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# Hog/pork market

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**Lee Schulz**

Dept. of Economics, Iowa State University  
lschulz@iastate.edu

1. Transparency and the hog/pork market
2. “Lessons learned” from 2020 – An analyst’s perspective
3. What is the current situation and outlook?



The banner features the USDA logo and text on a blue background. On the left, there is an image of a hand pointing at a tablet displaying a field of crops. The main text is in white and green, and the bottom section is on a dark blue background with white text.

USDA United States Department of Agriculture

**USDA's 97th Annual Agricultural Outlook Forum**  
*Building on Innovation:  
A Pathway to Resilience*

February 18-19, 2021 • <https://www.usda.gov/oce/ag-outlook-forum>

# COVID-19: It's Not a Repeat of the 1990s for Pig Farmers



By **JENNIFER SHIKE** April 15, 2020



## Livestock Mandatory Reporting Background

In the mid-1990's, there were growing concerns in the industry and Congress over packer concentration as meat packing companies were consolidating and getting larger. This was captured in a 1996 report, [Pork Price Reporting Improvement Initiative](#), as a survey of pork industry packers. In the fall of 1998, the swine industry faced an oversupply situation, and negotiated slaughter hog prices fell to historically low levels. At the same time, some hog producers were engaged in alternative formula contracts that did not decline in value as much. The resulting outcry from this scenario and the ongoing concentration concerns prompted Congress to pass the [Livestock Mandatory Reporting Act of 1999](#) (1999 Act) [Pub. L. 106-78, Title IX].

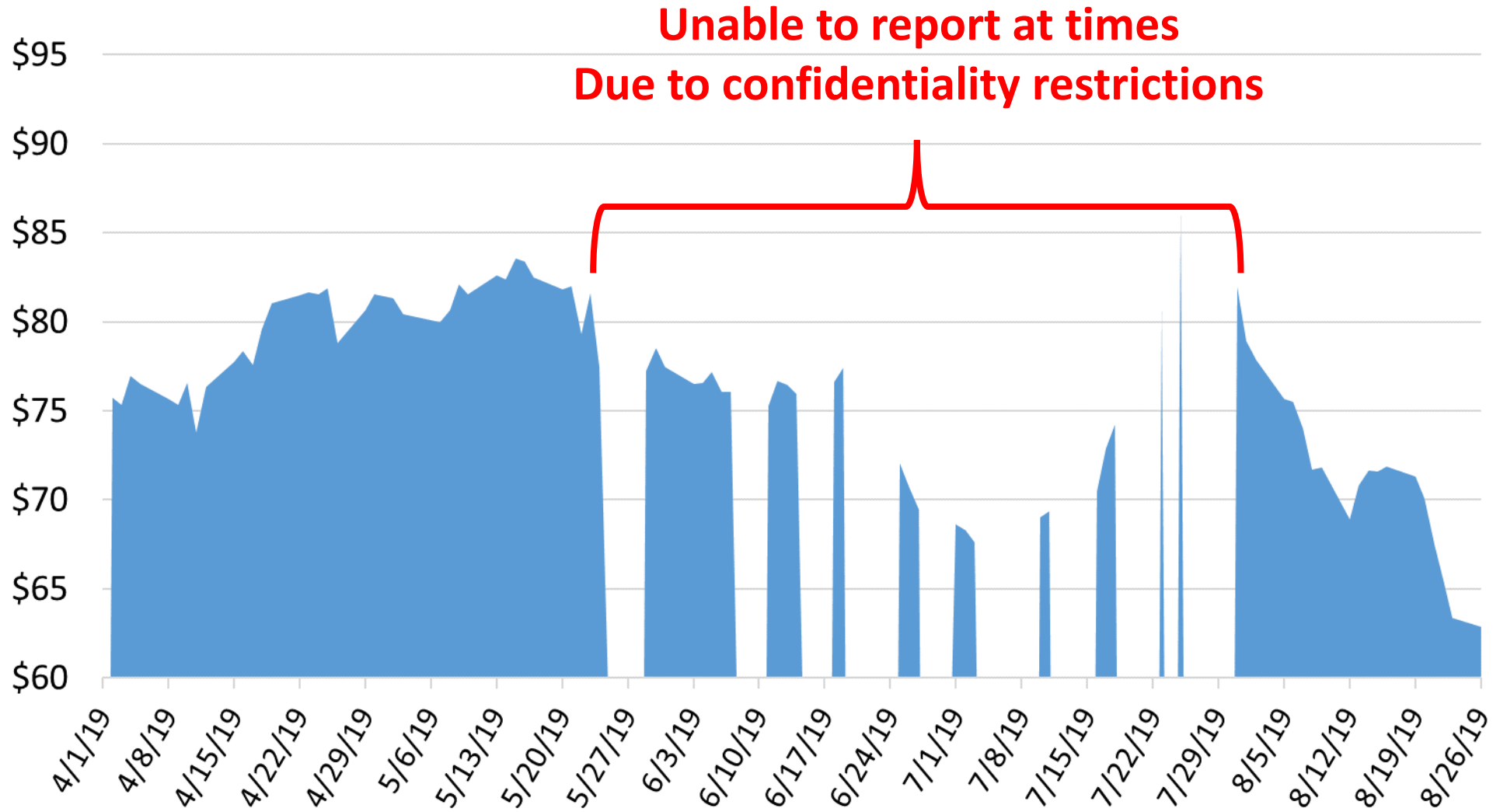
<https://www.ams.usda.gov/sites/default/files/media/LivestockMandatoryReportingBackground.pdf>

# WESTERN CORNBELT NEGOTIATED HOG PRICE

Daily, Barrows & Gilts, Producer and Packer Sold

\$/cwt

\$100



Data Source: USDA-AMS-LPGMN; Compiled by LMIC

LM\_HG208 Western Cornbelt Daily Direct Hog Prior Day – Purchased Swine by Plant Location



Livestock, Poultry, and  
Grain Market News  
Division

1400 Independence Avenue, SW.  
Room 2619-S, STOP 0252  
Washington, DC 20250-0252

## USDA Market News Revises Regional Swine Market Reports

On July 31, 2019, USDA's Agricultural Marketing Service (AMS) will revise its Livestock Mandatory Reporting (LMR) direct swine reports to provide more continuous coverage of the regional negotiated swine markets.

Since the implementation of LMR in 2001, the volume of barrows and gilts purchased on a negotiated basis has declined from 17 percent of the market to about 1 percent today. The thinness of the negotiated market has made it increasingly difficult for AMS to publish regional market information while maintaining the confidentiality requirements set forth in the statute.

As requested by the pork industry, AMS will publish only weighted average prices for carcass and live basis negotiated barrows and gilts and not show the daily volumes or price ranges on the Iowa-Minnesota, Western Cornbelt, and Eastern Cornbelt regional daily and prior day swine purchase reports going forward. This revision allows AMS to publish as much regional data as possible while preserving confidentiality. The National swine purchase reports will continue to include volume, price ranges, and weighted average prices for the negotiated barrow and gilt market. The other swine purchase types – other market formula, swine or pork market formula, and other purchase arrangement – are not impacted by this revision.

To access AMS direct swine reports, visit: [www.ams.usda.gov/market-news/swine-direct-reports](http://www.ams.usda.gov/market-news/swine-direct-reports). For more information on LMR, visit: [www.ams.usda.gov/rules-regulations/mmr](http://www.ams.usda.gov/rules-regulations/mmr). For additional information, contact Taylor Cox, Livestock, Poultry, and Grain Market News Field Chief, at (515) 284-4460.




# USDA Market News Moves Hog Reports to One Convenient Format

**Date:** November 18, 2020

Beginning Dec. 7, 2020, the U.S. Department of Agriculture's (USDA) Prior Day Hog Purchase Reports ([LM\\_HG218 \(pdf\)](#) and [LM\\_HG234 \(LMR\)](#)). These all-inclusive USDA Market News reports will provide and replace the individual national and regional reports, which will to the new format, customers will continue to have seamless access continue to be available using various platforms such as [DataMart](#), Similar to the Daily Direct Hog Reports ([LM\\_HG216](#) and [LM\\_HG217](#)) information from the Eastern Cornbelt, Iowa-Minnesota and Western information into a single report versus four separate reports. The reports barrows and gilts as well as sows and boars on a carcass and live basis and state of origin. Moreover, customers will see an improved [Negotiated](#) as additional purchase type data for all classes, specifically Other Market not previously reported.

To access direct swine reports, visit: [www.ams.usda.gov/market-news](http://www.ams.usda.gov/market-news) [www.ams.usda.gov/rules-regulations/mmr](http://www.ams.usda.gov/rules-regulations/mmr). For additional information

<https://www.ams.usda.gov/content/usda-mn-moves-hog-reports-one-convenient-format>



Iowa/Minnesota Daily Direct Prior Day Hog Report Based on State of Origin

Agricultural Marketing Service  
Livestock, Poultry, and Grain Market News

December 31, 2020  
[LM\\_HG218](#) ~~[LM\\_HG204](#)~~

Email us with accessibility issues regarding this report.

Special Note: Starting January 4th, 2021, this information will transition to a more user-friendly and accessible format at [https://www.ams.usda.gov/mnreports/ams\\_3458.pdf](https://www.ams.usda.gov/mnreports/ams_3458.pdf)

Plant Delivered Purchase Data For Wednesday, December 30, 2020

Current Volume By Purchase Type  
Barrows & Gilts Live and Carcass Basis

	Actual Prior Day	Actual Week Ago	Actual Year Ago
<b>Purchased Swine (Including Packer Sold)</b>			
<del>Producer Sold</del>			
Negotiated	5,213		13,324
Other Market Formula (Futures/Options)	14,508		19,075
Swine or Pork Market Formula	63,885		63,538
Other Purchase Arrangement	25,740		42,669
Negotiated Formula	0	0	0
Packer Sold (all purchase types)	11,640	0	9,551

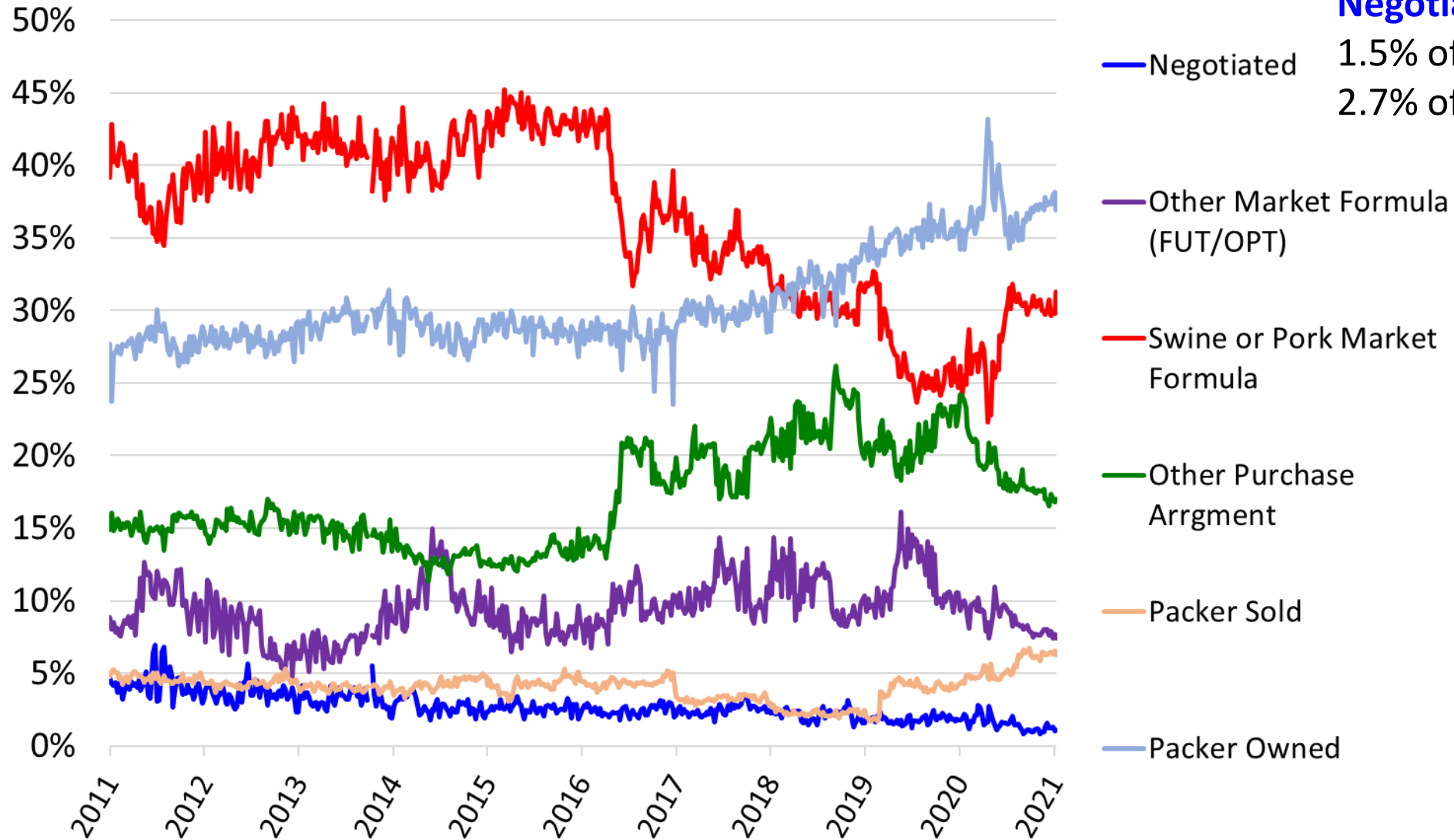
  

	Negotiated	Other Market Formula (FUT/OPT)**	Swine or Pork Market Formula	Other Purchase Arrgmt	Negotiated Formula	<del>Totals/ Wed / Avg</del>
Barrows & Gilts (carcass basis):						
<del>Producer Sold</del>						
Head Count	5,213	14,508	63,608	25,740	0	<del>109,069</del>
Base Price	50.18	63.12	59.32	62.25	*	<del>60.08</del>
<del>Packer Sold</del>						
Head Count	11,640					<del>11,640</del>
Base Price	58.19					<del>58.19</del>

