


K-STATE
Research and Extension
Kansas State University
2016
Swine Profitability
Conference

Forum Hall
K-State Union
Tuesday February 2



Sponsored by
Department of Animal Sciences and Industry
K-State Research and Extension
Kansas Pork Association
National Pork Board

What We've Learned During the Past Two Years about the Pork Sector

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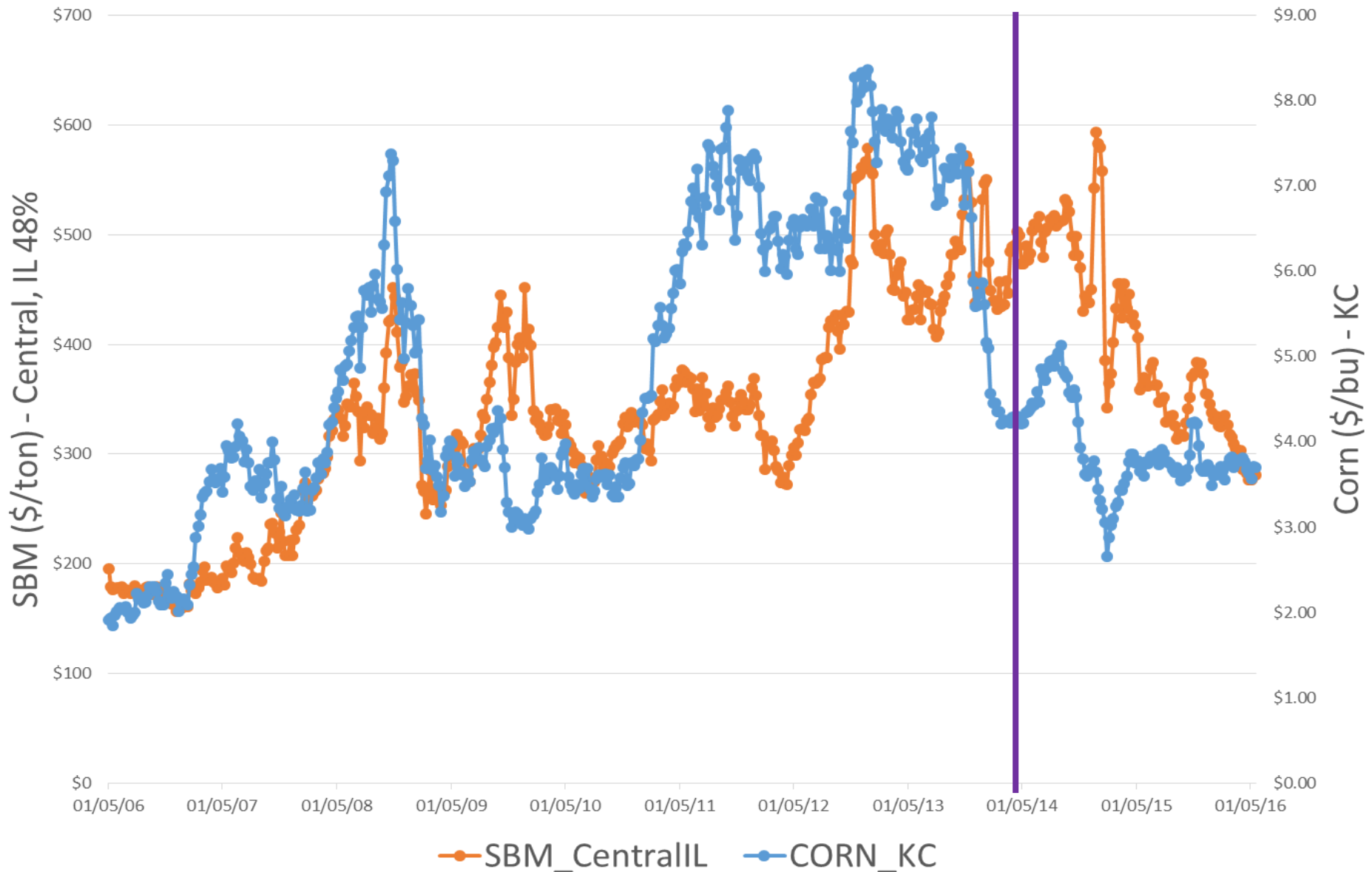


Feedstuffs & Forage Situation

***SUPPORTIVE OF
LIVESTOCK
INDUSTRY EXPANSION***



SBM & Corn Price (Jan. 2006-Jan. 2016)



USDA Long-Term projections (2016-2025)

Early release on Dec. 2015

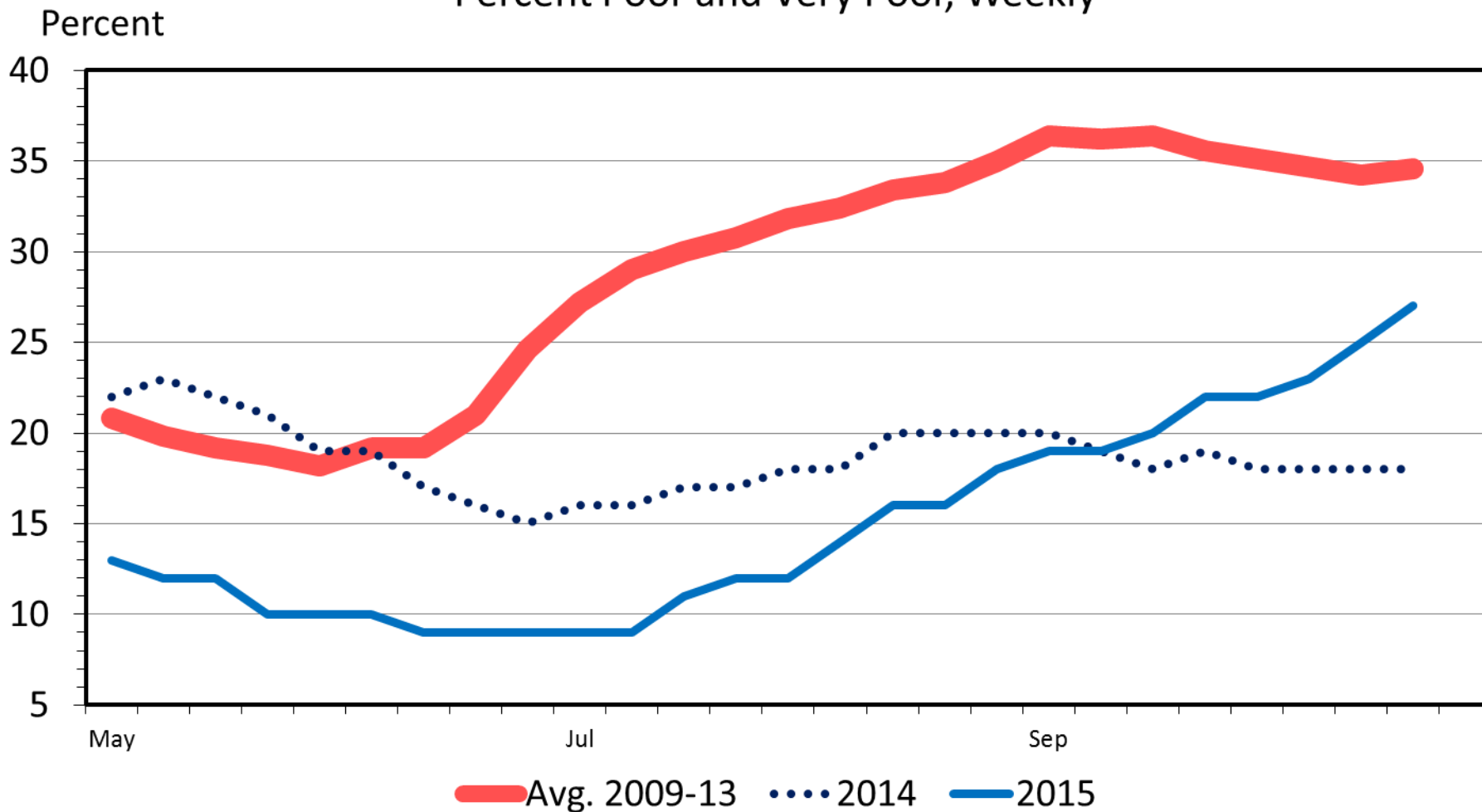
Feb. 2016 full report (<http://www.usda.gov/oce/commodity/projections/>)

U.S. corn long-term projections		Recent		Next 3 Years			10 Yrs Out
Item		2014/15	2015/16	2016/17	2017/18	2018/19	2025/26
Area (million acres):							
Harvested acres		83.1	80.7	82.7	82.5	82.5	80.2
Yield:							
Bushels per harvested acre		171.0	169.3	168.1	170.1	172.1	185.8
Supply and use (million bushels):							
Ending stocks		1,731	1,760	1,755	1,730	1,740	1,740
Stocks/use ratio, percent		12.6	12.9	12.6	12.3	12.2	11.7
Prices (dollars per bushel):							
Farm price		3.70	3.65	3.60	3.65	3.70	3.75



US RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



Data Source: USDA-NASS, Compiled & Analysis by LMIC

Livestock Marketing Information Center

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G-NP-30
10/26/15

Overarching Pork Industry Economic Outlook

- Supplies
 - Large supplies + Strong USD + Weaker global GDPs = more lbs at home
- Demand
 - Hidden success story of industry profits
 - *13 straight quarters of growth!*



