

Economist View: How Innovation Can Improve Industry Viability

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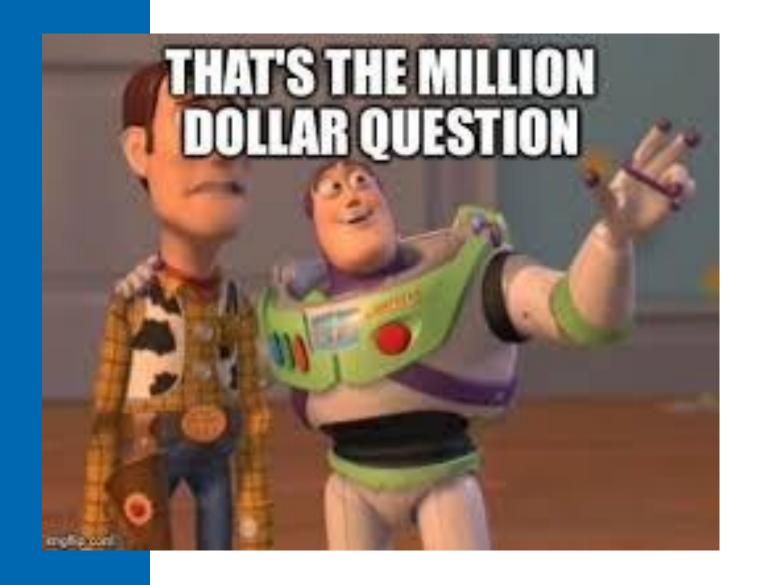
Chief Economist Ever.Ag







What Is the Value of Innovation?

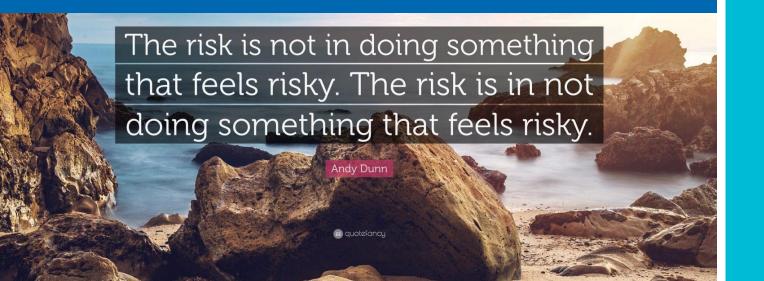


Mindset



MINDSET

- ✓ "Growing the pie" &
 "avoiding further declines" BOTH have value
- ✓ NPB's "Value at Stake" work = cost of doing nothing



A FINANCIAL TIMES BEST BOOK OF 2020

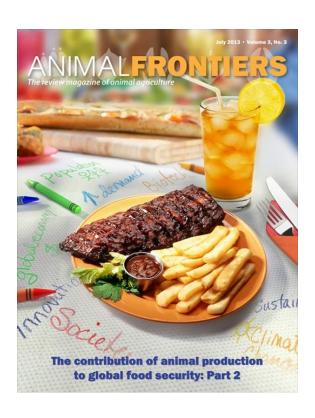
"... a tour de force." - Andy Haldane, Chief Economist, Bank of England

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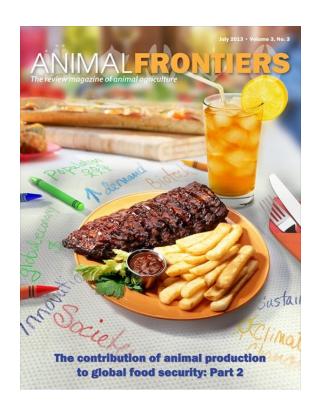
HOW GREAT COMPANIES DELIVER BOTH PURPOSE AND PROFIT

