

BEEF-CATTLE OUTLOOK

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**2023
K-STATE
CATTLEMEN'S DAY**

**MARCH 3, 2023
KSU Weber Hall
Manhattan, Kansas**



K-STATE
Research and Extension

K
KANSAS STATE UNIVERSITY

Take-Home Summary

1. Supply Dynamics, Switching to Support Higher Cattle Prices
2. Beef Demand (Domestic & Export) Was Solid But Weaken as 22' Ended & 23' Starts

Quarterly Forecasts (LMIC: 2/7/23)

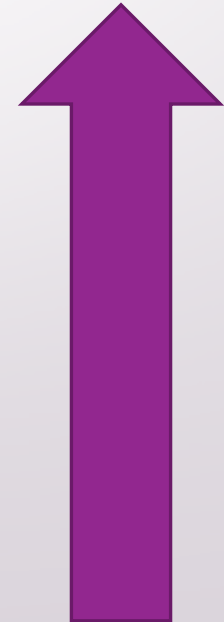
Year Quarter	Comm'l Slaughter	% Chg. from Year Ago	Average Dressed Weight	% Chg. from Year Ago	Comm'l Beef Production	% Chg. from Year Ago
2022						
I	8,405	1.5	835.6	0.3	7,022	1.8
II	8,669	1.9	815.4	-0.3	7,069	1.5
III	8,756	2.7	816.2	-0.3	7,147	2.4
IV	8,493	-0.5	830.5	-0.3	7,053	-0.7
Year	34,322	1.4	824.3	-0.2	28,290	1.2
2023						
I	8,260	-1.7	823.8	-1.4	6,805	-3.1
II	8,284	-4.4	812.2	-0.4	6,728	-4.8
III	8,223	-6.1	818.3	0.3	6,729	-5.8
IV	8,133	-4.2	834.5	0.5	6,787	-3.8
Year	32,900	-4.1	822.2	-0.3	27,049	-4.4
2024						
I	7,516	-9.0	828.4	0.6	6,226	-8.5
II	7,547	-8.9	818.0	0.7	6,174	-8.2
III	7,758	-5.6	827.6	1.1	6,421	-4.6
IV	7,601	-6.5	843.5	1.1	6,411	-5.5
Year	30,422	-7.5	829.4	0.9	25,232	-6.7

Data Source: Livestock Marketing Information Center

Quarterly Forecasts: Cattle (LMIC: 2/7/23)

Year Quarter	Live Sltr. Steer Price	% Chg. from	Feeder Steer Price	
	5-Mkt Avg	Year Ago	Southern Plains 7-800#	5-600#
2022				
I	139.25	23.3	160.00	193.66
II	141.93	17.5	160.49	188.43
III	143	16.2	178	192
IV	153	13.7	177	192
Year	144	17.2	169	191
2023				
I	155-156	11.7	181-182	211-212
II	158-162	12.7	178-183	213-218
III	152-162	9.5	183-188	208-213
IV	150-160	1.3	185-195	220-230
Year	155-157	8.0	183-185	214-216
2024				
I	160-175	7.7	190-200	230-240
II	165-180	7.8	188-198	222-232
III	163-178	8.6	190-205	233-248
IV	167-182	12.6	187-202	243-258
Year	165-175	9.0	190-200	233-243

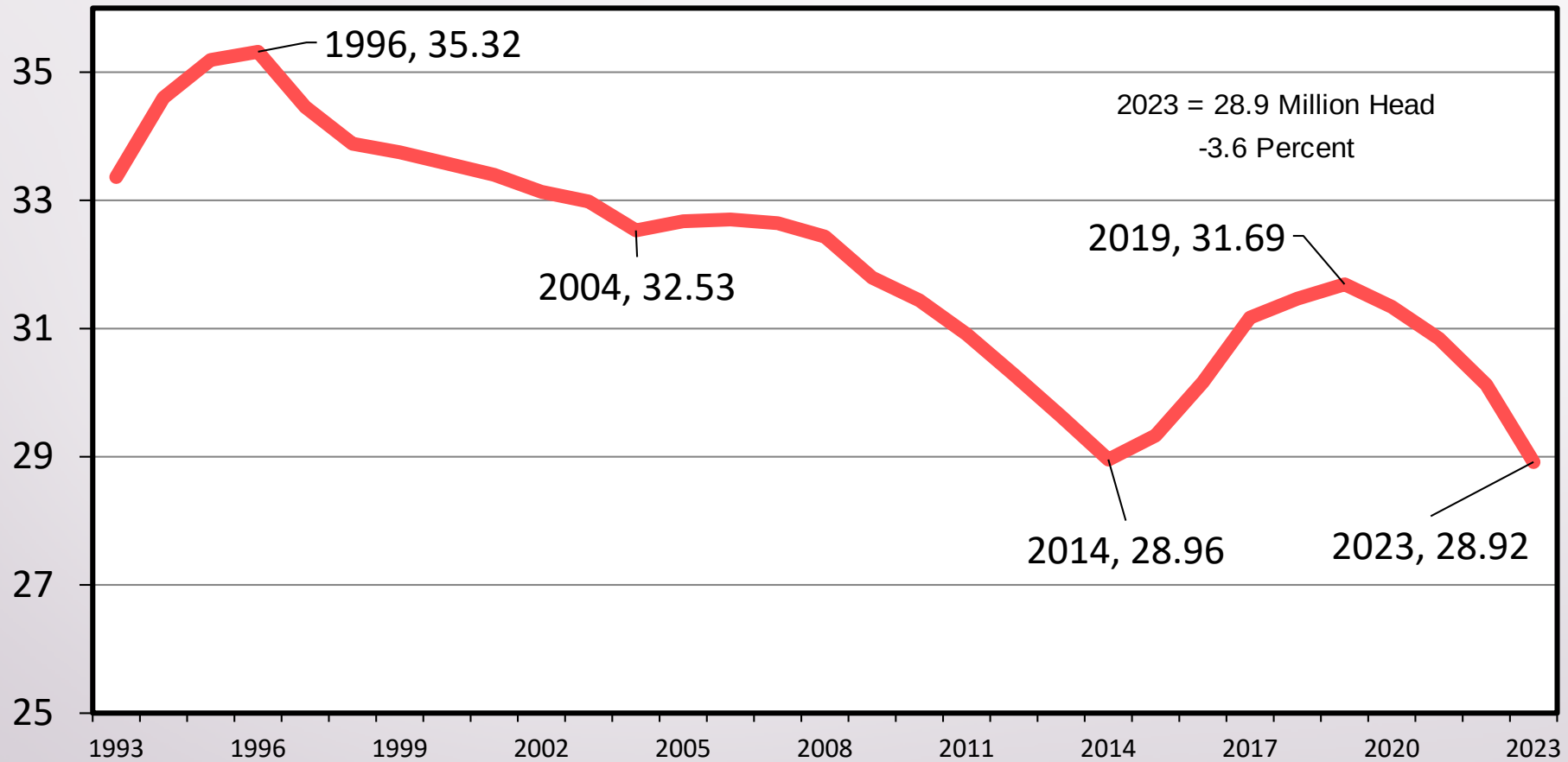
Data Source: Livestock Marketing Information Center



JANUARY 1 BEEF COW INVENTORY

U.S., Annual

Mil. Head



Data Source: USDA-NASS

Livestock Marketing Information Center

C-N-02
01/31/23

(1000 Head)

State	Horses (1000 Head)
VT	14
NH	4.5
MA	7.5
RI	1.1
CT	4.5
NJ	8.9
DE	1.2
MD	40
WY	1270
MT	876
ND	1533
SD	1703
NE	1315
KS	1945
OK	1981
TX	4300
LA	437
MS	449
AL	678
GA	478
FL	888
SC	159
NC	341
VA	563
PA	195
NY	100
CT	4.5
RI	1.1
MA	7.5
NH	4.5
VT	14
ME	11
AK	7.8
HI	82