USDA Quarterly Hogs and Pigs Report – United States

December 23, 2015

	2014	2015	2015 as % of 2014	Pre-Report Range	Pre-Report Estimate	Actual - Estimate
Inventories on Dec 1 *						
All hogs and pigs	67,776	68,299	100.8	100.7 - 101.9	101.4	-0.6
Kept for breeding	5,939	6,002	101.1	100.0 - 102.1	100.9	0.2
Market	61,838	62,297	100.7	100.7 - 102.2	101.5	-0.8
Under 50 pounds	19,801	19,508	98.5	99.0 - 100.3	99.6	-1.1
50-119 pounds	17,366	17,282	99.5	100.0 - 101.0	100.4	-0.9
120-179 pounds	13,000	13,210	101.6	99.6 - 103.1	101.4	0.2
180 pounds and over	11,671	12,296	105.4	103.0 - 108.0	105.3	0.1
Farrowing **						
Sep – Nov sows farrowed	2,994	2,875	96.0	97.5 - 98.5	98.1	-2.1
Dec – Feb intentions	2,895	2,840	98.1	98.6 - 100.3	99.6	-1.5
Mar – May intentions	2,854	2,850	99.9	98.5 - 103.3	100.5	-0.6
Sep – Nov Pig Crop *	30,633	30,271	98.8	99.2 - 100.2	99.7	-0.9
Sep – Nov Pigs per Litter	10.23	10.53	102.9	101.0 - 102.3	101.6	1.3

* 1,000 head

** 1,000 litters

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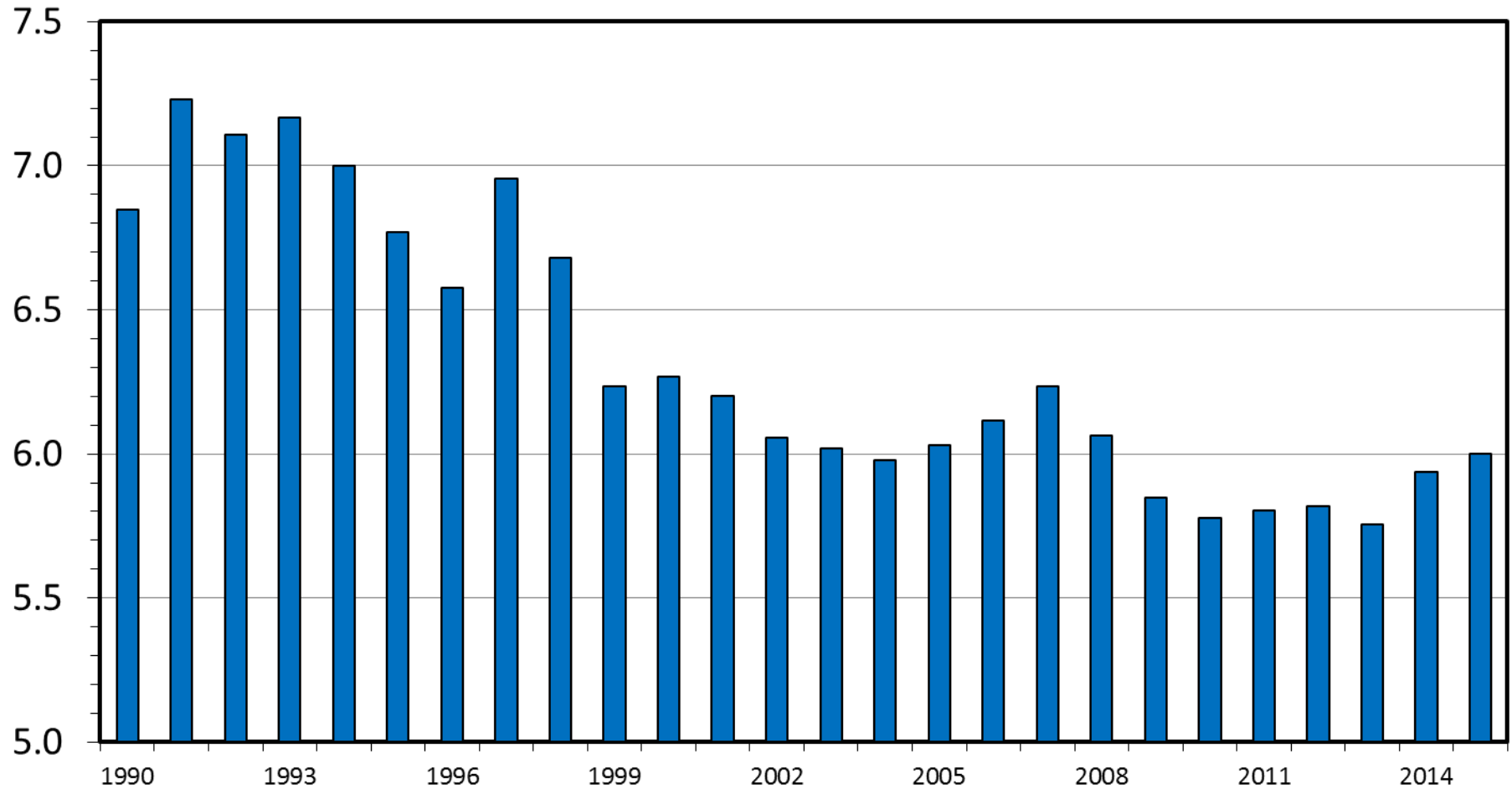
* 1,000 head

** 1,000 litters

DECEMBER 1 HOG BREEDING HERD

U.S. Inventory

Mil. Head



Data Source: USDA-NASS

Livestock Marketing Information Center

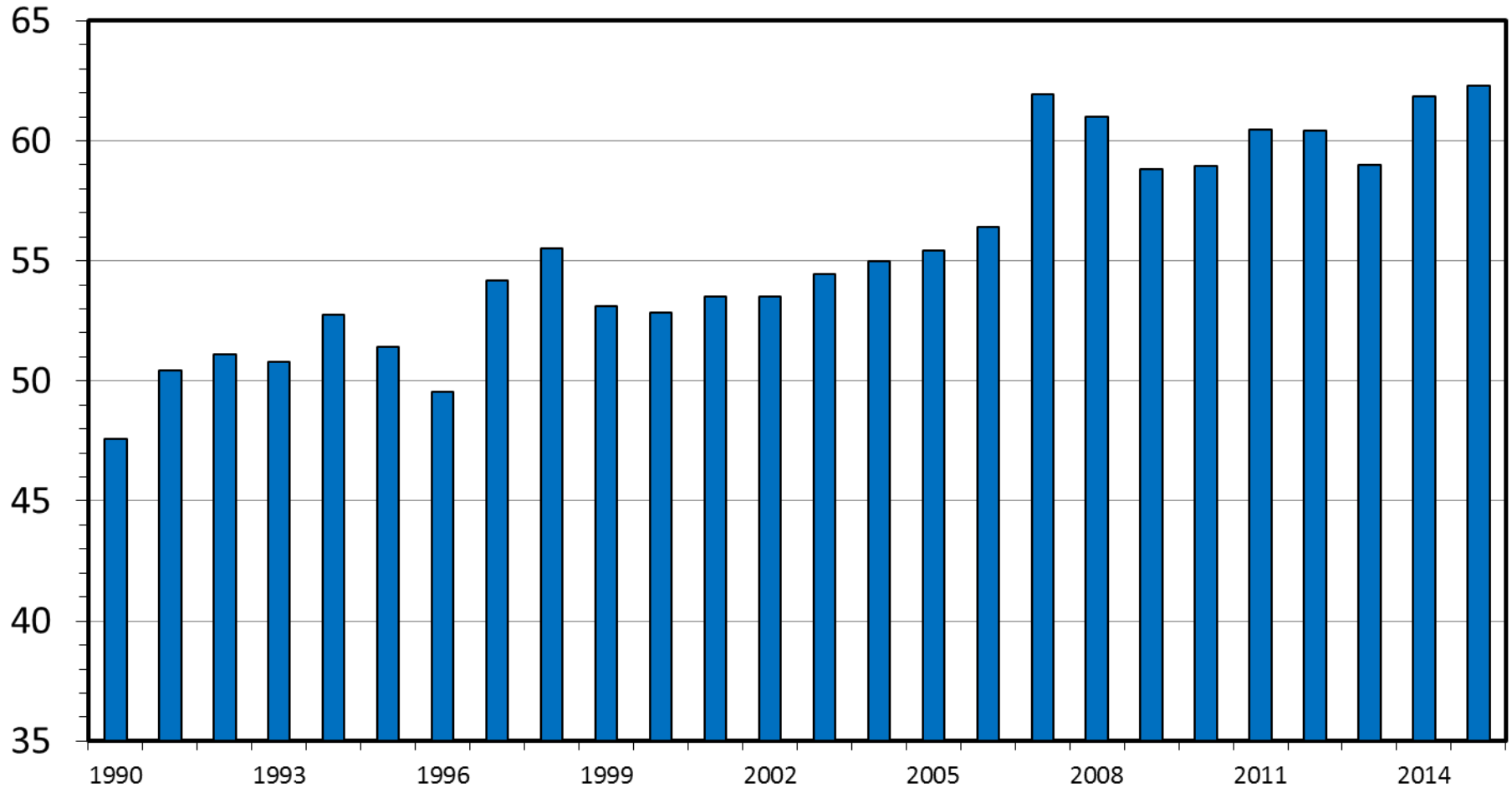
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DECEMBER 1 MARKET HOGS