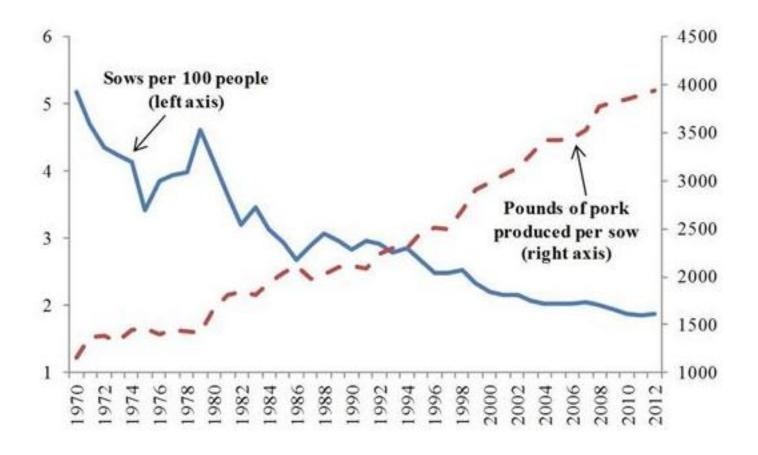
Role of technology in the global economic importance and viability of animal protein production (Lusk 2013)



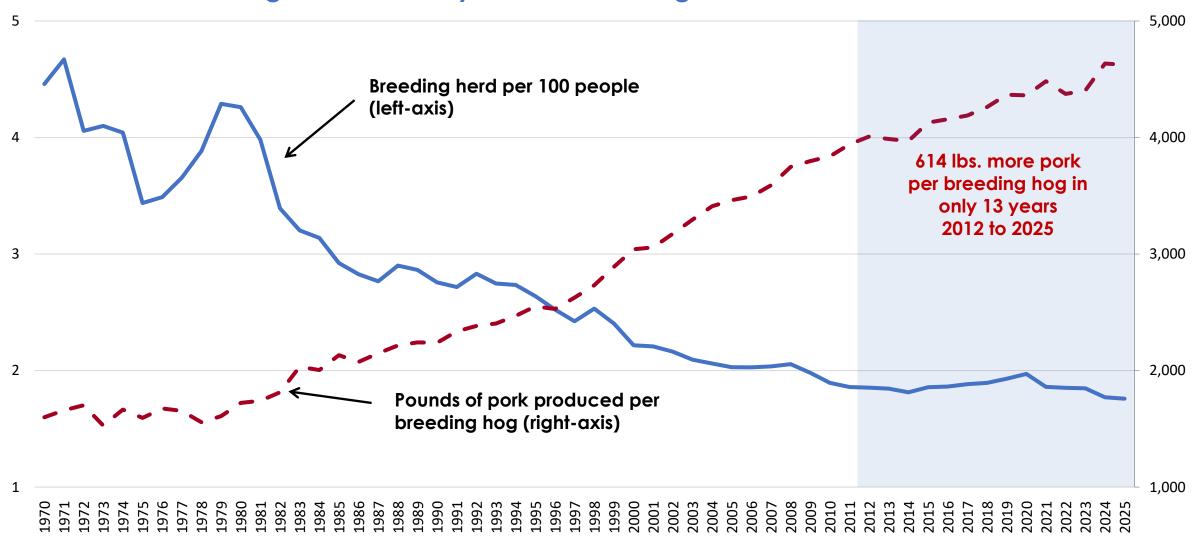
- Over the past century, productivity-enhancing agricultural research has led to increased food availability despite population growth.
- The economic benefits of agricultural research have been estimated to outweigh the costs by a factor of 32 to 1.
- The technological developments that have occurred in the beef industry in the last 40 yr are estimated to be worth over \$12 billion annually.
- Investments in agricultural research have slowed and shifted away from productivity-enhancing technologies, and as a result, the likelihood of future food price spikes has increased.

