Economics of Agriculture During the COVID-19 Pandemic: A Series of Online Gatherings *More on Livestock Markets* May 7, 2020

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We live in interesting & complex times...

Society is asking: How can we have this?

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less meat for consumers at grocery stores &restaurants with limited meat for menus

animals with no where to go &calls for gov't to make euthanasia payments and set-aside programs,

increasing meat prices,
decreasing livestock prices, &
lower stock prices of processors



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less meat for consumers at grocery stores & □restaurants with limited meat for menus

□animals with no where to go & **Calls for gov't to make euthanasia payments and set-aside programs**,

□increasing meat prices, decreasing livestock prices, & lower stock prices of processors

Reflects COVID19 impact on supply chain Bottleneck in harvesting & processing + perishability + markets having time dimensionality = our current, dynamic situation







Example Resources List, Since March 17th

Management and Nutritional Considerations for Growing Cattle Under COVID-19 Conditions https://www.agmanager.info/livestock-

K-State Feeder Cattle Risk Management Tool <u>https://www.agmanager.info/k-state-feeder-cattle-risk-management-tool</u>

- Meat Availability and Shortages Overview https://www.agmanager.info/livestock-meat/marketing-extension-bulletins/trade-and-demand/meat-availability-and-shortages
- > Fed Cattle Flows Demonstrative Scenario Examples https://www.agmanager.info/livestock-meat/marketing-extension-bulletins/marketing-strategies-and-livestock-
- Meat Demand Monitor April 2020 https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data/meat-demand-monitor-april-2020
- Recent Domestic Demand Indices <u>https://www.agmanager.info/livestock-meat/meat-demand/monthly-domestic-meat-demand-indices-usdabls-data/recent-domestic-demand</u>
- Recent Export Demand Indices https://www.agmanager.info/livestock-meat/meat-demand/monthly-export-beef-demand-indices-usdabls-data/recent-export-demand
- Cattle Feeding Returns-April 2020 https://www.agmanager.info/livestock-meat/cattle-finishing-historical-and-projected-returns/cattle-feeding-returns-april-2020
- Assessing Impact of Packing Plant Utilization on Livestock Prices https://www.agmanager.info/livestock-meat/marketing-extension-bulletins/price-
- Meat Demand Monitor COVID19 Impact Special Report https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-
- > Cattle Industry's COVID19 Economic Damage Assessment https://www.agmanager.info/livestock-meat/marketing-extension-bulletins/price-



Example Resources List, Since March 17th

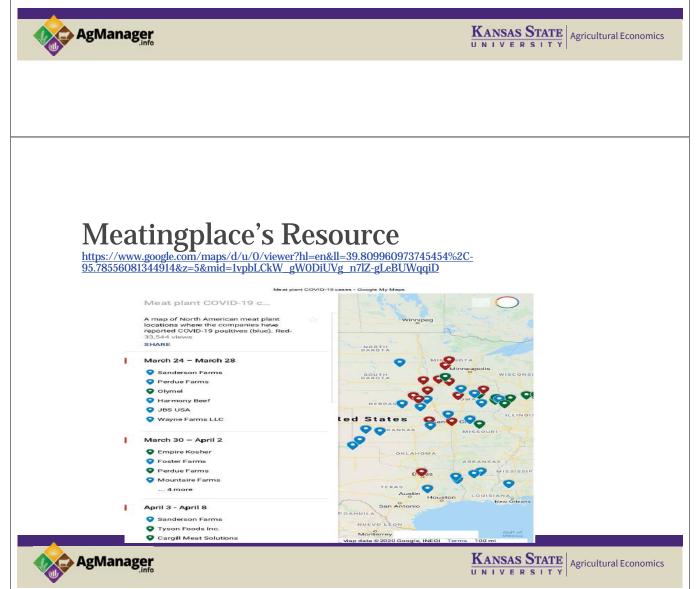
Economic Damages to the U.S. Beef Cattle Industry Due to COVID-19

