# ECONOMIC OUTLOOK & BEEF DEMAND INSIGHT

NIMAN RANCH BEEF EDUCATION SUMMIT MANHATTAN, KS JUNE 21, 2022

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

#### **Quarterly Forecasts** (LMIC: 5/27/22)

		% Chg.	Average	% Chg.	Comm'l	% Chg.
Year	Comm'I	from	Dressed	from	Beef	from
Quarter	Slaughter	Year Ago	Weight	Year Ago	Production	Year Ago
2021						
I	8,280	-1.5	833.3	1.0	6,900	-0.5
II	8,510	15.0	818.2	-0.1	6,963	14.9
111	8,527	-0.2	818.5	-1.7	6,979	-1.9
IV	8,534	1.1	832.7	-0.5	7,106	0.5
Year	33,850	3.2	825.6	-0.4	27,948	2.9
2022						
1	8,405	1.5	835.6	0.3	7,022	1.8
H	8,508	0.0	816.8	-0.2	6,950	-0.2
111	8,241	-3.4	814.5	-0.5	6,713	-3.8
IV	8,126	-4.8	833.5	0.1	6,773	-4.7
Year	33,280	-1.7	825.1	-0.1	27,458	-1.8
2023						
1	7,943	-5.5	839.5	0.5	6,668	-5.0
П	8,296	-2.5	822.4	0.7	6,822	-1.8
III	7,967	-3.3	817.9	0.4	6,516	-2.9
IV	7,932	-2.4	838.0	0.5	6,647	-1.9
Year	32,137	-3.4	829.4	0.5	26,653	-2.9

Data Source: Livestock Marketing Information Center

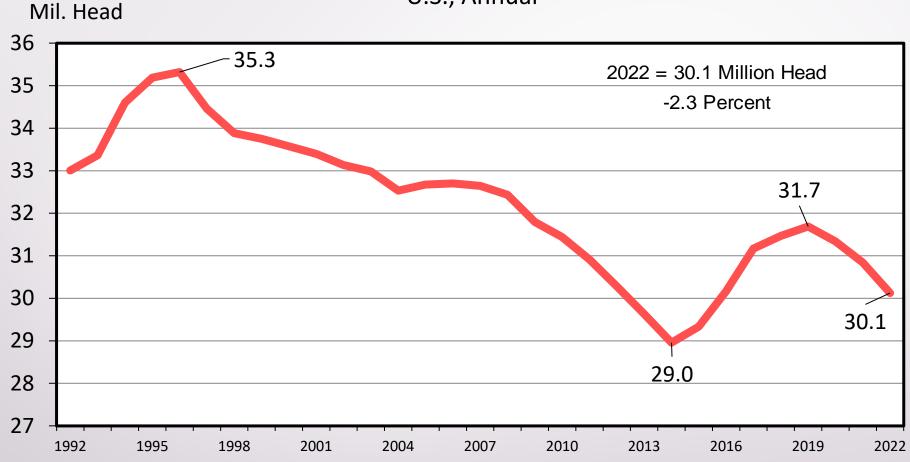
#### **Quarterly Forecasts: Cattle (LMIC: 5/27/22)**

Live SItr		% Chg.	Feeder Steer Price			
Year	Steer Price	from	Southern Plains			
Quarter	5-Mkt Avg	Year Ago	7-800#	5-600#		
2021						
I	112.98	-4.5	136.65	164.83		
II	120.76	14.1	142.02	165.42		
III	124	21.4	156	172		
IV	132	21.6	159	172		
Year	122	12.0	148	169		
2022						
1	139.25	23.0	160.00	193.66		
II	137-140	14.7	157-159	185-188		
III	132-136	8.5	166-171	185-190		
IV	135-139	3.5	162-166	178-183		
Year	136-138	11.9	162-164	186-188		
2023						
I	139-149	3.4	163-173	182-192		
II	144-154	2.5	166-176	185-195		
Ш	135-150	6.3	172-187	186-201		
IV	139-154	6.9	176-191	192-207		
Year	141-146	4.7	174-179	192-197		