U.S. Total 28918

number
4300
1500
1.1

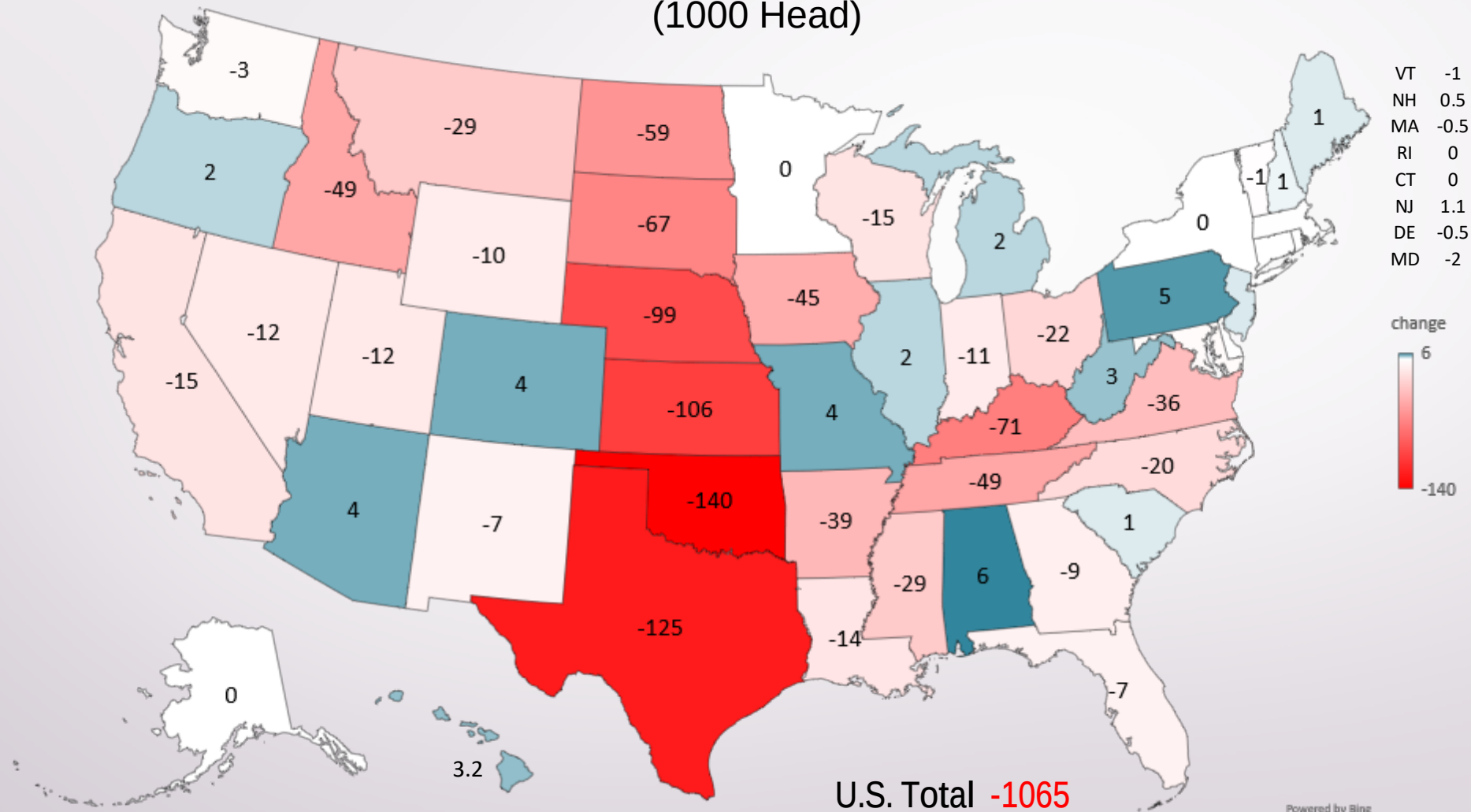
Powered by Blue

Powered by Bing
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01/31/23

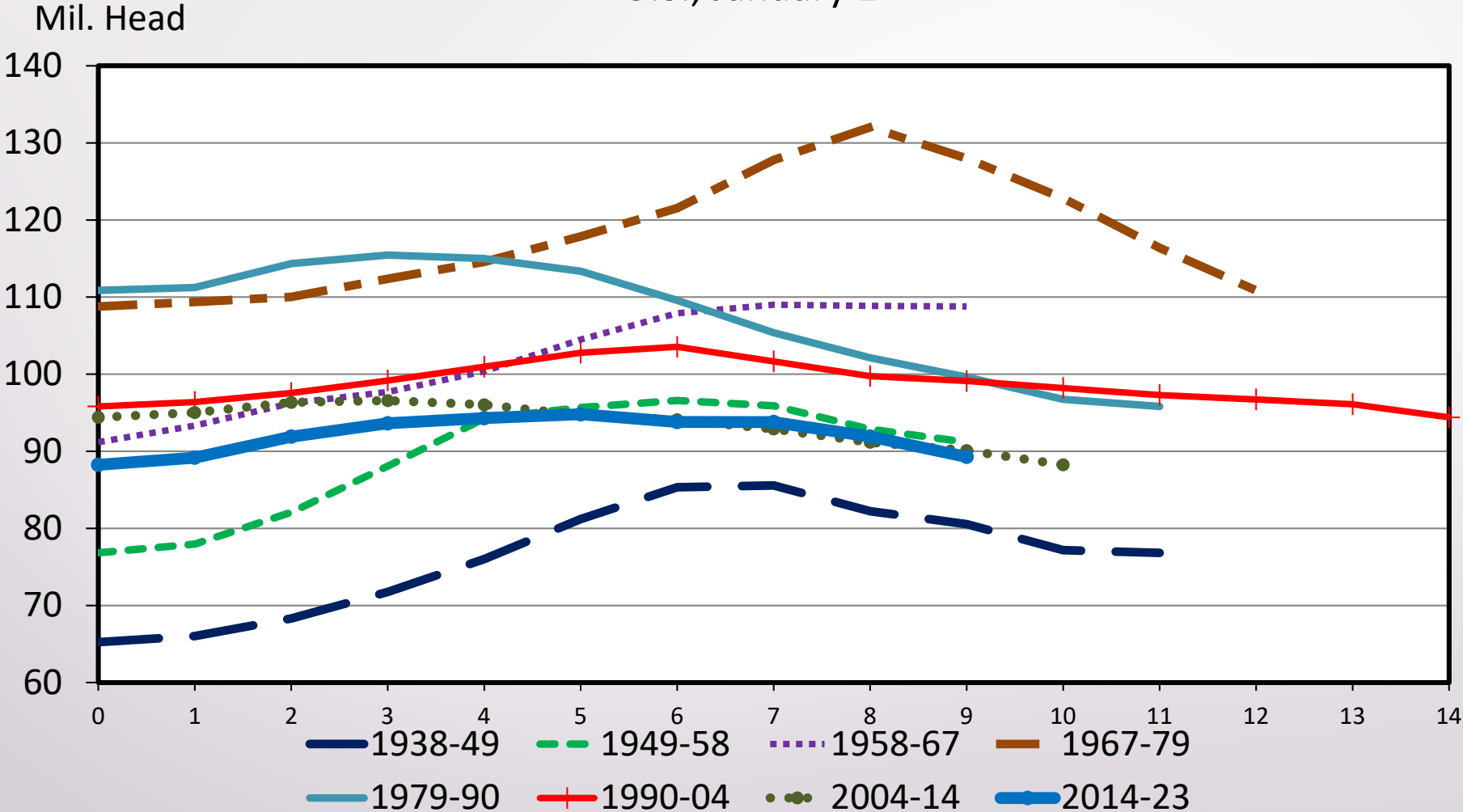
CHANGE IN BEEF COWS 2022 TO 2023

(1000 Head)



TOTAL CATTLE INVENTORY BY CYCLE

U.S., January 1



Data Source: USDA-NASS
Livestock Marketing Information Center

C-N-40
01/31/23

Context on Beef Cow Herd Dynamics

K-State Dept. of Agricultural Economics Extension Publication

03/21/2022

An Updated Evaluation of the U.S. Cattle Cycle

Jaime R. Luke (jrluke@ksu.edu)

Andrew E. Anderson (ander909@ksu.edu)

Glynn T. Tonsor (gtonsor@ksu.edu)

Kansas State University Department of Agricultural Economics

- <https://www.agmanager.info/livestock-meat/production-economics/updated-evaluation-us-cattle-cycle>

Context on Beef Cow Herd Dynamics

Table 1. Beef Cow Inventory (000's head)

CATTLE CYCLE	AVERAGE	STD DEV	MIN	MAX	RANGE	RELATIVE RANGE*
1949-1958	21,772	3,867	15,919	25,659	9,740	44.7%
1958-1967	29,300	3,898	24,165	34,442	10,277	35.1%
1967-1979	39,505	3,520	34,708	45,711	11,003	27.9%
1979-1990	36,033	2,373	32,487	39,229	6,742	18.7%
1990-2004	33,688	909	32,454	35,318	2,864	8.5%
2004-2014	31,704	1,108	29,631	32,702	3,071	9.7%
2014-PRESENT	30,620	1,025	28,956	31,690	2,734	8.9%

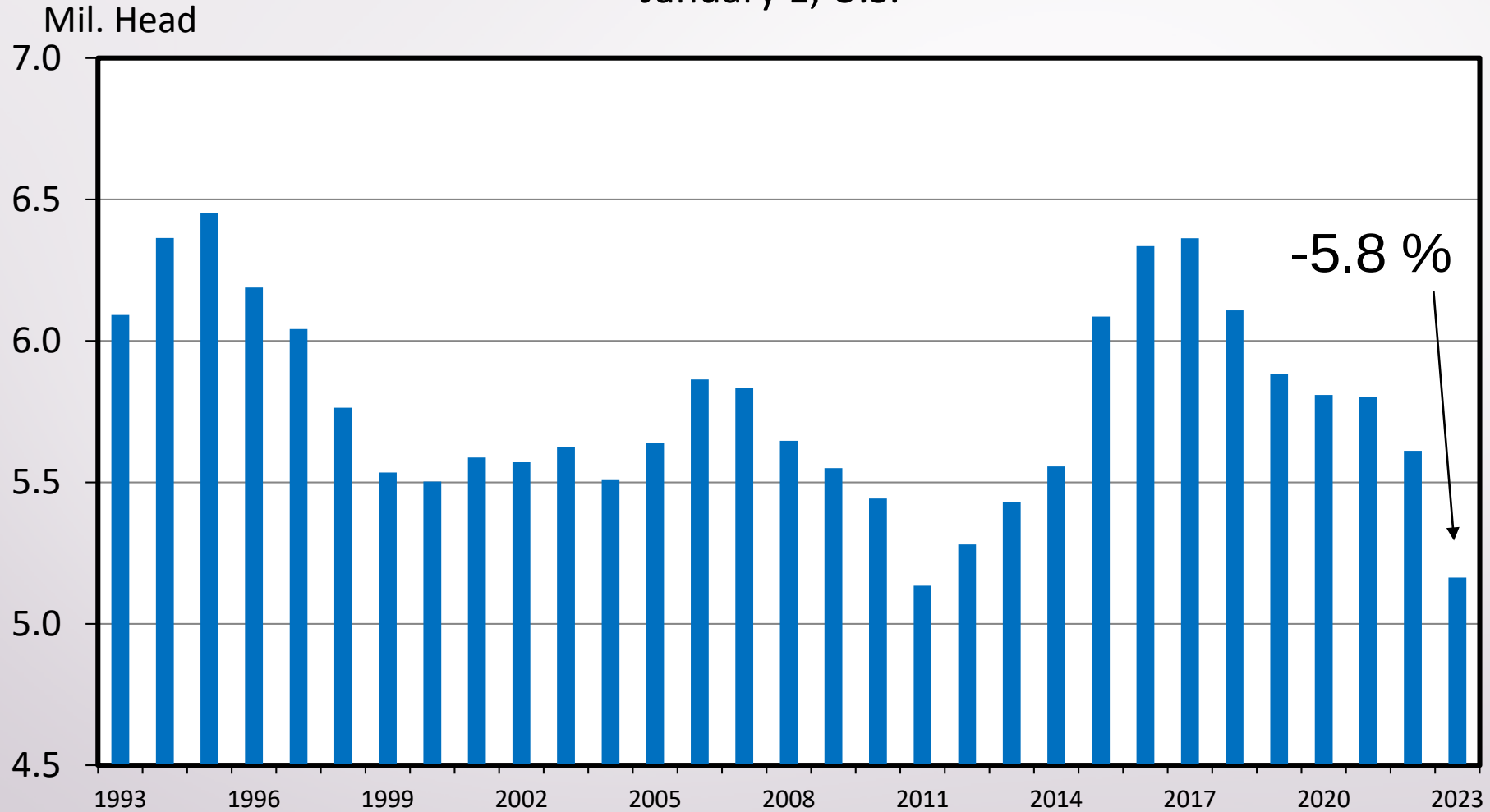


* Relative range is calculated as $100 \times \text{range} / \text{average}$.

• <https://www.agmanager.info/livestock-meat/production-economics/updated-evaluation-us-cattle-cycle>

HEIFERS HELD AS BEEF COW REPLACEMENTS

January 1, U.S.



Data Source: USDA-NASS

Livestock Marketing Information Center

C-N-38

01/31/23

KSU – Beef Replacement Tool

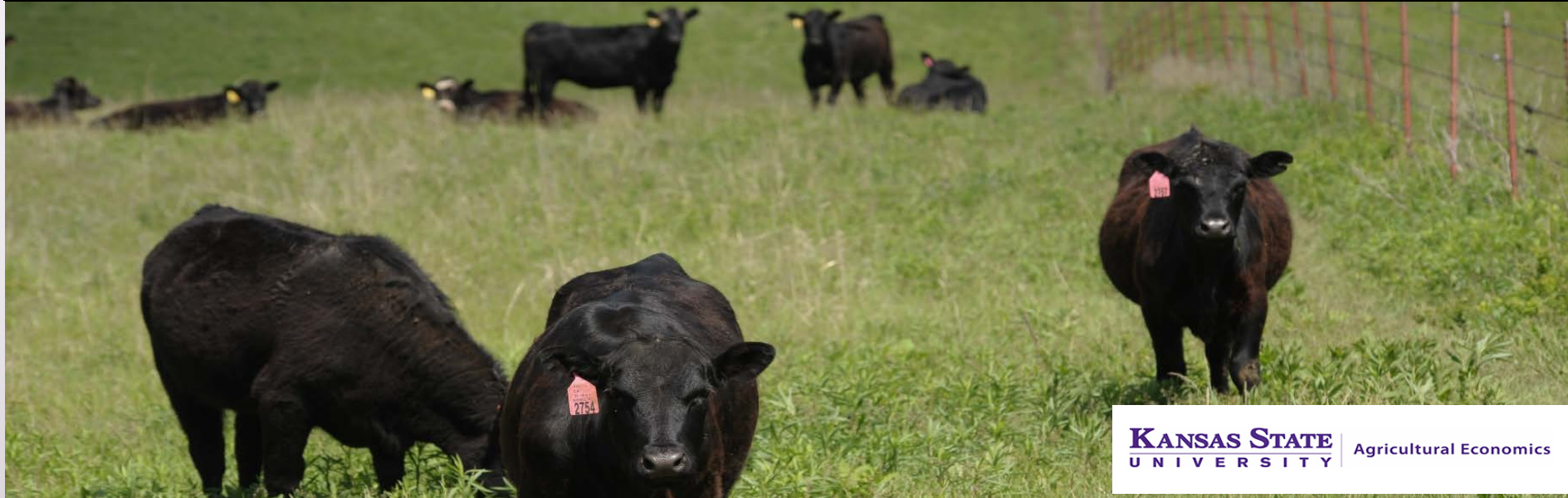
<https://www.agmanager.info/livestock-meat/production-economics/ksu-beef-replacement>

KSU-Beef Replacements

An Excel spreadsheet program to evaluate the economic value of purchasing beef replacement females.