**More Detail** ↑

# NATIONAL HEAD COUNT BY PURCHASE TYPE

Weekly, Barrows & Gilts, Producer and Packer Sold/Owned



**Negotiated in 2020**

1.5% of All

2.7% of Producer sold

— Negotiated

— Other Market Formula (FUT/OPT)

— Swine or Pork Market Formula

— Other Purchase Arrangement

— Packer Sold

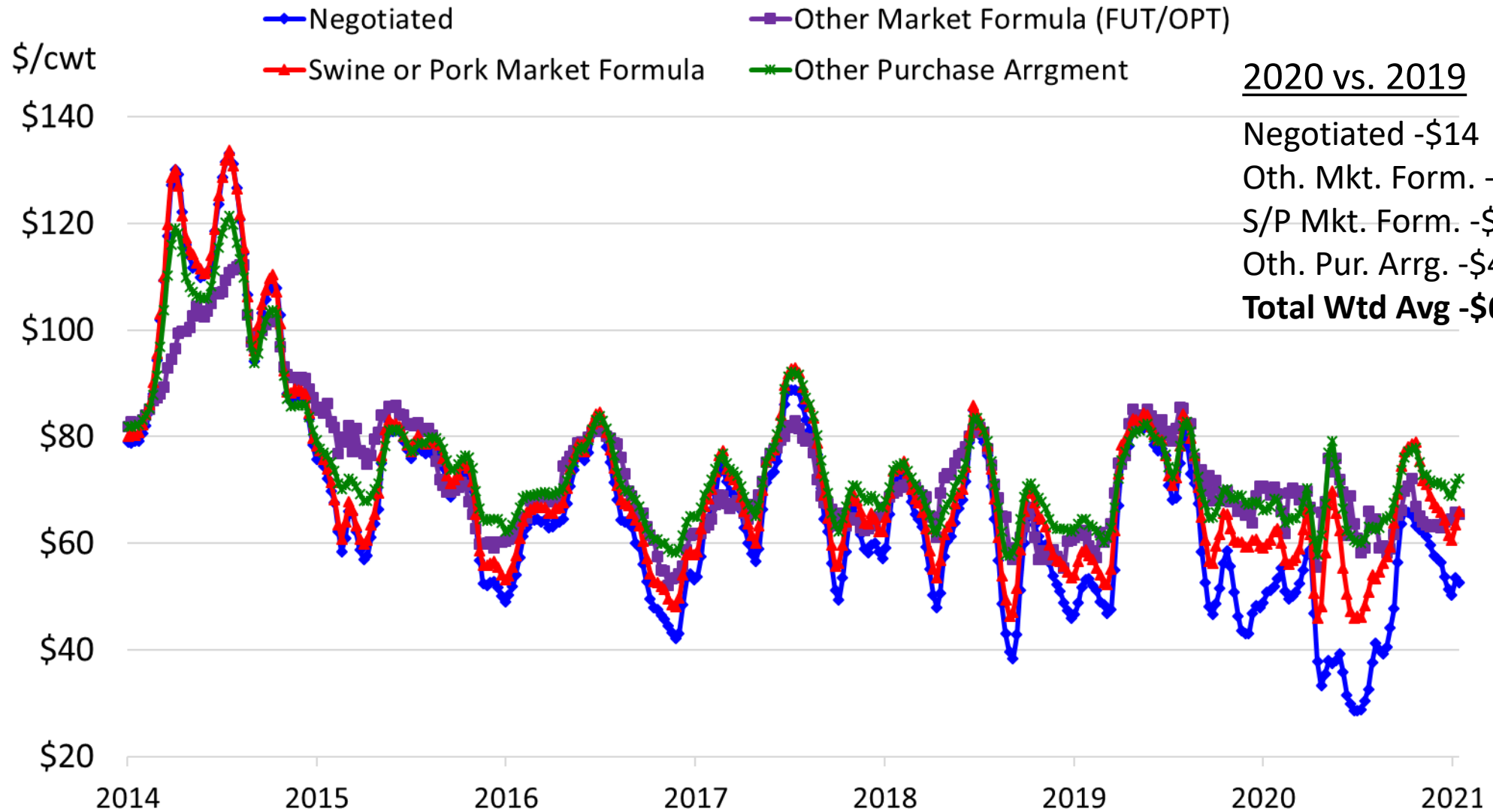
— Packer Owned

Data Source: USDA-AMS-LPGMN; Compiled by LMIC

LM\_HG201 National Daily Direct Hog Prior Day – Slaughtered Swine

# NATIONAL NET CARCASS PRICES

Weekly, Barrows & Gilts, Producer Sold

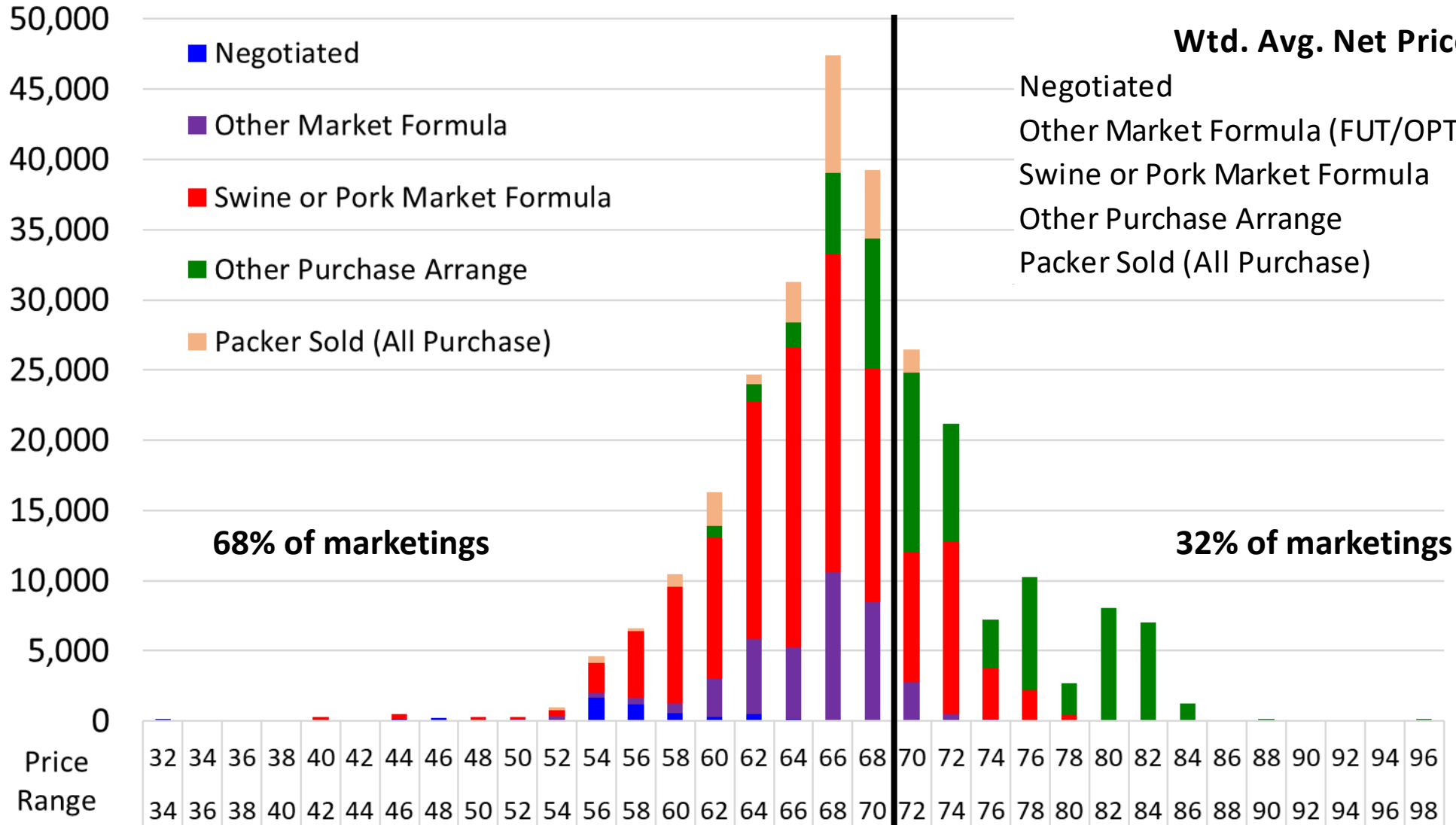




# NATIONAL NET PRICE DISTRIBUTION

January 21, 2021, Barrows & Gilts

Head Count





## Swine Contract Library Information

HOME > RULES & REGULATIONS

### Regulated Entities

Regulated Entities

Dealers

Markets

Packers

Swine Contractors

Live Poultry Dealers

Frequently Asked Questions

Contact Us

P&S Act and Regulations

The Packers and Stockyard Act (P&S Act) as mandated by the Agricultural Marketing Act of 1937, requires the U.S. Department of Agriculture to establish and maintain a Swine Contract Library (SCL) for the purchase of swine (including live swine and carcasses) through a price discovery process and to provide information to the public regarding the SCL.

[Frequently Asked Questions](#)

**Submitting Information**

- [Current Forms and Instructions](#)
- [Instructions for Using the SCL](#)
- [SCL Submission Site](#)
- [Other submission methods](#)

## Swine Packer Marketing Contract Summary - Iowa Minnesota Swine or Pork Market Formula

### Determination of Base Price 530

#### All Reports Referenced

LM\_HG203, Negotiated Base Weighted Average Range, 2 days prior to delivery

LM\_PK602, Pork Carcass Cutout, 2 days prior to delivery

#### Other Terms

Final Price = 35% (Cutout Value + Cutout Premium) + 65% (Weighted Average + Weighted Average Premium) + Carcass Merit Adjustment

Premium/Discount Type: Carcass Merit; See Schedule: 64

Premium/Discount Type: Sort; See Schedule: 85

Premium/Discount Type: Cutout Premium, (\$13.25)

Premium/Discount Type: Weighted Average Premium

### Determination of Base Price 1475

#### All Reports Referenced

LM\_HG212, Negotiated Base Weighted Average, Two Days Prior to Delivery

#### Other Terms

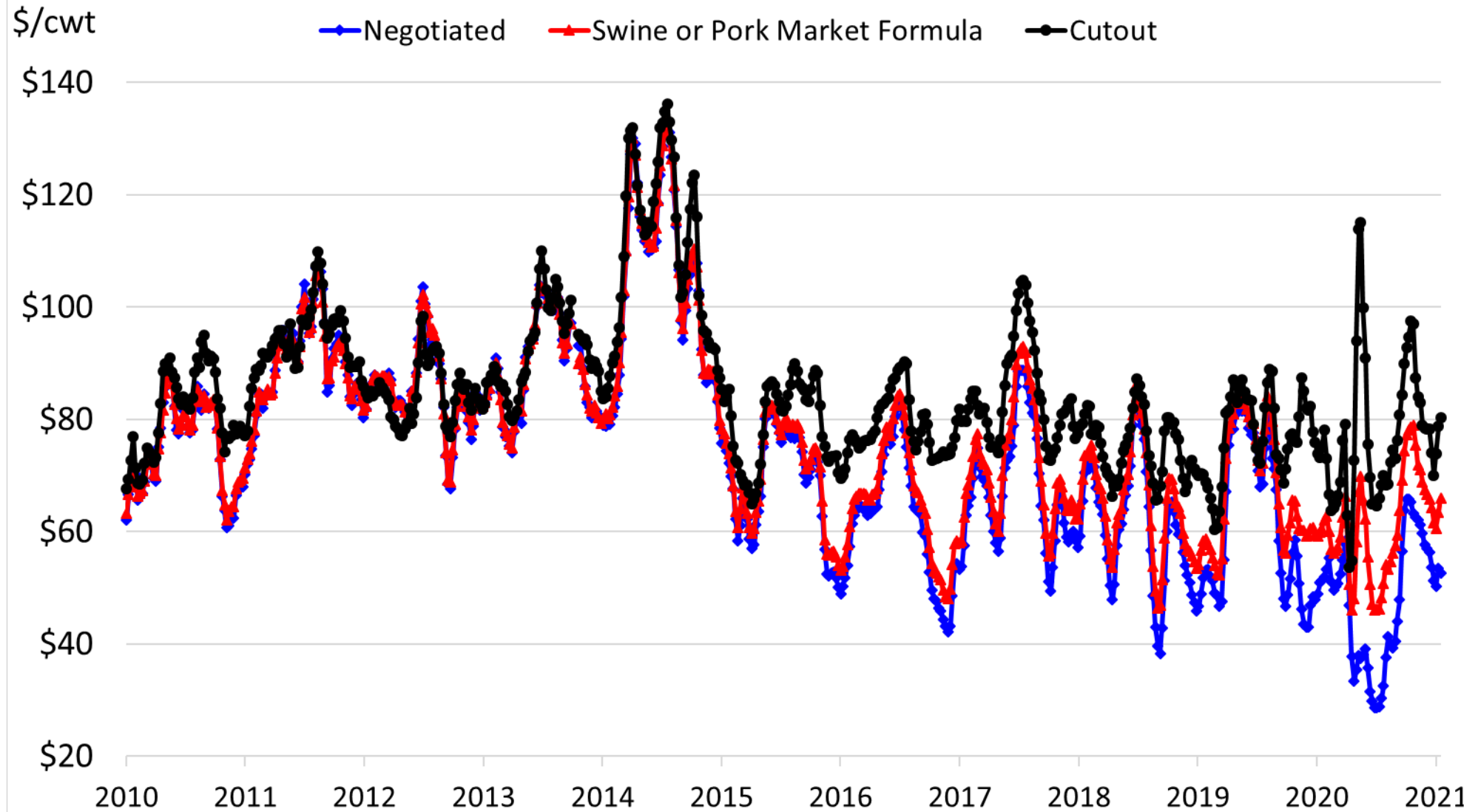
Premium/Discount Type: Carcass Merit; See Schedule: 64

Premium/Discount Type: Sort; See Schedule: 85

Premium/Discount Type: Contract Premium, (\$1.00)