Data Source: Livestock Marketing Information Center

#### **JANUARY 1 BEEF COW INVENTORY**

U.S., Annual



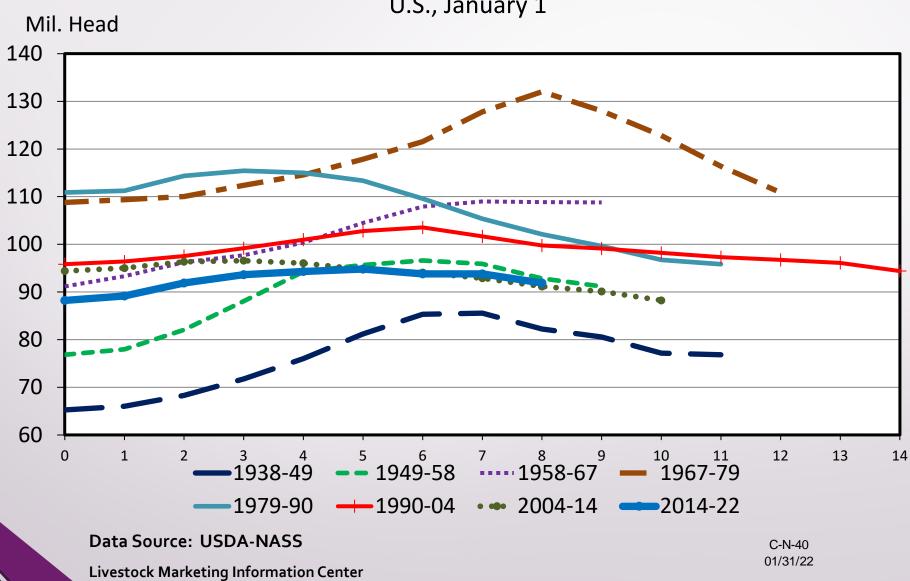
**Data Source: USDA-NASS** 

**Livestock Marketing Information Center** 

C-N-02 01/31/22

#### **TOTAL CATTLE INVENTORY BY CYCLE**

U.S., January 1



# **Evaluating Cattle Cycles:**

Changes Over Time and Implications

February 2017

Glynn T. Tonsor (Kansas State University)

James L. Mitchell (Kansas State University)

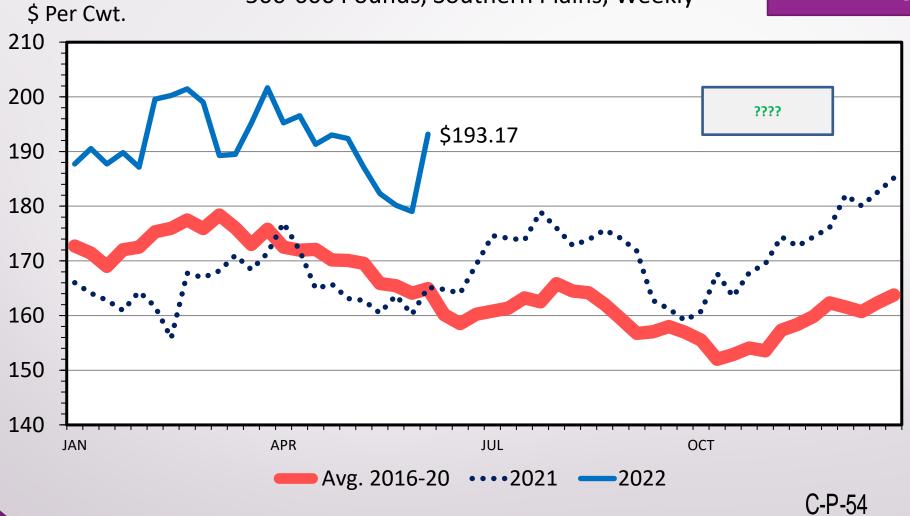
https://www.agmanager.info/sites/default/files/pdf/KSU \_FactSheet\_CattleCycle\_o1-31-17.pdf

BeefBasis.com (as of June 17<sup>th</sup> )

