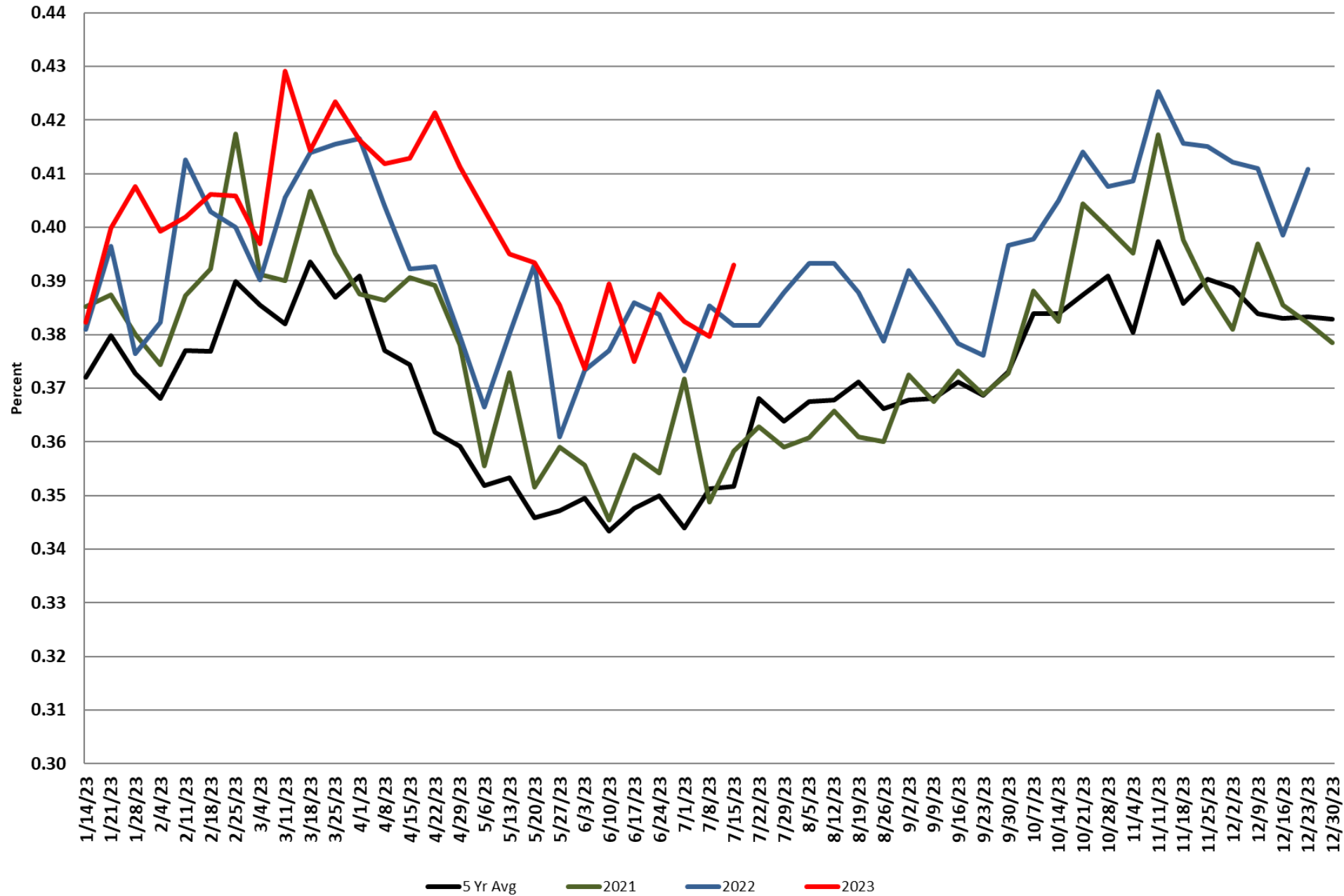
— 5 Yr Avg — 2012 — 2021 — 2022 — 2023 - - - 2013