U.S. Inventory

Mil. Head



Data Source: USDA-NASS

Livestock Marketing Information Center

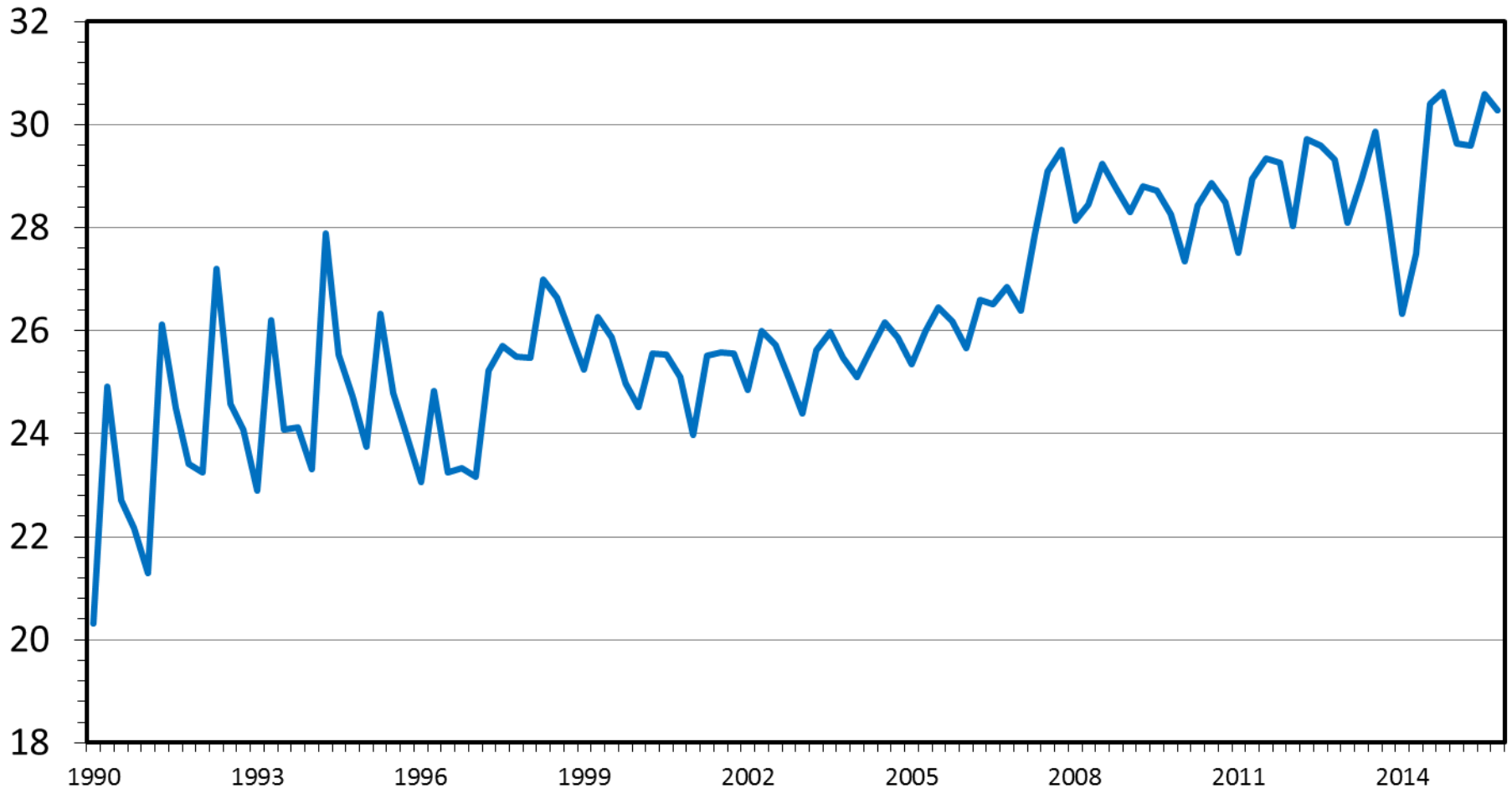
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PIG CROP

Quarterly

Mil. Head



Data Source: USDA-NASS

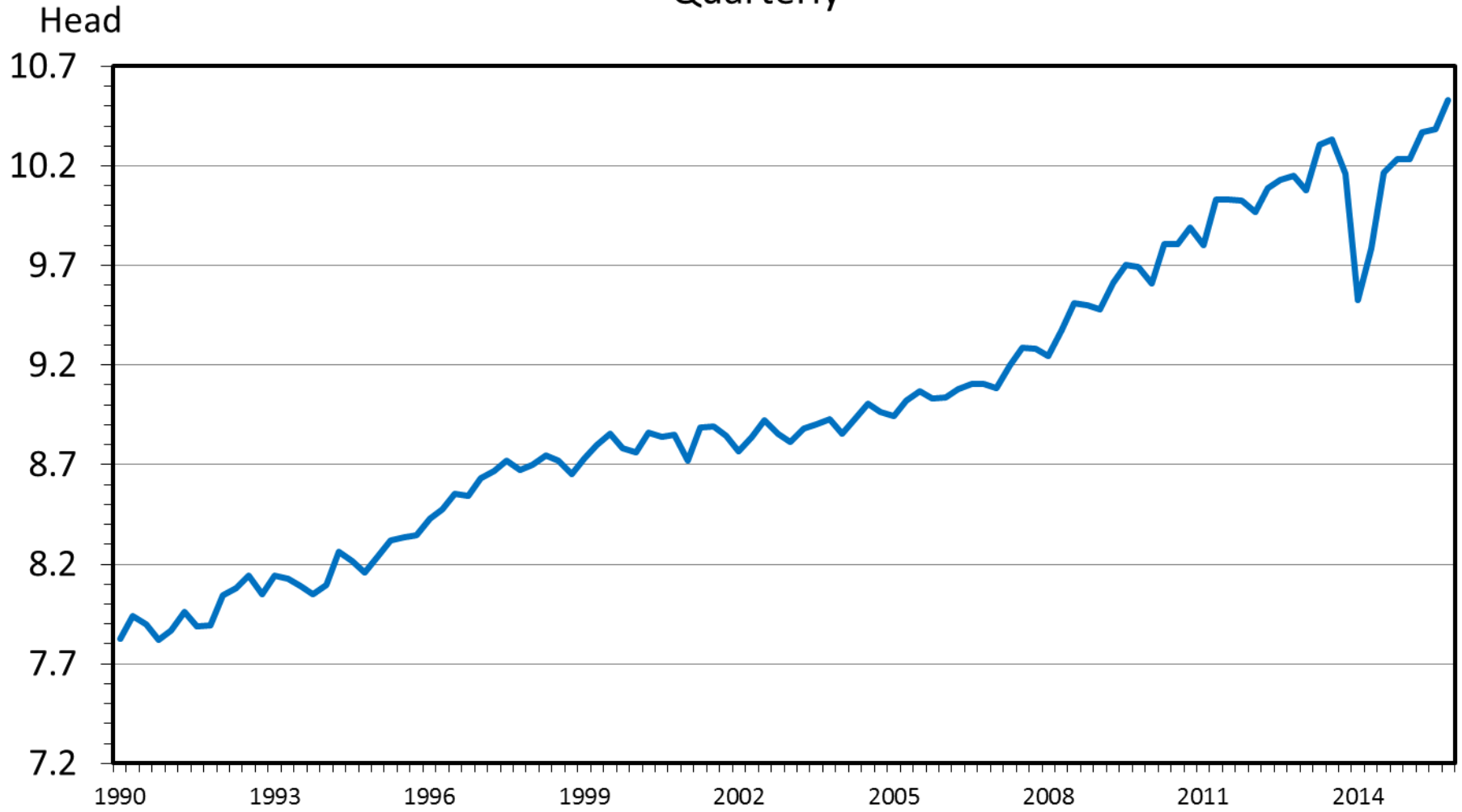
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PIGS PER LITTER

Quarterly



Data Source: USDA-NASS

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LMIC Pork Production and Price Quarterly Forecasts (1/25/16)

Sources: USDA/NASS; USDA/AMS Livestock Market News; Projections and Forecasts by LMIC

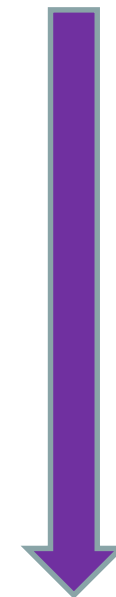
		% Chg.	Average	% Chg.	Comm'l	% Chg.
Year	Comm'l	from	Carcass	from	Pork	from
Quarter	Slaughter	Year Ago	Weight	Year Ago	Production	Year Ago
2015						
I	28,723	5.9%	215.00	0.8%	6,161	6.5%
II	27,848	8.9%	213.00	-1.1%	5,925	7.6%
III	28,474	11.4%	209.67	-1.3%	5,957	9.8%
IV	30,369	6.1%	212.67	-0.9%	6,456	5.3%
Year	115,414	8.0%	212.58	-0.6%	24,499	7.2%
2016						
I	29,796	3.7%	214.63	-0.2%	6,395	3.8%
II	27,838	-0.0%	213.41	0.2%	5,941	0.3%
III	28,606	0.5%	209.68	0.0%	5,998	0.7%
IV	30,631	0.9%	213.57	0.4%	6,542	1.3%
Year	116,871	1.3%	212.82	0.1%	24,876	1.5%
2017						
I	30,363	1.9%	215.06	0.2%	6,530	2.1%
II	28,241	1.4%	213.91	0.2%	6,041	1.7%
III	28,549	-0.2%	210.06	0.2%	5,997	0.0%
IV	31,381	2.4%	213.98	0.2%	6,715	2.6%
Year	118,534	1.4%	213.25	0.2%	25,283	1.6%