Salina, KS 5.5 cwt Steer on Oct 13<sup>th</sup>: \$197/cwt

#### MED. & LRG. #1 STEER CALF PRICES

500-600 Pounds, Southern Plains, Weekly



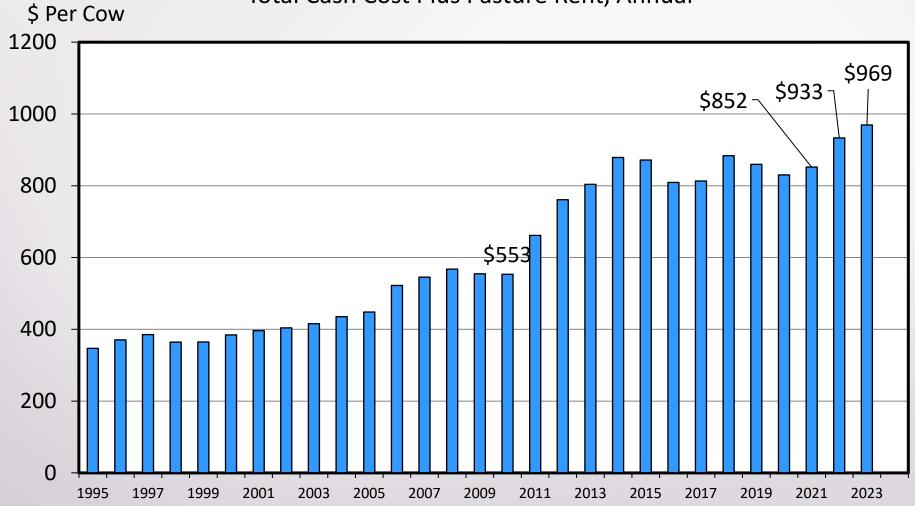
Data Source: USDA-AMS

**Livestock Marketing Information Center** 

06/14/22

#### **ESTIMATED AVERAGE COW CALF COSTS**

Total Cash Cost Plus Pasture Rent, Annual

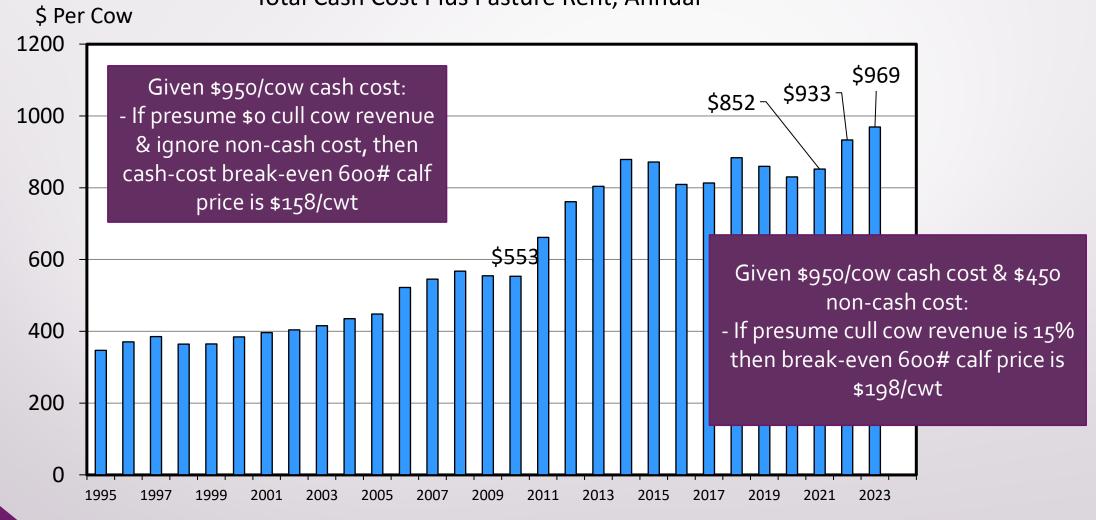


Data Source: USDA & LMIC, Compiled by LMIC

**Livestock Marketing Information Center** 

#### **ESTIMATED AVERAGE COW CALF COSTS**

Total Cash Cost Plus Pasture Rent, Annual



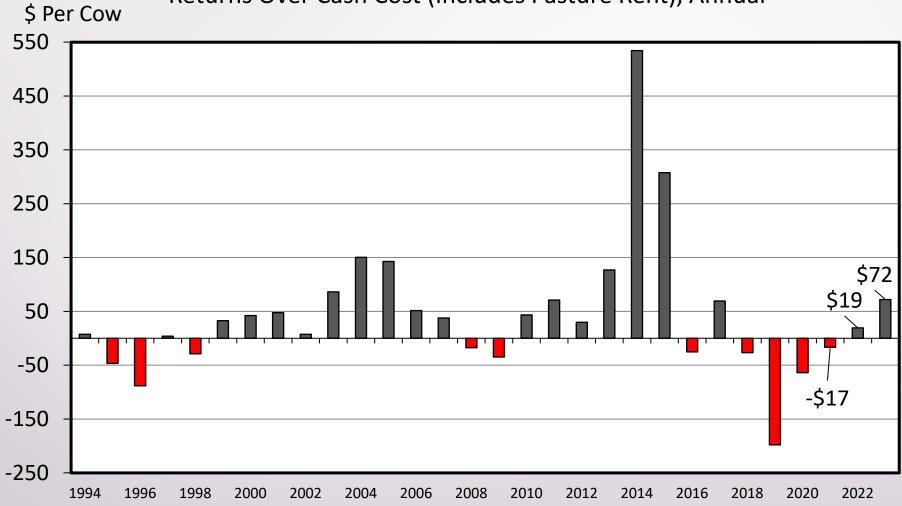
Data Source: USDA & LMIC, Compiled by LMIC

**Livestock Marketing Information Center** 

05/24/22

#### **ESTIMATED AVERAGE COW CALF RETURNS**

Returns Over Cash Cost (Includes Pasture Rent), Annual



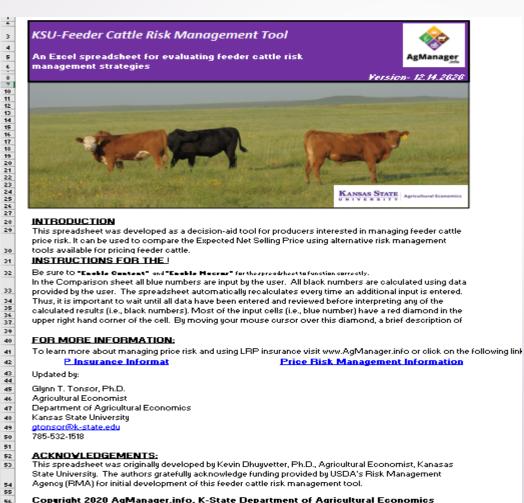
Data Source: USDA & LMIC, Compiled by LMIC