 $\underline{https://extension.okstate.edu/fact-sheets/economic-damages-to-the-u-s-beef-cattle-industry-due-to-covid-19.html (additional additional addi$

- Webinars/Long Interviews:
 - >98.1 KMBZ May 5th https://kmbz.radio.com/media/audio-channel/will-there-be-a-meat-shortage-and-what-does-that-mean-for-us
 - Brownfield: COVID-19 THE IMPACT ON AGRICULTURE https://brownfieldagnews.com/covid19/

 - > Beef-Cattle Sector Thoughts April 16th https://www.agmanager.info/news/recent-videos/beef-cattle-sector-thoughts-april-16-2020
 - ► US Farm Report April 11th: <u>https://www.agweb.com/usfr</u>
 - > Ongoing Effects on Livestock Markets from COVID-19 Pandemic https://www.agmanager.info/news/recent-videos/ongoing-effects-livestock-markets-
 - Big Picture Look: Coronavirus Impact on Pork-Swine Industry https://www.agmanager.info/news/recent-videos/big-picture-look-coronavirus-impact-
 - Big Picture Look: Coronavirus Impact on Beef-Cattle Industry <u>https://www.agmanager.info/news/recent-videos/big-picture-look-coronavirus-impact-beef-cattle-industry</u>

>Other interviews, general media engagement, etc. cross-linked on AgM (<u>https://www.agmanager.info/contributors/tonsor</u>) and Twitter (@TonsorGlynn)



USDA FI Daily Volumes

- 60% of Cattle & Hog Volumes, Same Week Last Year \sim
 - NOT 40% of plants with announced closures
 - Production reduction reflects net effects of
 - closures, partial re-openings, and lower operating speeds by all
 - voluntary engagement of workforce has direct role
 - GT: optimistic we are "near the bottom" and in May will continue to make progress

https://www.ams.usda.gov/mnreports/sj ls710.txt

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FI Cattle & Hogs follow similar pattern



Fed Cattle Flows: "Carryovers" Continue

Week ending May 2 = 425k FI

May 1st: 510k that "should" have been marketed in April?

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Kansas State University Department Of Agricultural Economics Extension Publication 04/28/2020

Fed Cattle Flows: Demonstrative Scenario Examples

Glynn Tonsor (atonsor@ksu.edu) Kansas State University Department of Agricultural Economics Lee Schulz (Ischulz@iastate.edu) Iowa State University Department of Economics

	Scenario Description					
Scenario 1	450k constant week-ending 5/2 to 5/30	1,219				
Scenario 2	425k constant week-ending 5/2 to 5/30	1,344				
Scenario 3	450k constant week-ending 5/2 to week-ending 5/9 and then 500k to 5/30	1,069				
Scenario 4	425k constant week-ending 5/2 to 5/9 and then 450k to 5/30	1,269				



https://www.agmanager.info/livestock-meat/marketing-extensionbulletins/marketing-strategies-and-livestock-pricing/fed-cattle

Livestock – Meat Conversion Bottleneck: Implications

Depressed demand for livestock = lower farm prices

Perishability & livestock supply chain dynamics = move to maintenance rations / euthanasia

Market impacts on feeder cattle & weaned pigs become most apparent



Livestock – Meat Conversion Bottleneck: Implications

Depressed flow of meat products = higher wholesale prices

Not all meat is equal reaffirmed

- Retail vs Food Service (pre-COVID19) channeling {now we start "reversing" this shift}
- Fresh vs Frozen
- Consumer knowledge & comfort varies widely over product type

Partial (immediate) passing of higher prices to consumers

Restaurants increasingly trying to open & desired role of meat as main menu item is reaffirmed

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- Retailers vary in approach: higher prices, change in offering mix, & rationing
- Overall public likely "looking harder" at meat supply chain than anytime in my life



Livestock – Meat Conversion Bottleneck: Implications

≻Lower farm prices +

≻Higher wholesale prices +

Reduced (temporary) & Changed meat availability

= Escalating political & emotional situation

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What's Next?