# NATIONAL NET CARCASS PRICES

Weekly, Barrows & Gilts, Producer Sold



# Correlations, Weekly Average Prices

<b>2014-2018</b>	<b>Swine or</b>					
	<b>Cutout</b>	<b>Negotiated</b>	<b>Pork Market Formula</b>	<b>CME Lean Hog Index</b>	<b>Producer Sold Hogs</b>	<b>All Hogs</b>
<b>Cutout</b>	1					
<b>Negotiated</b>	0.95203	1				
<b>Swine or Pork Market Formula</b>	0.96352	0.99804	1			
<b>CME Lean Hog Index</b>	0.96225	0.99851	0.99980	1		
<b>Producer Sold Hogs</b>	0.95892	0.99720	0.99850	0.99863	1	
<b>All Hogs</b>	0.95899	0.99732	0.99862	0.99867	0.99998	1

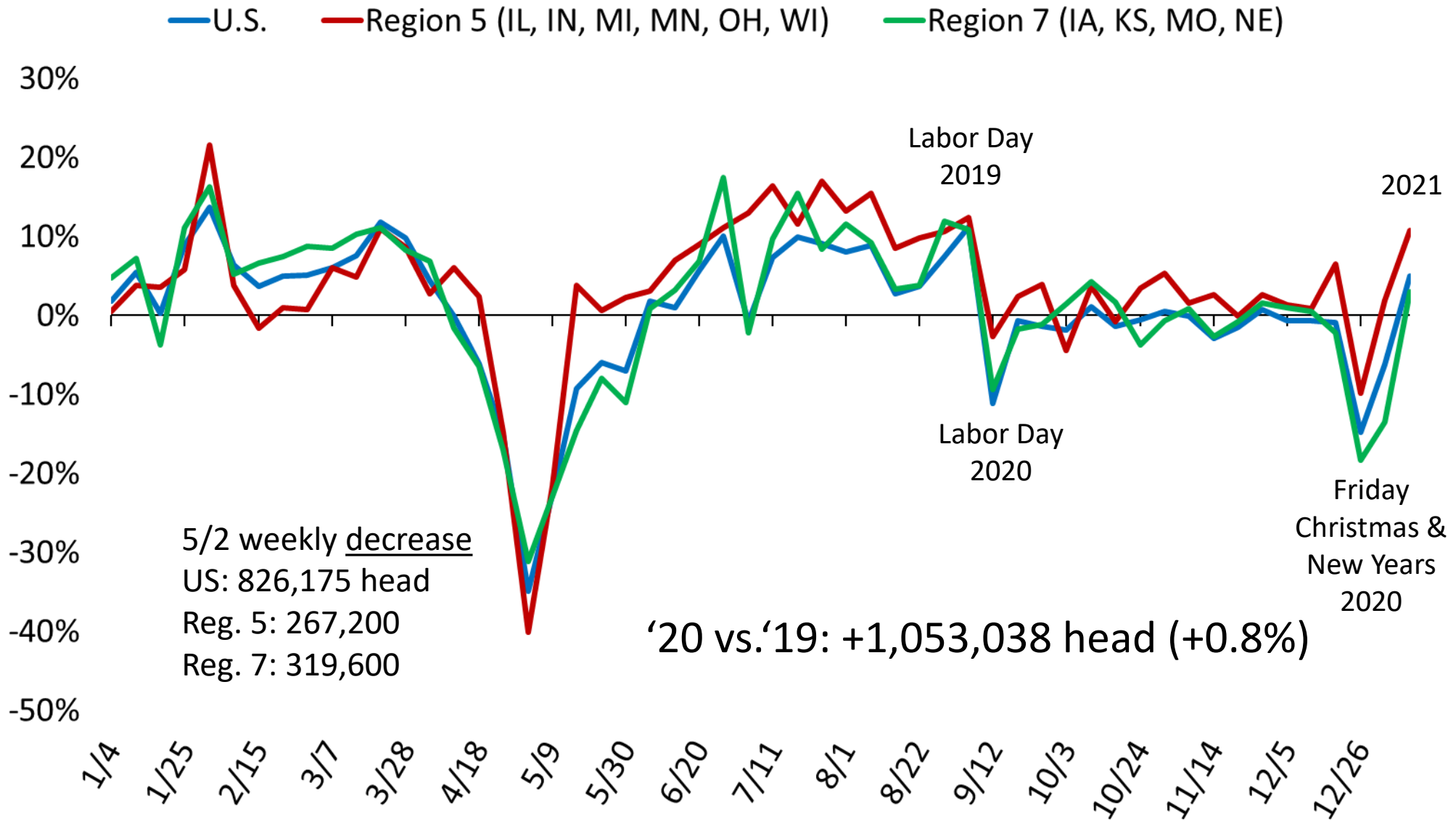
<b>2019-2020</b>	<b>Swine or</b>					
	<b>Cutout</b>	<b>Negotiated</b>	<b>Pork Market Formula</b>	<b>CME Lean Hog Index</b>	<b>Producer Sold Hogs</b>	<b>All Hogs</b>
<b>Cutout</b>	1					
<b>Negotiated</b>	0.32969	1				
<b>Swine or Pork Market Formula</b>	0.66517	0.91463	1			
<b>CME Lean Hog Index</b>	0.63318	0.92748	0.99846	1		
<b>Producer Sold Hogs</b>	0.67404	0.90089	0.99077	0.98797	1	
<b>All Hogs</b>	0.66681	0.90664	0.99242	0.98983	0.99963	1

Data Source: USDA-AMS-LPGMN & CME Group; Compiled by LMIC

LM\_HG201 National Daily Direct Hog Prior Day – Slaughtered Swine; LM\_PK602 National Daily Pork Report FOB Plant - Negotiated Sales – Afternoon



# Pct. Chg. ('20 vs. '19) in FI Hog Slaughter, Weekly

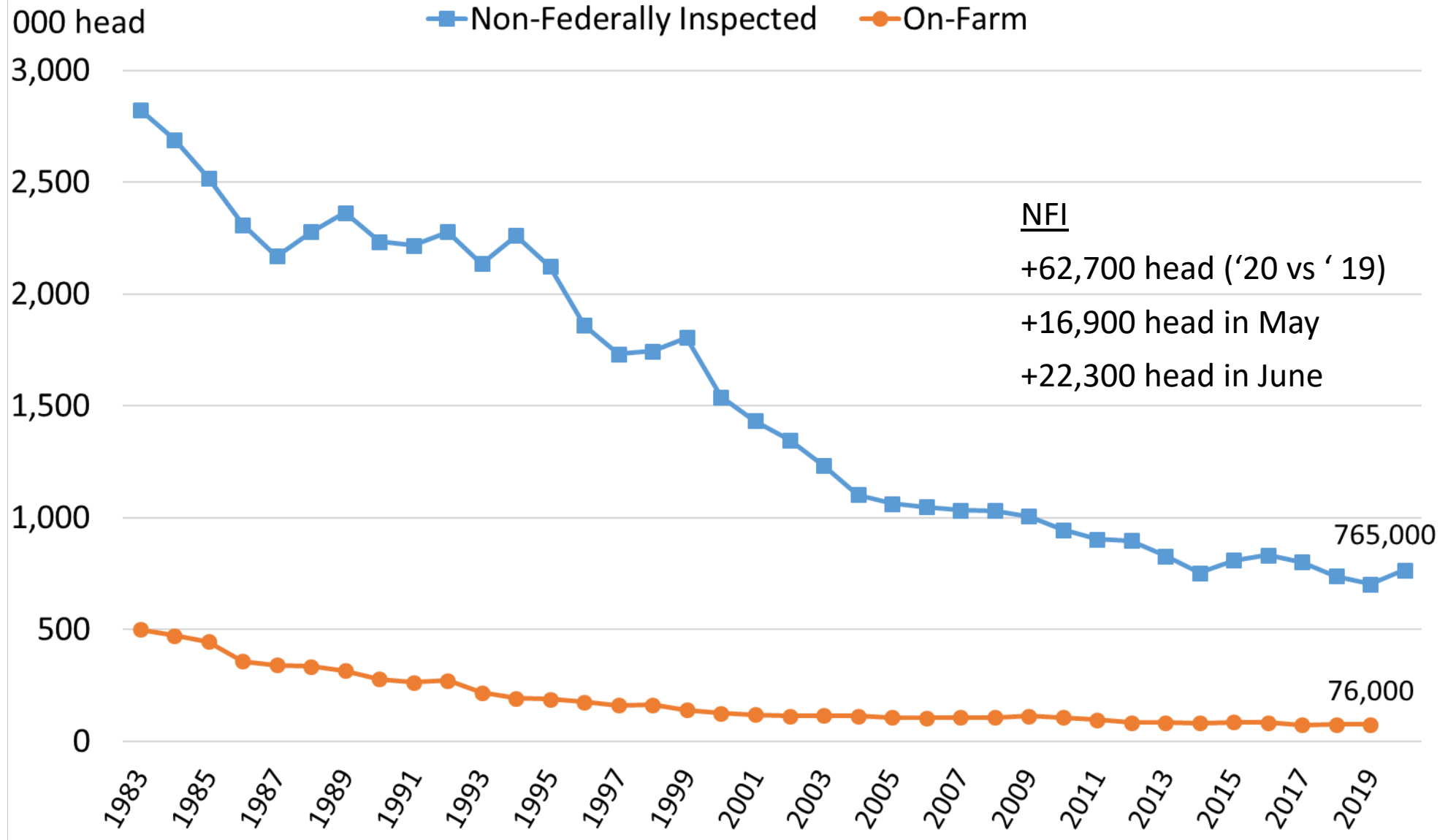


# Hogs Federally Inspected Plants and Head Slaughtered by Size Group –United States: 2019

<u>Size group</u>	Plants		Head		Head per		
	Num.	Pct.	Thou	Pct.	Year	Week	Day
1 - 999	396	64.0%	125.4	0.1%	317	6	1
1,000 - 9,999	123	19.9%	337.9	0.3%	2,747	53	10
10,000 - 99,999	39	6.3%	1,529.4	1.2%	39,215	754	140
100,000 - 249,999	18	2.9%	2,967.6	2.3%	164,867	3,171	587
250,000 - 499,999	7	1.1%	2,501.0	1.9%	357,286	6,871	1,272
500,000 - 999,999	3	0.5%	2,074.1	1.6%	691,367	13,296	2,462
1,000,000 - 1,999,999	6	1.0%	7,849.1	6.1%	1,308,183	25,157	4,659
2,000,000 - 2,999,999	12	1.9%	31,794.8	24.6%	2,649,567	50,953	9,436
3,000,000+	15	2.4%	80,031.5	61.9%	5,335,433	102,604	19,001
Total	619		129,210.8				