USDA-AMS, Terrain

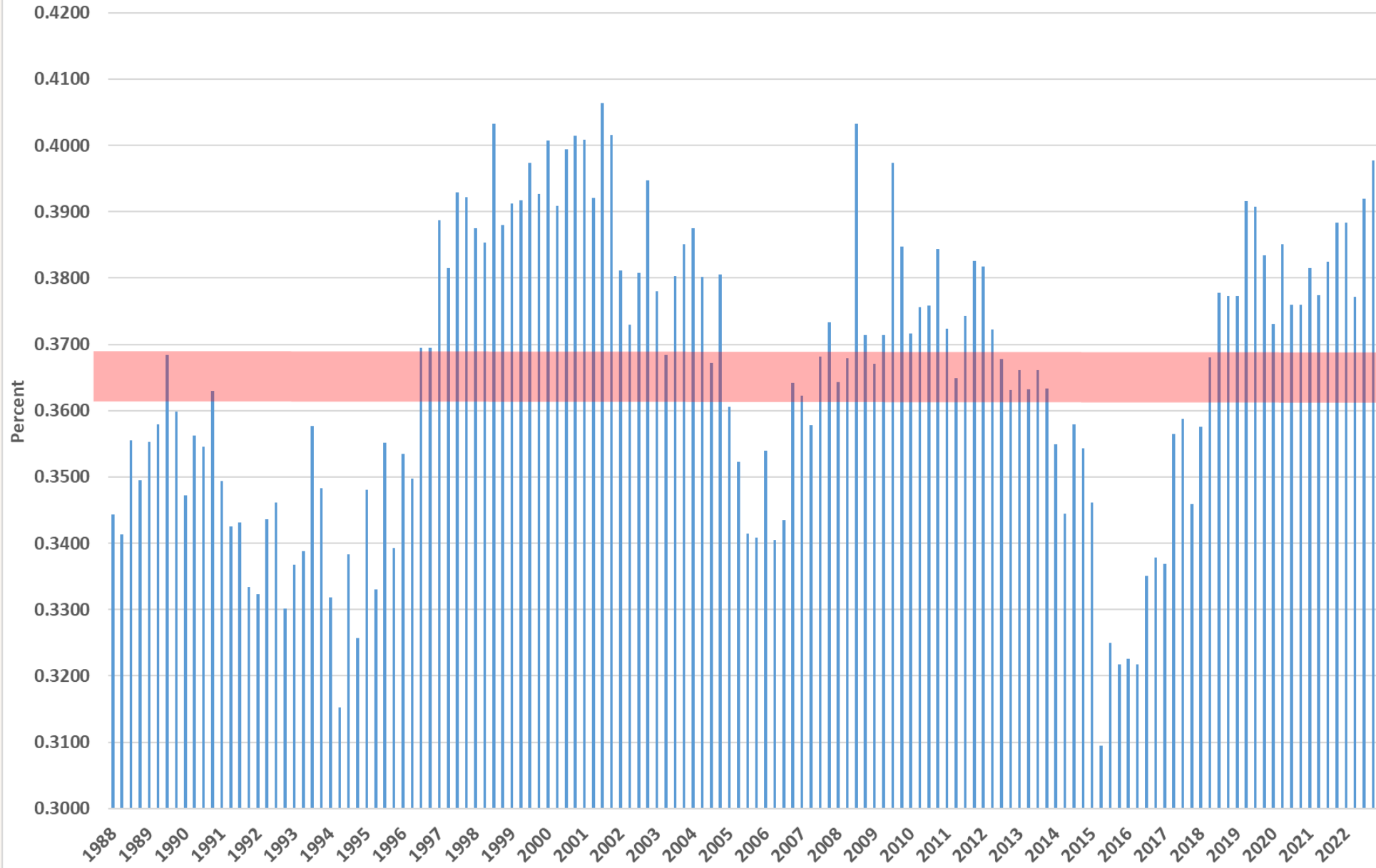
# Cows As % of FI Slaughter



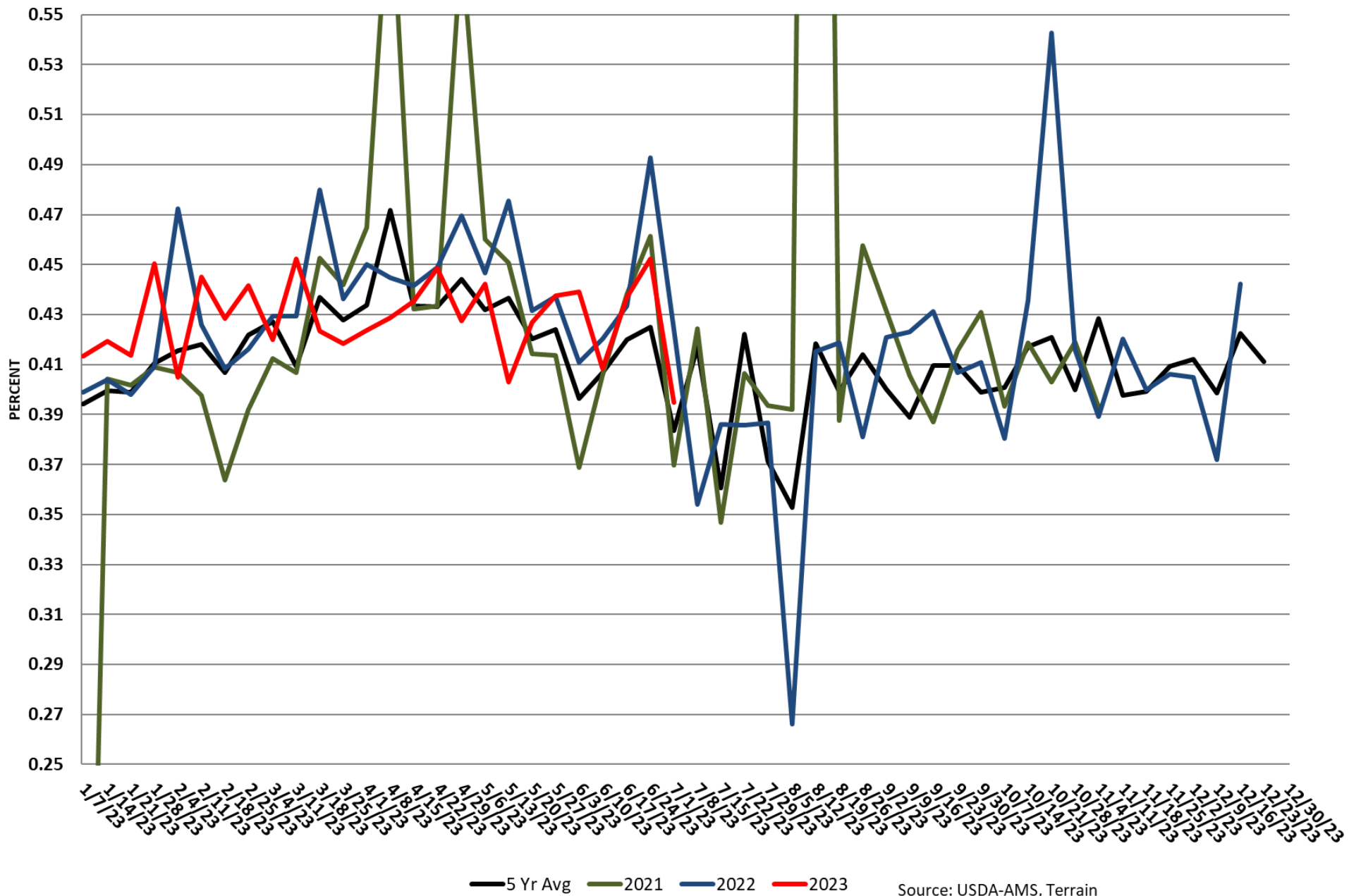
# Heifers as a Percent of Fed Sltr



# Heifers As A Percent of COF



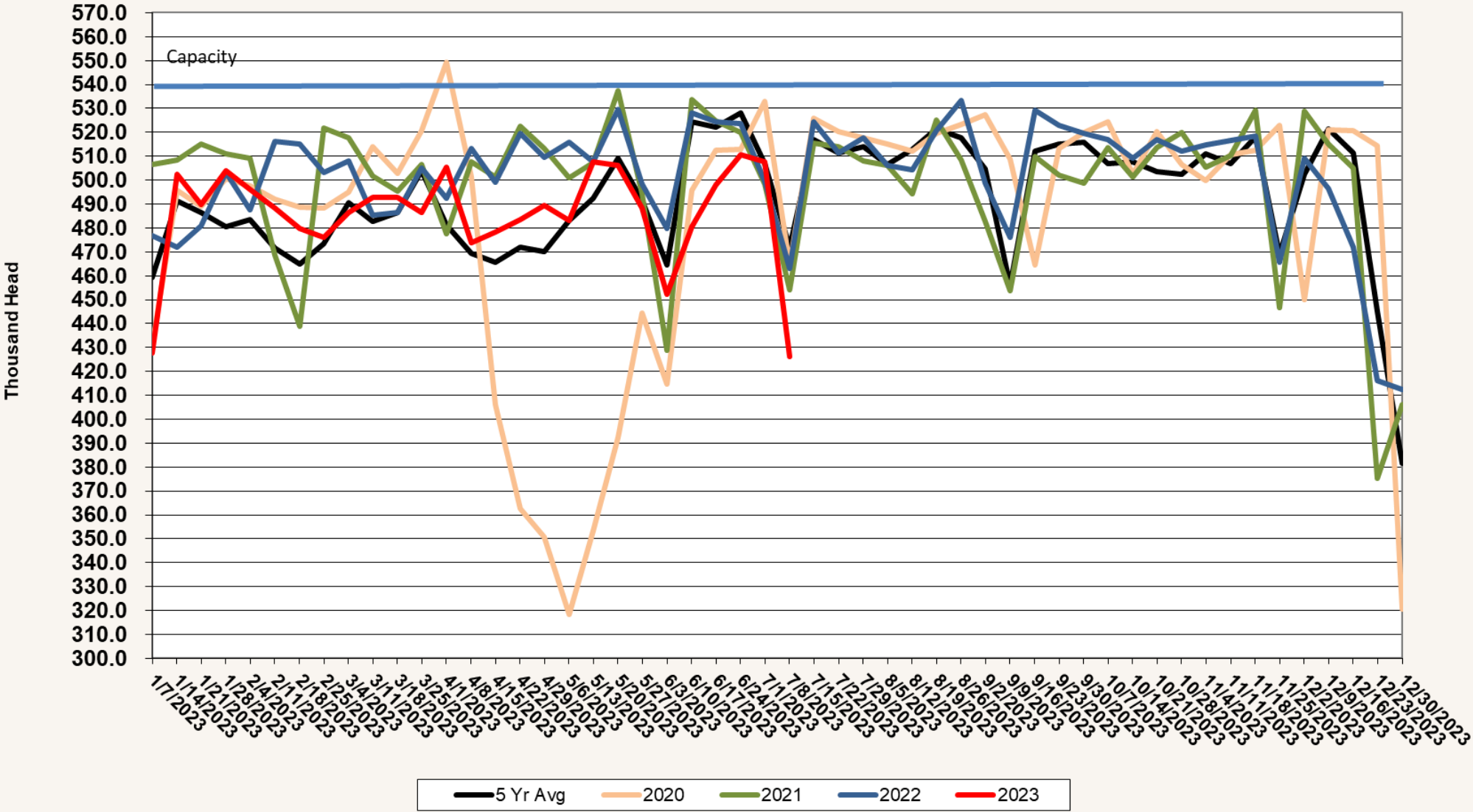
# Weekly Percent of Heifers in National Feeder Summary