Version- 1.30.2023



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INTRODUCTION

A spreadsheet program to calculate the net present value of purchasing replacement heifers given expectations for calf selling price, weaning weights, cull cow price, and a target rate of return on investment.

Always good to “push the pencil” on decisions such as what to pay in herd expansion/rebuild efforts

KSU – Beef Replacement Tool

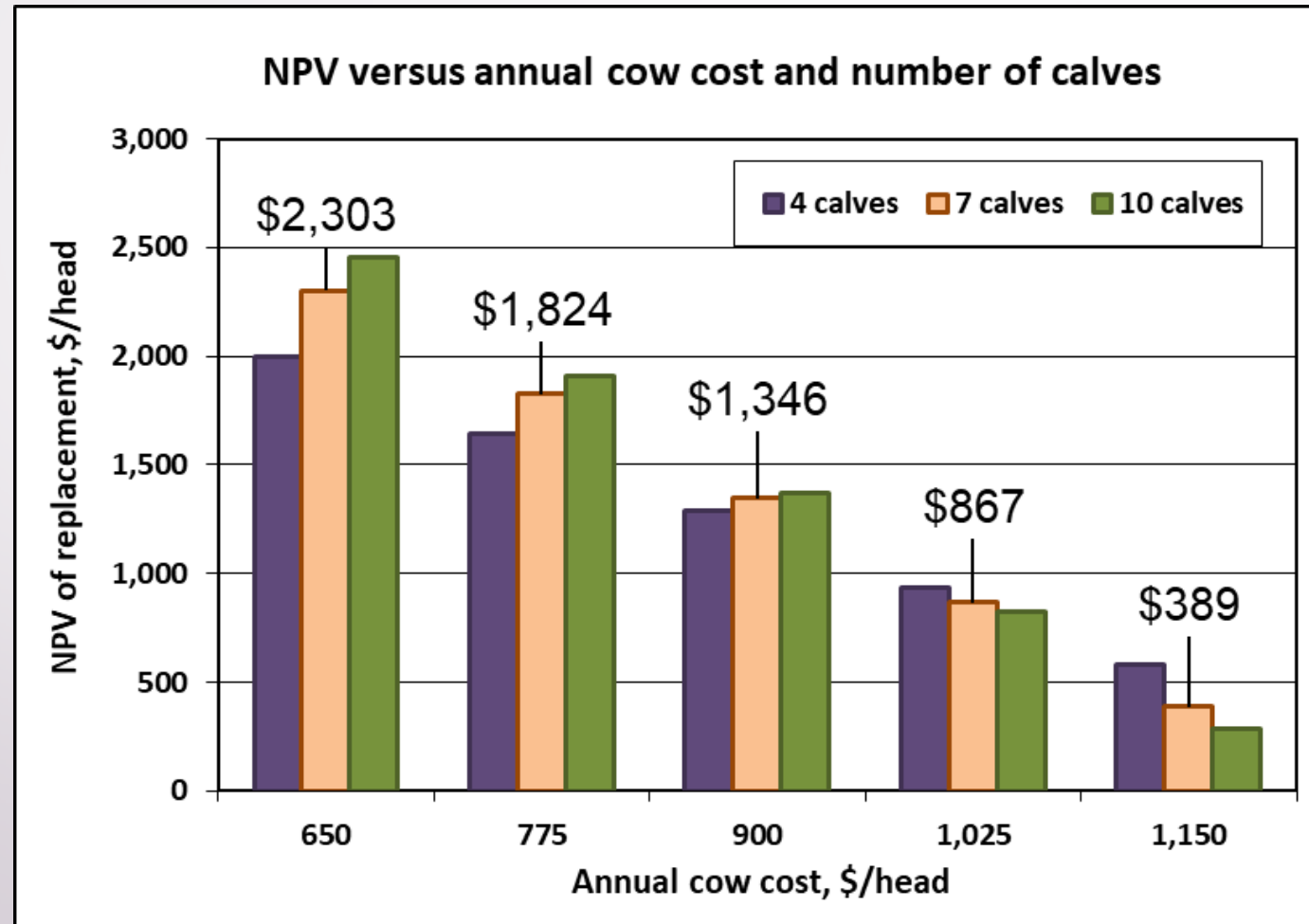
<https://www.agmanager.info/livestock-meat/production-economics/ksu-beef-replacement>

Base/Default Case

- Annual Cash Cow Costs \$900/year
- Annual inflation rate on costs 3.0%
- Discount Rate 8.0%
- USDA projected calf prices (\$218/cwt in 2024)
= Net Present Value of "7-calf heifer" is \$1,346

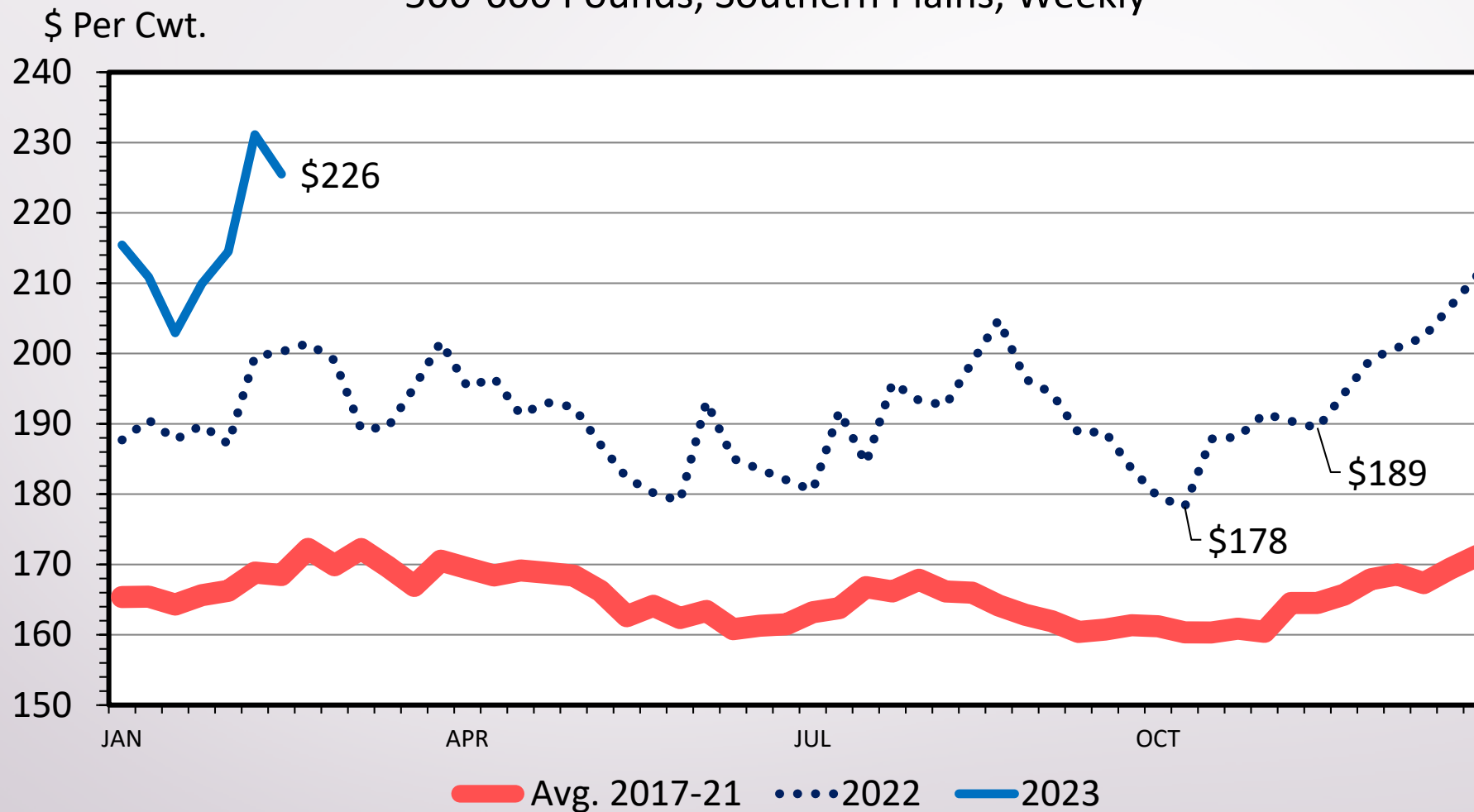
KSU – Beef Replacement Tool

<https://www.agmanager.info/livestock-meat/production-economics/ksu-beef-replacement>