Role of technology in the global economic importance and viability of animal protein production (Lusk 2013)





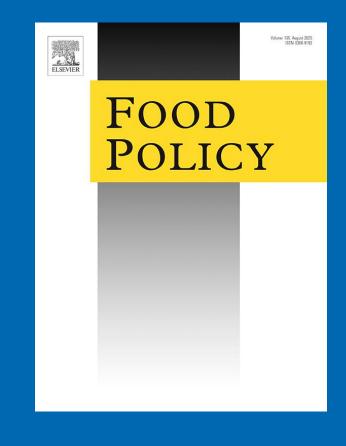
Changes in Efficiency of Pork Breeding Stock from 1970 to 2025



Technology and evolving supply chains in the beef and pork industries

(Maples, Lusk, & Peel 2019)

"The values of improved technologies between 1977 and 2012 in the beef and pork sectors have been estimated at \$11 billion annually and \$7.6 billion annually, respectively."



What if we move from ("just") a supply-side enhancement focus to also elevate the demand-side and consumer pull?



What if we move from ("just") a supply-side enhancement focus to also elevate the demand-side and consumer pull?



EXAMPLE TO PONDER:

E. coli vaccine in fed cattle

RESEARCH Open Access

Market impacts of *E. Coli* vaccination in U.S. Feedlot cattle

Glynn T Tonsor* and Ted C Schroeder



Adoption?

Economic Viability

2012 USDA NIFA Grant

- \$25 million, 5 years, 48 co-Pls and 10 institutions
- Example technical statement following innovation:
 - "...A commercial vaccine for cattle can effectively reduce E. coli by more than 50 %."
- Tonsor & Schroeder why hasn't this vaccine been adopted?
- No market signals to drive feedlot adoption: Incentives matter!
 - ✓ Retail (2%-4%) or packer (1%-2%) cost savings needed OR
 - ✓ Retail (2%-3%) or export (18%-33%) beef demand increases

Cottage cheese goes viral

Cottage cheese is having a major moment on social media right now.

Over the last year the hashtag #cottagecheese garnered well over half a billion views on TikTok, showing people are hungry for the protein-packed food once associated with diet fads. Cottage cheese had a moment in the 1970s, when the average American ate nearly five pounds of it per year, according to the Department of Agriculture. But over the years, Americans started to turn to other high protein, low carb food, leading NPR to declare in 2015 that yogurt had "eclipsed" cottage cheese.

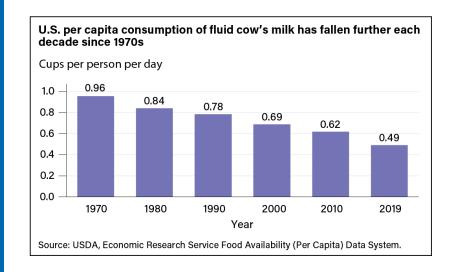
But in recent years, cottage cheese has experienced a resurgence in popularity. People have taken to TikTok to show how cottage cheese can be used in better-for-you recipes, with creative dishes like viral cottage cheese flatbread and ice cream. At-home followers looking to recreate these recipes have helped cottage cheese boost dairy sales.

According to Circana data from May, cottage cheese sales were UP 13.5% year-over-year, up to \$1.33 billion. The firm also reported that in 2023 cottage cheese was the third-fastest-growing segment within dairy, with private label leading the sales. The continued demand has even led top-seller Daisy Brand to invest in manufacturing, with the company announcing a \$626 million facility in May.

CPG PLAYBOOK // JUNE 12, 2024

TikTok has ignited a cottage cheese renaissance





Savoring the cottage cheese 'moment'



DMI Chair

Marilyn Hershey

Picking your favorite dairy food is sort of like choosing a favorite child.

As a dairy farmer I love them all, of course, but if I'm being honest, I have a special place for my cottage cheese. It's my go-to dairy food because it can be enjoyed in a variety of ways. It's my secret ingredient in my lasagna recipe and I love a bowl of it with orange slices or olives or even tuna fish.

Cottage cheese comes with a bit of a stigma as an older person's food, and it's never really caught on with many younger consumers. But in today's world, it sometimes just takes a good old-fashioned social media push for something to "have a moment" as the media sometimes reports when a trend catches fire. (You may recall <u>Feta "had a moment"</u> a few years ago after a <u>TikTok recipe craze</u>.)