**Mid-point of ranges  
52 slaughter weeks  
5.4 slaughter days per week**

# ANNUAL NFI AND ON-FARM HOG SLAUGHTER

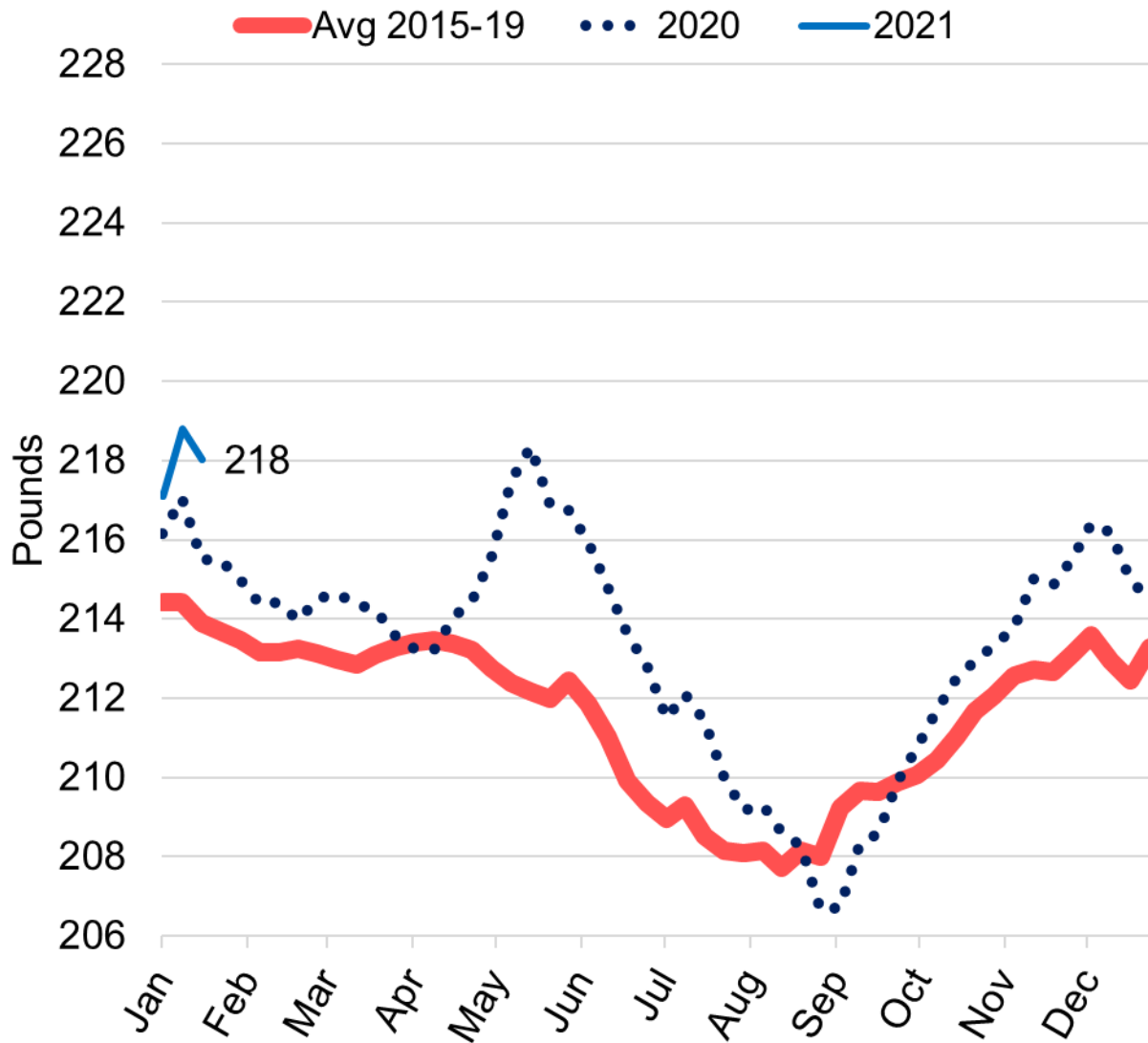


Data Source: USDA-NASS

Livestock Slaughter; Livestock Slaughter Annual Summary

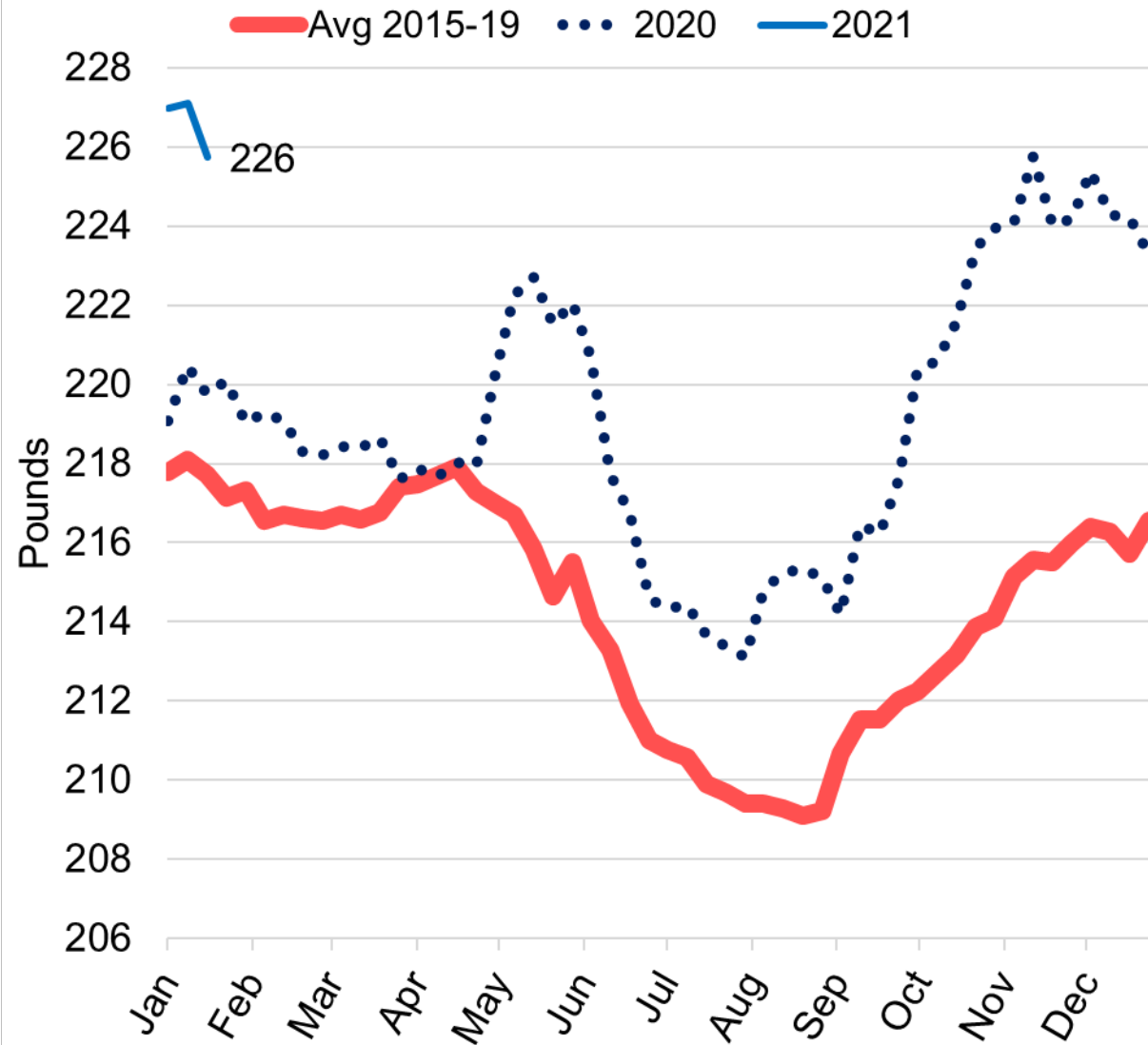
## NATIONAL AVERAGE CARCASS WEIGHT

Weekly, Barrow & Gilts, Producer Owned



## NATIONAL AVERAGE CARCASS WEIGHT

Weekly, Barrow & Gilts, Packer Owned



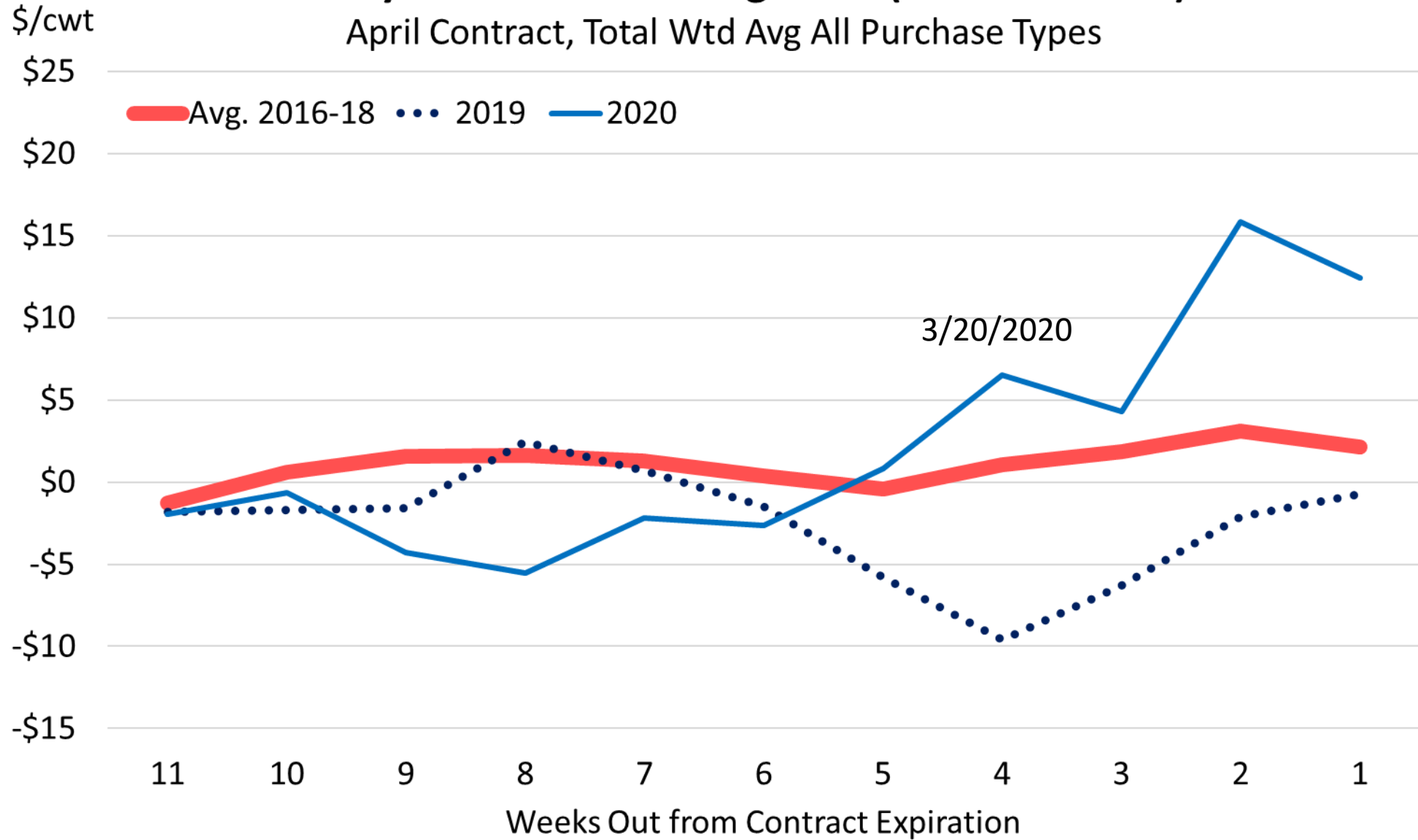
Data Source: USDA-AMS-LPGMN; Compiled by LMIC

LM\_HG201 National Daily Direct Hog Prior Day – Slaughtered Swine



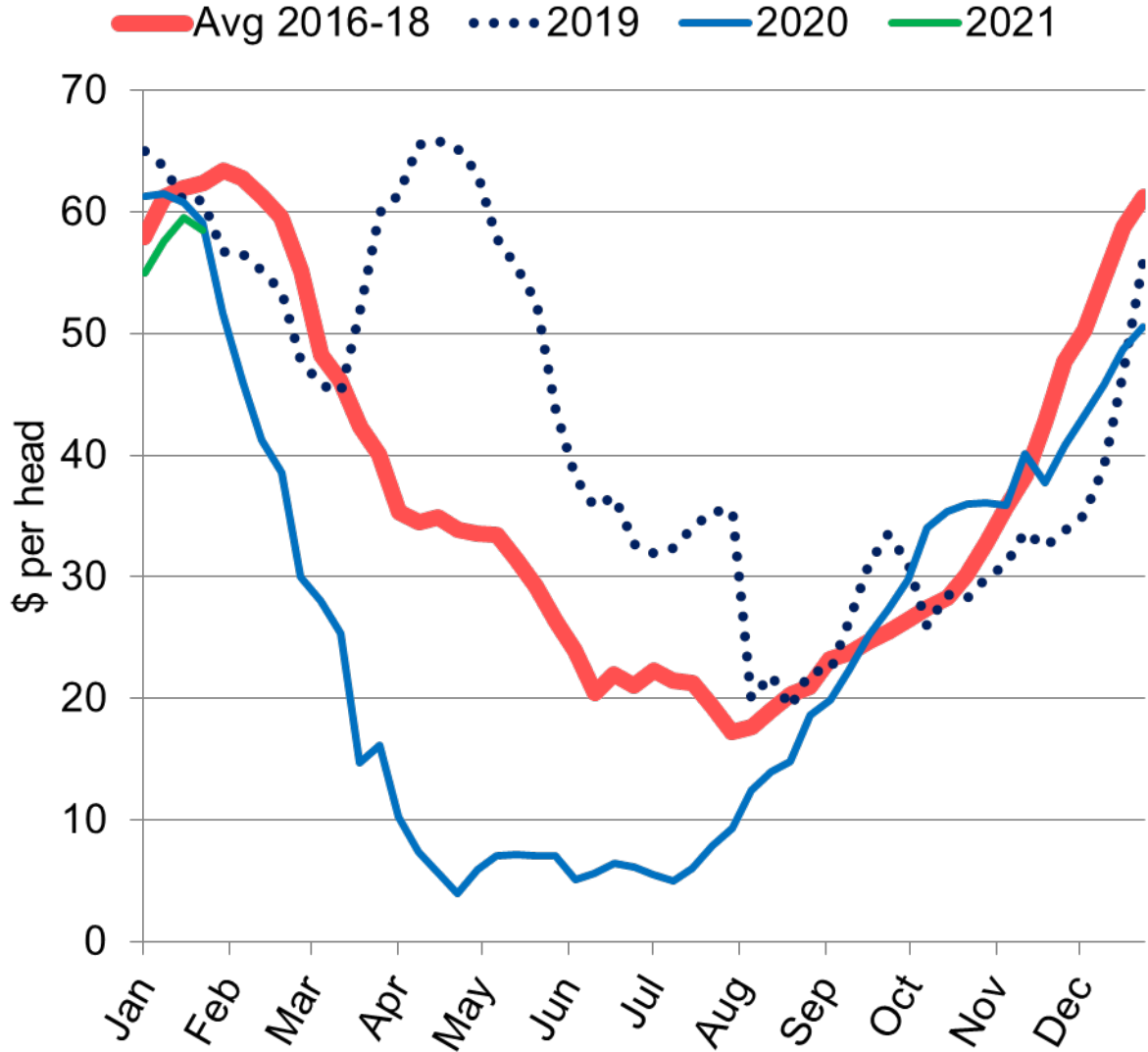
# Weekly National Lean Hog Basis (Cash - Futures)