✓ Hopefully push to "new normal" production ability. ~85% of pre-COVID levels ???

✓ Seems most interventions will remain & help mitigate "future waves"

✓ Mix of pre-COVID pay, during COVID bonuses & hazard pay (?), and (longer-term) push to automate play out



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What's Next?

 \checkmark Hopefully push to "new normal" production ability. $~\sim\!85\%$ of pre-COVID levels $\ref{eq:started}$

✓ Calls to compensate for euthanized livestock, perhaps "set aside" programs, etc. likely to persist





Major COVID19 Events	Weekly Cash Market Values												
	Live Cattle		Feeder Cattle		Barrow	Barrows & Gilts (Carcass)		Early Weaned Pigs		Boxed Beef Cutou	it	Por	k Cutout
	Date	5-Area Wtd Avg	Date	KS 7-750	Date	Natl Wtd Avg Net	Date	Natl 10-12 lbs	Date	Choice	Date	FO	B Plant
China's first reported death,													
Jan 11	1/12	\$ 124.47	1/10	\$ 151.7	6 1/10	\$ 63.24	1/10	\$ 56.67	1/10	\$ 210.0	4 1/10	\$	72.50
US's first reported death on													
American soil, Feb 29	3/1	\$ 114.85	2/28	\$ 141.8	8 2/28	\$ 61.22	2/28	\$ 41.04	2/28	\$ 205.3) 2/28	\$	64.12
WHO declared pandemic, Mar													
11	3/8	\$ 113.17	3/6	\$ 146.8	2 3/6	\$ 61.36	3/6	\$ 35.55	3/6	\$ 207.4	7 3/6	\$	66.86
US declares national													
emergency, Mar 13	3/15	\$ 108.84	3/20	\$ 125.6	1 3/20	\$ 64.90	3/20	\$ 25.45	3/20	\$ 253.7	5 3/20	\$	80.04
About 80% of Americans													
under lockdown, Mar 31	3/29	\$ 119.31	3/27	\$ 141.5	1 3/27	\$ 67.48	3/27	\$ 25.73	3/27	\$ 252.8	4 3/27	\$	73.79
	5/6	\$ 103.80	5/6	\$ 126.2	5 5/6	\$ 36.40	5/1	\$ 5.91	5/7	\$ 456.7	5 5/7	\$	118.68
Change: Jan 11 to now		\$ (20.67)		\$ (25.5	1)	\$ (26.84)	\$ (50.76)		\$ 246.7	2	\$	46.18
Change (%): Jan 11 to now													
change (76). Jan 11 to now		-16.6%		-16.8	%	-42.4%	6	-89.6%		117.5	%		63.7%

SP 500 (to-date): peak on Feb 19; bottom on Mar 23

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S	nap	sh	ot	of	M	arl	ket	C	ha	nge	es
Major COVID19 Events				Daily	CME Closir	ng Values (\$/cwt)			Equities	
		Live (Cattle	Feeder	r Cattle	Lean	Hogs	Class I	II Milk	SP500 Close	
	Market Date	JUN	ОСТ	MAY	ОСТ	MAY	ОСТ	MAY	ОСТ		
China's first reported death, Jan 11	1/10	\$ 119.78	\$ 119.40	\$ 151.20	\$ 156.90	\$ 80.72	\$ 74.93	\$ 17.24	\$ 17.68	\$3,265.35	
US's first reported death on American soil, Feb 29	3/2	\$ 103.97	\$ 109.20	\$ 135.98	\$ 146.48	\$ 68.97	\$ 67.55	\$ 16.33	\$ 17.22	\$3,090.23	
WHO declared pandemic, Mar 11	3/11	\$ 97.25	\$ 101.30	\$ 125.25	\$ 134.18	\$ 70.20	\$ 68.35	\$ 15.99	\$ 16.98	\$2,741.38	
US declares national emergency, Mar 13	3/13	\$ 89.75	\$ 93.80	\$ 114.47	\$ 122.93	\$ 62.70	\$ 60.88	\$ 15.81	\$ 16.77	\$2,711.02	Lots of variability since
About 80% of Americans under lockdown, Mar 31	3/31	\$ 92.07	\$ 96.95	\$ 122.90	\$ 129.40	\$ 52.97	\$ 56.90	\$ 12.70	\$ 14.75	\$2,584.59	3/11!
	5/7	\$ 93.75	\$ 104.03	\$ 124.10	\$ 135.08	\$ 68.95	\$ 56.60	\$ 11.50	\$ 16.37	\$2,881.19	
Change: Jan 11 to now		\$ (26.03)	\$ (15.38)	\$ (27.10)	\$ (21.83)	\$ (11.77)	\$ (18.33)	\$ (5.74)	\$ (1.31)	\$ (384.16)	