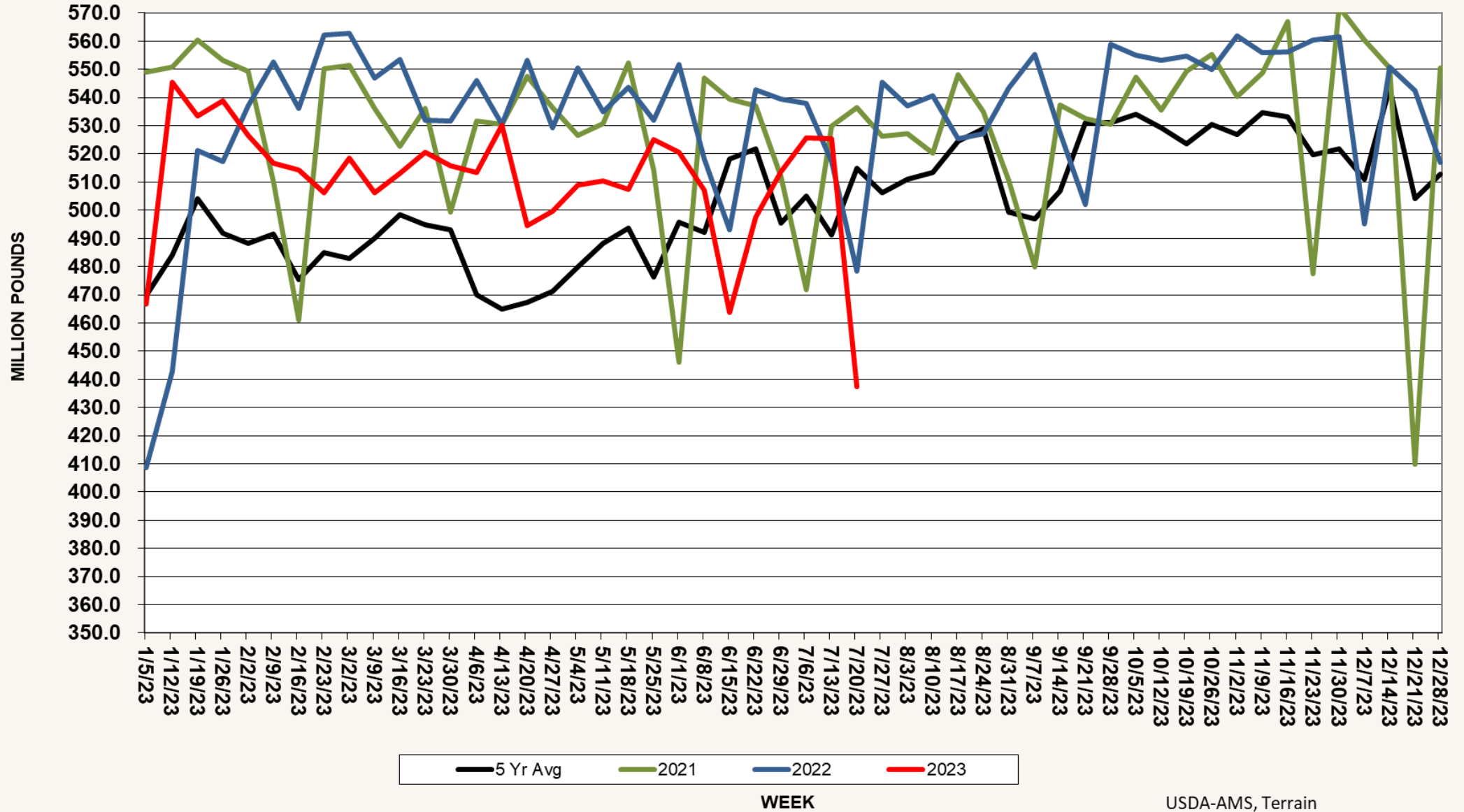
Source: USDA-AMS, Terrain



# Fed Slaughter



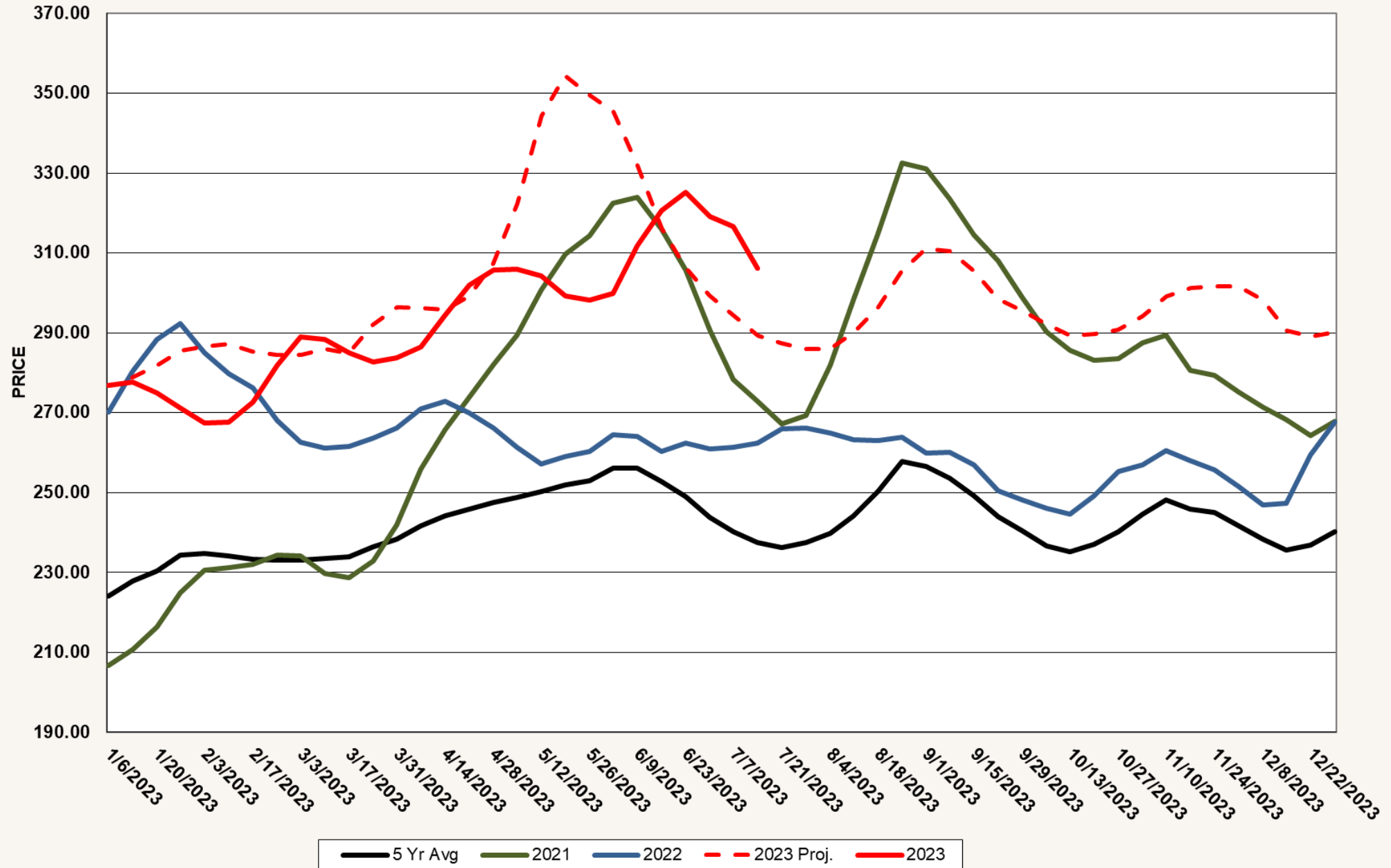
# WEEKLY BEEF PRODUCTION



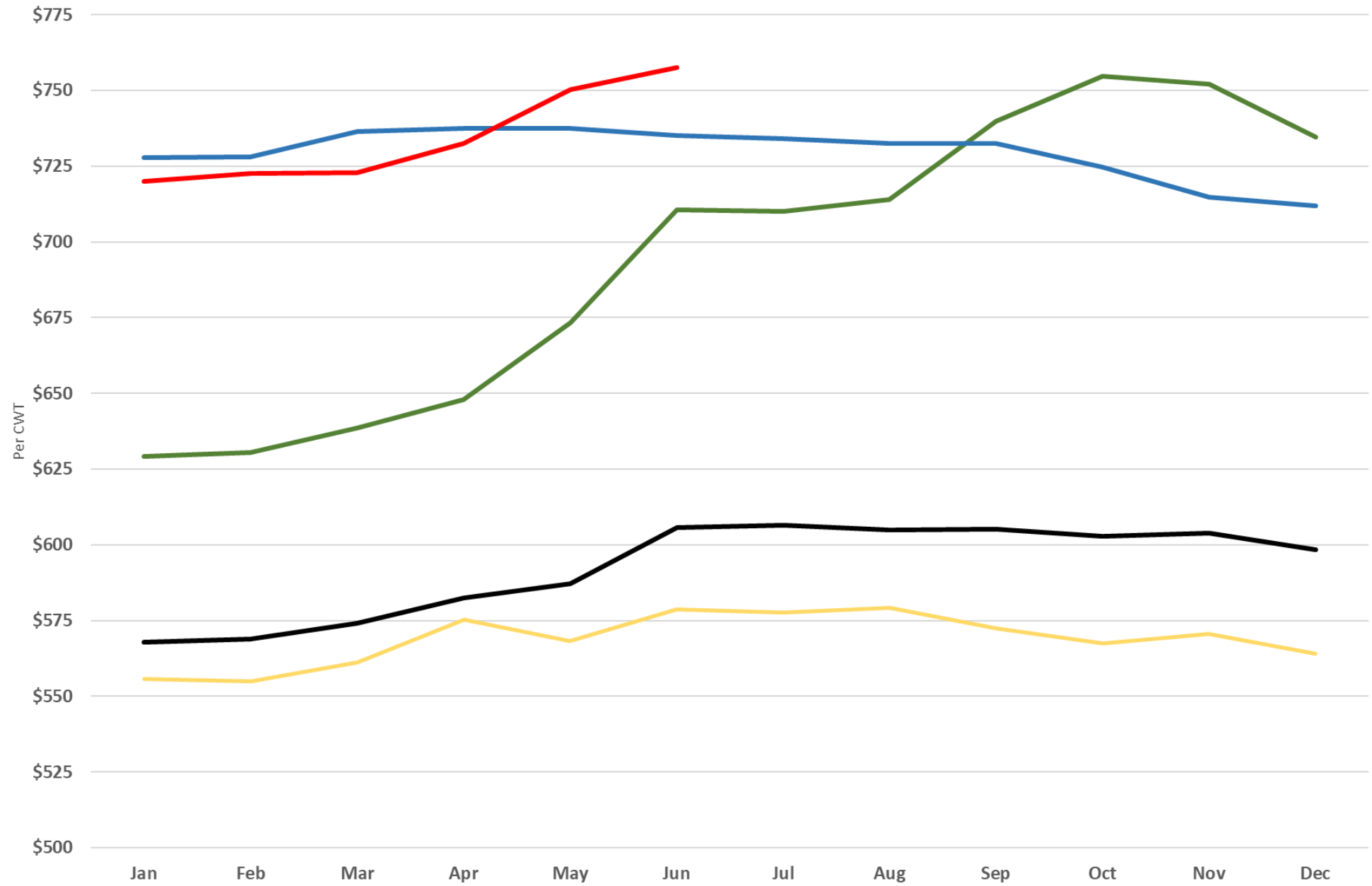