April Contract, Total Wtd Avg All Purchase Types



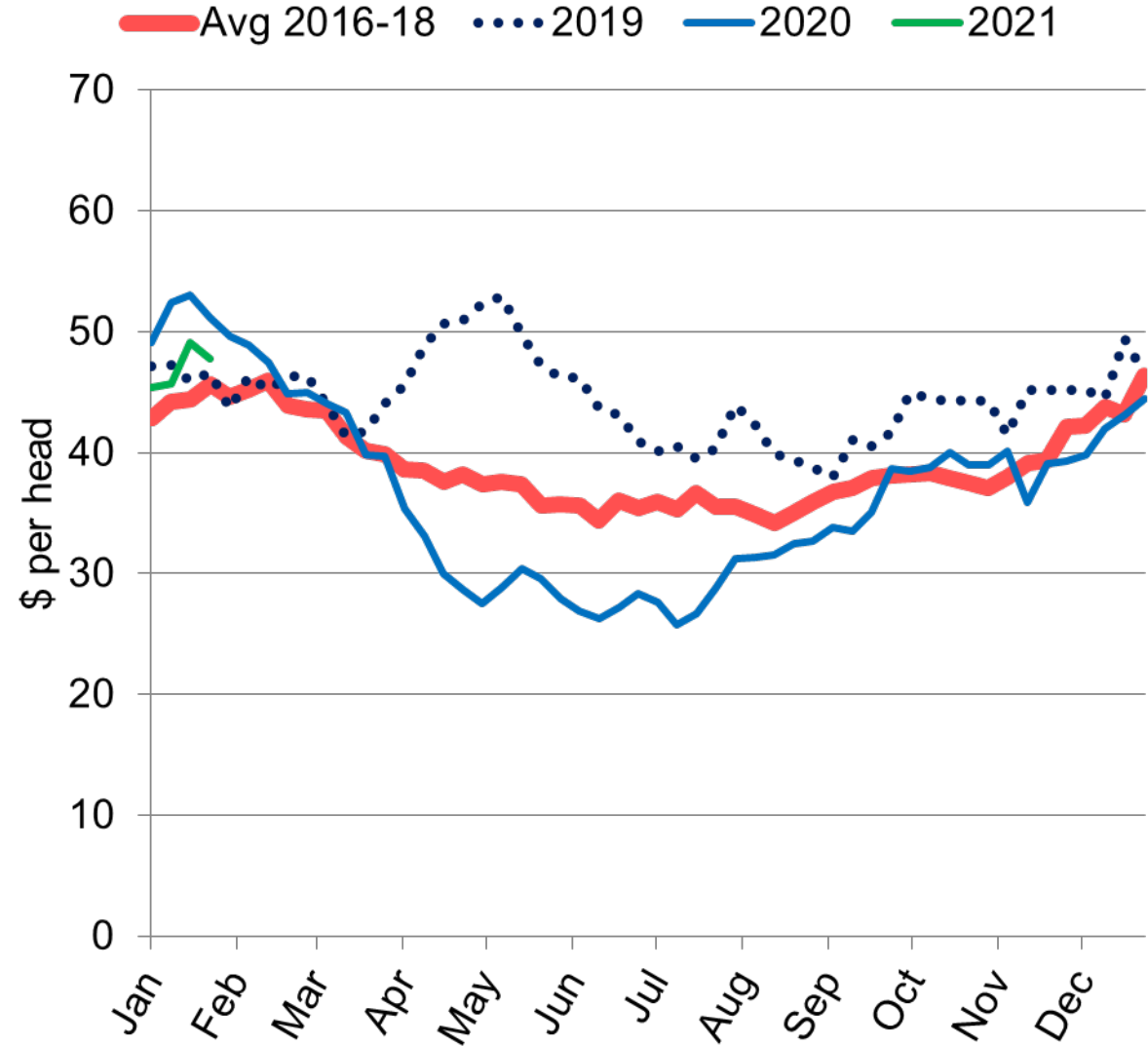
# Early Weaned Pig Prices

National, 10-12 lbs, Weekly Cash Trade



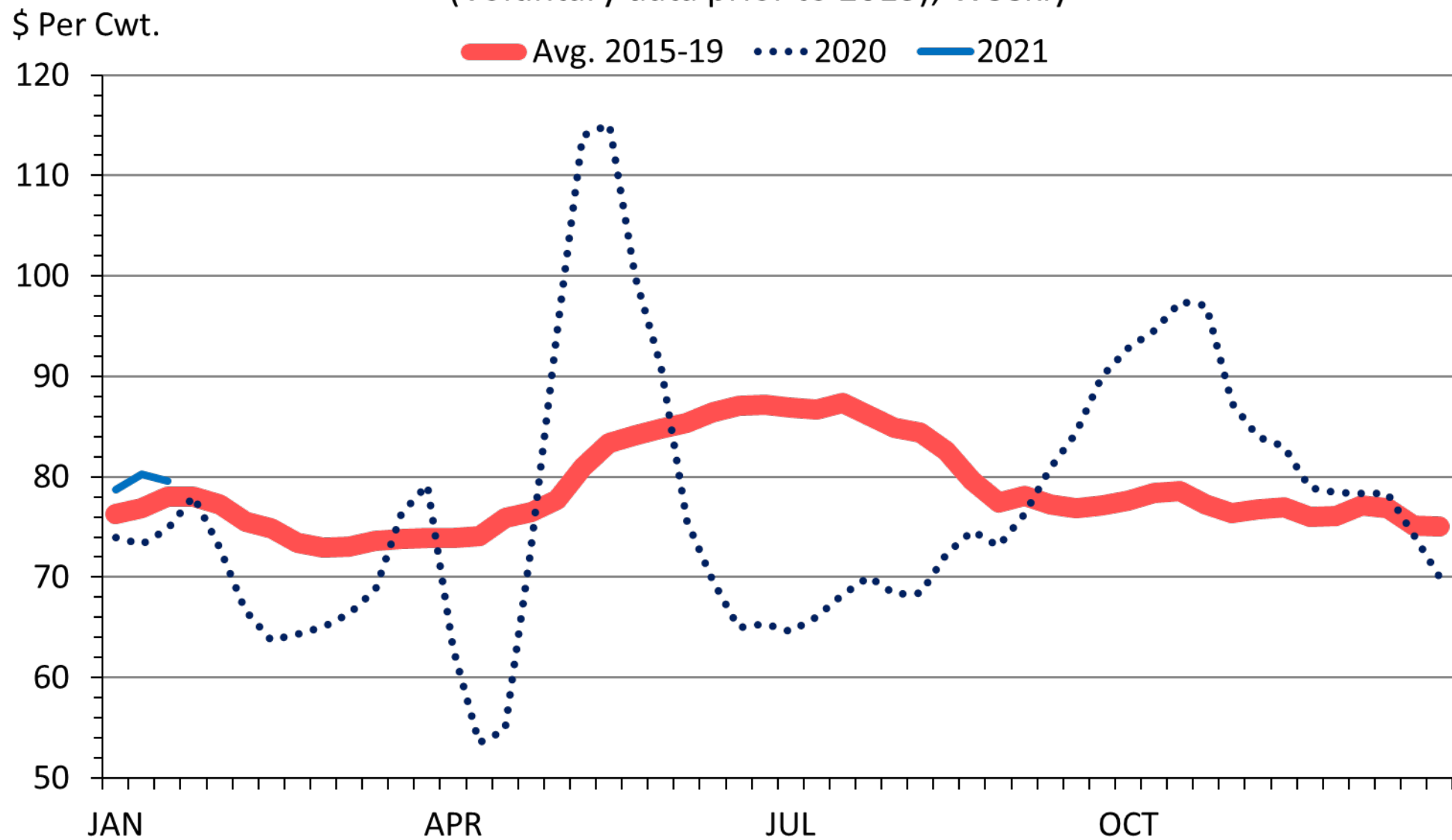
# Early Weaned Pig Prices

National, 10-12 lbs, Weekly Formula Trade



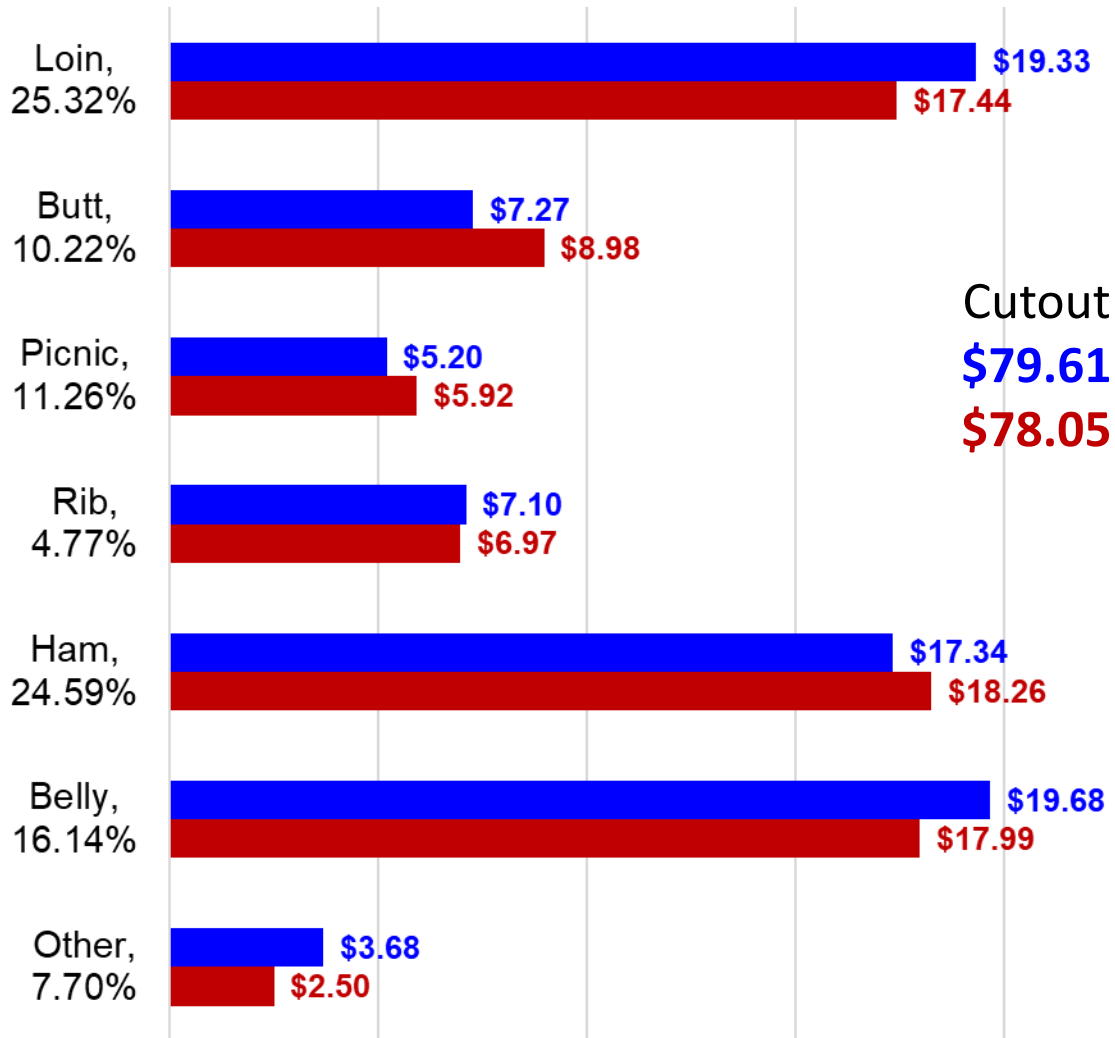
# PORK CUTOUT VALUE

(Voluntary data prior to 2013), Weekly



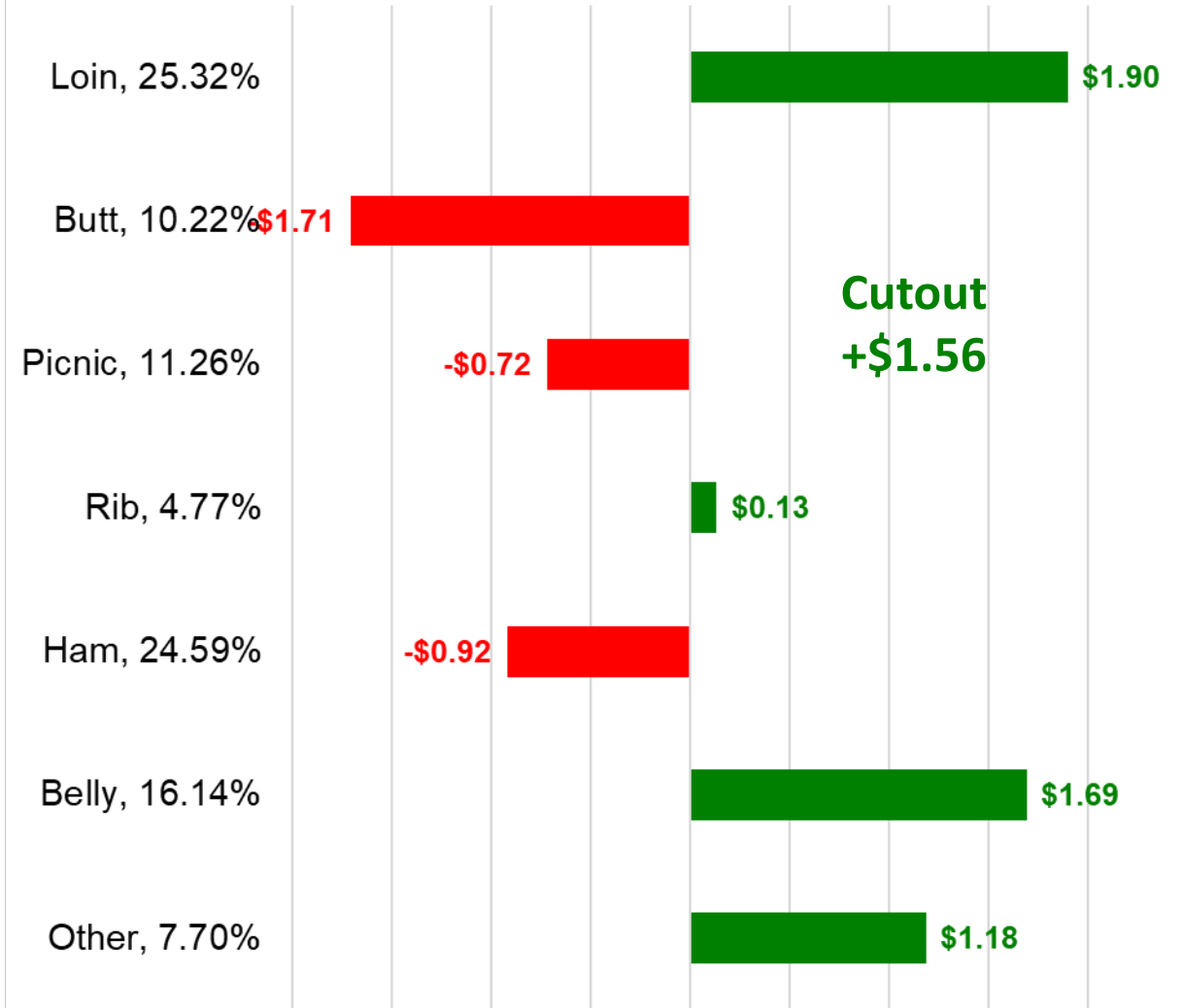
### Contribution of Each Primal to Change in Value of the Pork Cutout