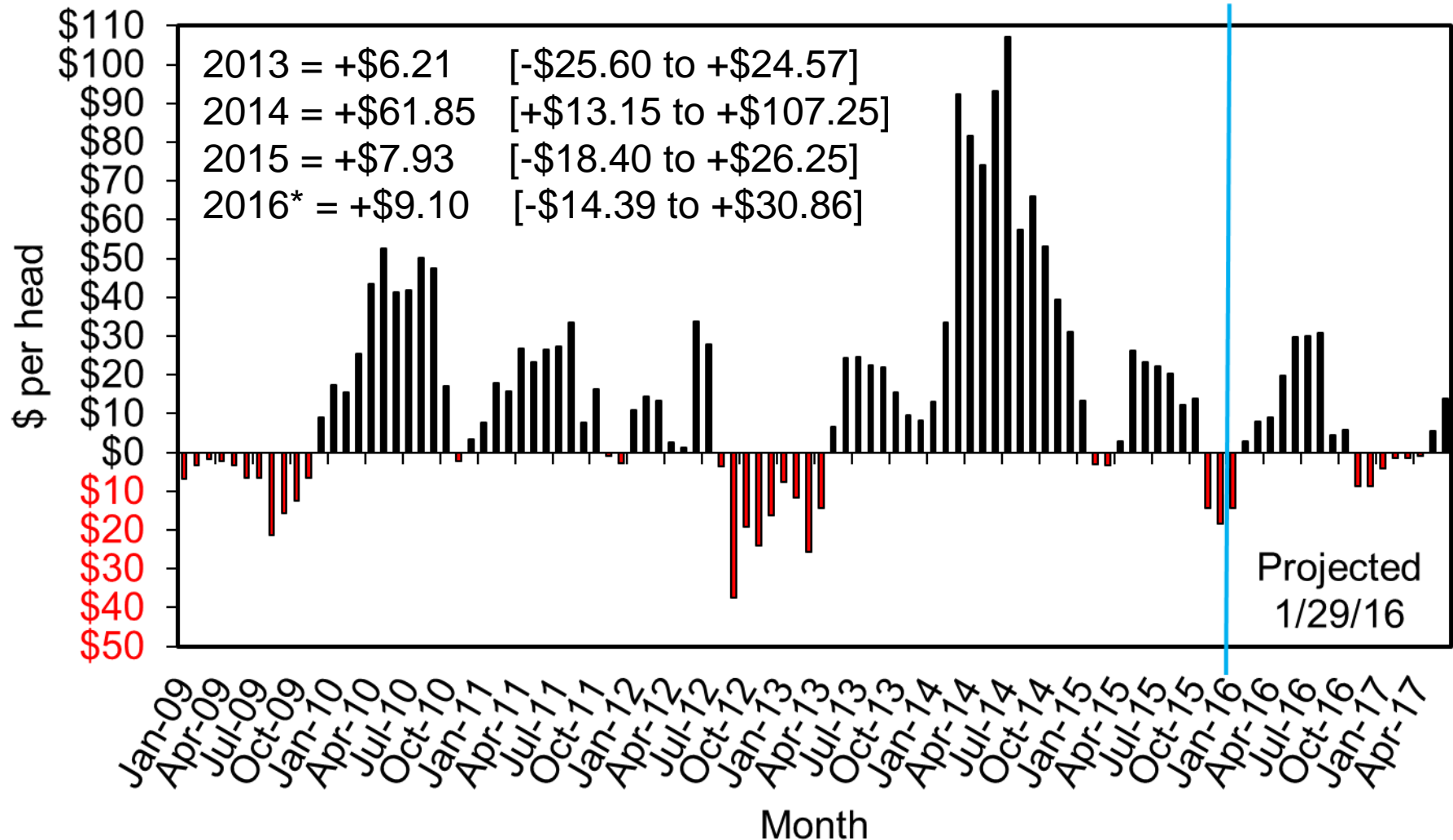
LMIC Pork Production and Price Quarterly Forecasts (1/25/16)

Sources: USDA/NASS; USDA/AMS Livestock Market News; Projections and Forecasts by LMIC

		% Chg.	Prices	% Chg.
Year	Per Capita	from	National Wtd	from
Quarter	Consumption	Year Ago	Avg Base	Year Ago
2015				
I	12.35	9.1%	68.55	-25.0%
II	11.83	8.0%	73.52	-34.3%
III	12.15	9.2%	74.60	-32.2%
IV	13.48	4.0%	61.91	-31.3%
Year	49.81	7.4%	69.65	-30.9%
2016				
I	12.69	2.8%	60-62	-11.0%
II	11.75	-0.6%	73-76	1.3%
III	11.90	-2.0%	73-77	0.5%
IV	13.04	-3.2%	59-64	-0.7%
Year	49.39	-0.8%	66-70	-2.9%
2017				
I	12.76	0.6%	60-66	3.3%
II	11.80	0.4%	70-77	-1.3%
III	11.70	-1.7%	70-78	-1.3%
IV	13.12	0.6%	59-68	3.3%
Year	49.38	0.0%	65-72	0.7%



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



Source: Lee Schulz, Iowa State University

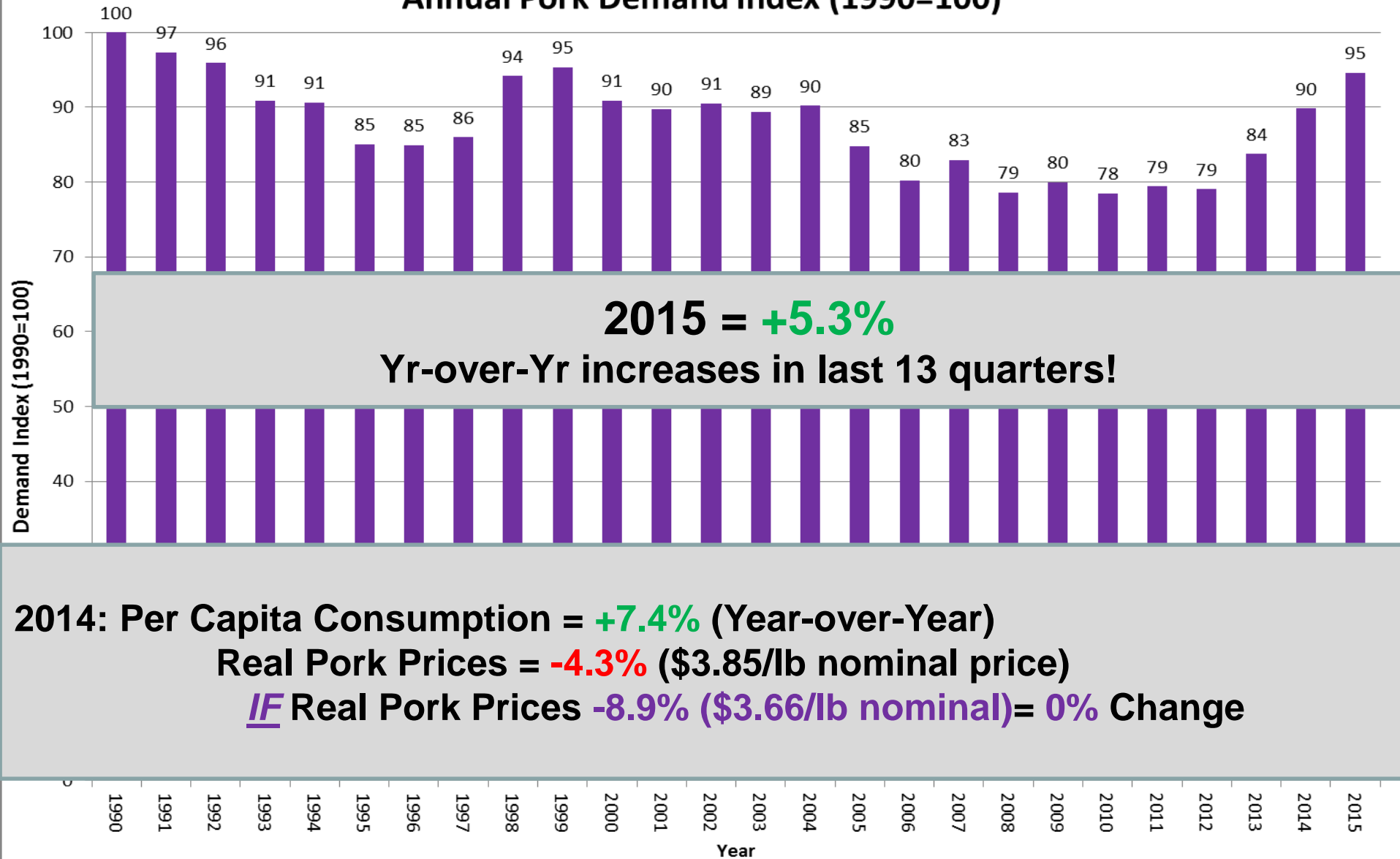


Historical and Projected Iowa Farrow to Finish Returns (as of 1/29/16)
 (Source: Lee Schulz, Iowa State Univ. <http://www2.econ.iastate.edu/estimated-returns/>)

Farrow Mo-Yr	Closeout Mo-Yr	Total Cost \$/carcass cwt	Lean Hog Price \$/carcass cwt	Net Return \$/carcass cwt	Net Return \$/head
	2013	87.34	90.41	3.07	6.21
	2014	75.34	105.89	30.54	61.85
	2015	64.70	68.61	3.91	7.93
Jan-Mar	2016	61.83	61.29	-0.55	-1.10
Apr-Jun	2016	63.38	73.03	9.65	19.55
Jun-Sep	2016	64.16	74.92	10.75	21.78
Oct-Nov	2016	63.39	61.50	-1.89	-3.82
	=	=	=	=	=
	2016	63.19	67.68	4.49	9.10
Jan-Mar	2017	63.99	62.83	-1.15	-2.33
Apr-Jun	2017	65.33	68.40	3.06	6.21



Annual Pork Demand Index (1990=100)