MED. & LRG. #1 STEER CALF PRICES

500-600 Pounds, Southern Plains, Weekly



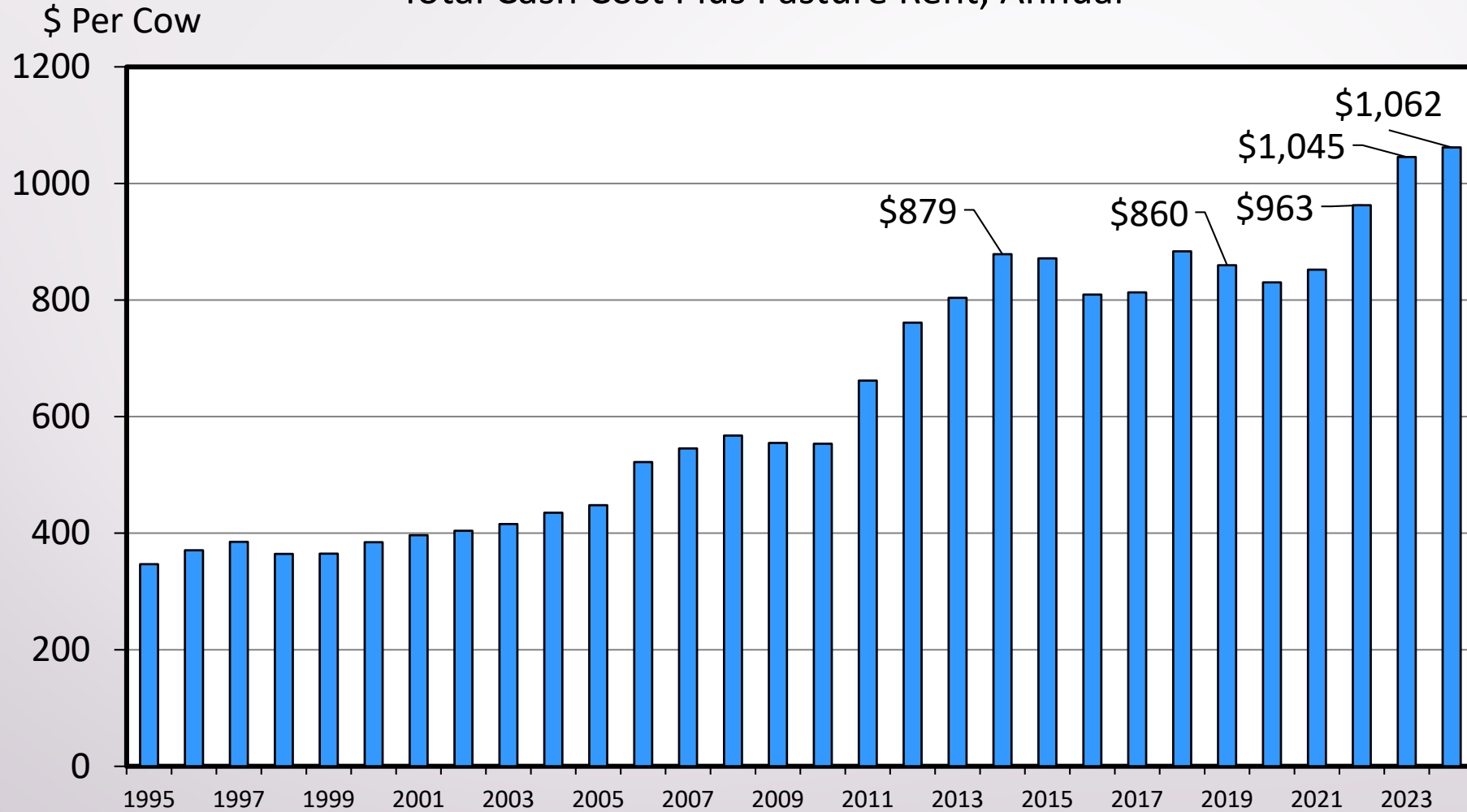
Data Source: USDA-AMS

Livestock Marketing Information Center

C-P-54
02/27/23

ESTIMATED AVERAGE COW CALF COSTS

Total Cash Cost Plus Pasture Rent, Annual



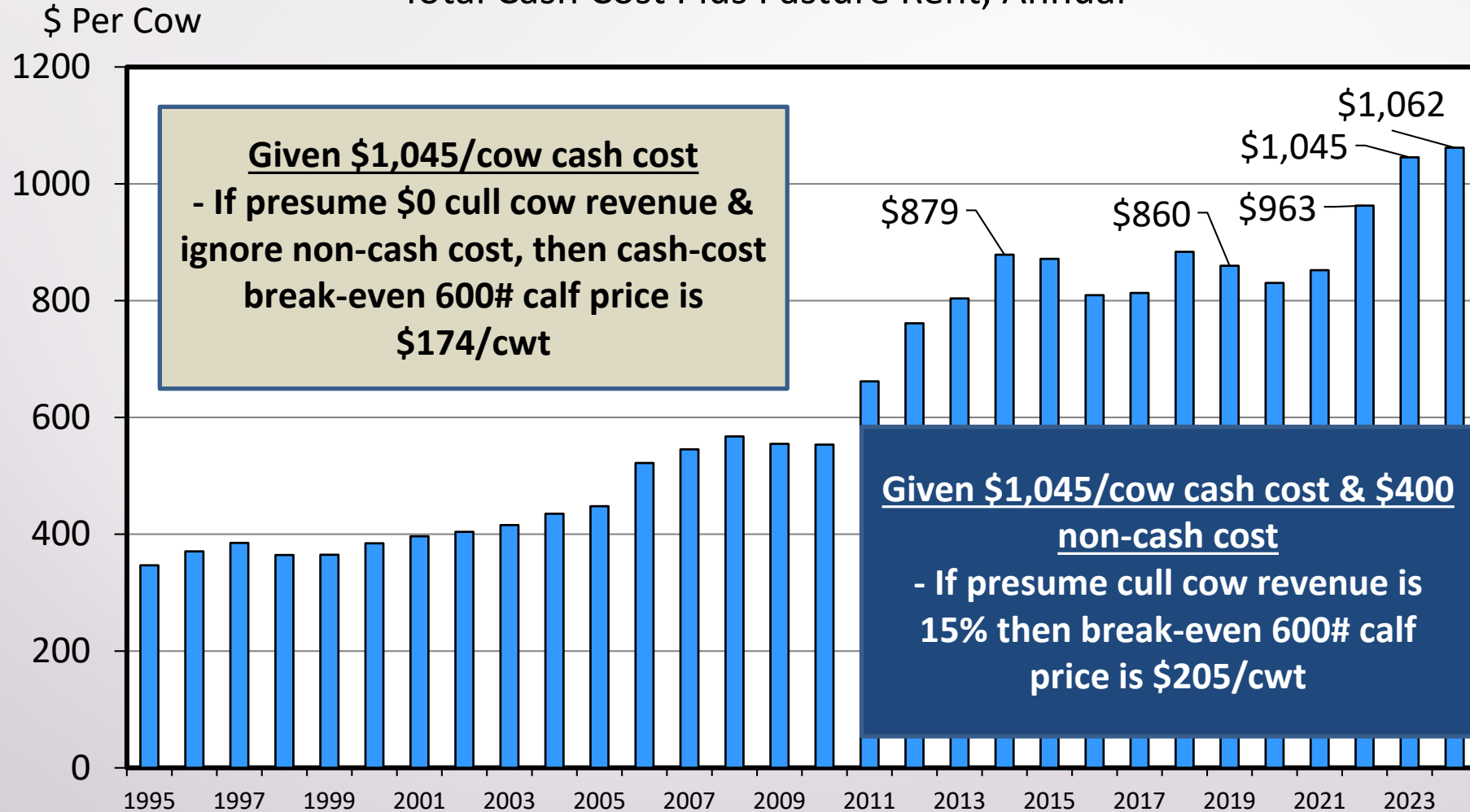
Data Source: USDA & LMIC, Compiled by LMIC

Livestock Marketing Information Center

02/07/23

ESTIMATED AVERAGE COW CALF COSTS

Total Cash Cost Plus Pasture Rent, Annual



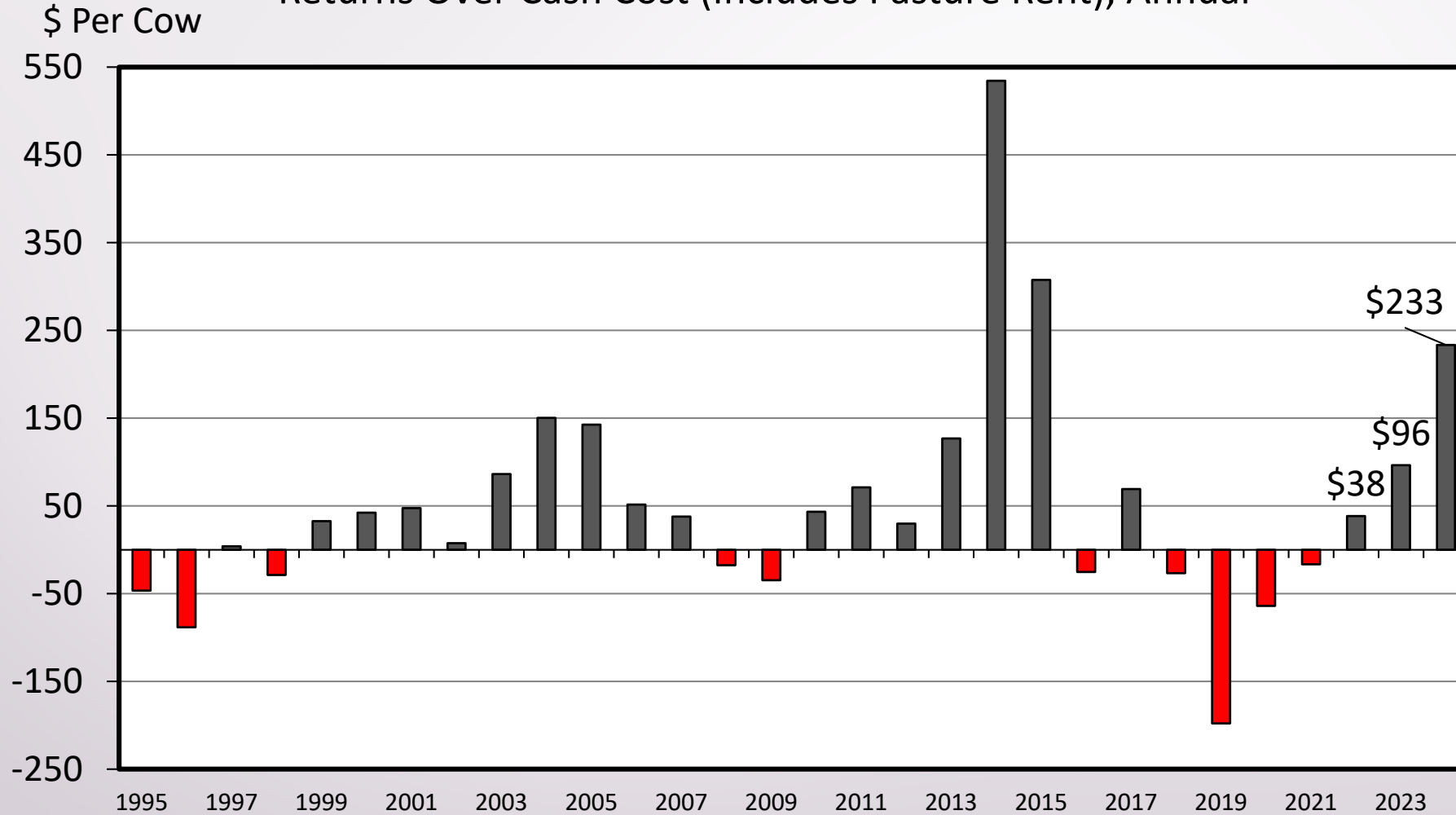
Data Source: USDA & LMIC, Compiled by LMIC

Livestock Marketing Information Center

02/07/23

ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



Data Source: USDA & LMIC, Compiled by LMIC
Livestock Marketing Information Center

C-P-66
02/07/23

Want Feeder Cattle Price, Basis, & VOG Projections?
Use BeefBasis.com

*Salina **FALL CALF** Market, as of 3/1*

10/12/2023 Sell @ Weaning @ 600 lbs

- *Expected Cash Price: \$240/cwt*

Want Feeder Cattle Price, Basis, & VOG Projections?
Use BeefBasis.com

Salina **SUMMER GRASS** Market, as of 3/1

4/5/2023 Buy/Retail @ 750 lbs

9/6/2023 Sell @ 950 lbs

DOF=154 & ADG=1.3

- *Expected Buy Price: \$199/cwt*
- *Expected Sell Price: \$202/cwt*
 - *VOG: \$212/cwt (\$425/head)*