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Change (%): Jan 11 to now

SP 500 (to-date): peak on Feb 19; bottom on Mar 23

-13.9%

-14.6%

-24.5%

-17.9%

-21.7%

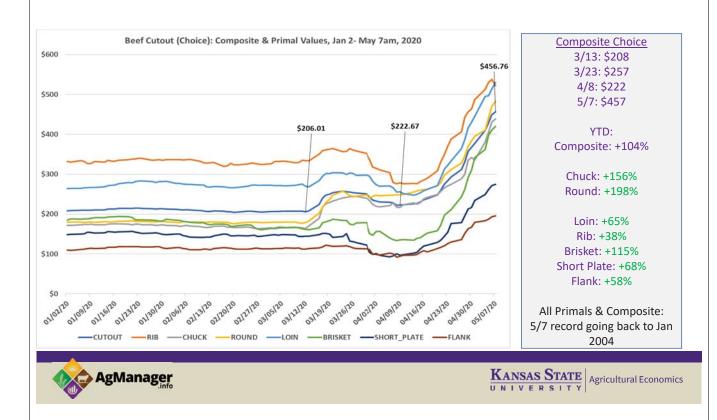
-12.9%

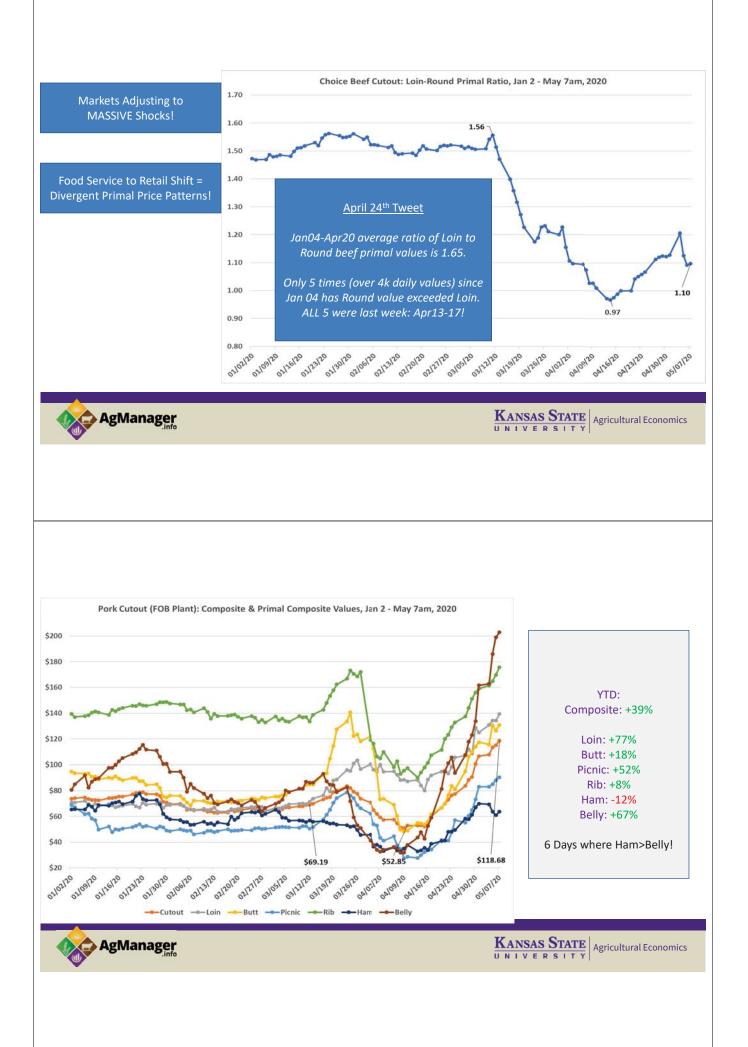
-7.4%

-11.8%

-33.3%

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Cutout-to-Livestock Prices / Gross Margins

JAYSON LUSK Food and Agricultural Economist

http://jaysonlusk.com/blog/2020/5/4 /beef-marketing-margins

BEEF MARKETING MARGINS

May 4, 2020

1. GT agrees /Markets are attempting to work this out!

- Reduced demand for animals (lower livestock prices)
- Reduced supply (currently) of meat + Higher operating costs (higher wholesale meat prices)
 - If "packers are getting rich" why wouldn't plants regularly restrict volume flow and/or show better stock market returns in 2020?
 - *It is fine to examine with an honest eye for improvement / actions simply out of emotion are rarely helpful*



Why doesn't X% change in livestock \$ = X% change in wholesale meat \$ = X% change in \$ paid by consumers?

✓ Never has – GT does not suggest it "should" or that would "be fair"...

Different supply & demand relationships at each level

Live animals are a key input, but not sole input in wholesale meat productionWholesale meat is a key ingredient, but not sole input in final products for consumers

Sectors vary in fixed/variable cost mix, ability to adjust to demand signals given fixity of assets, etc.



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Shouldn't we just stop imports & exports... 1. NO, NO, NO

Equates to shooting your own foot!

- A. We import & export different products,
- B. Without trade, US livestock sector has to NOTABLY shrink,
- C. History is repeating itself and it concerns GT Google "Smoot-Hawley Tariff Act of 1930"

Consider logic behind KS being a large net-importer of feeder cattle...

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https://www.agmanager.info/livestock-meat/marketing-extensionbulletins/marketing-strategies-and-livestock-pricing/fed-cattle