Source: Glynn T. Tonsor, Kansas State University, Jan. 2016

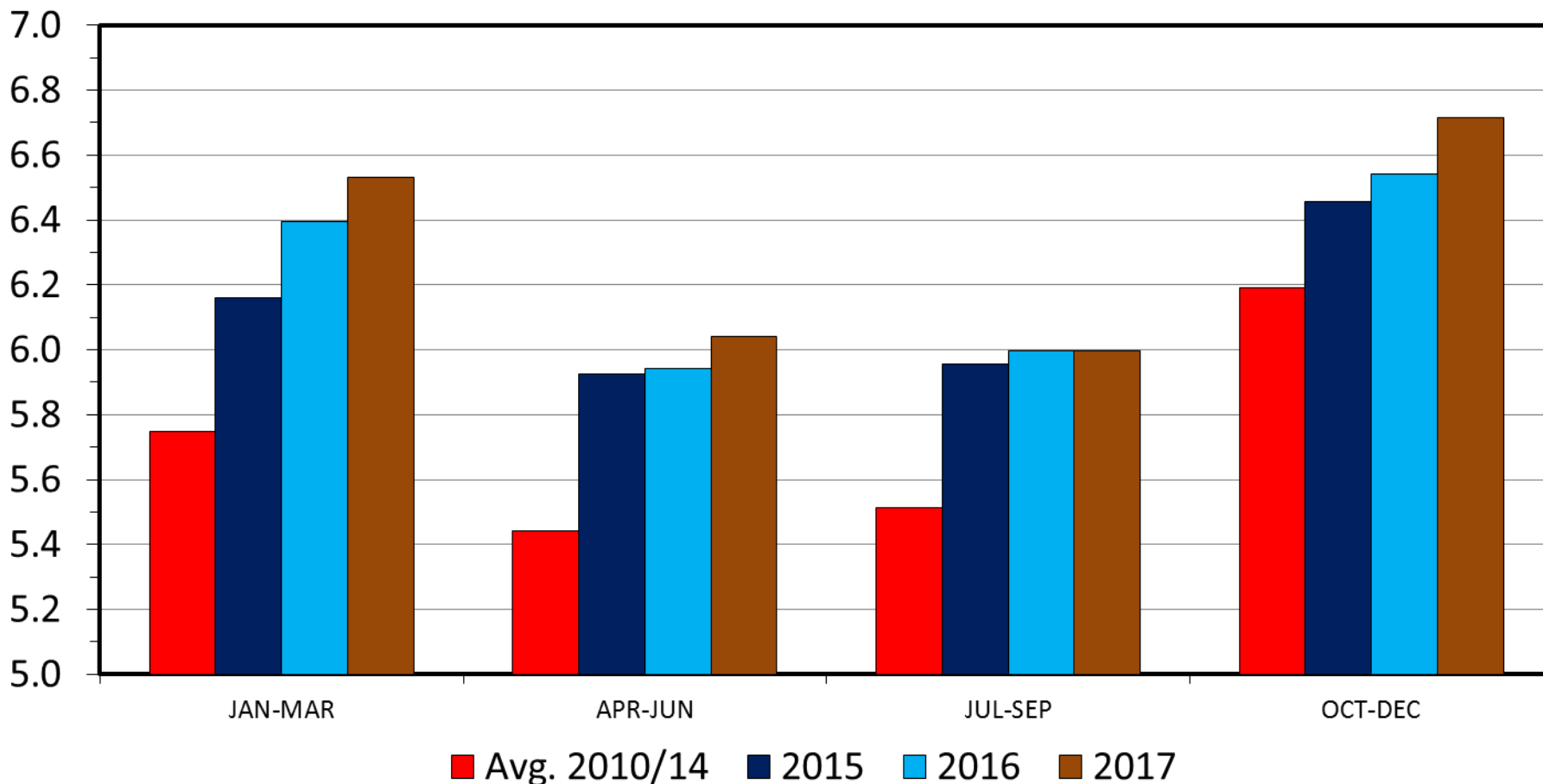
<http://www.agmanager.info/livestock/marketing/>

Recent & Upcoming Meat Production

COMMERCIAL PORK PRODUCTION

US, Quarterly

Bil. Pounds



Data Source: USDA-NASS, Forecasts by LMIC

Livestock Marketing Information Center

KANSAS STATE UNIVERSITY

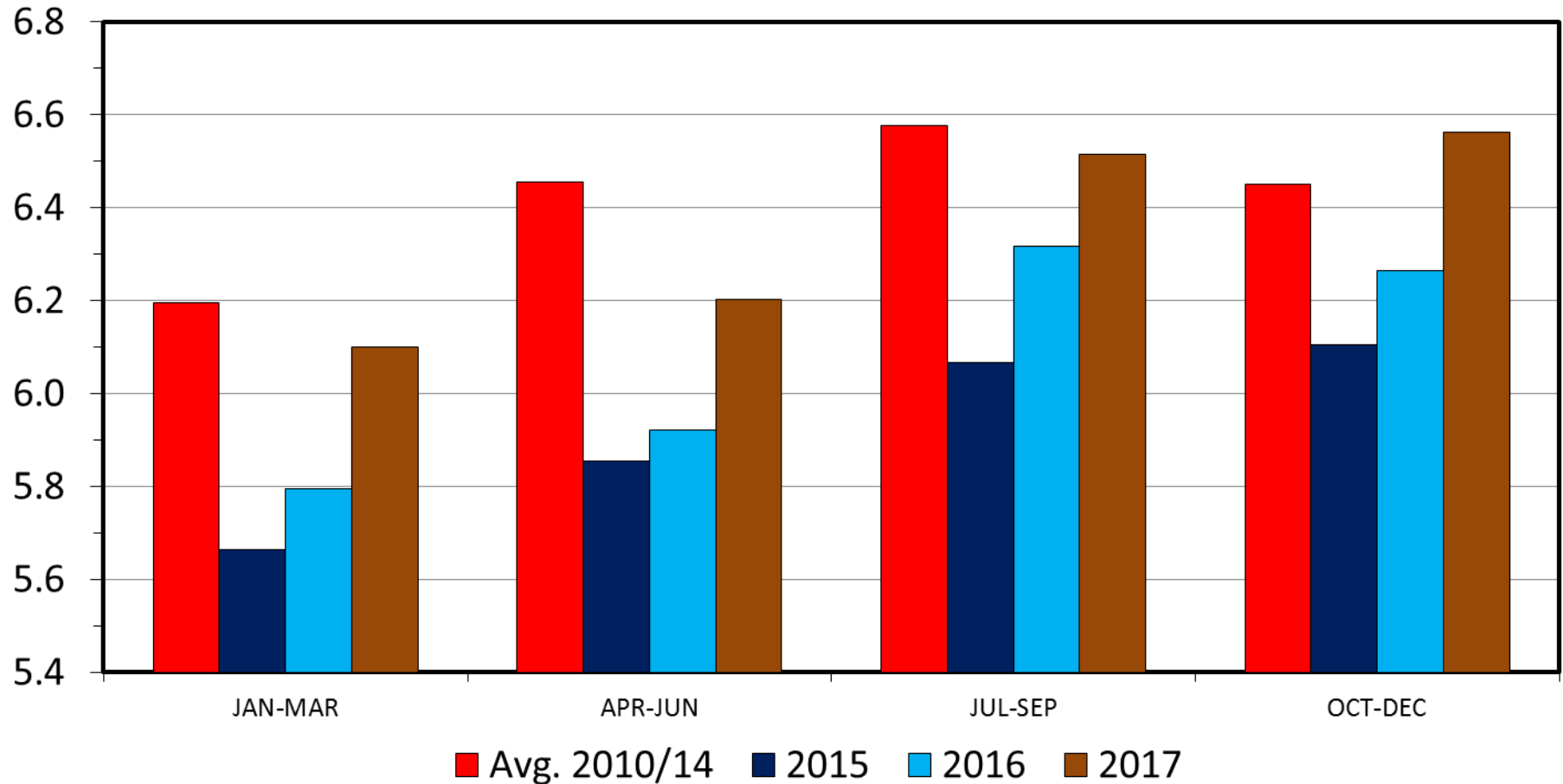


M-S-06
01/25/16

COMMERCIAL BEEF PRODUCTION

US, Quarterly

Bil. Pounds



■ Avg. 2010/14 ■ 2015 ■ 2016 ■ 2017

Data Source: USDA-NASS, Forecasts by LMIC

Livestock Marketing Information Center

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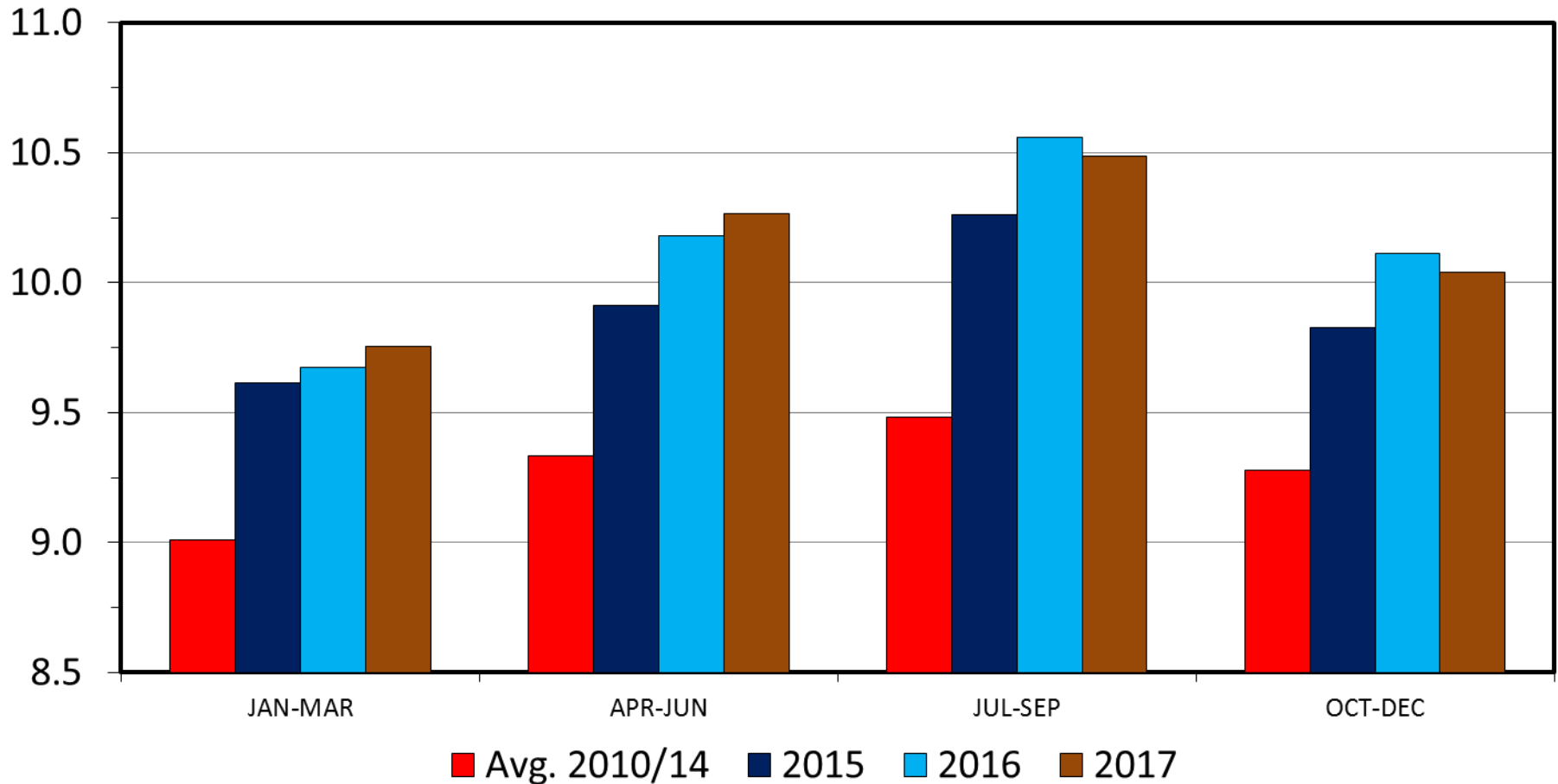