# Consumer Demand



# Comprehensive Cutout



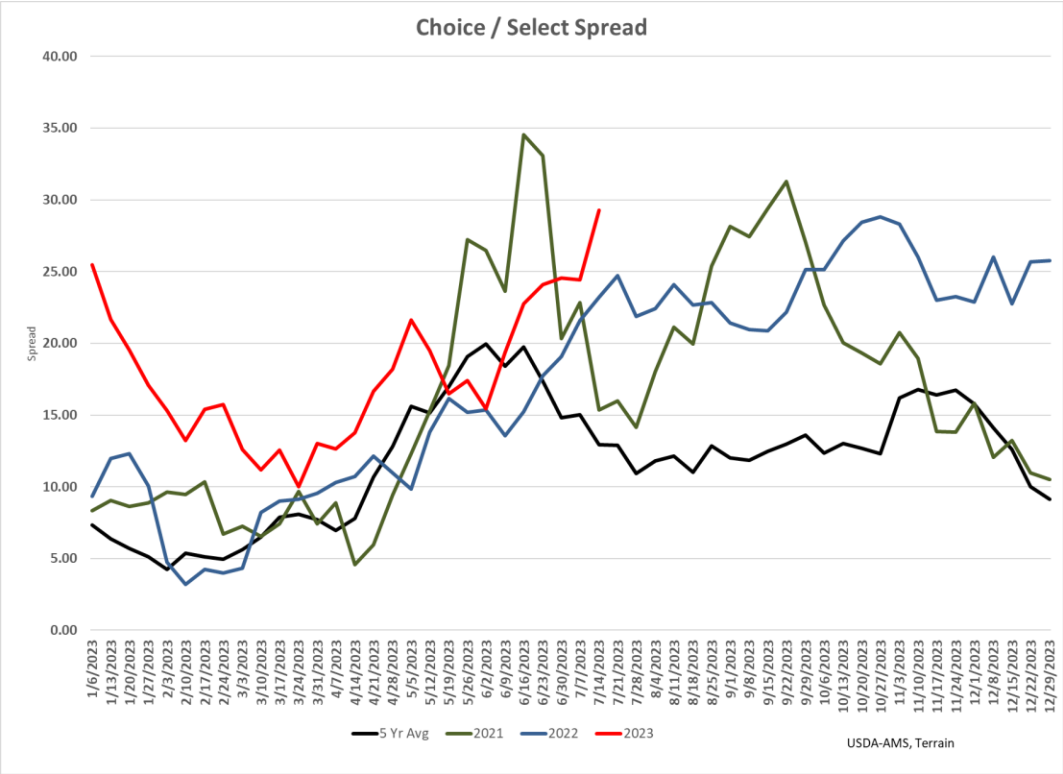
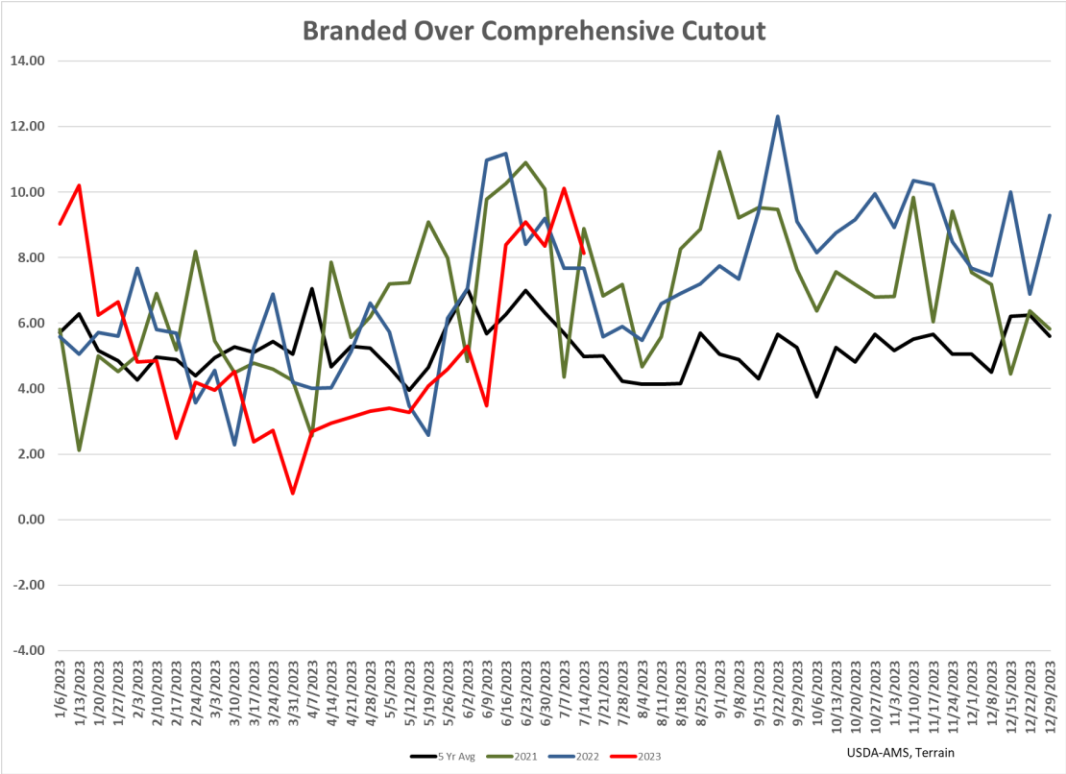
# All Retail Beef