We're in the middle of a <u>cottage cheese moment</u> for sure thanks to some social media efforts that are focused on its wonderful diversity.

Could you ever have imagined ice cream is being made from cottage cheese?

Neither did I but the social media world sees it differently. Some notable dietitians, such as @nutritionbykylie and @chicago.dietitian, posted about it on their channels and it caught the attention of The Pioneer Woman. The checkoff's social media team promoted a Cream recipe in July, which happened to be National Ice Cream Month.

And guess what? Social media is eating up cottage cheese. The hashtag <u>#cottagecheeseicecream</u> has more than 40 million views on TikTok and #cottagecheeserecipe has 111 million-plus views on the same channel.

Now, I'm not pretending cottage cheese will save the day for farmers during these ever-growing economic challenges we're facing. Its overall volume numbers still fall far below the milk, cheese and yogurt categories.

But I will say it brings me some hope to know our country's younger generation is open to dairy in innovative ways. They are a consumer base that cares about the quality aspects of foods, especially those that are low in sugar and high in protein and labels that aren't complex. Cottage cheese delivers on these fronts, and it proves dairy can hold appeal and relevance to them. They just sometimes need an innovative social media push to bring awareness to their world.

That is why I applaud the checkoff's efforts of working with social media influencers as we have done with major gaming personalities such as MrBeast and creating the "Dairy Dream Team" of influential chefs and foodies. It's a far cry from the days of traditional advertising and it sometimes doesn't always make sense to those of us who grew up walking to the end of a driveway to retrieve a newspaper.

But what does make sense is the reality that for dairy to remain relevant, we must stay up with – if not ahead of – the changing times and consumer interests. Our checkoff is doing that by constantly monitoring and reacting to consumer trends and identifying the best ways we can reach and communicate with them.

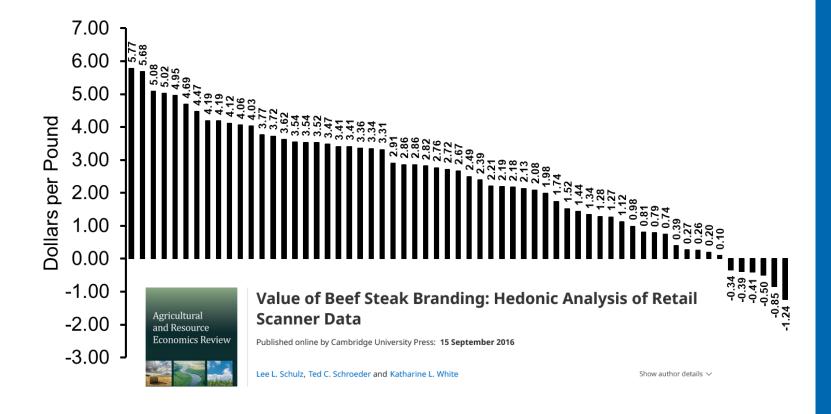
So, while the idea of making ice cream from cottage cheese never previously crossed my mind, I'm good with it if it appeals to a generation of consumers who see their food choices in ways I never could have imagined.

In fact, I might even give it a try!





What's at 'STEAK'



- 55/62 retail steak brands received premiums; others discounted to unbranded
 - Premiums ranged from \$1.24/lb. to \$5.77/lb.
- ≤ 3-year-old brands have a
 \$1.69/lb. premium relative
 to ≥ 10-year-old brands
 - New brands typically introduced at premium prices, target emerging trends, involve additional costs
 - Some brands successful in sustaining premiums over time, others fail
- Brand value not strongly associated with quality grade of beef

Why/how building pork demand matters for hog and pig producers

Retail, foodservice, export

Journal of Agricultural and Applied Economics (2025), 1-23 doi:10.1017/aac.2025.10015