M-S-01
01/25/16

RTC BROILER PRODUCTION

US, Quarterly

Bil. Pounds



■ Avg. 2010/14 ■ 2015 ■ 2016 ■ 2017

Data Source: USDA-NASS, Forecasts by LMIC

Livestock Marketing Information Center

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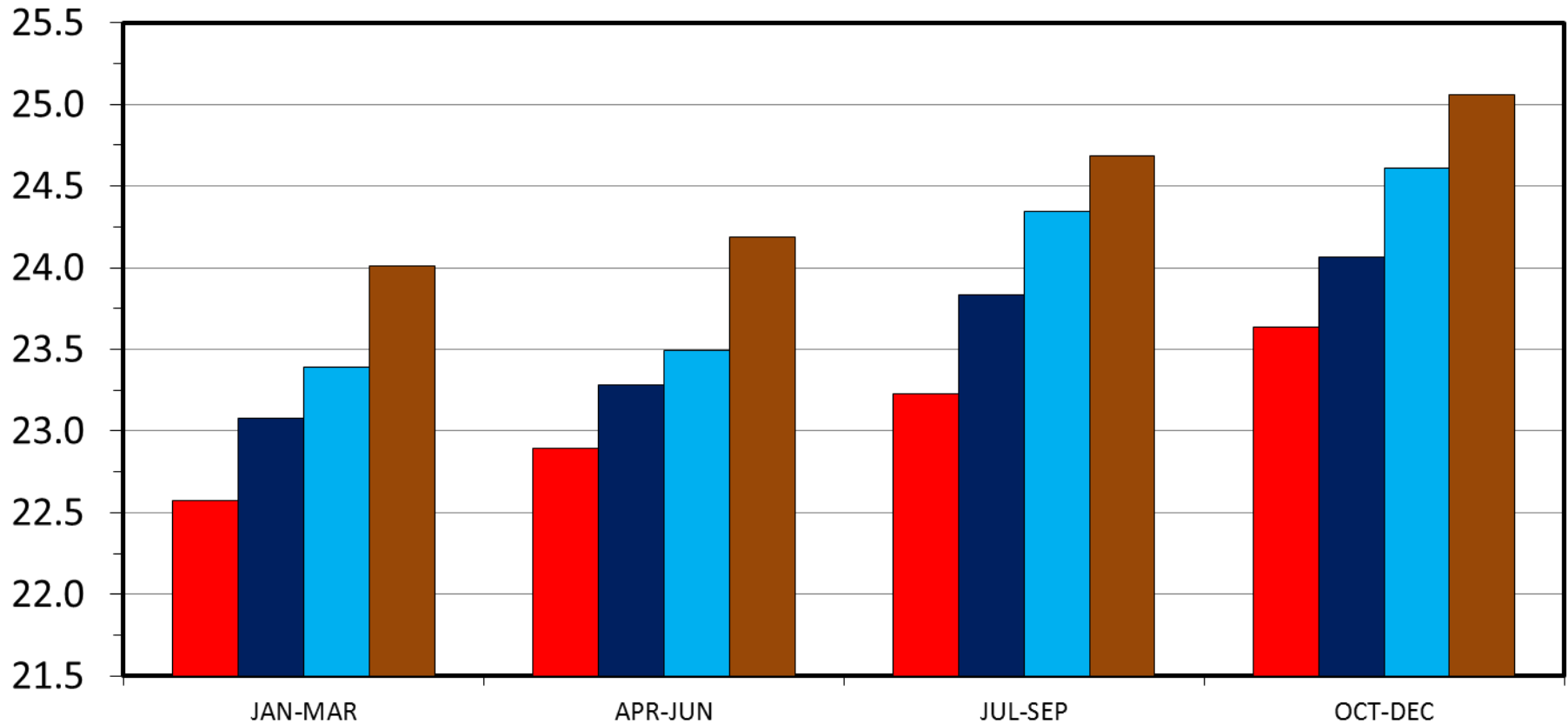


M-S-30
01/25/16

TOTAL RED MEAT & POULTRY PRODUCTION

US, Quarterly

Bil. Pounds



■ Avg. 2010/14 ■ 2015 ■ 2016 ■ 2017

Data Source: USDA-NASS, Forecasts by LMIC

Livestock Marketing Information Center

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M-S-31
01/25/16

USDA Long-Term projections (2016-2025)

Early release on Dec. 2015

Feb. 2016 full report (<http://www.usda.gov/oce/commodity/projections/>)

Per capita meat consumption, retail weight

Item	2015	2016	2017	2025	2025-2015 % Change
Beef	54.4	55.3	55.2	56.8	4.4%
Pork	49.5	49.7	50.1	51.1	3.2%
Total red meat	105.2	106.1	106.5	108.9	3.5%
Broilers	89.1	89.6	89.5	91.5	2.7%
Turkeys	15.8	16.2	16.7	17.3	9.8%
Total poultry	106.1	107.1	107.5	110.3	4.0%
Red meat & poultry	211.2	213.2	214.0	219.2	3.8%



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Item	2015	2016	2017	2025	2025-2015 % Change
Beef	54.4	55.3	55.2	56.8	4.4%
Pork	49.5	49.7	50.1	51.1	3.2%
Total red meat	105.2	106.1	106.5	108.9	3.5%
Broilers	89.1	89.6	89.5	91.5	2.7%
Turkeys	15.8	16.2	16.7	17.3	9.8%
Total poultry	106.1	107.1	107.5	110.3	4.0%
Red meat & poultry	211.2	213.2	214.0	219.2	3.8%

**2025: +3% per capita consumption
INCLUDES export growth**



USDA Long-Term projections (2016-2025)

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Pork long-term projections

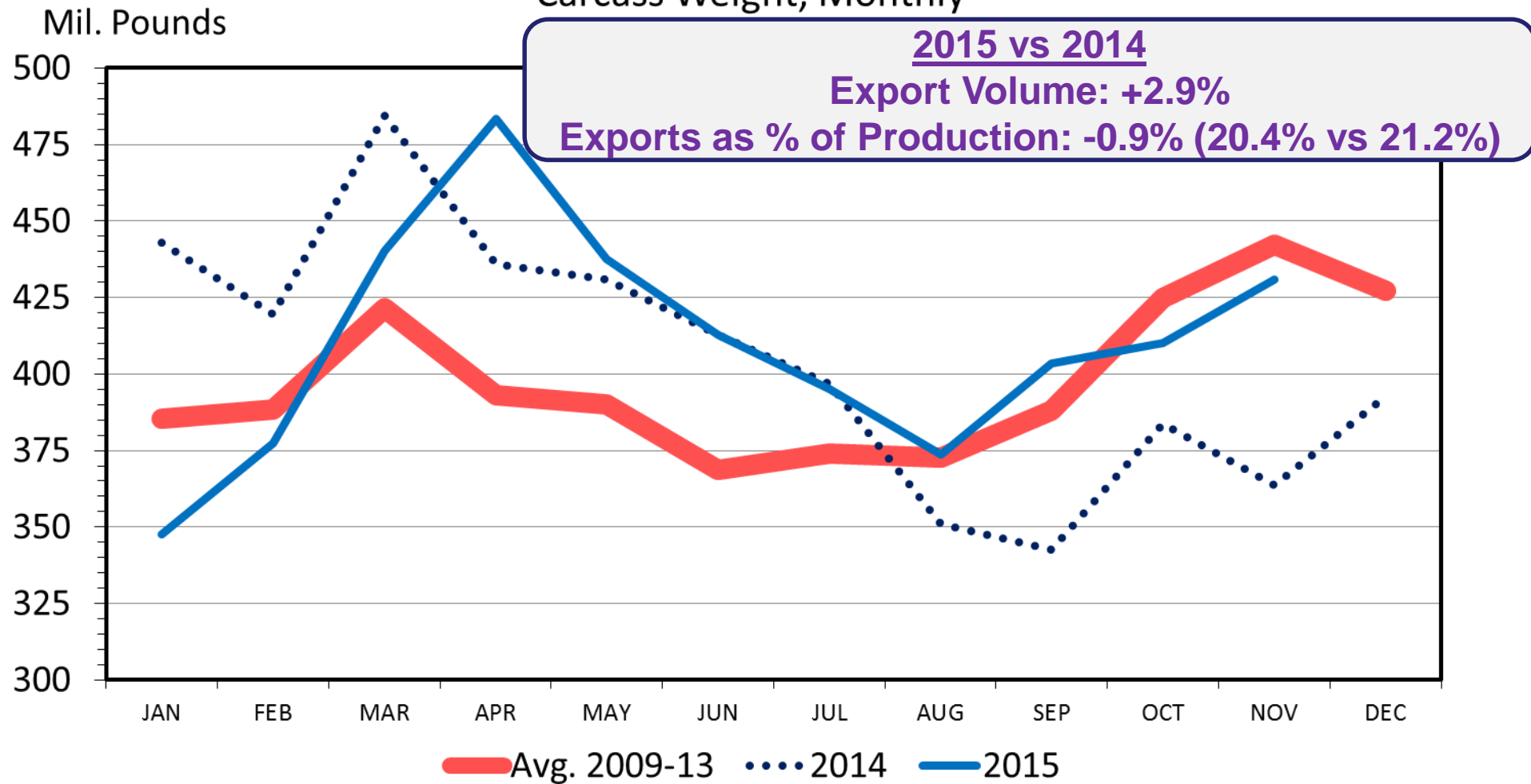
Item	Units	2015	2016	2017	2025	2025-2015 % Change
Commercial production	Mil. lbs.	24,508	24,925	25,359	27,794	13%
Change from previous year	Percent	7.3	1.7	1.7	0.9	
Total production	Mil. lbs.	24,526	24,943	25,377	27,812	13%
Exports	Mil. lbs.	4,996	5,225	5,325	6,250	25%