■ Week Ending 1/22/21    ■ Week Ending 1/24/20



### Contribution of Each Primal to Change in Value of the Pork Cutout

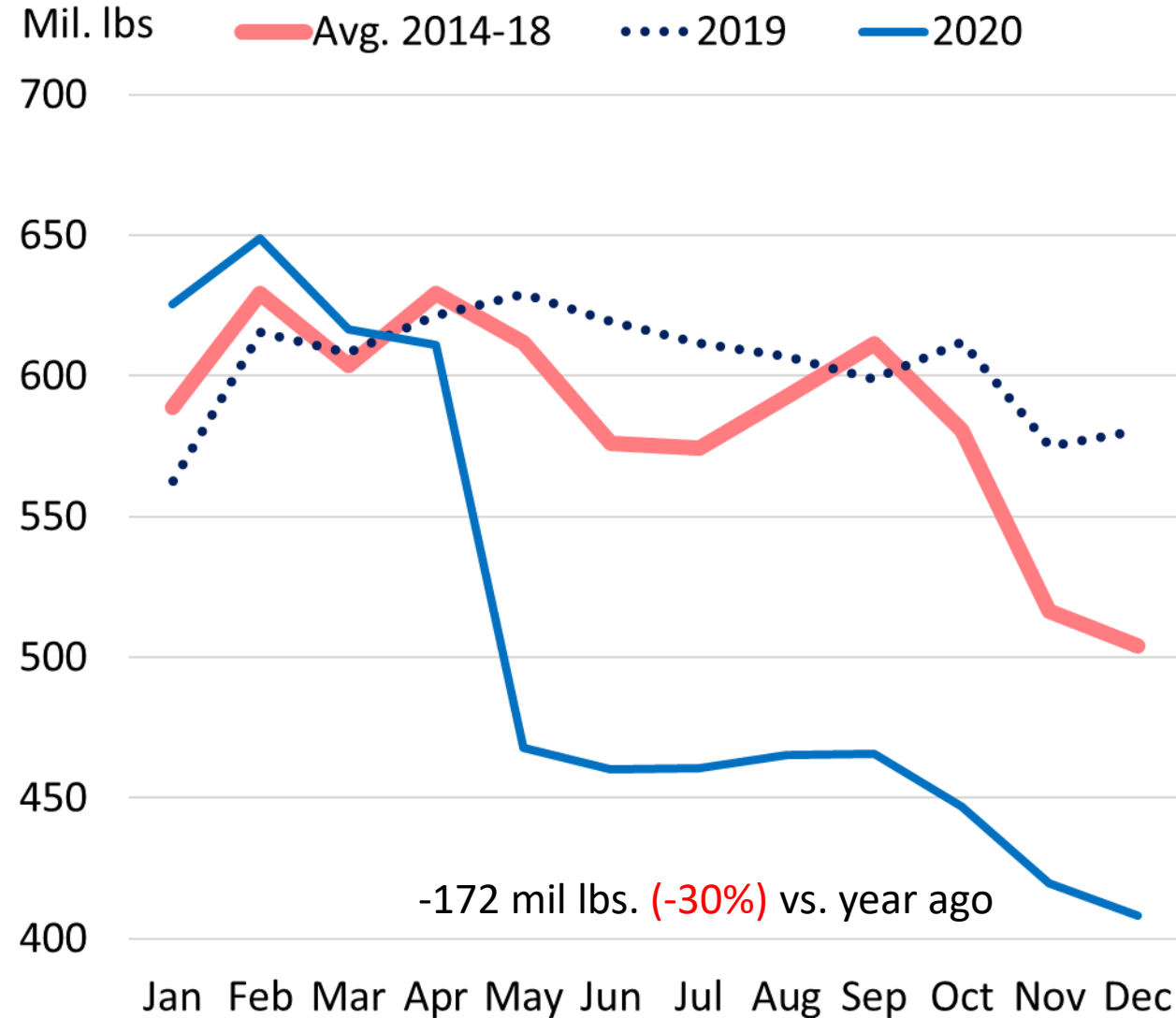
January 22, 2021 vs. January 24, 2020



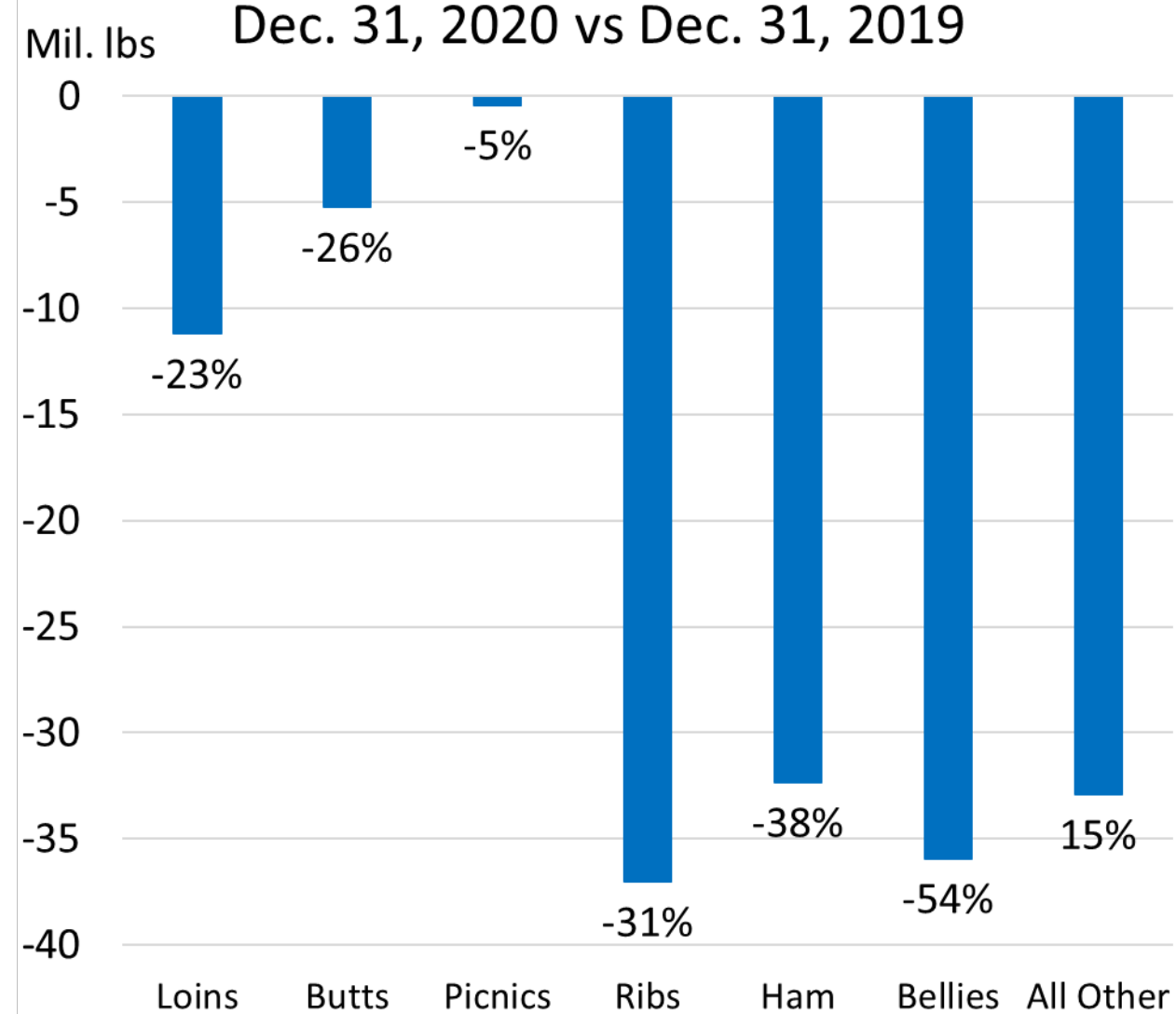


# PORK IN COLD STORAGE

Frozen and Cured, End of Month



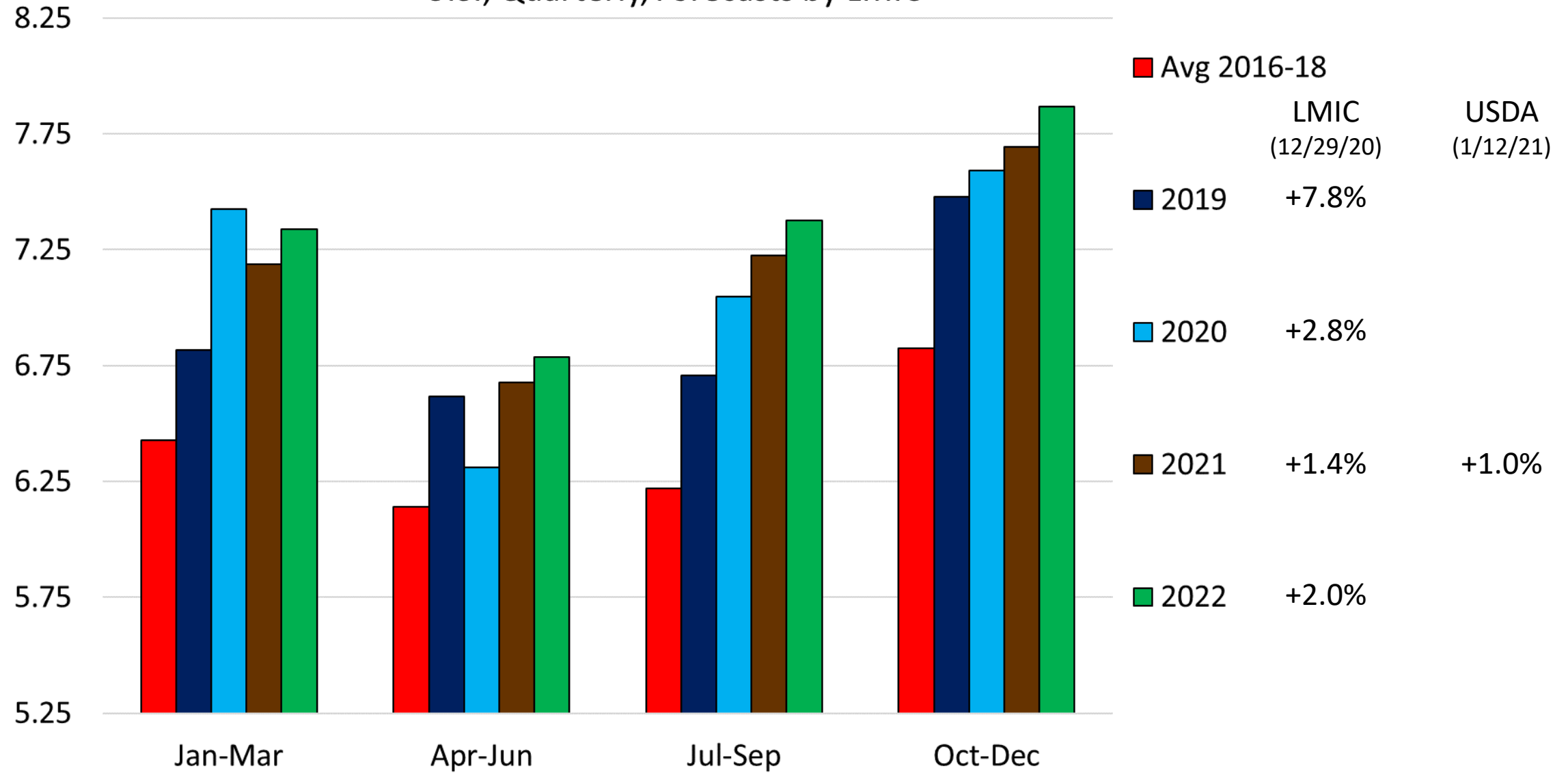
# YEAR/YEAR CHANGE IN PORK IN COLD STORAGE