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C-P-66 05/24/22

### KSU-Feeder Cattle Risk Management Tool

https://www.agmanager.info/k-state-feeder-cattle-riskmanagement-tool



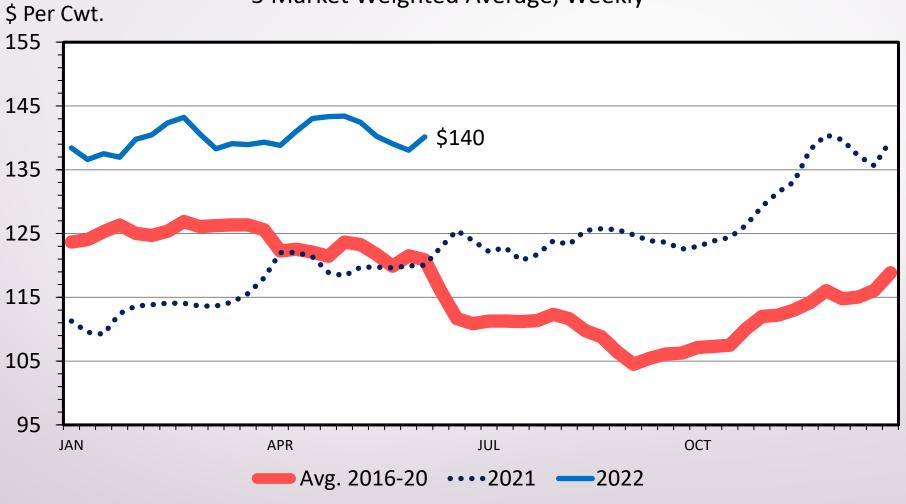
Always good to reassess your situation

e.g. changes in LRP make that more attractive to some...

KANSAS STATE Agricultural Economics

#### **SLAUGHTER STEER PRICES**

5 Market Weighted Average, Weekly



Data Source: USDA-AMS

**Livestock Marketing Information Center** 

06/14/22

# Historical and Projected Kansas Feedlot Net Returns (as of 6/9/22')

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

#### Apr. 21': -\$1/steer

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

10.010									
Closeout Mo-Yr	Net Return	FCOG**	Fed Price	Fed Futures	Fed Basis	Feeder Price	Breakeven FCOG**	Breakeven Fed Price	Breakeven Feeder Price
May-22	4.99	117.43	138.78	132.80	5.98	155.70	118.15	138.42	156.39
Jun-22	31.42	119.46	140.80	137.53	3.28	153.25	124.04	138.61	157.45
Jul-22	-86.10	121.73	137.47	137.53	-0.05	158.79	108.75	143.41	147.84
Aug-22	-12.72	122.34	143.27	142.75	0.52	158.70	120.31	144.17	157.08
Sep-22	-19.23	125.02	143.29	142.75	0.54	155.80	121.70	144.66	153.46
Oct-22	39.85	126.67	149.09	148.48	0.62	158.57	132.92	146.38	163.38
Nov-22	12.81	124.89	149.06	148.48	0.59	163.65	126.86	148.19	165.22
Dec-22	17.72	124.87	154.39	153.20	1.19	173.23	127.53	153.19	175.43
Jan-23	10.14	126.81	153.45	153.20	0.25	172.19	128.30	152.76	173.50
Feb-23	18.15	125.44	156.64	156.55	0.09	176.31	128.23	155.39	178.58

#### Representative Barometer for Trends in Profitability

# Beef Demand Update & Resources

# Let's Pause

Demand = Consumption?

### Demand is **NOT** Per Capita Consumption

# 2013 Beef Demand Determinants Study



http://www.beefboard.org/evaluation/ 130612demanddeterminantstudy.asp



MARKETING > OUTLOOK

What's The Similarity Between Blue Jeans and Beef Demand?

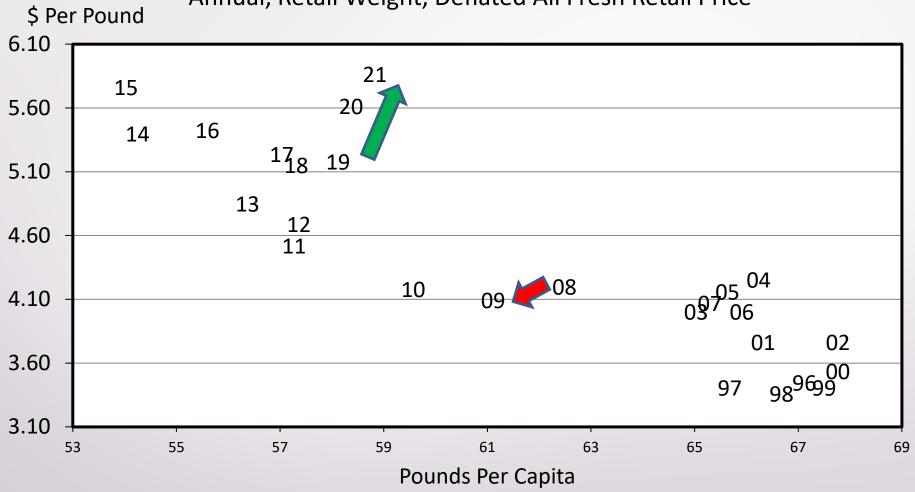
Beef consumption and beef demand isn't the same thing. Here's an explanation.