**2025: 23% of production exported
(20% in 2015)**



US PORK EXPORTS

Carcass Weight, Monthly



Data Source: USDA-ERS & USDA-FAS

Livestock Marketing Information Center

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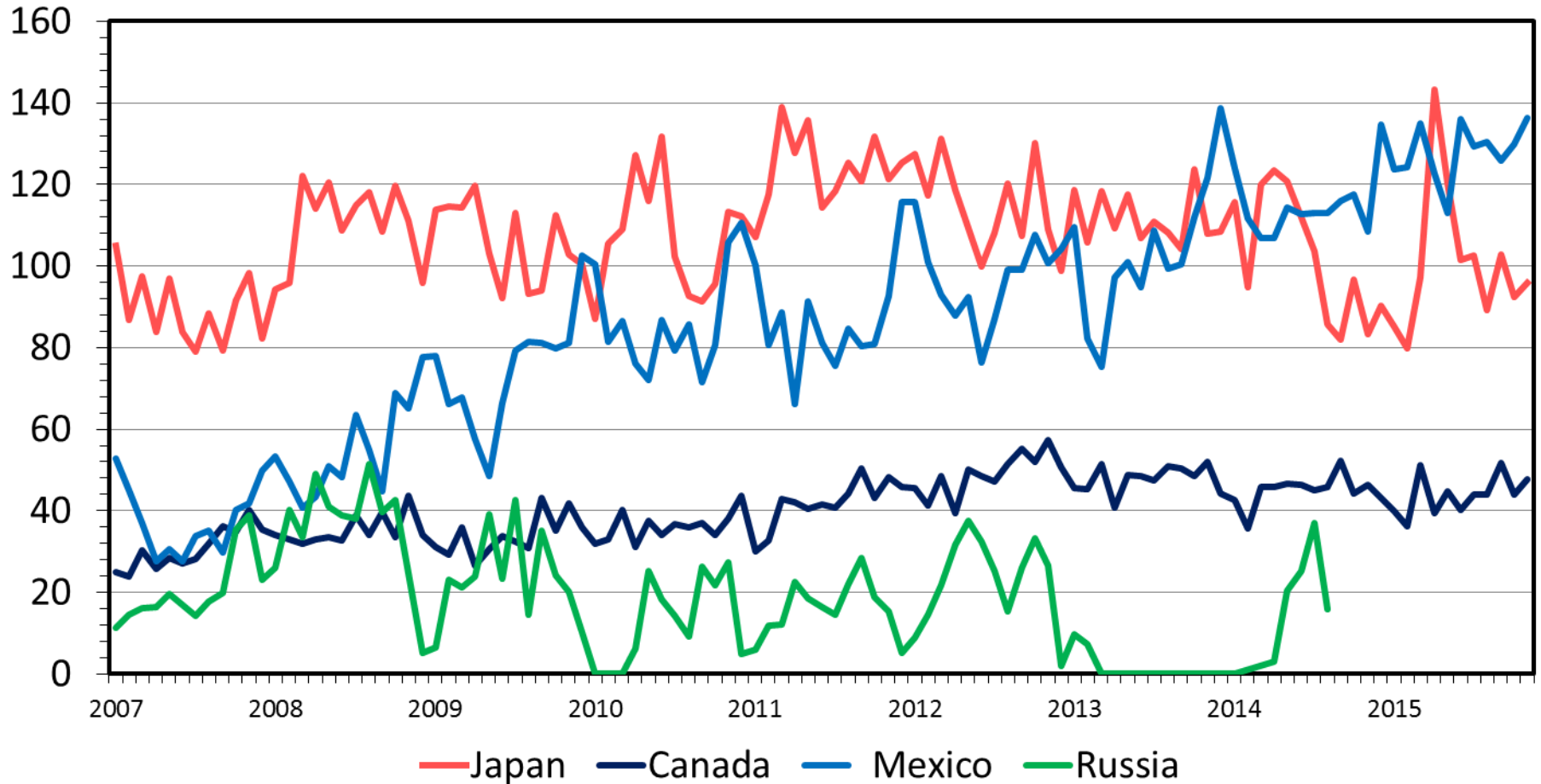


I-N-30
01/07/16

US PORK EXPORTS TO MAJOR MARKETS

Carcass Weight, Monthly

Mil. Pounds



Data Source: USDA-ERS & USDA-FAS

Livestock Marketing Information Center

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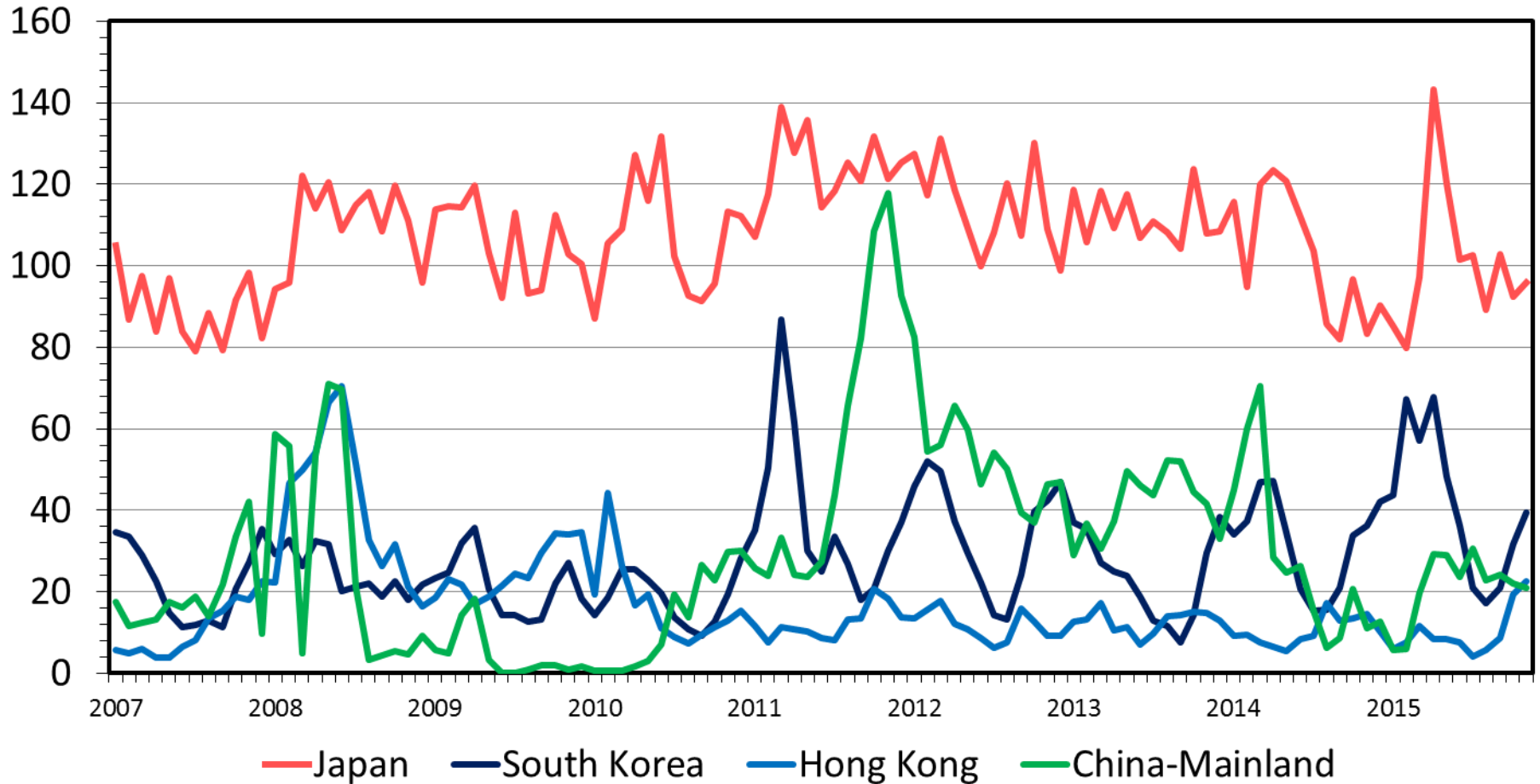


I-N-64
01/07/16

US PORK EXPORTS TO MAJOR MARKETS

Carcass Weight, Monthly

Mil. Pounds



Data Source: USDA-ERS & USDA-FAS

Livestock Marketing Information Center

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01/07/16

U.S. Pork Export Portfolio

Diversification over Time

	Share from Mexico:	Share from Mexico, Japan, and Canada:	Share from Mexico, Japan, Canada, South Korea, and China (Mainland):	Exports as % of Production
2014	28%	65%	79%	21%
2009	22%	63%	70%	18%
2004	24%	77%	85%	11%
1999	13%	65%	71%	7%



USDA Long-Term projections (2015-2024)

Trade data last released Feb. 2015

Feb. 2016 full report (<http://www.usda.gov/oce/commodity/projections/>)

Table 15. Pork trade long-term projections

	2014	2024	10-yr Growth	Import Shares	
				2014	2024
Importers (thousand metric tons, carcass weight)					
Japan	1,320	1,300	-2%	26%	21%
China	810	1,406	74%	16%	23%
Hong Kong	350	427	22%	7%	7%
South Korea	440	547	24%	9%	9%
Russia	460	360	-22%	9%	6%
Mexico	815	1,152	41%	16%	19%
Central America/Caribbean	137	150	9%	3%	2%
Canada	210	259	23%	4%	4%
United States	441	455	3%	9%	8%
Major importers	4,983	6,054	21%		