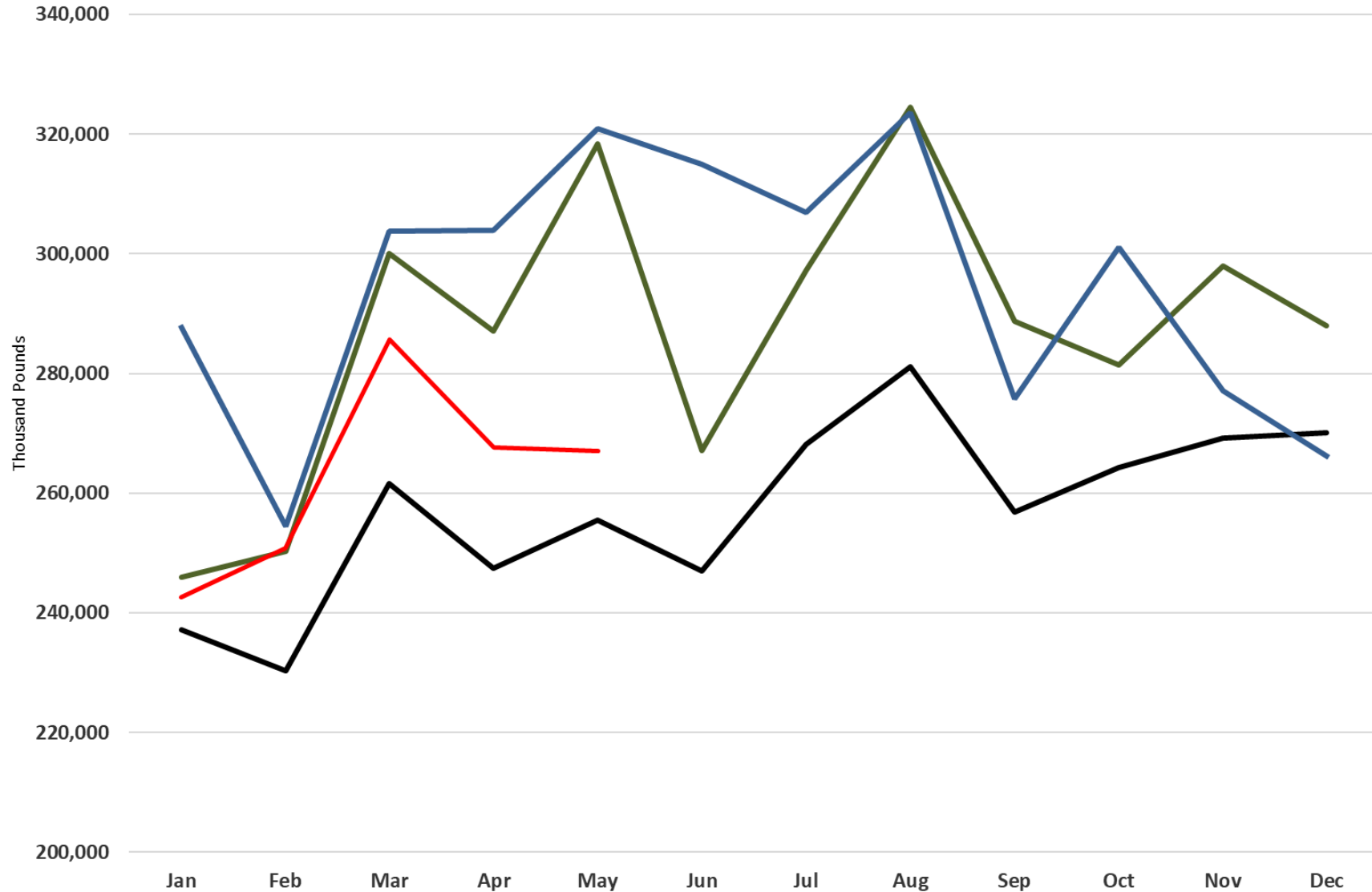
— 5 Yr Avg — 2020 — 2021 — 2022 — 2023

USDA-FAS. Terrain

# Demand Has Eased But Still Good



# US Beef Exports



— 5 Yr Avg — 2021 — 2022 — 2023

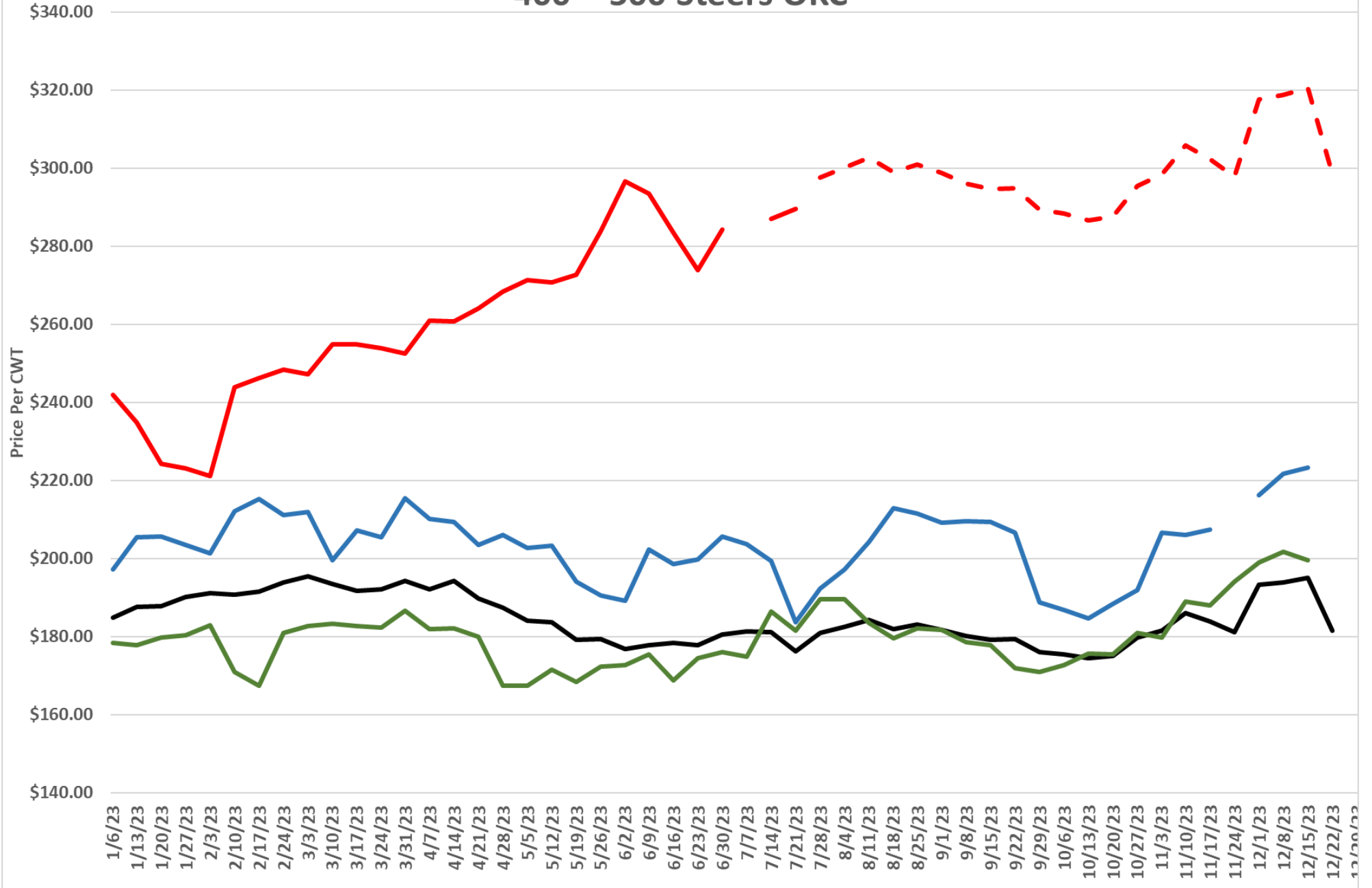
USDA-NASS, Terrain

# Price Outlook





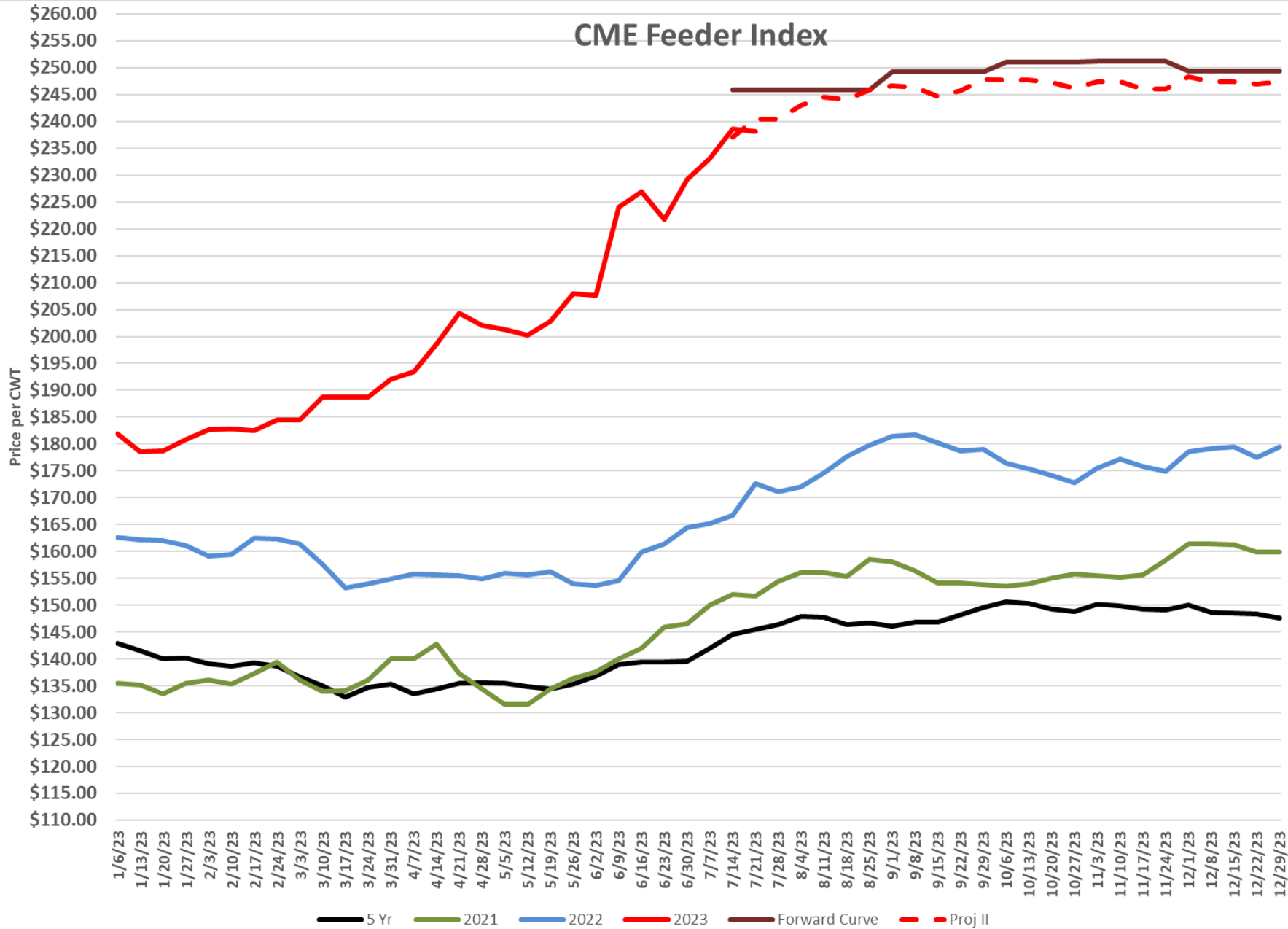
# 400 - 500 Steers OKC



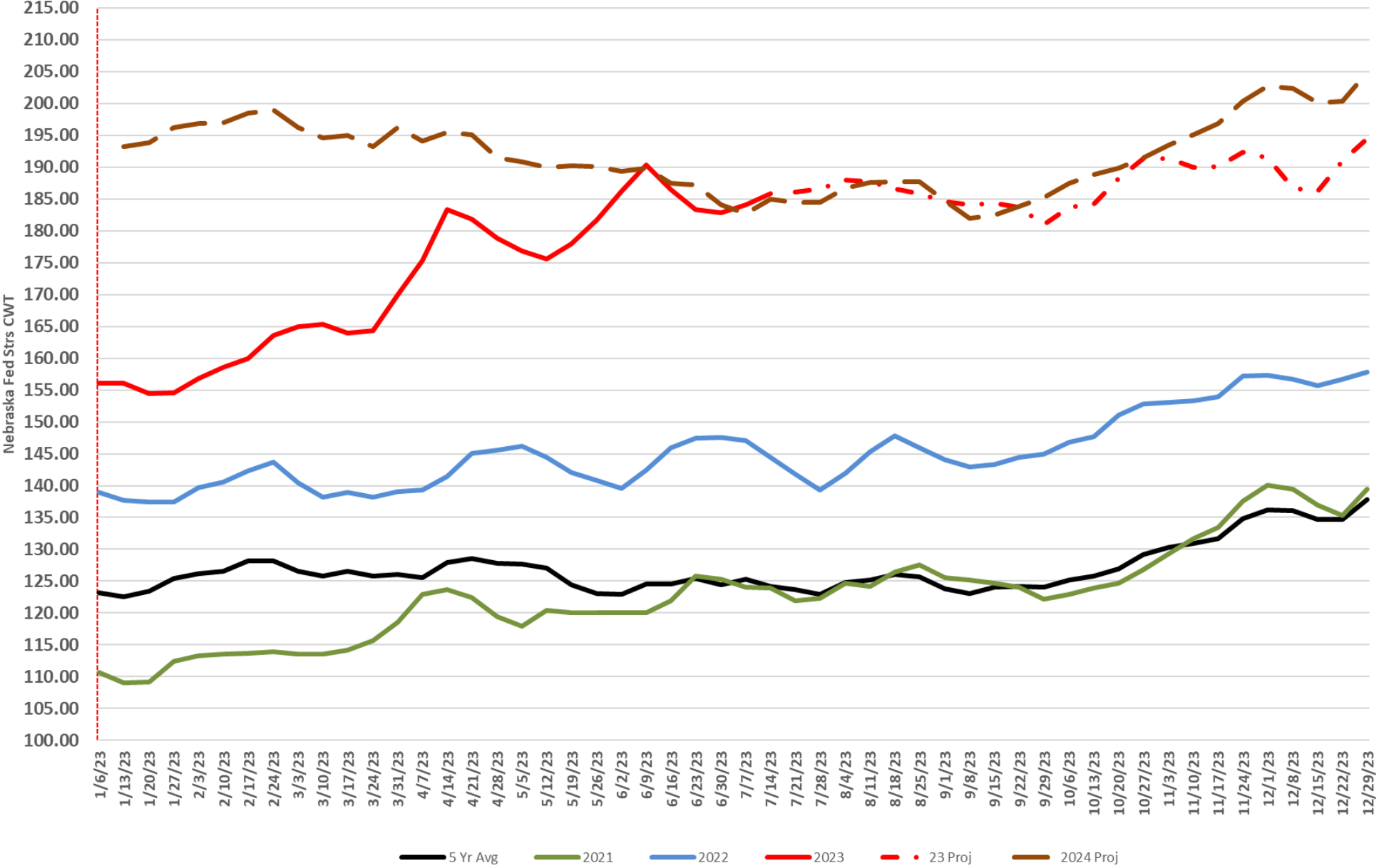
— 5 Yr Minus 2020 — 2021 — 2022 — 2023 - - 2023 Proj

USDA-AMS, Terrain

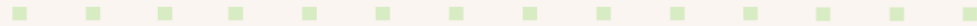
# CME Feeder Index



# Nebraska Fed Steers 2023



# Thank You



 **Terrain** offered by participating Farm Credit associations.

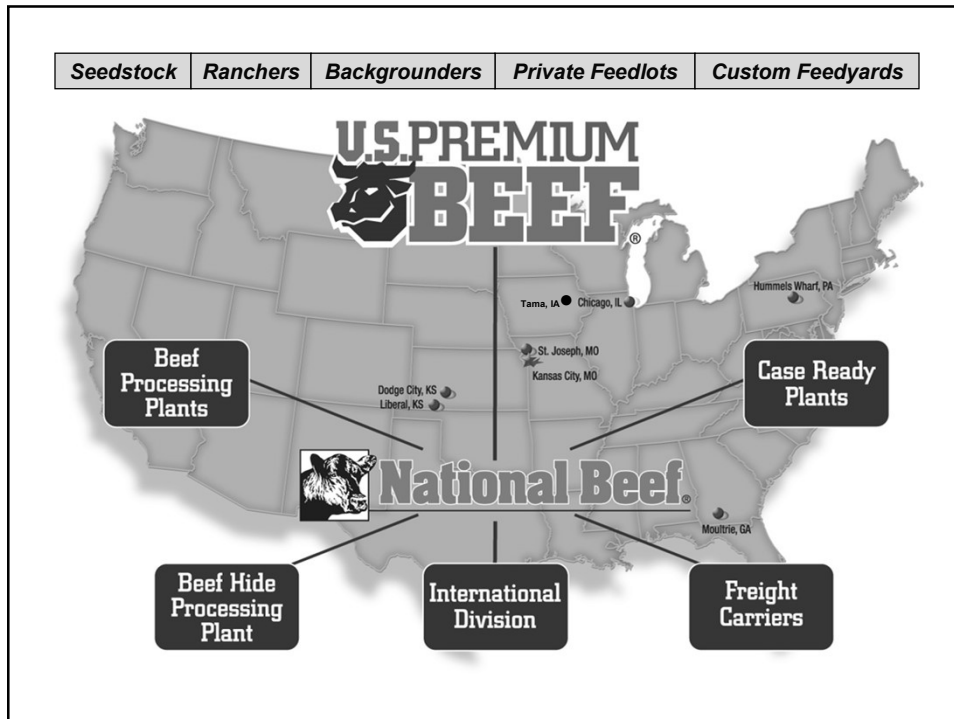
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# Capturing Carcass Premiums