# COMMERCIAL PORK PRODUCTION

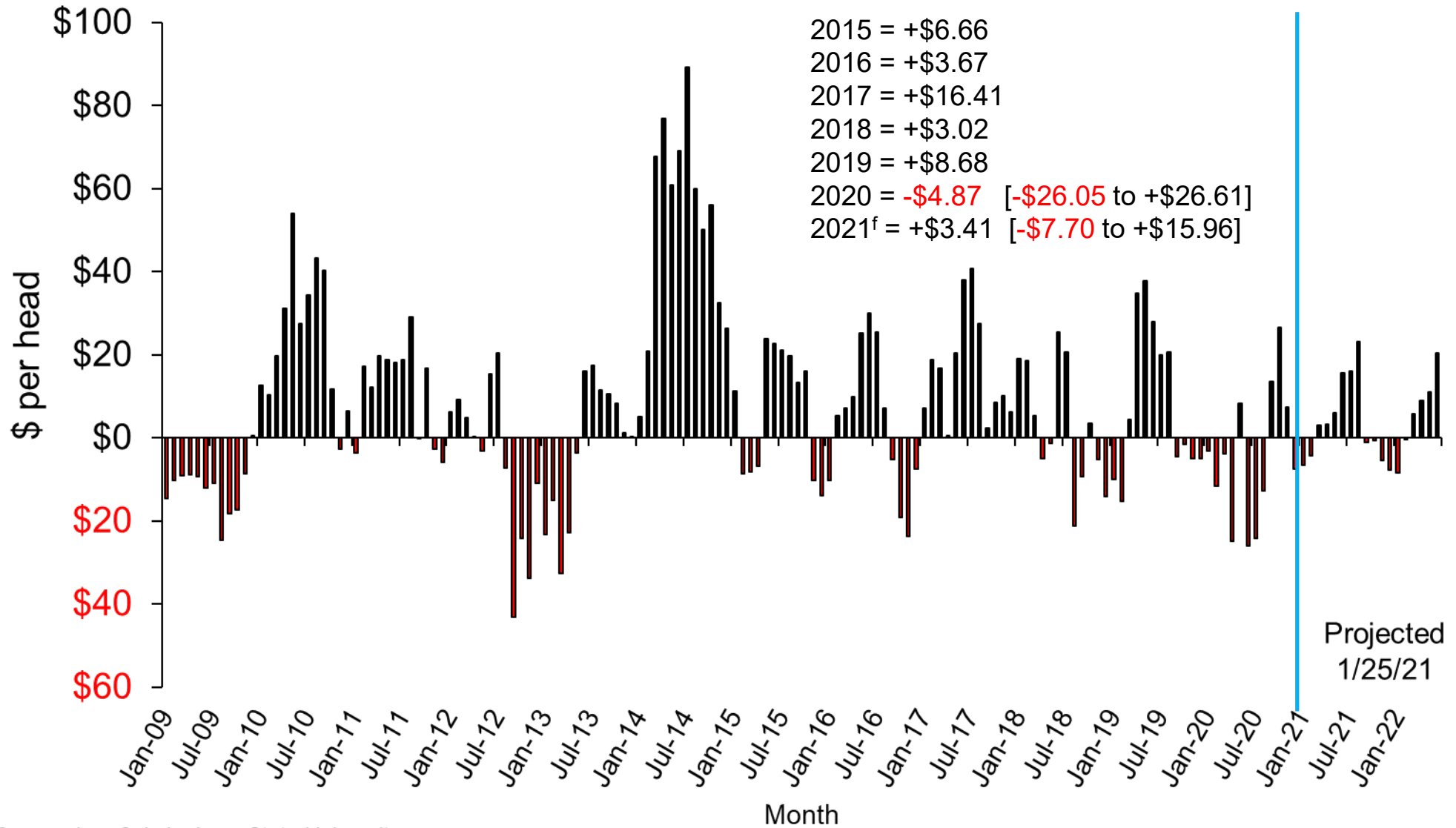
U.S., Quarterly, Forecasts by LMIC

Bil. Pounds



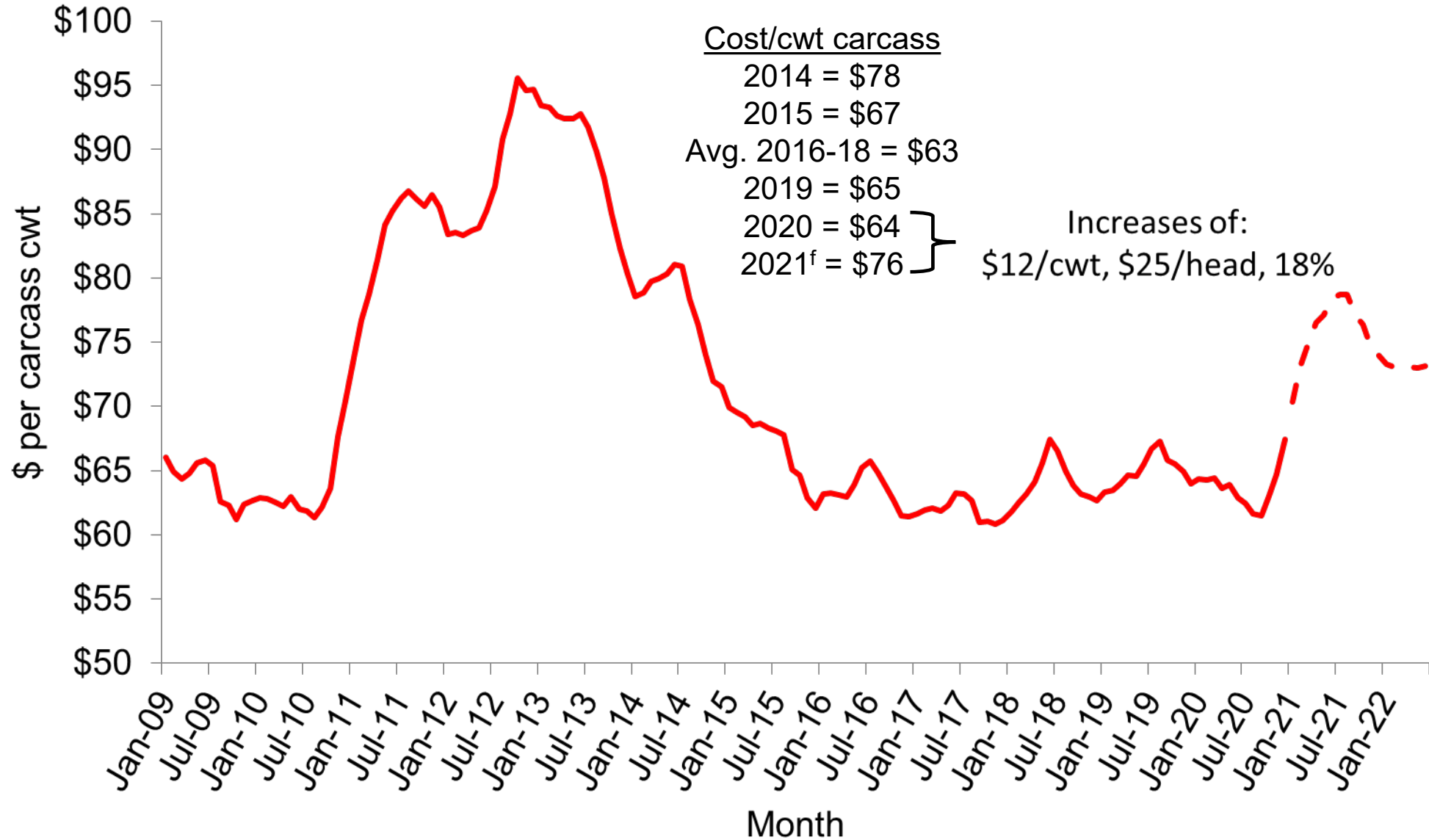
	LMIC (12/29/20)	USDA (1/12/21)
2019	+7.8%	
2020	+2.8%	
2021	+1.4%	+1.0%
2022	+2.0%	