KSU-Feeder Cattle Risk Management Tool

<https://www.agmanager.info/k-state-feeder-cattle-risk-management-tool>

KSU-Feeder Cattle Risk Management Tool

An Excel spreadsheet for evaluating feeder cattle risk management strategies



Version- 2.11.2023



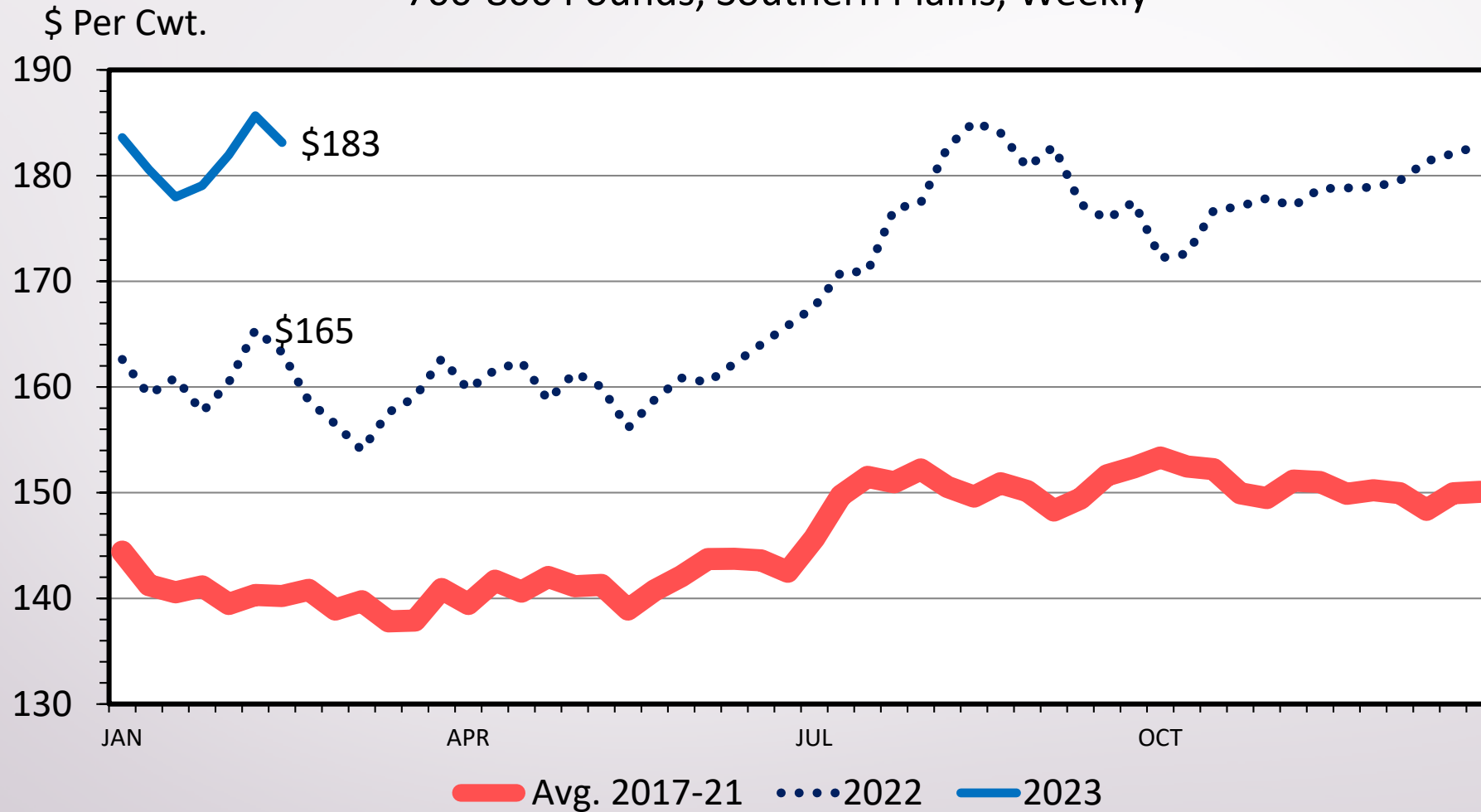
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INTRODUCTION

This spreadsheet was developed as a decision-aid tool for producers interested in managing feeder cattle price risk. It can be used to compare the Expected Net Selling Price using alternative risk management tools available for pricing feeder cattle.

MED. & LRG. #1 FEEDER STEER PRICES

700-800 Pounds, Southern Plains, Weekly



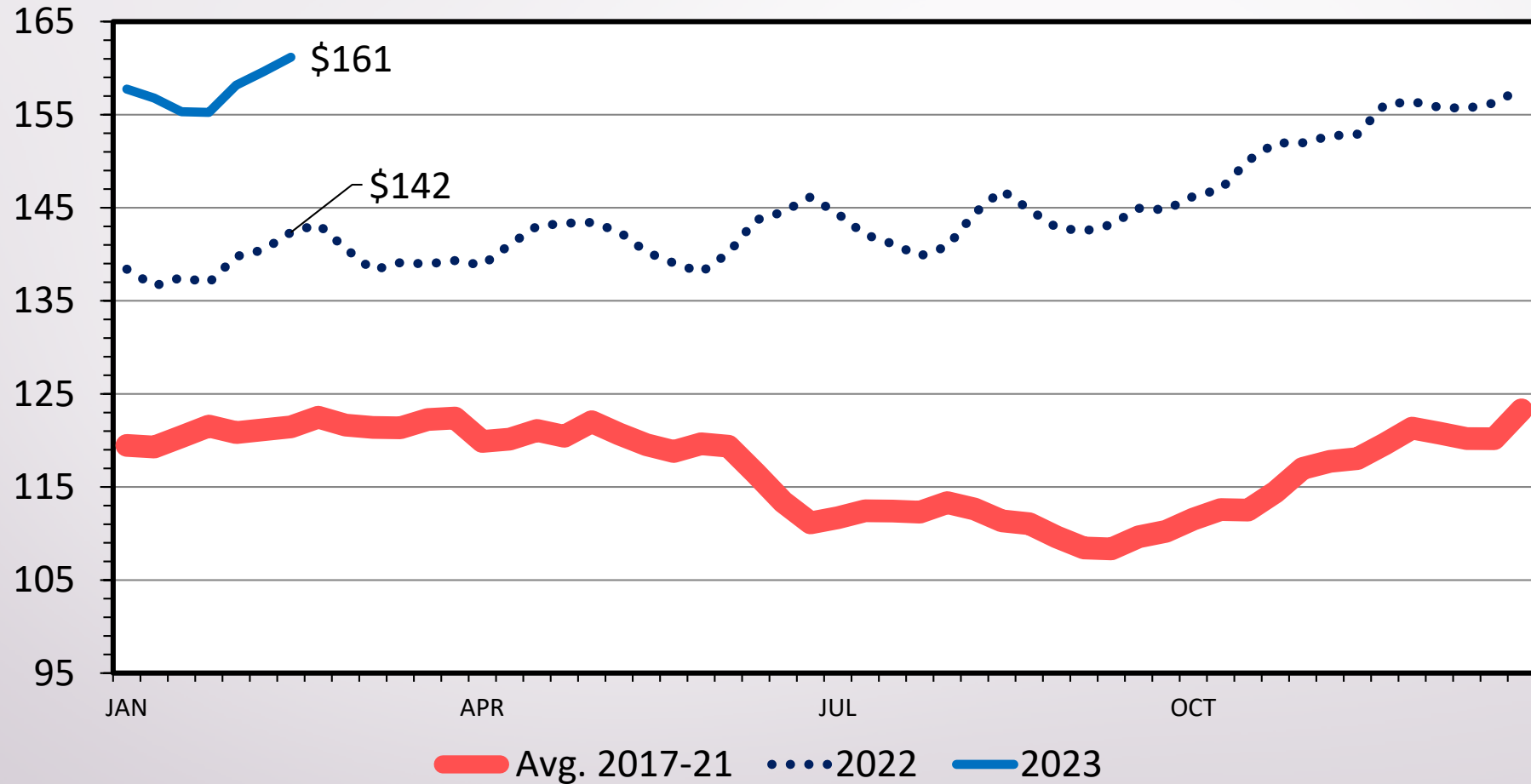
Data Source: USDA-AMS
Livestock Marketing Information Center

C-P-49
02/27/23

SLAUGHTER STEER PRICES

5 Market Weighted Average, Weekly

\$ Per Cwt.



Data Source: USDA-AMS

Livestock Marketing Information Center

02/27/23

Historical and Projected Kansas Feedlot Net Returns (as of 2/9/23')

(<http://www.agmanager.info/livestock/marketing/outlook/newsletters/FinishingReturns/default.asp>)

Dec 22': +\$85/steer

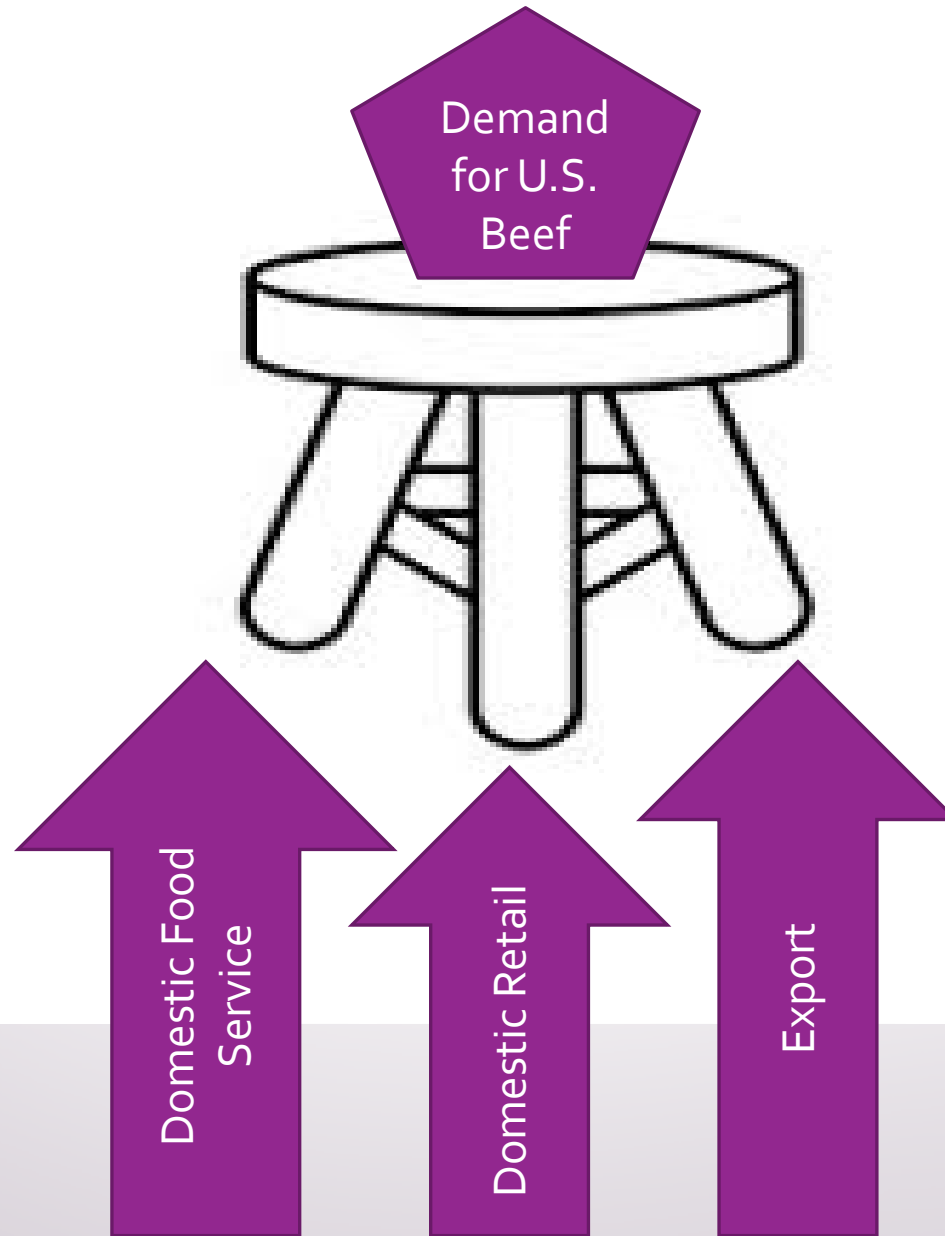
Table 1. Projected Values for Finishing Steers in Kansas Feedyards*