Burt Rutherford | Sep 19, 2013

http://www.beefmagazine.com/beef-demand/what-s-similarity-between-blue-jeans-and-beef-demand

#### **BEEF PRICE-QUANTITY RELATIONSHIP**

Annual, Retail Weight, Deflated All Fresh Retail Price



Data Source: Bureau of Economic Analysis & USDA-ERS, Compiled by LMIC

C-P-65A 03/30/22

# Macroeconomic Decline = Meat Demand Decline ?

Table 2.1. Aggregate Meat Demand Elasticities Summary

	,		В	eef Demand		Pork D	emand	Chicken D	emand
Period	Beef Price Used	Own- Price	Pork Cross- Price	Chicken Cross-Price	Ехр.	Own- Price	Exp.	Own-Price	Exp.
1988-2017	All-Fresh	-0.479	0.087	0.023	0.803	-0.307	0.141	-0.339	0.425
1988-2007	All-Fresh	-0.645	0.145	0.026	0.790	-0.229	-0.262	-0.345	0.371
2008-2017	All-Fresh	-0.450	-0.032	0.083	0.959	-0.089	1.231	-0.378	0.856
1970-2017	Choice	-0.593	0.120	0.041	0.118	-0.973	-0.170	-0.133	0.218
1988-2017	Choice	-0.490	0.085	0.021	0.781	-0.313	0.146	-0.345	0.430
1970-1994	Choice	-0.594	0.138	0.039	0.118	-0.924	-0.004	-0.159	0.003
1995-2017	Choice	-0.468	0.049	-0.044	0.867	-0.287	0.634	-0.469	0.960

Assessing Beef Demand Determinants

Prepared for the Cattlemen's Beef Board

Glynn T. Tonsor, Kansas State University (gtonsor@ksu.edu

Jayson L. Lusk, Purdue University (<a href="mailto:iayson.lusk@gmail.com">iayson.lusk@gmail.com</a>

nd Ted C. Schroeder, Kansas State University (tcs@ksu.edu)

Note: "Exp." is Expenditure abbreviated. All Rotterdam models were estimated using iterative three-stage least squares.

https://www.beefboard.org/wp-content/uploads/2018/01/Assessing-Beef-Demand-Determinants.pdf



January 18, 2018

# Monthly Meat Demand Monitor, Methods, and Supporting Information

Home / Livestock & Meat / Meat Demand / Monthly Meat Demand Monitor [Survey Data]



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#### K-State College of Agriculture Links

Agronomy 
Animal Science

Kansas Ag Mediation Service (KAMS) @

Extension Agent Link

#### Livestock & Meat

Projected Feeder Cattle Prices

Cattle Finishing Returns

Meat Demand

Meat Demand Research Studies

Monthly Domestic Meat Demand Indices [USDA/BLS Data]

Monthly Export Meat Demand Indices [USDA/BLS Data]

Monthly Meat Demand Monitor [Survey Data]

Monthly Meat Demand Monitor (Prior Years)

Production Economics

Marketing Charts

**CLPER Newsletter** 

#### Monthly Meat Demand Monitor [Survey Data]

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.







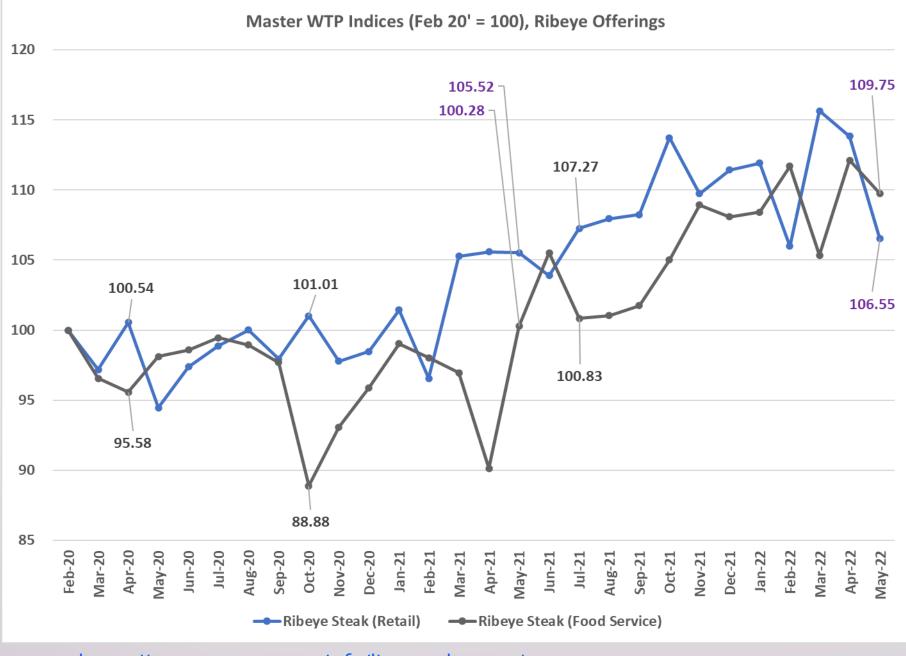
#### Monthly Meat Demand Monitor

Title	Author	Date	Downloads
Meat Demand Monitor - January 2022	Tonsor	January 28, 2022	Downloads •
Multi-Month Summary Report: July-December 2021	Tonsor Lusk	January 13, 2022	Downloads ▼
Meat Demand Monitor - December 2021	Tonsor	January 6, 2022	Downloads +
Meat Demand Monitor - November 2021	Tonsor	December 3, 2021	Downloads +