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Since 4/28, CME

- Live Cattle
- Jun +\$7/cwt
- Oct: +\$7/cwt

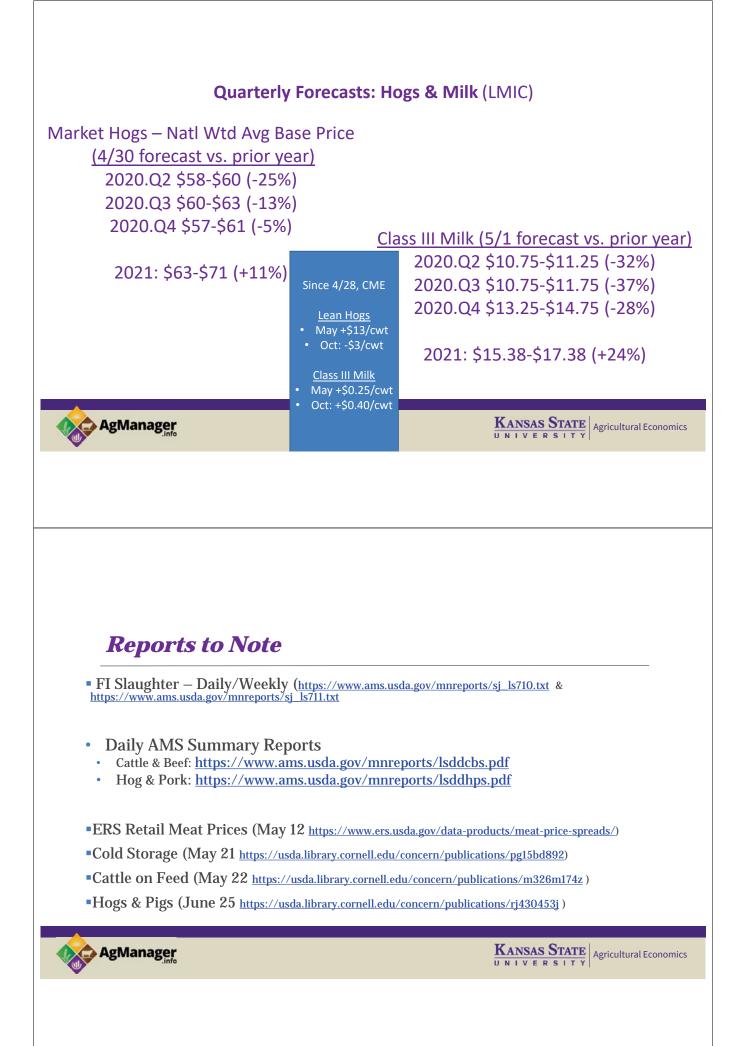
Feeder Cattle May +\$9/cwt

• Oct: +\$9/cwt

	Live Sltr.	Live Sltr. % Chg. Feeder Stee				
Year	Steer Price	from	Southern	Plains		
Quarter	5-Mkt Avg	Year Ago	7-800#	5-600#		
2019						
I	125.27	-0.3	142.87	171.41		
II	118.79	1.8	143.23	167.22		
111	108	-2.4	144	157		
IV	115	-0.4	148	158		
Year	117	-0.3	145	163		
2020						
I	118.27	-6.6	138.90	166.38		
П	99-102	-15.4	120-123	150-153		
III	102-107	-3.4	126-130	155-159		
IV	112-117	-0.3	135-140	162-167		
Year	108-110	-6.7	131-134	158-162		
2021						
I	120-125	3.6	142-148	168-174		
II	121-127	23.4	145-152	170-177		
111	114-121	12.4	151-160	167-175		
IV	117-125	5.7	153-163	167-176		
Year	119-122	10.6	150-154	169-173		

Quarterly Forecasts: Cattle (LMIC: 4/28/20)





Final Remarks

Meat Flow Altered – Actually Likely Up in 2020 (Use "shortage" carefully)

	Q1	6,842	14.5	822	7,386	13.4	215
	Q2	6,969	14.7	811	6,891	12.5	215
	Q3	6,937	14.3	824	6,939	12.7	210
	Q4	6,918	14.3	827	7,698	13.8	214
	Year	27,666	57.8	821	28,914	52.4	214
LMIC As of 4/28 2020		Commercial Beef Prod (mil Ibs)	Per Capita Beef Cons. (Ibs)	Carcass Wt (Ibs)	Commercial Pork Prod (mil lbs)	Per Capita Pork Cons. (Ibs)	Carcass Wt (lbs)
	Q1	6,929	14.7	825	7,426	13.3	215
	Q2	6,447	13.7	815	6,910	12.7	216
	Q3	7,319	14.6	832	6,981	12.8	211
	Q4	7,186	14.9	833	7,665	13.7	215
	Year	27,881	57.9	827	28,982	52.5	214
% Change vs Last	Voor	0.78%	0.17%	0.73%	0.24%	0.19%	0.00%