Closeout Mo-Yr	Net Return	FCOG**	Fed Price	Fed Futures	Fed Basis	Feeder Price	Breakeven FCOG**	Breakeven Fed Price	Breakeven Feeder Price
Jan-23	47.09	141.25	156.26	157.36	-1.09	158.39	148.13	153.01	164.57
Feb-23	35.14	141.18	163.94	163.63	0.31	172.67	146.52	161.50	177.16
Mar-23	90.34	139.79	167.50	163.63	3.87	172.94	153.57	161.05	185.06
Apr-23	113.92	134.45	165.71	159.53	6.18	170.90	152.15	157.36	186.69
May-23	211.48	127.54	167.76	159.53	8.24	168.50	159.38	152.64	197.31
Jun-23	118.54	124.21	162.33	158.58	3.75	172.80	142.45	153.80	188.80
Jul-23	49.72	120.05	158.60	158.58	0.03	177.82	127.78	155.03	184.45
Aug-23	85.85	118.72	163.20	162.83	0.38	183.31	131.74	157.15	194.62
Sep-23	29.38	117.90	163.92	162.83	1.09	191.73	122.43	161.84	195.55
Oct-23	36.15	117.44	169.29	166.68	2.61	199.97	123.07	166.73	204.64

Representative Barometer for Trends in Profitability

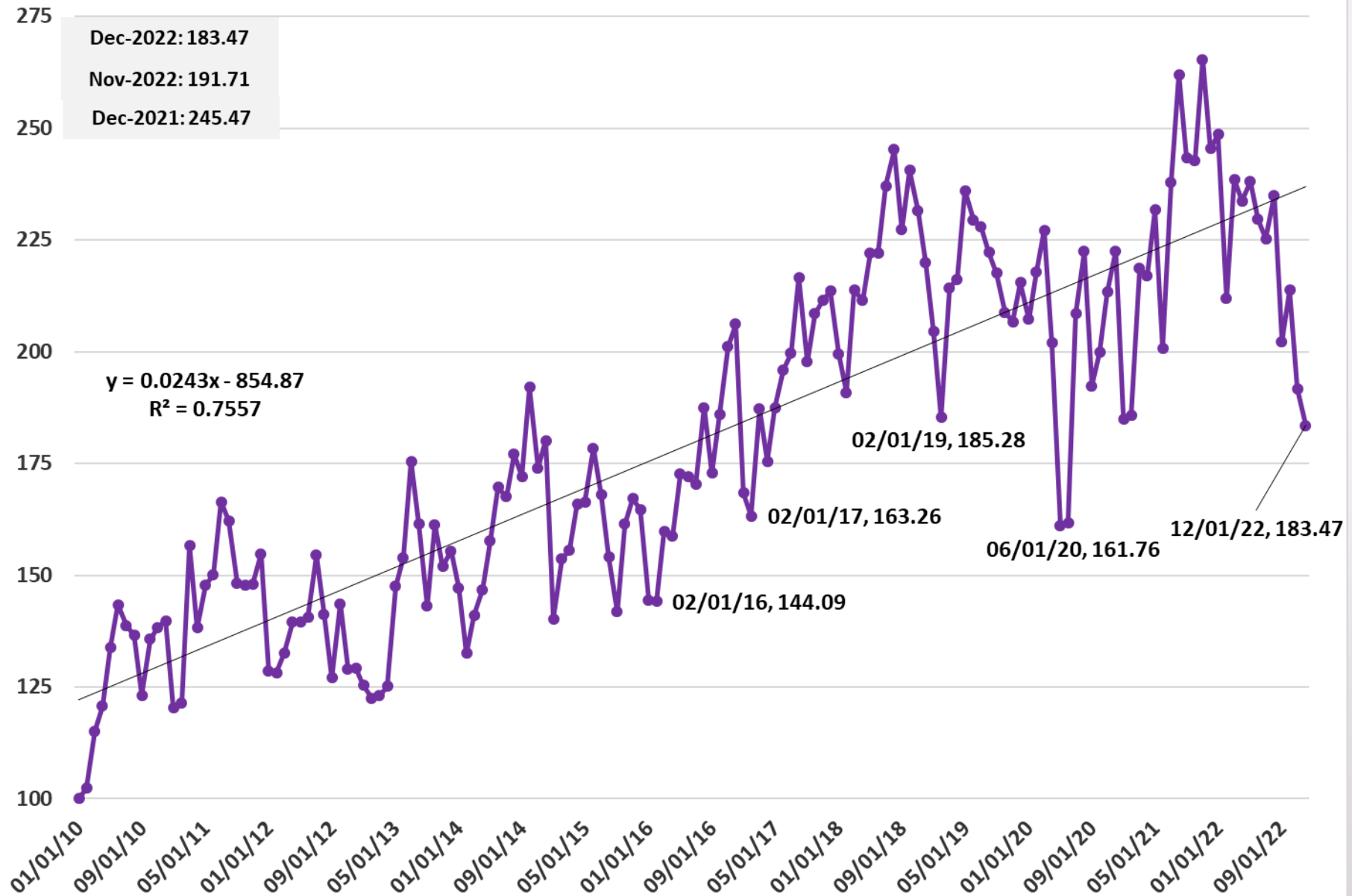


Beef Demand Patterns



See Nov 22' Extended Discussion w/ Matt Perrier on Practically Ranching:
<https://www.buzzsprout.com/1995747/11686340>

Monthly U.S. Beef, Export Demand Index, Jan. 2010 (base) - present



<https://www.agmanager.info/livestock-meat/meat-demand/monthly-export-meat-demand-indices-usdabls-data>

Monthly Meat Demand Monitor, Methods, and Supporting Information

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[Projected Feeder Cattle Prices](#)

[Cattle Finishing Returns](#)

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[Meat Demand Research Studies](#)

[Monthly Domestic Meat Demand Indices \[USDA/BLS Data\]](#)

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[Monthly Meat Demand Monitor \[Survey Data\]](#)

Monthly Meat Demand Monitor [Survey Data]

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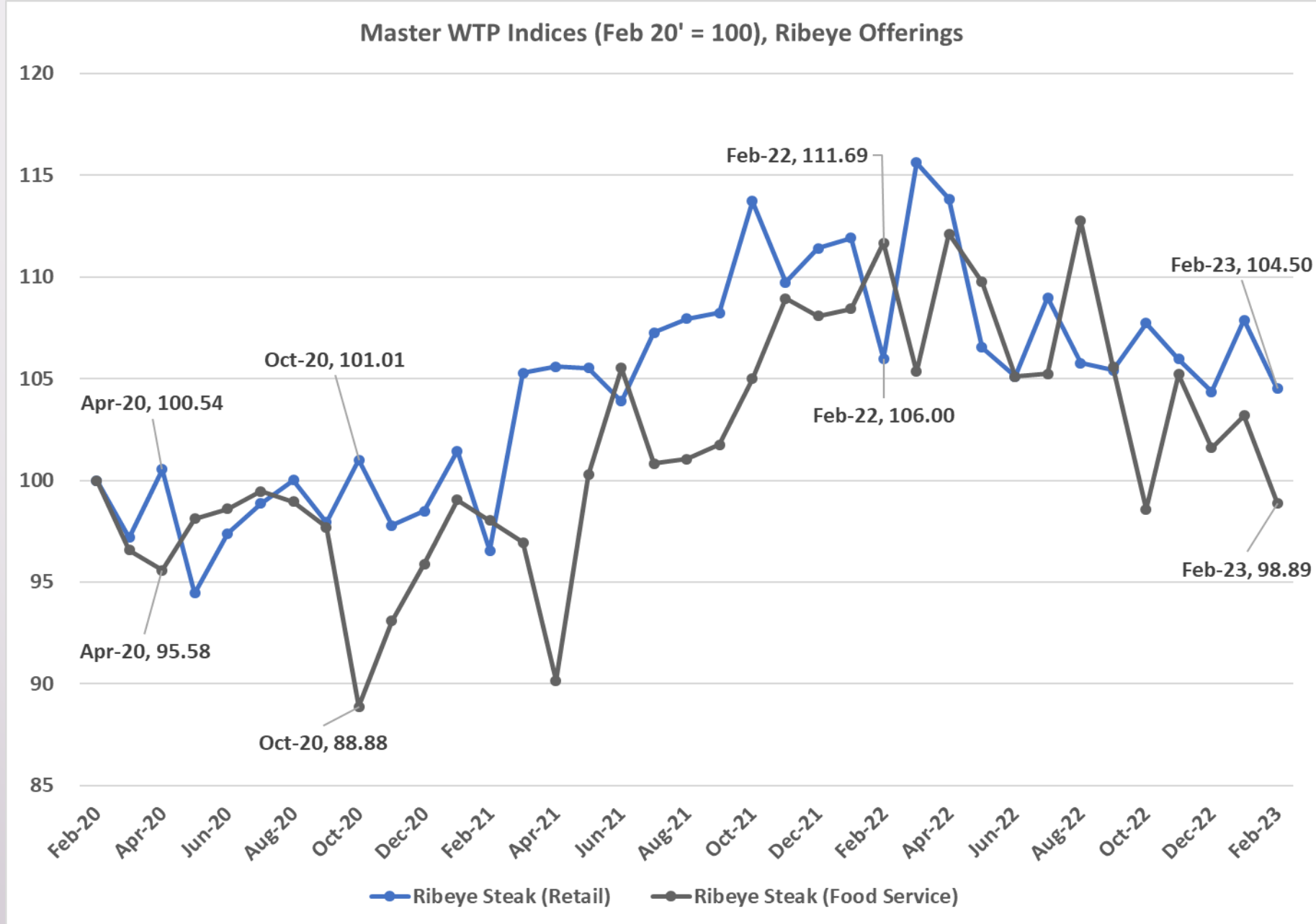
The Meat Demand Monitor (MDM) project is funded in-part by the beef checkoff and the pork checkoff. Monthly reports and supporting documentation are available here.