RESEARCH ARTICLE

Production Dynamics and Disruption Responses in the Pork Supply Chain: A Structural Model of Hog and Pig Markets

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Abstract

Analysis of feeder and early weaned pig markets, important segments in pork production, is nearly nonexistent. We derive and estimate a structural econometric model relating demand and supply for market hogs, feeder pigs, and early weaned pigs. Estimates from the econometric model predict how disruptions are transmitted through hog and pig markets. Results indicate that hog and pig markets are most sensitive to hog processing plant utilization relative to capacity and that this sensitivity has increased compared to prior estimates. A set of counterfactual scenarios quantify the effects of shocks to hog processing capacity, wholesale pork demand, and supply response.

- +1% increase in wholesale pork demand = +0.435% increase in market hog price
- +1% increase in expected market hog price = +1.832% increase in feeder pig price
- +1% increase in expected market hog price = +1.138% increase in SEW pig price

How the Brewers have built a \$115 million MLB powerhouse



P Photo/Jeffrey Phe



The Brewers can go toe-to-toe with the \$300 million powerhouses at the top of the National League standings because instead of trying to compete dollar for dollar, they've created the kind of unique environment that the Check Game fosters. It's a vibe that feels more like the atmosphere in a college locker room than what you would expect in a professional clubhouse.

As the Milwaukee Brewers pile up wins at a faster pace than anyone else in MLB -- with one of baseball's smallest payrolls -- one question is being asked throughout the sport: What's their secret?

Those in the Brewers organization insist there is no classified formula for their success, but the answer might be best summed up in an internal game the organization plays called the "Check Game."

"It started in the coach's room," Brewers manager Pat Murphy told ESPN recently. "To remind us, it's not about us. It's about the team. Anyone is fair game."

The rules of the Check Game are simple. If you talk about your own accolades, you get a check. If you try to defend yourself, that's a check. If you pass on blame to someone else, that might be a check as well.

"And if you bitch about a check, you get a bigger check," Murphy said with a smile.

"Everyone is looking at our team as innovative," Attanasio said. "It's what we've done for 10 years." When it comes to innovation, we can learn a lot from the book and movie "Moneyball."

Making small, incremental innovations is very similar to the baseball concept of getting runners on base rather than always swinging for the fences.



Strategy lessons

Innovation Strategy Lessons from Moneyball

Strategy, Analysis, Tools, Implementation, Performance, Insights, Strategic Thinking, Innovation, Collaboration



Photo by: Dan Kuta | Source: photocase.com

The movie *Moneyball*, nominated for six Academy Awards, depicts how Billy Beane, general manager for the Oakland A's, re-imagined how to think about the dynamics of assembling a major league baseball team. With limited money and a newly innovative reliance on analytics, the A's story features plenty of rich innovation strategy lessons throughout the movie.

Here are eight innovation strategy lessons within *Moneyball* and the story of how the Oakland A's applied a statistically-oriented, sabermetrics approach to baseball strategy and improved performance against much richer teams in the early 2000s.

- 1. Take advantage of having inferior resources and employ a dramatically different innovation strategy.
- 2. When your market situation changes, you can't think with dated conventional wisdom.
- 3. Seek out unlikely experts, especially ones who do their homework.
- 4. Consider many possibilities to find the few winners you need.
- 5. Ask rich, on-target questions to unleash real creativity.
- 6. leader can't make an innovation strategy happen alone, but he or she does have to take responsibility for it.
- 7. If there's a sound case for your unconventional strategy, you can't abandon it at the first sign of challenges.
- 8. When competitors catch up, the rules will change again.

Strategy lessons

Moneyball and the Beginning, Middle, and End of Innovation

by Robyn Bolton | Feb 24, 2021 | Innovation, Stories & Examples



THE BEGINNING

"I know you've taken it in the teeth out there, but the first guy through the wall...he always gets bloody ... always always gets bloody. This is threatening not just a way of doing business ... but in their minds, it's threatening the game. Really what it's threatening is their livelihood, their jobs. Ifs threatening the way they do things ... and every time that happens, whether it's the government, a way of doing business, whatever, the people who are holding the reins - they have their hands on the switch - they go batshit crazy."