**Brian Bertelsen**  
**Vice President Field Operations**  
**U.S. Premium Beef, LLC**



1



2

## Why participate?

### 1. Grid premiums (KS)

	FY 2022
all:	\$78.24/hd
Top 25%:	\$146.68/hd

### 2. Carcass data at no charge (KS)

### 3. Freight credit of up about 90 miles (KS)

### 4. Market access

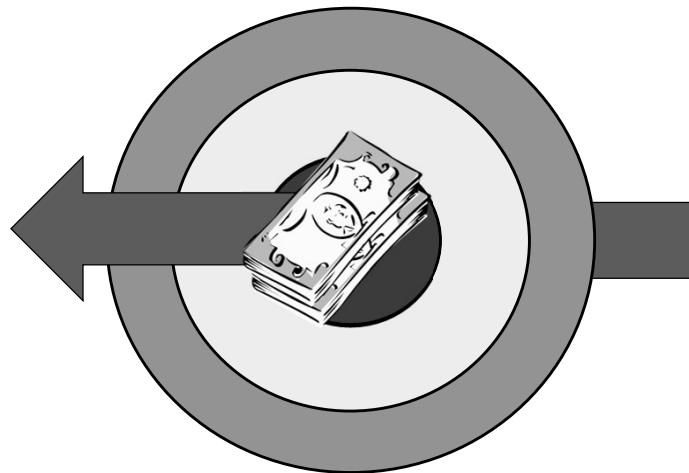
3



3

## A "Pull-through" system

P  
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O  
D  
U  
C  
E  
R



C  
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S  
U  
M  
E  
R

"Pay me what they're worth"

Demand for products

4

## What doesn't work?

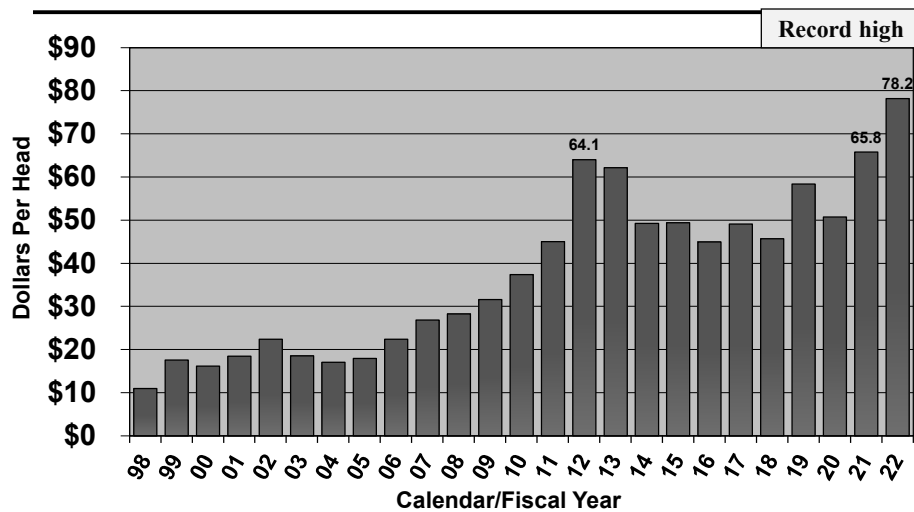
- Selling cattle green
- Big, heavy placed steers
- Roughing out over winter
- Unwillingness to change
- Dairy breeds
- High (>50%+) Brahman