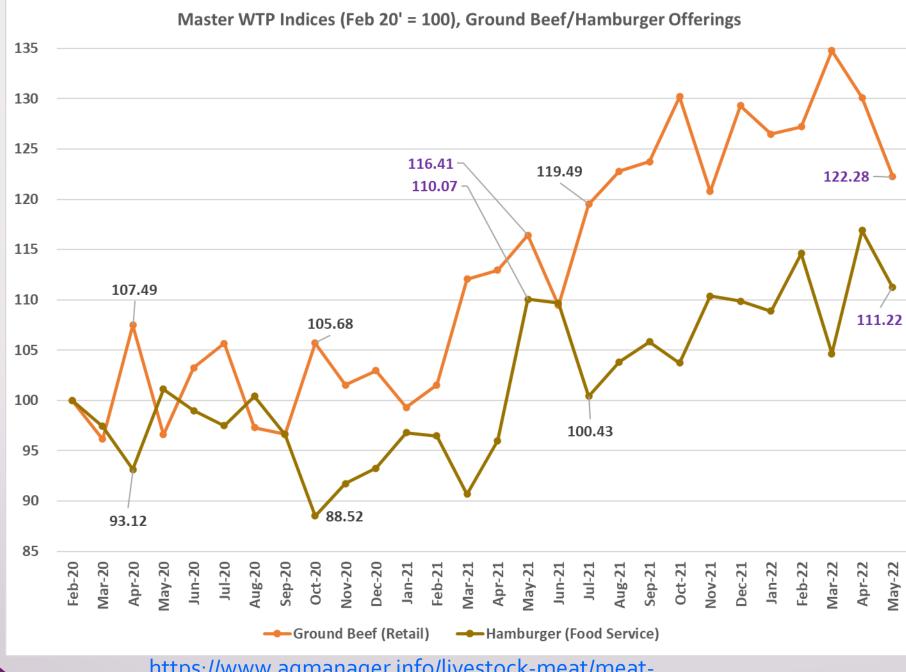
#### Methods and Supporting Information

Title	Author	Date	Downloads
2022 Raw Data - MDM For 2021 data, click HERE. For 2020 data, click HERE.	Tonsor	February 2, 2022	Downloads →
Monthly Survey - January 2022	Tonsor	January 31, 2022	Downloads →

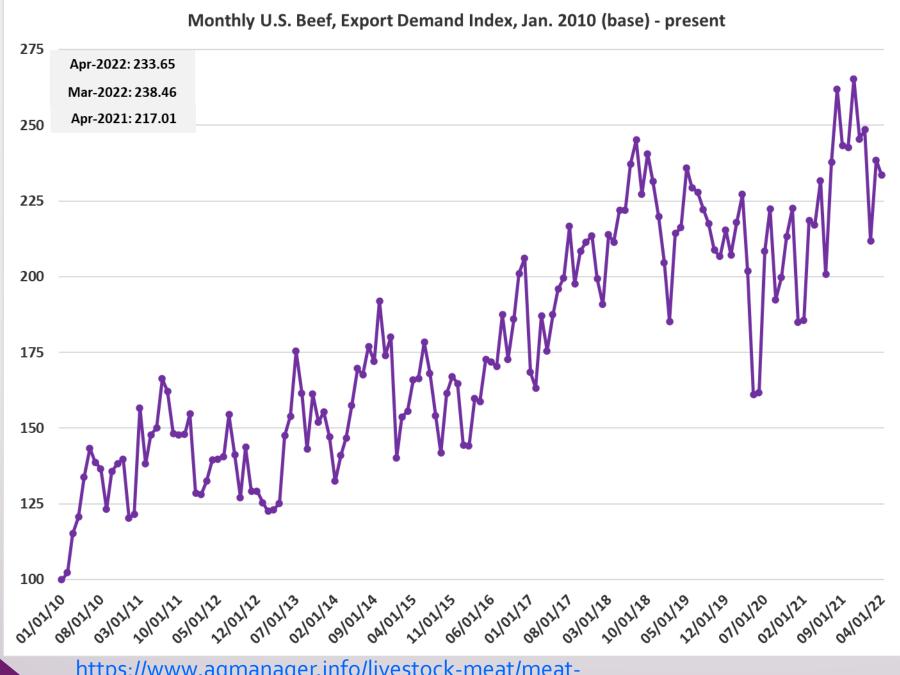
https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data