John Henry, Owner of the Boston Red Sox

THE MIDDLE

"It's a process, it's a process, it's a process."

Bill Beane

THE END

"When you get an answer you're looking for, hang up."
Billy Beane

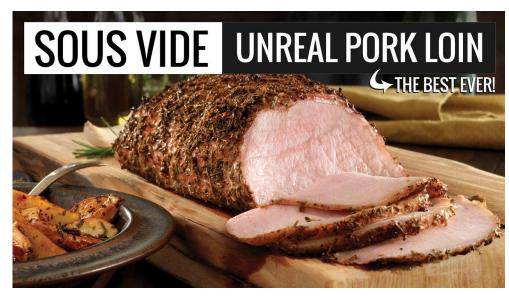
What is pork's "Flat Iron Steak"?

- Example of "repurposing" to "elevate value"
 - Trimmed from shoulder, traditionally was input into ground beef
- Meat Institute in 2012 estimated flat iron steak sales ~\$80 million

Demonstrative Example: **Pork Loin**







Ongoing Circana-Based Work (Oct. RAC/PPIC rollout)

PORK LOIN	Sum of Volume Sales	Average Real Price	
2020	1,260,642,338	\$ 3.22	
2021	1,144,747,171	\$ 3.26	
2022	1,129,619,857	\$ 3.15	
2023	1,062,317,422	\$ 3.04	
2024	1,040,353,519	\$ 3.03	

Ongoing Circana-Based Work

PORK LOIN			DEMAND NEUTRAL PRICE	
2020	% Change in Volume	% Change in Real Price	CHANGE EXPECTED	
2021	-9.2%	1.2%	6.3%	DEMAND DECLINE
2022	-1.3%	-3.4%	0.9%	DEMAND DECLINE
2023	-6.0%	-3.5%	4.1%	DEMAND DECLINE
2024	-2.1%	-0.1%	1.4%	DEMAND DECLINE

Ongoing Circana-Based Work

What if 2023 Loin Price +4.10% (demand neutrality)

IF Composite Loin Primal +4.10%, THEN:

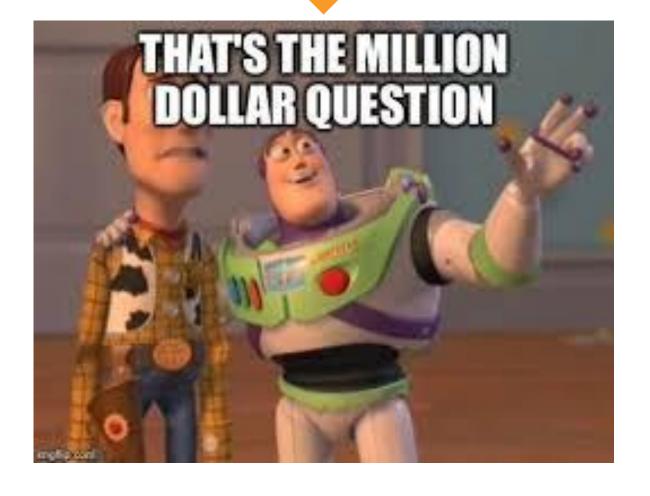
- Composite Cutout: +1.04% (25.30% loin weight by AMS)
- Per Butcher & Schulz (2025):
 - Market Hog Prices: +0.45%
 - Feeder Pig Prices: +0.82%
 - Weaned Pig Prices: +0.51%

Context: 2023 127.9 million commercial slaughter, 214 lb. dressed wt., & \$81.60/cwt