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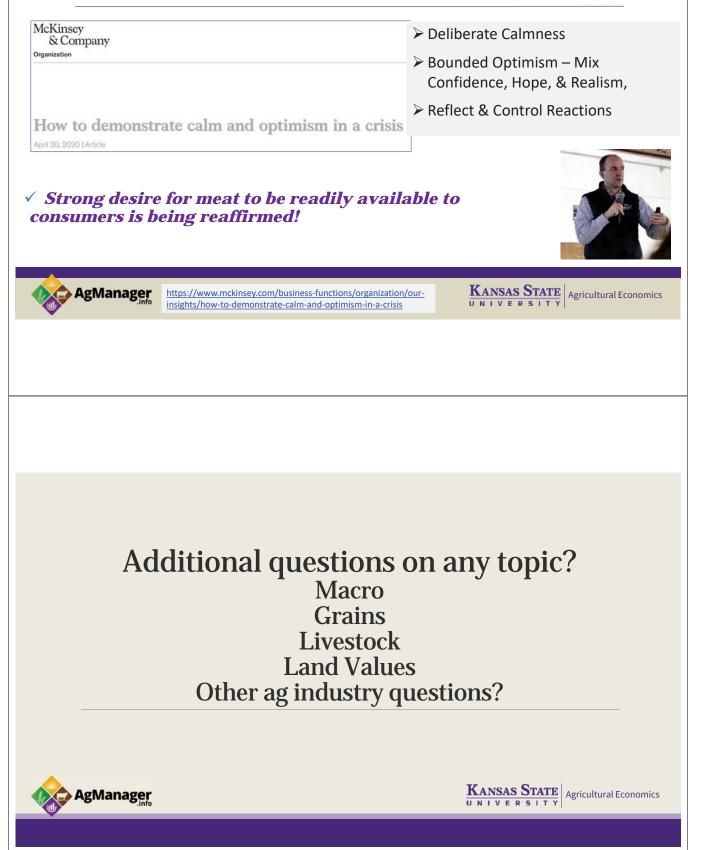
Final Remarks

- Main economic impact to-date is on production sector
- Efforts to "solve the problem" must be approached with caution!
 - > Delicate balance: peace-time system efficiency with crisis-time resiliency/survival
 - Keep comparative advantages in mind!
 Global competitiveness at stake = long-term econ consequences





Final Remarks: Society Will Prevail!



More information available at:



This presentation will be available in PDF format at: http://www.agmanager.info/about/contributors/individual/tonsor.asp

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Additional questions: "Will the government buy market weight livestock to be euthanized and land filled?"

<u>Response</u>

TBD Swine euthanization occurring with calls for gov't payment

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Additional questions:

"Include a progress report on the DOJ/USDA investigation On price fixing by the packers and effect on markets."

Response

There is nothing official I can provide as an update

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Additional questions:

"Can you include information about specific impacts of the cold storage supplies for beef, pork and chicken? Pre-Sold and export vs. domestic supply? Also, what are your thoughts about the current progress of the Phase 1 China FTA?"

Response

CS: Entered April w/~10 days supply (in broad aggregate) Can't break down precisely pre-sold, export, etc. as reported

FTA Progress can be tracked – current volume vs. announcements

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Additional questions:

"Impact on retail meat prices and product availability with a major grocery chain limiting meat purchases."

<u>Response</u>

Retailers will have mix of rationing, change in variety available, & higher prices in May Consumers may expect ~20% higher prices in May X% increase in wholesale price = <X% retail increase normally

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Additional questions:

"Historical packer margin, fat cattle at 10-yr low, price of retail beef not tied to the price of live cattle, fat cattle auction low quality & limited, few packers with ownership by China and Brazil, feedlots little negotiation power, what is needed?"

<u>Response</u>

This is mainly an opinion & comment

"What is needed" depends on the goal: social efficiency of beef production, increased economic well-being of a specific sector, or otherwise...



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Utilize a Wealth of Information Available at AgManager.info

About AgManager.info

AgManager.info website is a comprehensive source of information, analysis, and decision-making tools for agricultural producers, agribusinesses, and others. The site serves as a clearinghouse for applied outreach information emanating from the Department of Agricultural Economics at Kansas State University. It was created by combining departmental and faculty sites as well as creating new features exclusive to the AgManager.info site. The goal of this coordination is to improve the organization of web-based material and allow greater access for agricultural producers and other clientele.



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- Projected Feeder Cattle Prices (/livestock-meat/projected-feeder-cattle-prices)
- Cattle Finishing Returns (/livestock-meat/cattle-finishing-historical-and-projected-returns)
- Meat Demand (/livestock-meat/meat-demand)
 - Monthly Domestic Meat Demand Indices [USDA/BLS Data] (/livestock-meat/meatdemand/monthly-domestic-meat-demand-indices-usdabls-data)
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