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



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

### Export Demand Strength – Aligns with USMEF #s



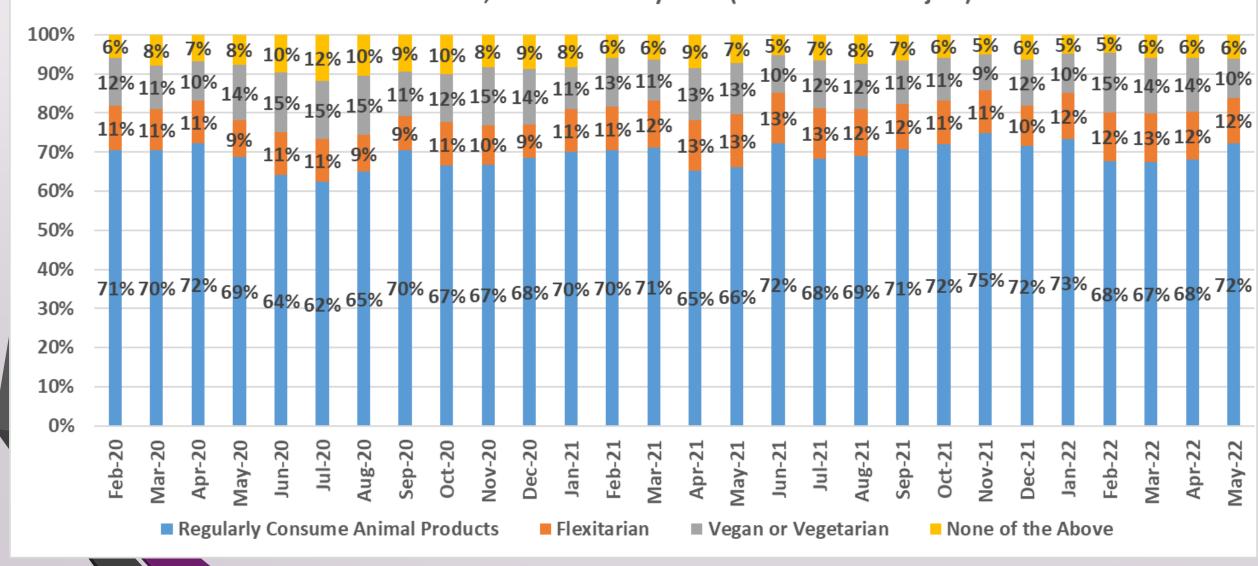


GT: \$402/hd = ~22% of Fed Cattle Value in 2021

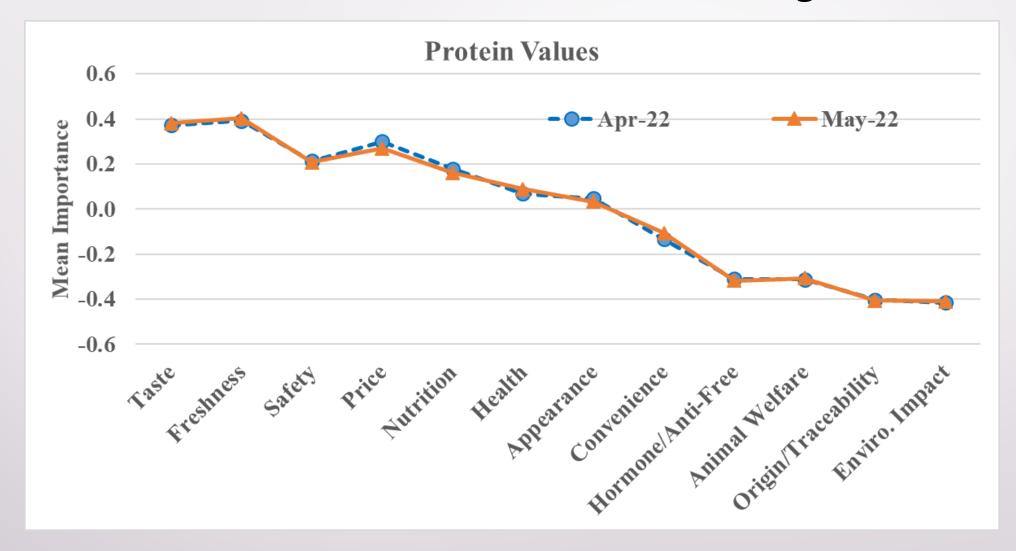
Source: USDA/USMEF

### Self-Declared Diet Tracking

Self-Declared Diet, Feb. 2020 - May 2022 (Source: MDM Project)



### Protein Values – What Drives Purchasing?



Taste is ~1.4x importance of Price Convenience is ~3.9x importance of Env. Impact or Origin/Traceability

## MDM & Related Efforts Continue to Generate Research-Based Demand Insights...

Received: 13 August 2021

Accepted: 1 March 2022

DOI: 10.1002/aepp.13253

#### FEATURED ARTICLE



### Market potential of new plant-based protein alternatives: Insights from four US consumer experiments

Glynn T. Tonsor<sup>1</sup>

Jayson L. Lusk<sup>2</sup> | Ted C. Schroeder<sup>1</sup>

# MDM & Related Efforts Continue to Generate Research-Based Demand Insights...

Received: 6 August 2021

Accepted: 17 April 2022

DOI: 10.1002/aepp.13287

#### FEATURED ARTICLE

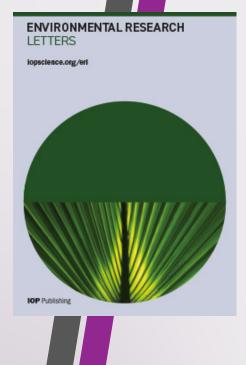


# Benchmarking US consumption and perceptions of beef and plant-based proteins

Hannah Taylor<sup>1</sup> | Glynn T. Tonsor<sup>2</sup> | Jayson L. Lusk<sup>3</sup>

Ted C. Schroeder<sup>2</sup>

https://onlinelibrary.wiley.com/doi/epdf/10.1002/aepp.13287

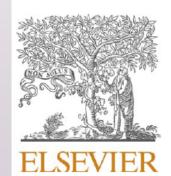


https://iopscience.iop.org/article/10.1088/1748-9326/ac4fda

".. For every 10% reduction in price or increase in demand for PBM, we estimate U.S. cattle production falls approximately 0.15%, U.S. cattle producers' economic welfare falls by \$300 million per year, and U.S. consumer welfare rises by \$513 million per year."