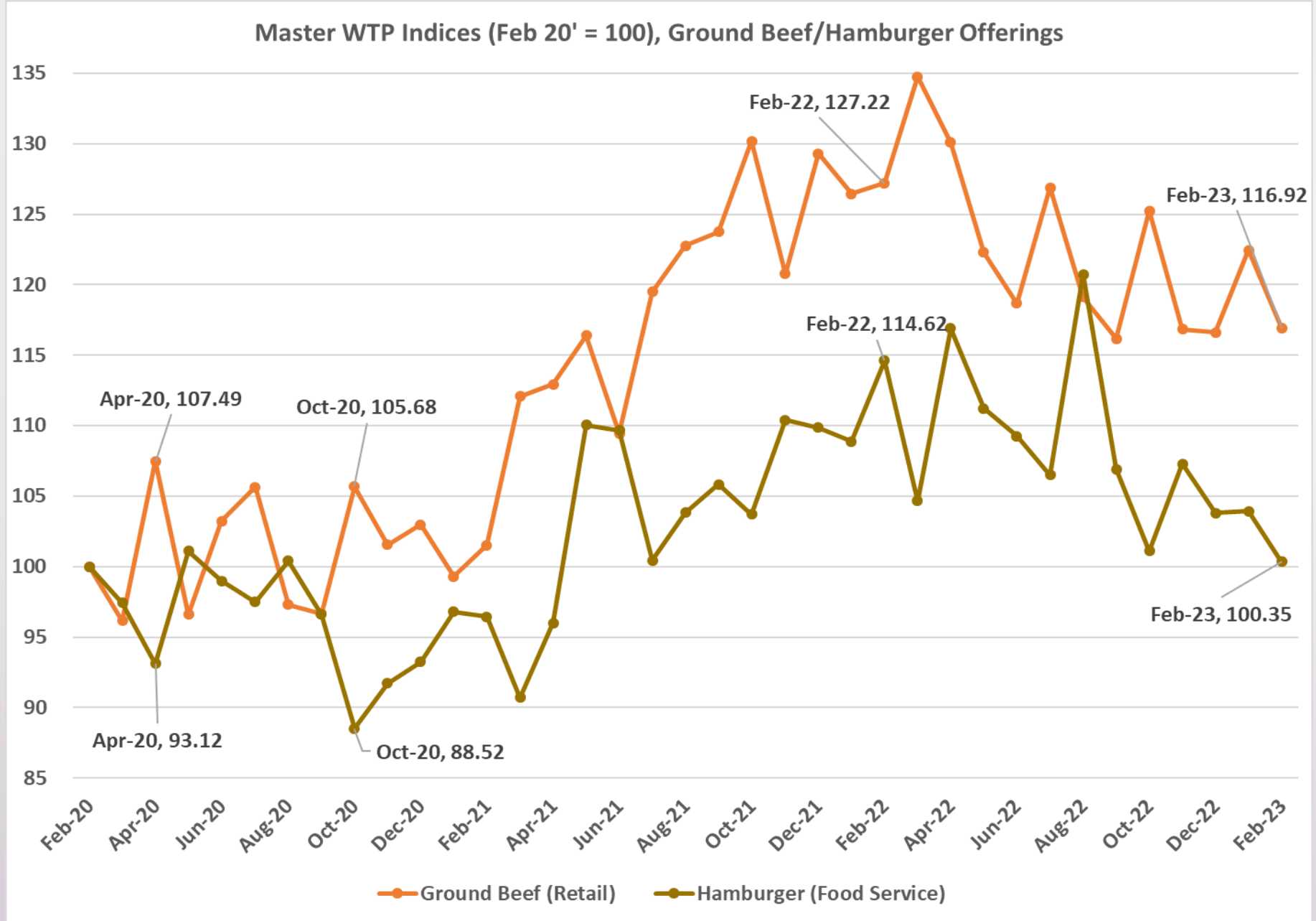
Monthly Meat Demand Monitor

Title	Author	Date	Downloads
Meat Demand Monitor - August 2020	Tonsor	September 4, 2020	Downloads
Meat Demand Monitor - July 2020	Tonsor	August 4, 2020	Downloads
Meat Demand Monitor - February-June 2020 Summary Report	Tonsor	July 27, 2020	Downloads
Meat Demand Monitor - June 2020	Tonsor	July 2, 2020	Downloads
Meat Demand Monitor - May 2020	Tonsor	May 29, 2020	Downloads
Meat Demand Monitor - Coronavirus (COVID-19) Impact on U.S. Meat Demand:	Tonsor	May 12, 2020	Downloads

<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>

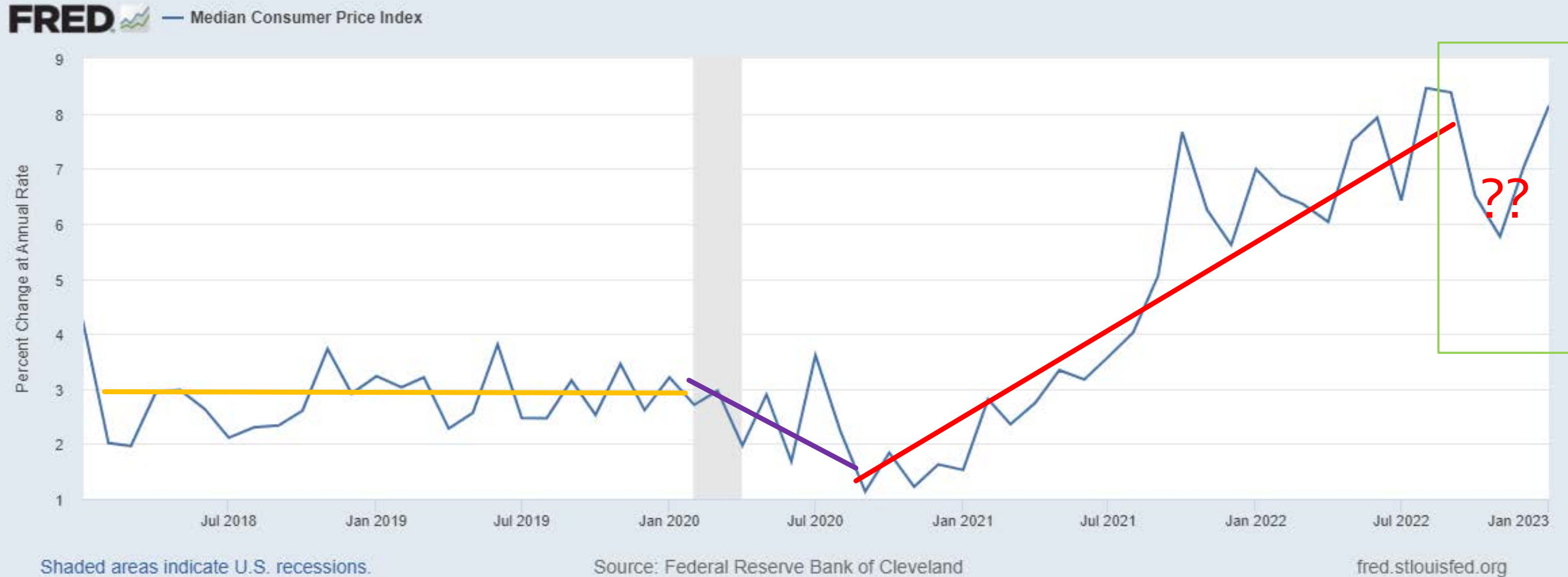


<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>



<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>

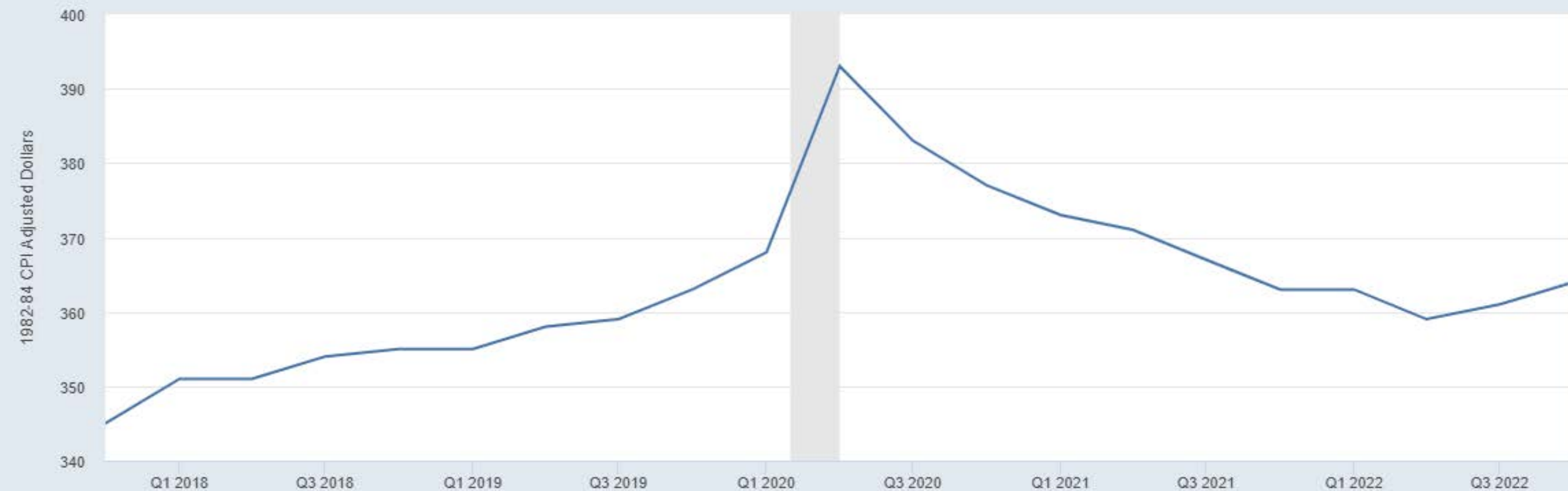
Summer 2022, Inflation in U.S. Was Highest in 4 Decades



Real Wages Are Key



FRED — Employed full time: Median usual weekly real earnings: Wage and salary workers: 16 years and over

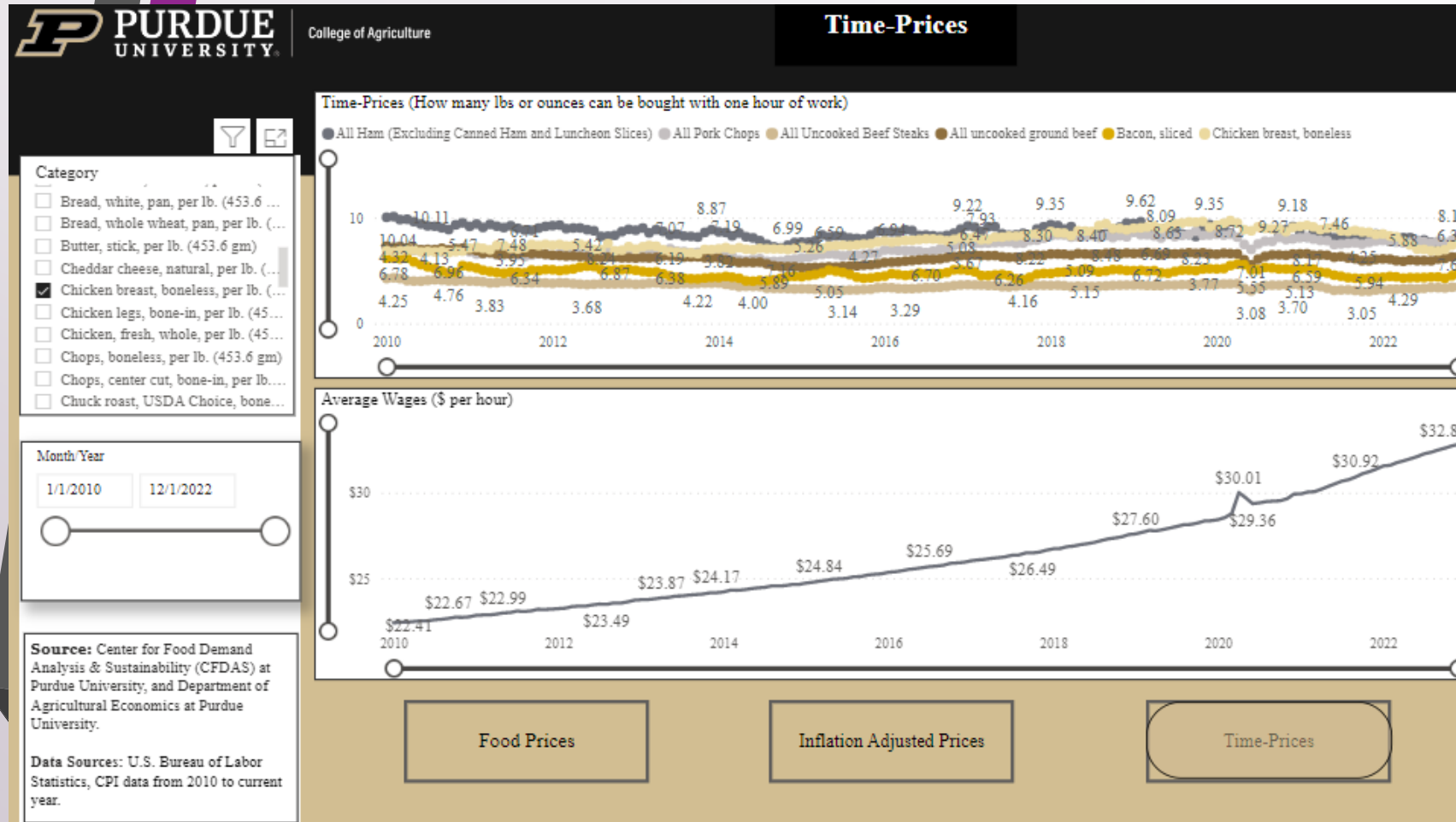


Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

fred.stlouisfed.org

Purdue's Dashboard: Retail Meat Prices (\$/lb) Relative to Average Wages (\$/hr)