5



5

## USPB Average Grid Premium



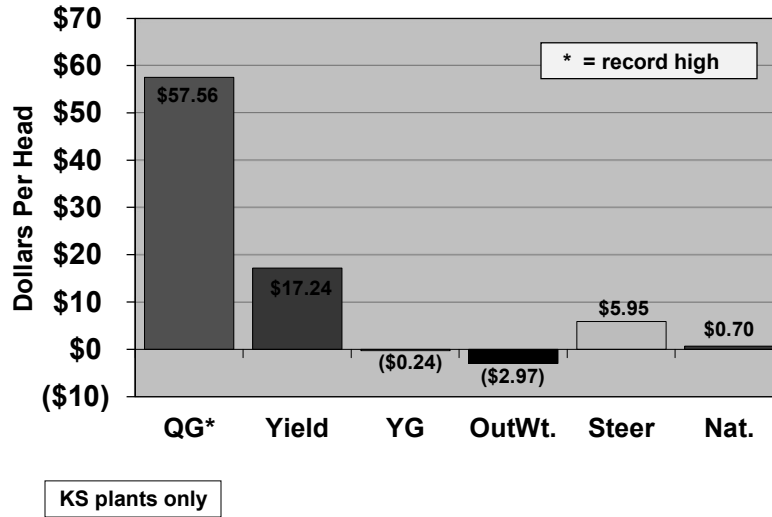
6

KS plants only



6

### F2022 Premium Breakdown



7

7

### 2022 Quality Pays (KS)

Actual Averages	Pr	CAB	Ch	Se	NoRoll
HCW	933	913	909	873	784
YG	3.2	2.9	2.5	2.1	1.6
\$/cwt	260.1	233.7	228.6	212.0	199.4
\$/head	2428	2135	2080	1851	1568
	293	55	229	283	