# MDM & Related Efforts Continue to Generate Research-Based Demand Insights...

Meat Science 190 (2022) 108843



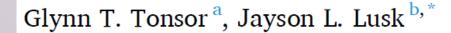
Contents lists available at ScienceDirect

Meat Science

journal homepage: www.elsevier.com/locate/meatsci



#### U.S. perspective: Meat demand outdoes meat avoidance



<sup>&</sup>lt;sup>a</sup> Department of Agricultural Economics, Kansas State University, United States of America



https://www.sciencedirect.com/science/article/pii/S0309174022001115

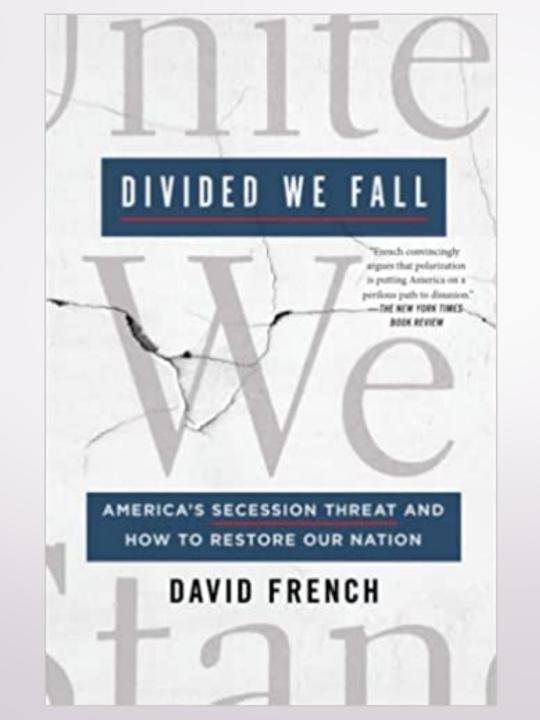
<sup>&</sup>lt;sup>b</sup> Department of Agricultural Economics, Purdue University, United States of America



We have two ears and one mouth so that we can listen twice as much as we speak.

Epictetus

"MY DEAR BROTHERS AND SISTERS, TAKE NOTE OF THIS: EVERYONE SHOULD BE QUICK TO LISTEN, SLOW TO SPEAK ..." JAMES 1:19





#### 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



Contents lists available at ScienceDirect

#### Food Policy

journal homepage: www.elsevier.com/locate/foodpol



FOOD POLICY

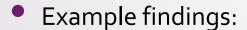


#### Regional and plant-size impacts of COVID-19 on beef processing

Justin D. Bina <sup>a,\*</sup>, Glynn T. Tonsor <sup>a</sup>, Lee L. Schulz <sup>b</sup>, William F. Hahn <sup>c</sup>

- <sup>a</sup> Department of Agricultural Economics at Kansas State University, United States
- <sup>b</sup> Department of Economics at Iowa State University, United States

<sup>&</sup>lt;sup>c</sup> USDA Economic Research Service, United States



- Timing and magnitude of slaughter declines varied by region.
  - Limited evidence of plant-size impacts on COVID-19-related slaughter declines.
- "If additional physical capacity is added to the industry, it may not provide the widely-stated benefit of increased "resiliency." It is often presumed there is a trade-off between efficiency and resiliency when considering industry structure. However, limited evidence of plant-size COVID-19 impacts for most of 2020 suggests caution in presuming this tradeoff. If this tradeoff exists, our work suggests it is short-lived."



#### FEATURED ARTICLE



Market potential of new plant-based protein alternatives: Insights from four US consumer experiments

Glynn T. Tonsor<sup>1</sup> | Jayson L. Lusk<sup>2</sup> | Ted C. Schroeder<sup>1</sup>

#### Example findings:

- Regular meat consumers are much less likely than those declaring an alternative diet (vegan, vegetarian, flexitarian, or other) to select a plant-based item when a beef item is available.
  - Characteristics of consumers most likely to select plant-based proteins include younger, those with children under the age of 12 years, having higher household income, residing in a Western state, and affiliating with the Democratic party.
- Changes in the price of beef and chicken have a much larger impact on consumer decisions to buy beef than the impact of changes in the price of plant-based offerings. This means plant-based burgers are relatively weak substitutes for beef.
  - ...growth in the market share of plant-based alternatives is not entirely coming at the cost of reduced beef demand and indeed if a plant-based alternative simply replaces a substitute competitor (like a chicken sandwich) or reflects overall growth in protein demand, the impacts on beef demand are likely to be negligible.



https://iopscience.iop.org/article/10.1088/1748-9326/ac4fda

".. For every 10% reduction in price or increase in demand for PBM, we estimate U.S. cattle production falls approximately 0.15%, U.S. cattle producers' economic welfare falls by \$300 million per year, and U.S. consumer welfare rises by \$513 million per year."

https://www.agmanager.info/livestock-meat/meat-demand/meat-demand-researchstudies/impact-new-plant-based-protein-1

http://library.alt-meat.net/publication/frame.php?i=727246&p=&pn=&ver=html5

 "K-State's Glynn Tonsor for one, believes a meat tax is not the only path to a more sustainable protein industry"





 "Any good business plan or policy needs a clearly stated goal... and I think there are conflicting goals..."