# Estimated Returns to Farrow to Finish, Iowa Past and Projected with Basis Adjusted Futures



Source: Lee Schulz, Iowa State University

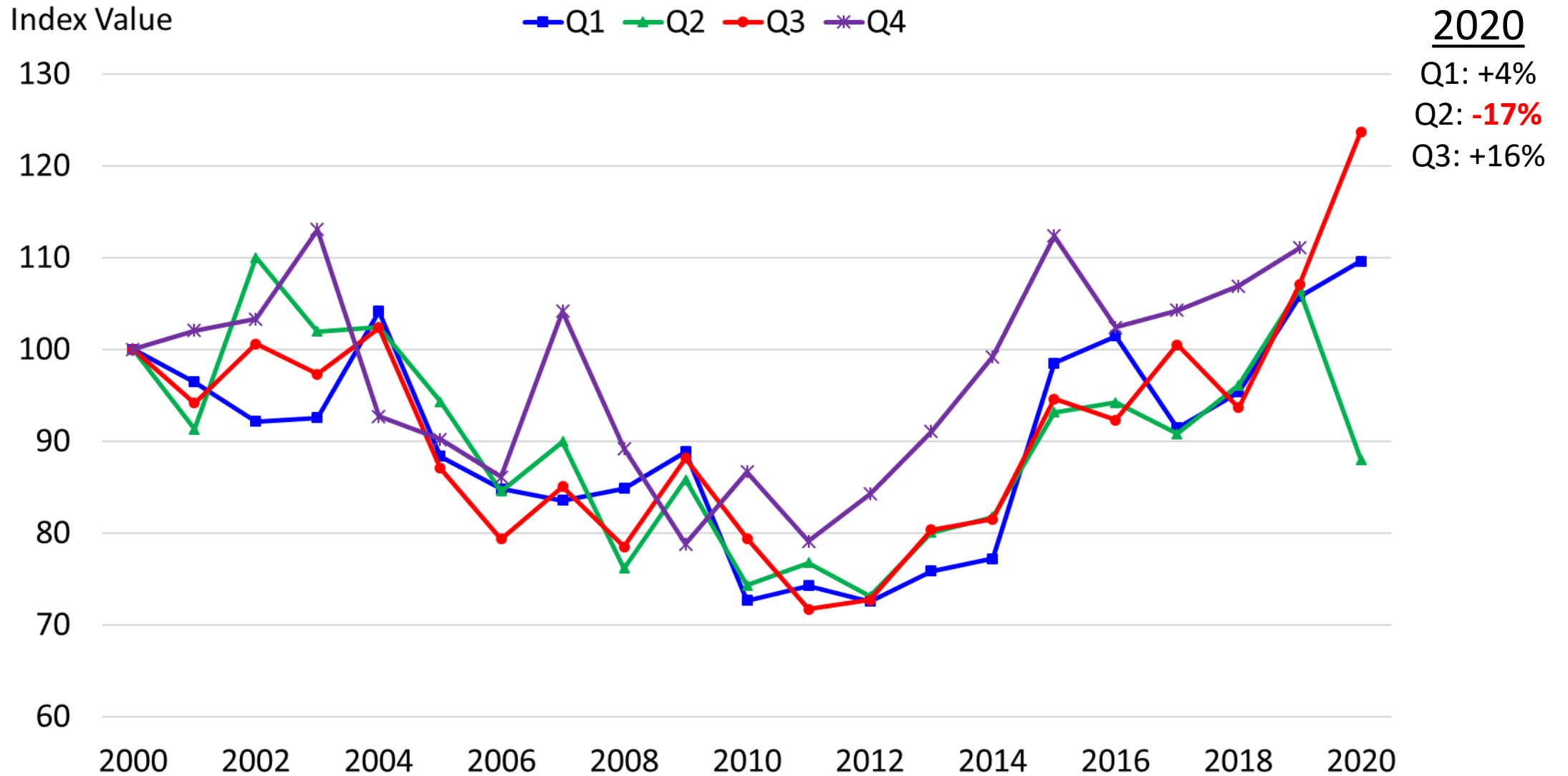
# BREAKEVEN—FARROW-TO-FINISH, IOWA



Source: Lee Schulz, Iowa State University

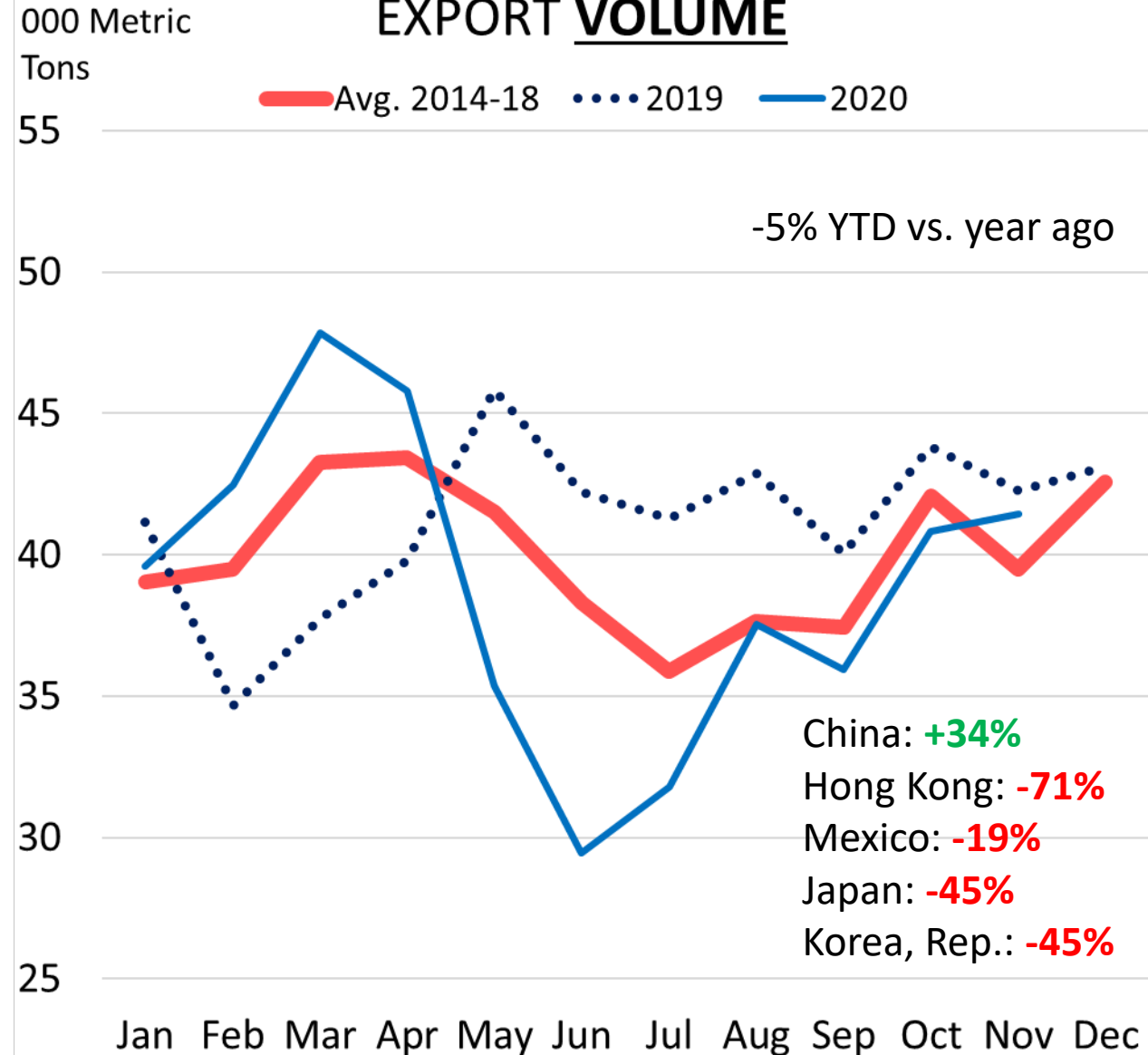
# RETAIL PORK DEMAND INDEX

Quarterly, Using CPI 2000=100

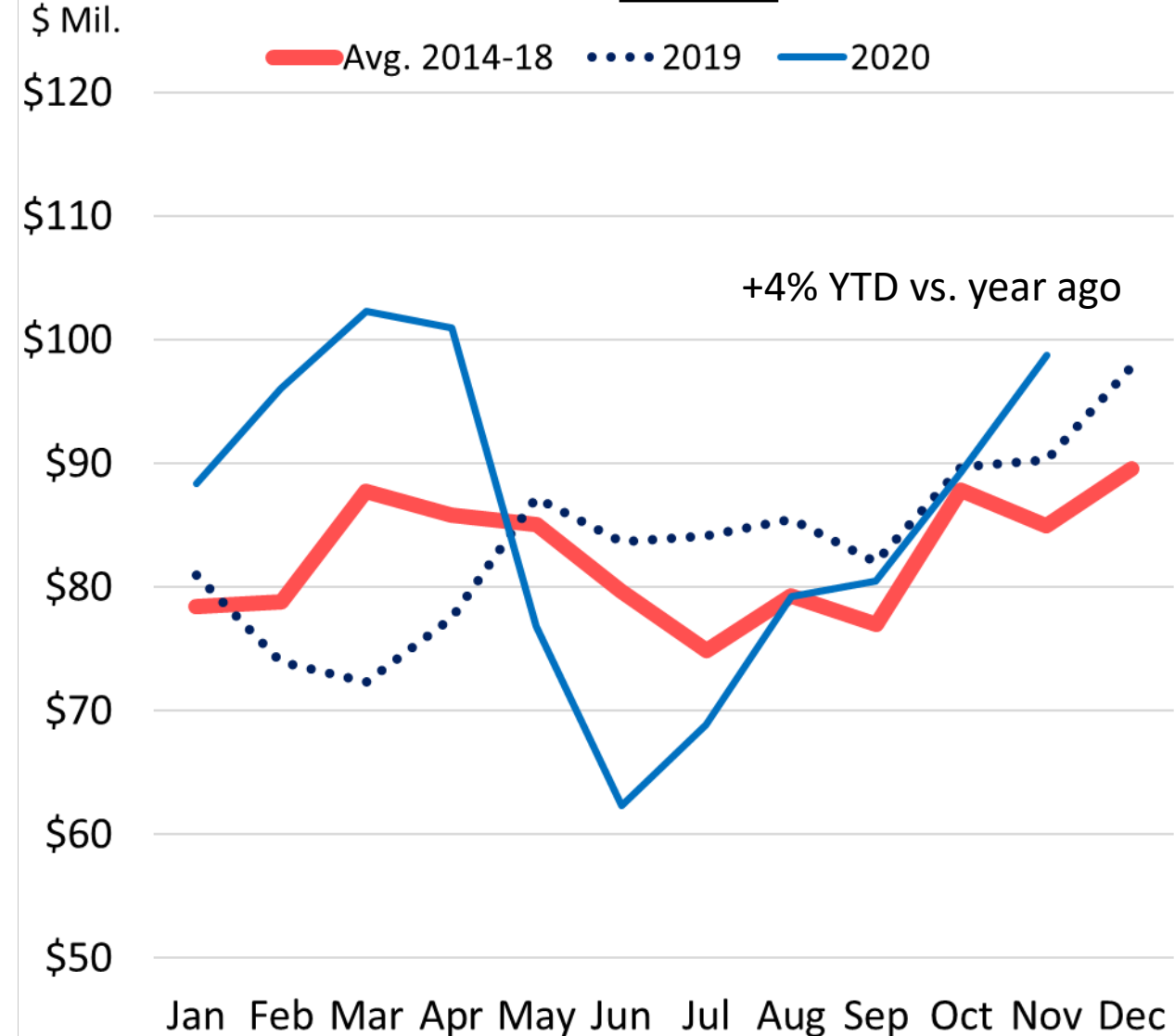




# MONTHLY U.S. PORK VARIETY MEAT EXPORT VOLUME



# MONTHLY U.S. PORK VARIETY MEAT EXPORT VALUE



# Leading Markets for U.S. Pork Muscle Cut Exports

January - November 2020

## Year-To-Date Quantity

Country/Region	Nov-20/Nov-19	Year-to-Date ('20 vs '19)	
	Percent	Metric Tons	Percent
Mexico	15%	-2,406	0%
Japan	7%	17,452	5%
Canada	-1%	12,676	7%
Korea, Republic of	-39%	-43,107	-24%
China	-1%	384,128	130%
Hong Kong	-56%	2,692	17%
Australia	-37%	-20,626	-22%
Philippines	37%	4,091	15%
Vietnam	161%	17,804	520%
Taiwan	56%	4,670	38%
Colombia	-29%	-34,384	-38%
Honduras	23%	3,181	11%
Dominican Republic	71%	4,346	14%
Chile	106%	3,638	12%
Panama	-29%	-939	-8%
Other	9%	-1,813	-2%
<b>Total</b>	<b>0%</b>	<b>351,403</b>	<b>18%</b>

## Year-To-Date Value

Country/Region	Nov-20/Nov-19	Year-to-Date ('20 vs '19)	
	Percent	\$ Mil.	Percent
Mexico	-3%	-\$83.3	-9%
Japan	7%	\$91.0	7%
Canada	4%	\$49.9	7%
Korea, Republic of	-37%	-\$122.7	-24%
China	-9%	\$881.0	136%
Hong Kong	-37%	\$9.0	20%
Australia	-31%	-\$32.1	-12%
Philippines	48%	\$18.8	28%
Vietnam	163%	\$38.4	421%
Taiwan	73%	\$13.3	44%
Colombia	-29%	-\$76.5	-39%
Honduras	30%	\$5.5	9%
Dominican Republic	82%	\$9.3	13%
Chile	118%	\$10.1	12%
Panama	-35%	-\$4.3	-13%
Other	6%	-\$7.7	-3%
<b>Total</b>	<b>-4%</b>	<b>\$799.7</b>	<b>15%</b>

# FRESH, CHILLED, OR FROZEN MUSCLE CUTS OF **PORK** OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, 2020 vs. 2019

1000 METRIC TONS as of January 14, 2021

DESTINATION	OUTSTANDING/CARRYOVER SALES				ACCUMULATED EXPORTS				TOTAL COMMITMENTS			
	THIS WEEK	YR AGO	Diff	%	THIS WEEK	YR AGO	Diff	%	THIS WEEK	YR AGO	Diff	%
<b>All</b>	<b>343.4</b>	<b>490.3</b>	<b>-147</b>	<b>-30%</b>	<b>70.8</b>	<b>87.8</b>	<b>-17</b>	<b>-19%</b>	<b>414.2</b>	<b>578.1</b>	<b>-164</b>	<b>-28%</b>
Mexico	99.1	74.5	25	33%	20.2	24.3	-4	-17%	119.3	98.8	21	21%
Japan	24.2	43.1	-19	-44%	8.3	10.1	-2	-18%	32.5	53.2	-21	-39%
S. Korea	30.6	45.3	-15	-32%	6.2	6.4	0	-3%	36.8	51.7	-15	-29%
Canada	23.2	15.2	8	53%	3.4	5.0	-2	-32%	26.6	20.2	6	32%
China	88.4	268.8	-180	-67%	22.1	33.4	-11	-34%	110.5	302.2	-192	-63%
Hong Kong	0.4	2.0	-2	-80%	0.3	0.4	0	-25%	0.7	2.4	-2	-71%
Australia	22.1	17.7	4	25%	2.4	3.1	-1	-23%	24.5	20.8	4	18%
All Other	55.4	23.7	32	134%	7.9	5.1	3	55%	63.3	28.8	34	120%

# OUTSTANDING SALES FRESH, CHILLED, OR FROZEN MUSCLE CUTS OF PORK

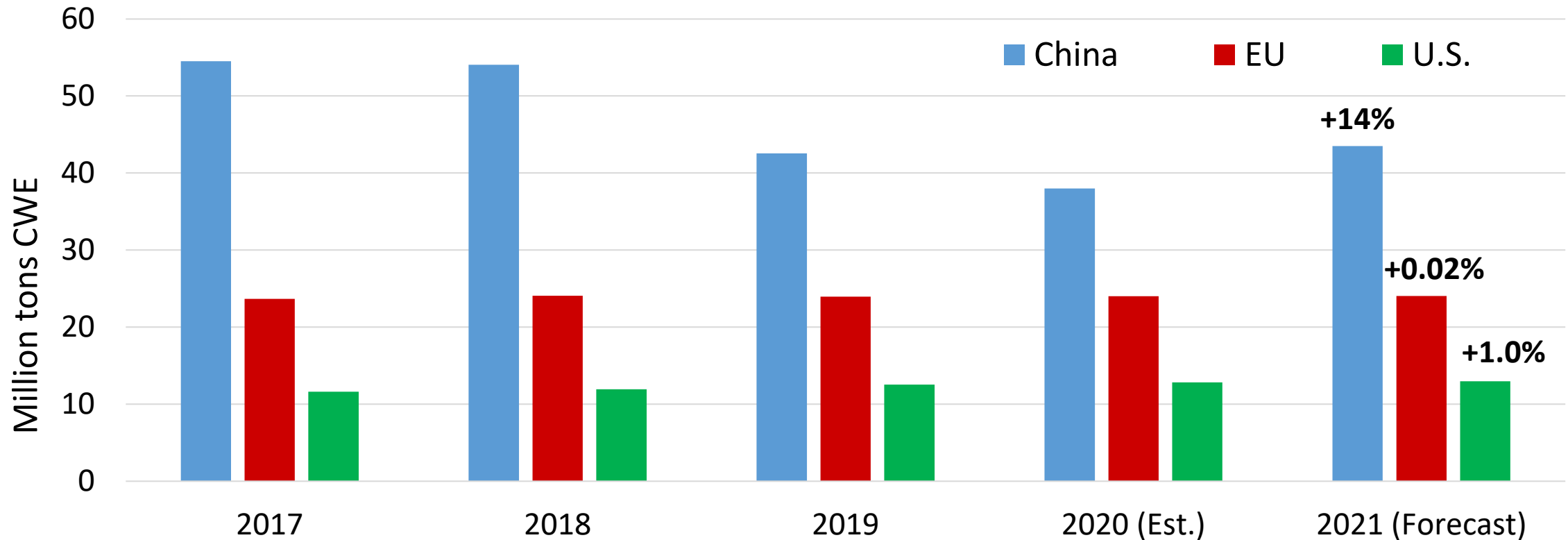


“The information in the export sales report for the week ending **Oct. 10, 2019** accurately reflects what was reported to USDA by U.S. exporters. This week’s report includes a significant quantity of pork sales for the current marketing year that may have occurred in previous weeks but were not previously reported to the Foreign Agricultural Service.”



# Livestock and Poultry: World Markets and Trade

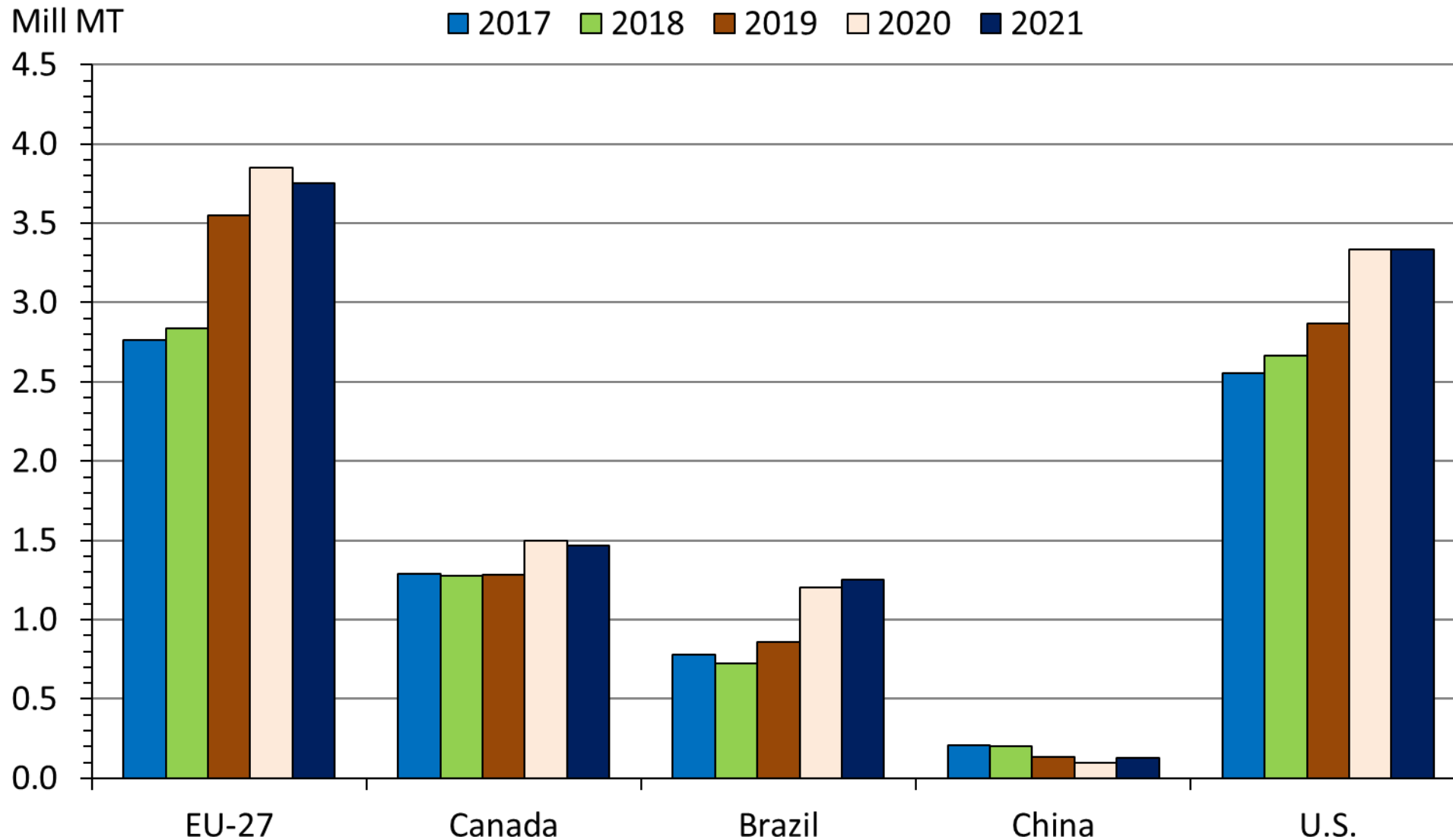
## Pork Production Growth Rebounds in China, Slows in U.S. and EU





# PORK EXPORTS

Carcass Weight, Annual



# Websites to note:

- WallaceFarmer Serving: IA <https://www.farmprogress.com/author/--195>
  - Monthly livestock market outlook and news.
- Ag Decision Maker [www.extension.iastate.edu/agdm/](http://www.extension.iastate.edu/agdm/)
  - Decision-oriented agricultural business “toolbox” designed for farmers, lenders, farm managers, agriculture instructors, and others.
- ISU Estimated Livestock Returns [www2.econ.iastate.edu/estimated-returns/](http://www2.econ.iastate.edu/estimated-returns/)
  - Monthly barometer of cattle and hog production costs and returns.
- ISU Livestock Crush Margins [www2.econ.iastate.edu/margins/](http://www2.econ.iastate.edu/margins/)
  - Weekly cattle and hog crush margins and tracked changes serving as an indicator of risk management opportunities.