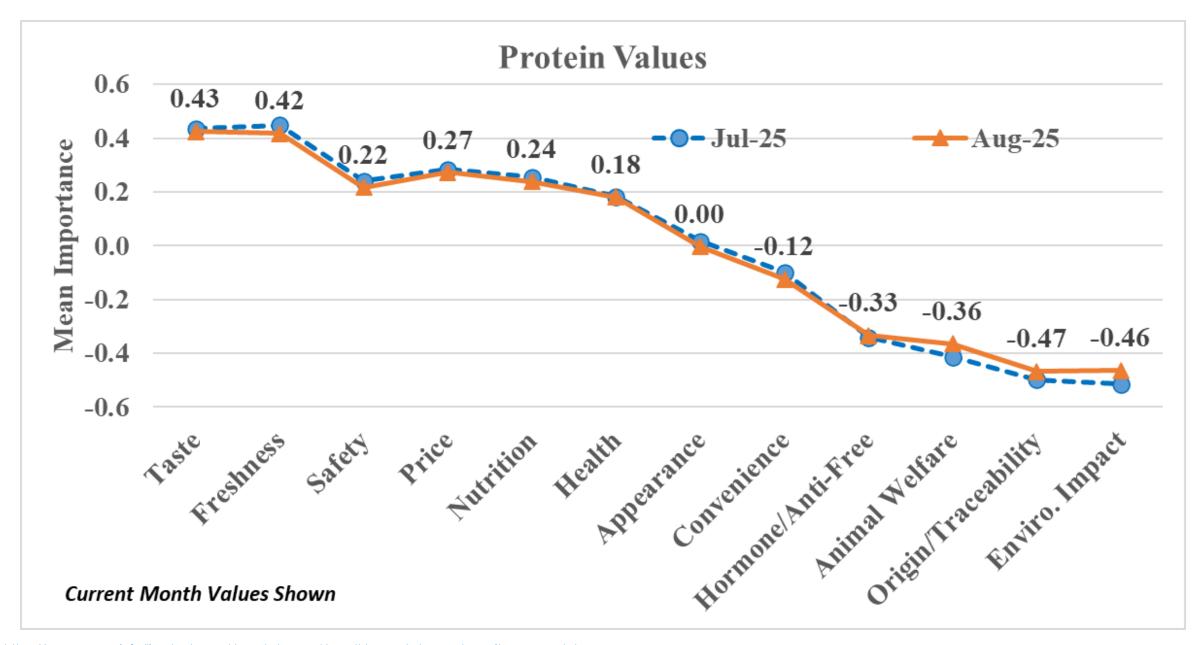
+0.45% = ~\$100.3 million increase in market hog sales

What Drives Consumer Protein Purchasing?