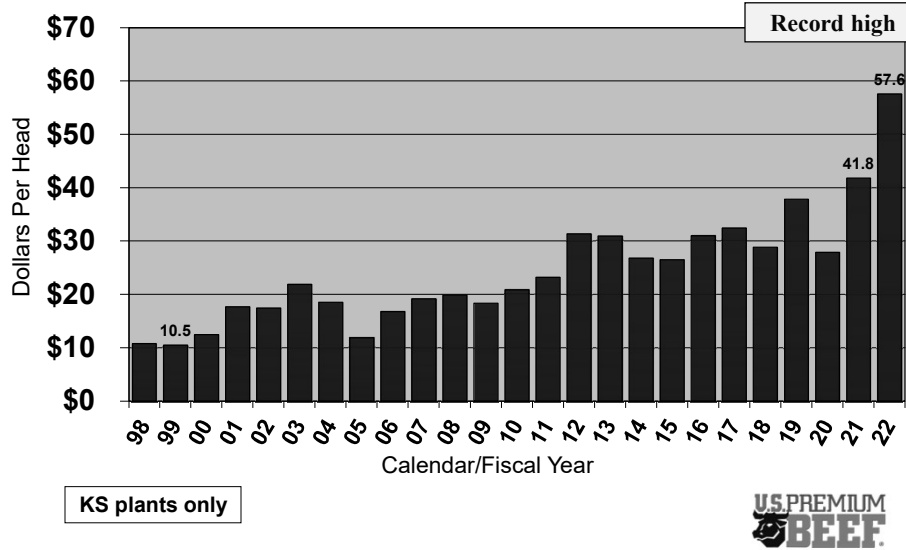
HB, DC, OTM excluded  
Steers

8

8

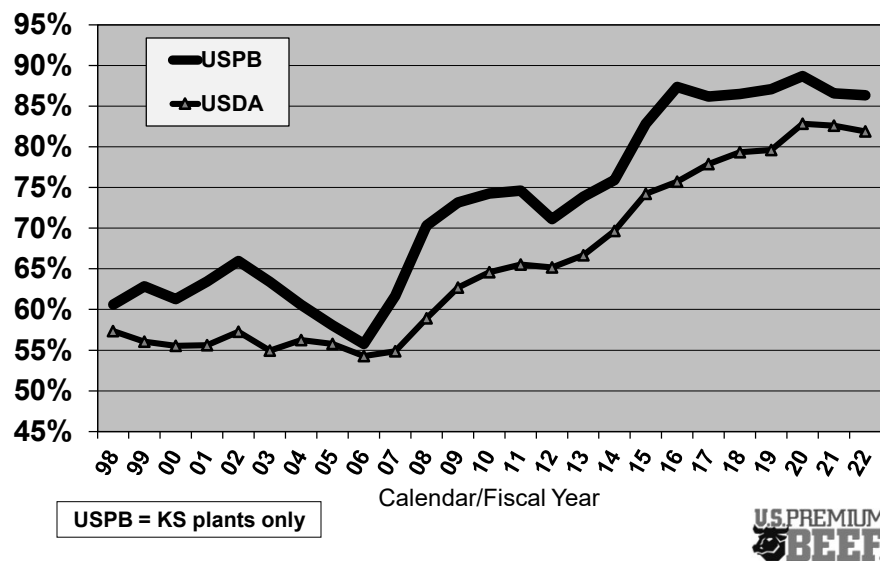


## Quality Grade Premium



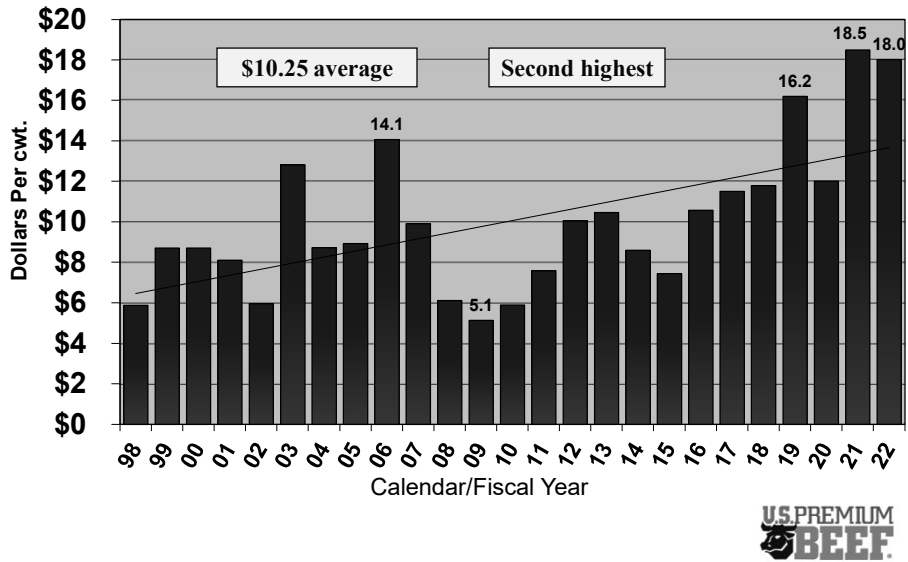
9

## Choice & Prime %



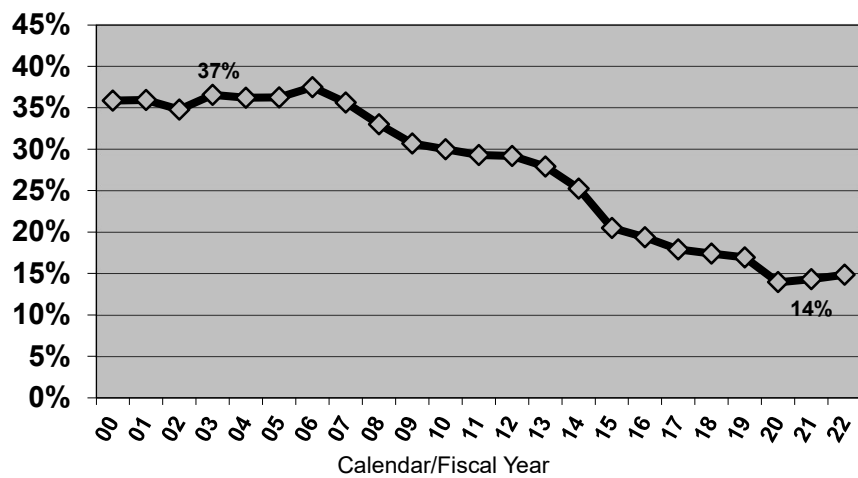
10

## Choice/Select Spread



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## Industry Select %

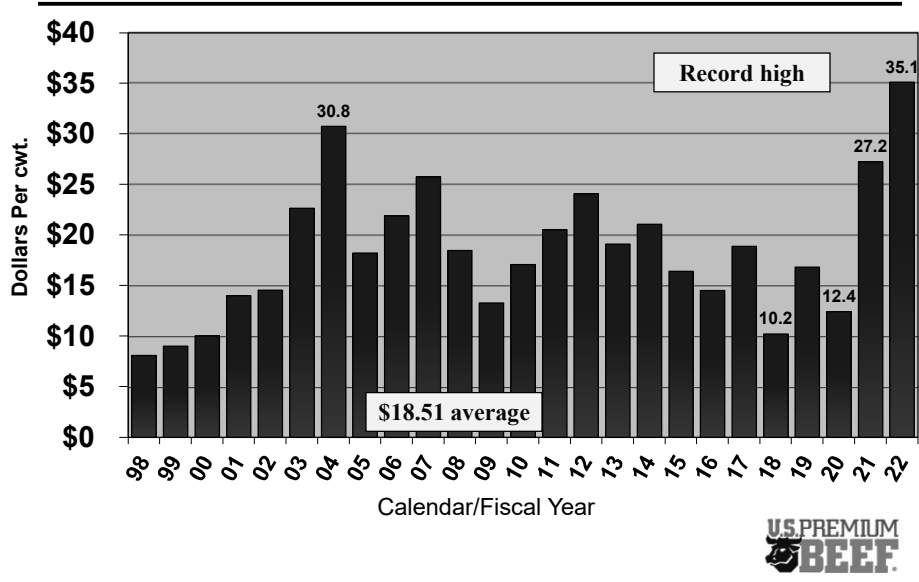


USDA data

US PREMIUM BEEF

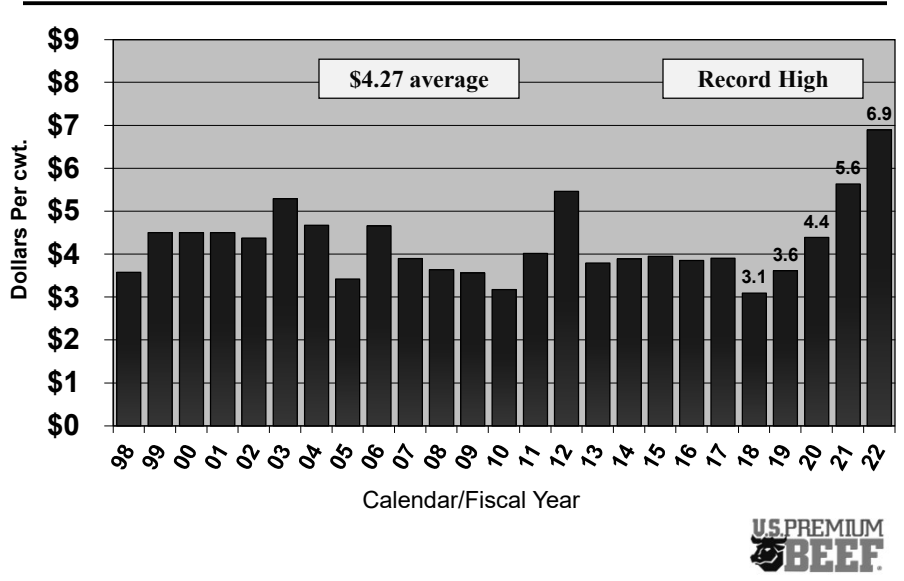
12

## Prime Premium, \$/cwt



13

## CAB Premium, \$/cwt



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## Recipe for Marbling

---

- |                   |                           |
|-------------------|---------------------------|
| ✓ Genetics        | ✓ Castrate early          |
| ✓ Temperament     | ✓ Grain-based grower      |
| ✓ Feed the cow    | ✓ Maintain body condition |
| ✓ Calving season  | ✓ Sort                    |
| ✓ Colostrum       | ✓ Feed to YG 3            |
| ✓ Health          | ✓ Placement weight        |
| ✓ Precondition    | ✓ Implant wisely          |
| ✓ Creep feed      | ✓ Watch vitamin A & D     |
| ✓ Wean early      | ✓ Grain type & processing |
| ✓ Low stress wean | ✓ Reduce stress           |
| ✓ Deworm          |                           |

15



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## Recipe summary

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- Genetics build potential
- Manage to express the potential
- Early backgrounding nutrition can make more marbling cells
- Pick them when they're ripe
- Corn early, Corn often
- Manage calories for condition and frame
- Like a fine wine

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## 2022 KS Steers by YG

	YG 1	YG 2	YG 3	YG 4	YG 5
HCW	856	<sup>36</sup> 892	<sup>36</sup> 928	<sup>36</sup> 964	<sup>36</sup> 1000
Backfat, in.	0.34	0.48	0.65	0.85	1.10
REA, sq.in.	16.95	15.71	14.79	14.04	13.44
a-r REA	2.88	1.20	-0.15	-1.33	-2.37
>=1100, %	0.15	0.77	2.00	5.23	13.18



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## 2022 KS Steers by YG

	YG 1	YG 2	YG 3	YG 4	YG 5
Marbling	Sm 20	Sm 71	Mt 22	Mt 61	Mt 82
Mb Code	420	471	522	561	582
PR, %	0.33	2.26	7.23	13.36	18.17
CH/PR, %	54.05	79.62	91.49	95.50	95.72
Branded, %	14.32	36.85	54.08	59.96	58.30
\$/cwt.	\$222.8	\$227.2	<b>\$231.1</b>	<b>\$230.2</b>	\$222.6
\$/Head	\$1910	\$2029	\$2146	<b>\$2218</b>	<b>\$2225</b>



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# Realistic Goals

	USPB	36 ranches	8 ranches
Head		25,913	4,066
HCW, lbs	844	859	831
Prime, %	6.36	29.79	51.17
Ch/Pr, %	87.07	98.23	99.38
CAB, %	28.22	45.05	37.68
YG 4&5, %	12.44	18.43	20.89
Premium, \$/hd	\$58.42	\$79.73	\$95.94

FY2019 data



19



20



# FARM CREDIT ASSOCIATIONS OF KANSAS

**Farm Credit of Western Kansas**

**800.657.6048**

[fcwk.com](http://fcwk.com)

**Frontier Farm Credit**

**800.397.3191**

[frontierfarmcredit.com](http://frontierfarmcredit.com)

**American AgCredit**

**800.800.4865**

[agloan.com](http://agloan.com)

**High Plains Farm Credit**

**800.864.4458**

[highplainsfarmcredit.com](http://highplainsfarmcredit.com)



**Hu·ve·pharma:** a global animal health company *focused* on production animals, that is dedicated to developing, manufacturing, and marketing a wide portfolio of livestock health and nutrition products.

**We are Shaping Livestock Solutions.**



[www.huvepharma.us](http://www.huvepharma.us) | 1-877-994-4883





National Cattlemen's Beef Association

# WORKING FOR THE AGRICULTURE INDUSTRY SINCE 1894

Advancing the business interests of its members is KLA's mission. Officers and staff work to achieve this goal day-in and day-out by working with legislators and regulatory agencies to advance KLA policy. While a large percentage of KLA's membership is composed of beef producers, the association's efforts benefit producers of a variety of ag commodities as well as those engaged in related industries. KLA invites anyone with a financial stake in Kansas agriculture to join us in our work on their behalf.

## ***We've got your back.***

- Protecting private property rights of agricultural producers.
- Ensuring that county and municipal zoning and building regulations do not restrict agriculture.
- Supporting increased weight limits for trucks carrying agricultural inputs, supplies and commodities.
- Defending agricultural exemptions from sales and property taxation.
- Working with state government and groundwater management districts to ensure availability of water for agriculture and other uses well into the future.



### **KLA/NCBA MEMBERSHIP APPLICATION**

Name: \_\_\_\_\_  
 Spouse: \_\_\_\_\_  
 Farm/Ranch Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 County: \_\_\_\_\_ Zip: \_\_\_\_\_  
 E-mail: \_\_\_\_\_  
 Home Phone: \_\_\_\_\_  
 Cell Phone: \_\_\_\_\_  
 Recruited By: \_\_\_\_\_  
 Type of Operation: \_\_\_\_\_

Kansas Livestock Association Dues.....\$120.00  
 National Cattlemen's Beef Association Dues.....\$150.00

**Total Dues Investment \$ \_\_\_\_\_**

The portion of KLA and NCBA dues not directly allocable to lobbying expenditures is tax deductible for most members as an ordinary and necessary business expense. For KLA, dues are 92% deductible; NCBA dues are 90% deductible.

***Join both associations and receive discounts on:***  
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*Return this application with your dues investment to:*  
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 Or join online at [www.kla.org](http://www.kla.org)