USDA Long-Term projections (2015-2024)

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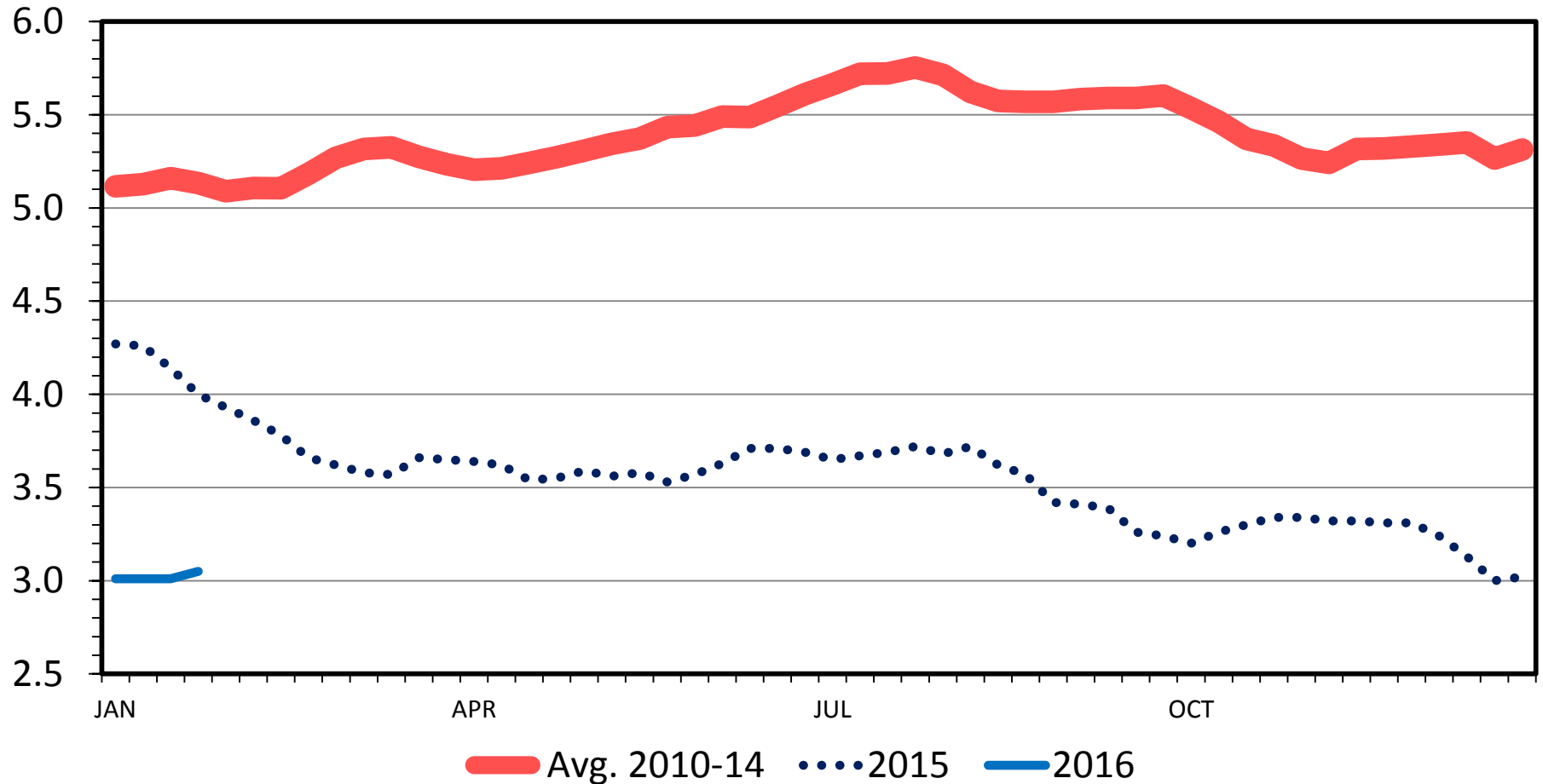
Exporters (thousand metric tons, carcass weight)			10-yr Growth	Export Shares		
				2014	2024	
Brazil	585	840		44%	9%	11%
Canada	1,180	1,290		9%	18%	16%
Mexico	120	165		38%	2%	2%
European Union	2,150	2,595		21%	33%	33%
China	275	333		21%	4%	4%
United States	2,298	2,744		19%	35%	34%
Major exporters	6,608	7,967		21%	100%	100%



HOG BY-PRODUCT VALUE

Live Animal Basis, Weekly

\$ Per Cwt.



Data Source: USDA-AMS

Livestock Marketing Information Center

02/01/16

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Pork long-term projections

Item	Units	2015	2016	2017	2025	2025-2015 % Change
------	-------	------	------	------	------	--------------------

2025: -22% Hog/Corn Price Ratio
Reflects long-term commodity profits
(ON AVERAGE)

Prices:

National base, live equivalent	\$/cwt	50.82	48.50	46.08	40.60	-20%
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Feed price ratio:

Hog-corn	Ratio	14.5	14.1	13.5	11.4	-22%
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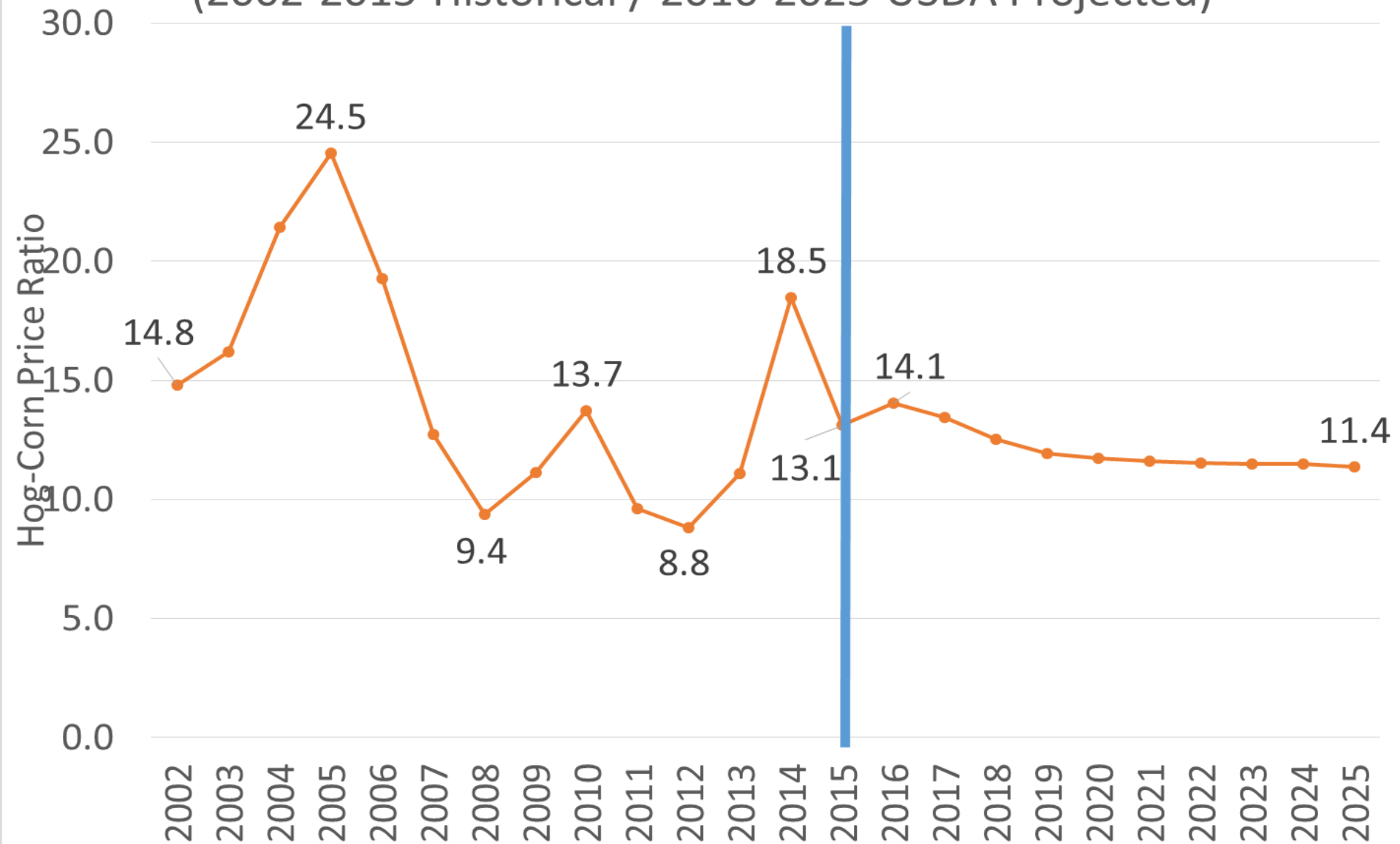
Hog inventory,

December 1, previous year	1,000 head	67,776	68,025	68,662	72,237	7%
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Hog-Corn Price Ratio

(2002-2015 Historical / 2016-2025 USDA Projected)



Comparative Advantage: Self Assessment

- Necessary for each successful operation
 - Long-term economic profits = \$0/hd
 - See “Hog-Corn” price ratio in USDA 10-yr forecasts...



Comparative Advantage: Self Assessment

- Necessary for each successful operation
 - Long-term economic profits = \$0/hd
- Necessary for U.S. as a whole
 - Export growth CRUCIAL for U.S.



Other “Big Issues” to Note

- MCOOL
- TTP
- Industry Physical Capacity vs. Herd Size
- PEDv lessons
- Lower oil prices
- “Science working” \neq Public acceptance



Take-Home Summary Points

- Supplies will continue to grow
- Demand has been key – MUST APPRECIATE
- Role of exports will expand further
= ~ **Break-evens for average cost producers**



Take-Home Summary Points

- Supplies will continue to grow
- Demand has been key – MUST APPRECIATE
- Role of exports will expand further
 - = ~ Break-evens for average cost producers
- **Do you know your comparative advantage?**
Are you leveraging it effectively?



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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