Jan. 2020, 1 hr work =

9.1 lbs ham

8.4 lbs pork chop

5.1 lbs bacon

6.6 lbs ground beef

3.7 lbs beef steaks

9.5 lbs chicken breast

Dec. 2022, 1 hr work =

8.1 lbs ham (-11%)

7.6 lbs pork chop (-10%)

4.7 lbs bacon (-8%)

6.3 lbs ground beef (-5%)

3.5 lbs beef steaks (-5%)

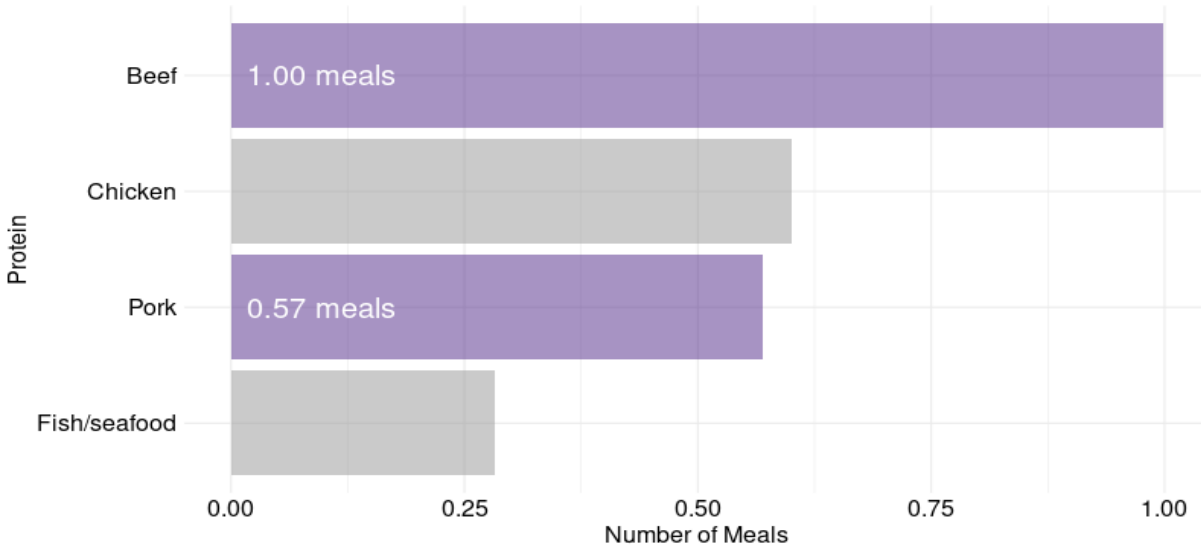
7.6 lbs chicken breast (-20%)

<https://ag.purdue.edu/cfdas/>

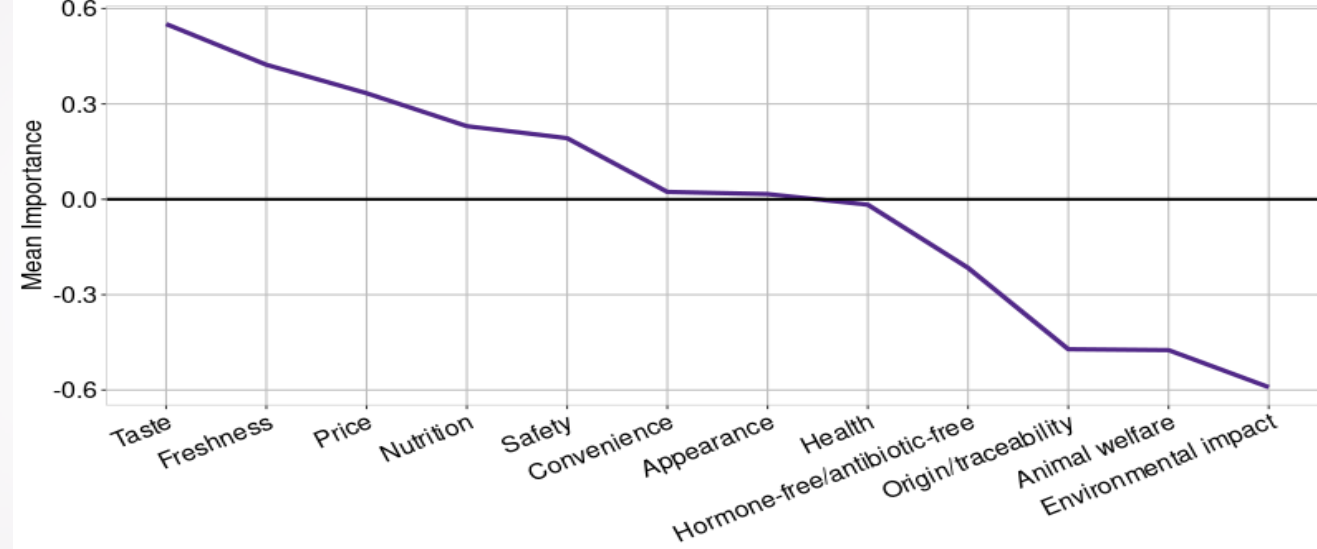
MDM Dashboard: Q4.2022 KS Example

<https://ksmeatdemandmonitor.shinyapps.io/MDMapp/>

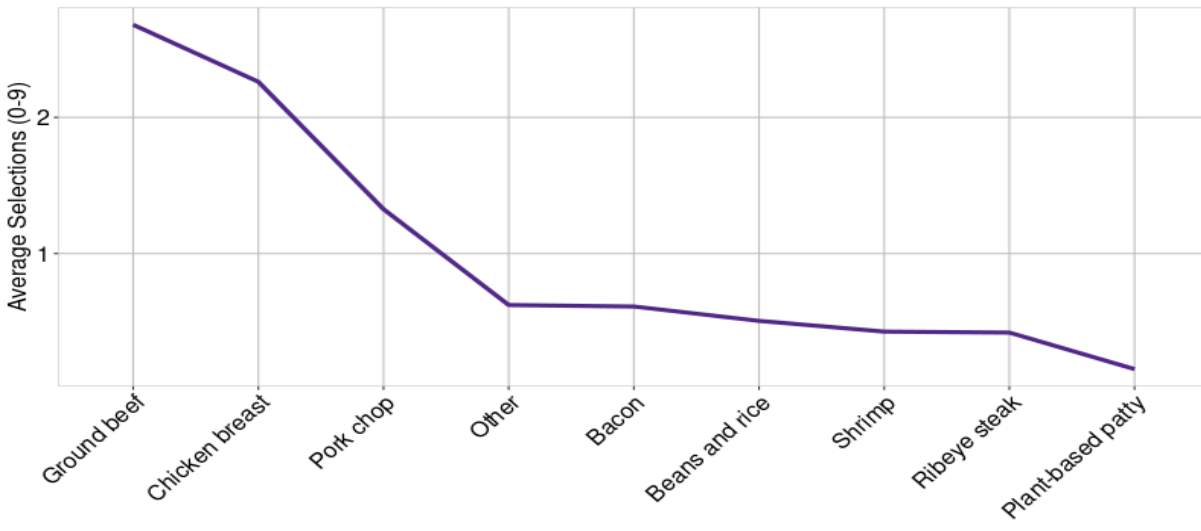
Prior Day Meals
Quarter 4 2022 - Kansas



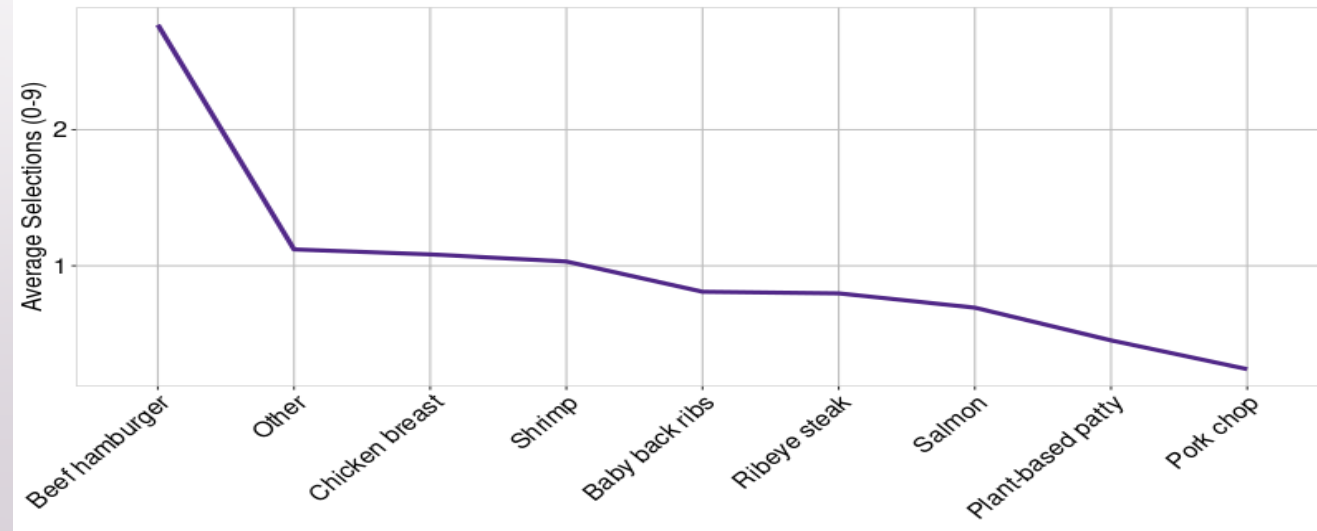
Protein Values
Quarter 4 2022 - Kansas



Choice Experiment - Retail
Quarter 4 2022 - Kansas



Choice Experiment - Food service
Quarter 4 2022 - Kansas



Take-Home Summary

- Herd Dynamics = Reduced Beef Supplies = Likely Higher Cattle Prices
- Demand Story Mixed

Take-Home Summary

Industry Continues to Operate in Period of Elevated Uncertainty...

Brazil Suspends Beef Exports to China After Mad Cow Case

- Marfrig, Minerva will keep supplies through Argentina, Uruguay
- China is the main destination for Brazilian beef exports

By [Tatiana Freitas](#) and [Hallie Gu](#)

February 22, 2023 at 6:54 PM CST Updated on February 23, 2023 at

 **politics**

[The Biden Presidency](#)

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[2022 Midterms](#)

Blinken's new warning to Beijing is the latest sign of deteriorating US-China relations

AG POLICY

Cattle Price Discovery and Transparency Act Reintroduced in 2023



Cattle Packing Plant Projects Update

Proposed Iowa Cattle Packing Plant Secures Investor Financing

2/23/2023 | 10:49 AM CST



By [Chris Clayton](#), DTN Ag Policy Editor

Connect with Chris:

[@ChrisClaytonDTN](#)



OMAHA (DTN) -- A planned beef packing plant in western Iowa that would process as many as 2,000 head a day is moving closer to reality after a \$150 million investment announced from a Florida firm.

The Iowa project is one of four separate cattle packing plant projects under construction or development stretching from Nebraska to Texas that add up to nearly \$2.4 billion in investment. If all are built, they will add as much as 8,900 head per day of additional packing capacity to the cattle industry.



More information available at:



This presentation will be available in PDF format at:

<http://www.agmanager.info/about/contributors/individual/tonsor.asp>

Host of additional industry resources are cross-linked as well