MULTIMILLION







2024 MDM Protein Value Insights (N=38,058)

TASTE

PV = + 0.44

- 58% Top-4 Importance
- 28% Medium Importance
- 14% Bottom-4 Importance

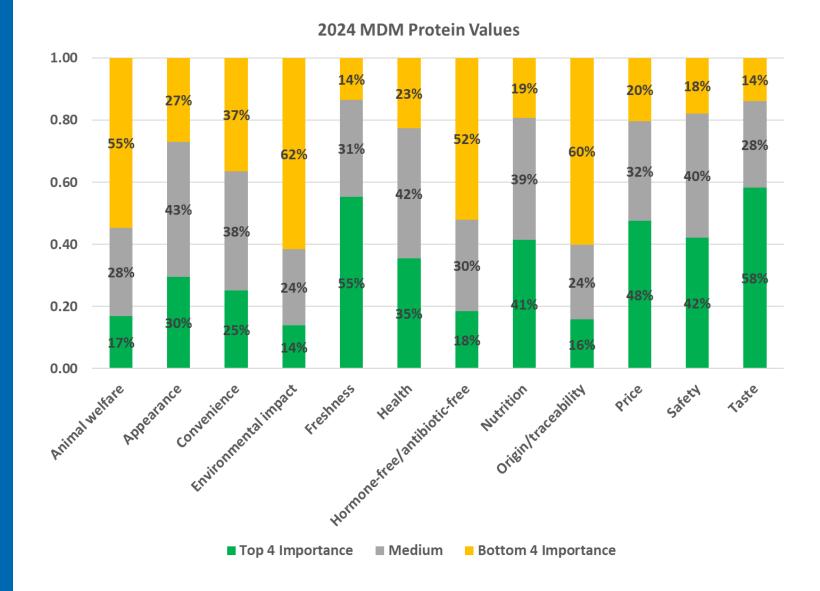
ENVIRONMENTAL IMPACT

PV = -0.48

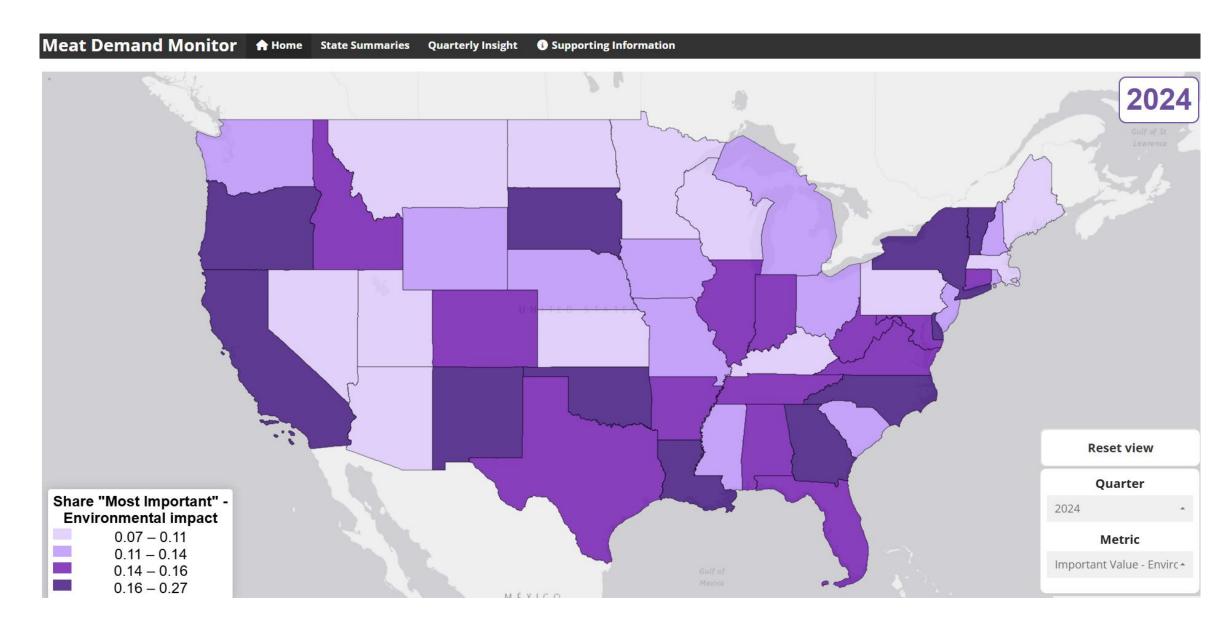
- 14% Top-4 Importance
- 24% Medium Importance
- 62% Bottom-4 Importance

2024 MDM Protein Value Insights

(N=38,058)



Regional Segmentation: CA = 16% vs WI = 8%

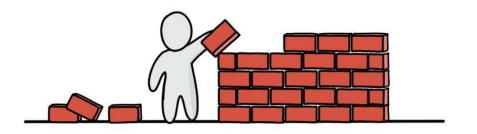


The Economist

The perfectionism trap



CONTINUOUS IMPROVEMENT



IS BETTER THAN



-MARK TWAIN-

@melodie_tld

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'... a tour de force.' - Andy Haldane, Chief Economist, Bank of England

GROW THE

HOW GREAT COMPANIES DELIVER BOTH PURPOSE AND PROFIT

ALEX EDMANS

Mindset & Incentives Matter!

