



# **NEW YORK BEEF PRODUCERS' ASSOCIATION**

Annual Meeting, Winter Conferences and Awards Banquet

January 20-22, 2017 Double Tree Hotel, E. Syracuse, NY

**The Theme is "Healthy Cows, Profitable Producers, Happy Consumers"**

The Conference which is sponsored in part by Zoetis and Cattlemen's College, will feature speakers encompassing a variety of topics that you our members have asked for.

## ***Beef Cattle Market Outlook***

**Glynn Tonsor**

**Dept. of Ag. Economics Kansas State University**



# “Interesting Times” in the Beef Industry

*Veterinary Feed  
Directive*

*Cease of Georgia Dock Price/ MPR  
Discussions*

*TRADE w/  
BRAZIL*

*TPP/TTIP & US  
Election*

*Q4-2016 Hog Slaughter  
Capacity*

*In China Beef Trade, U.S. Gain May  
Mean Australia Pain*

*Re-emergence of  
MCOOL?*

*CME LC  
CONTRACT  
CHANGES*

*CME FC  
INDEX  
CHANGES*

*CATTLE  
MARKETS  
“BROKEN”*

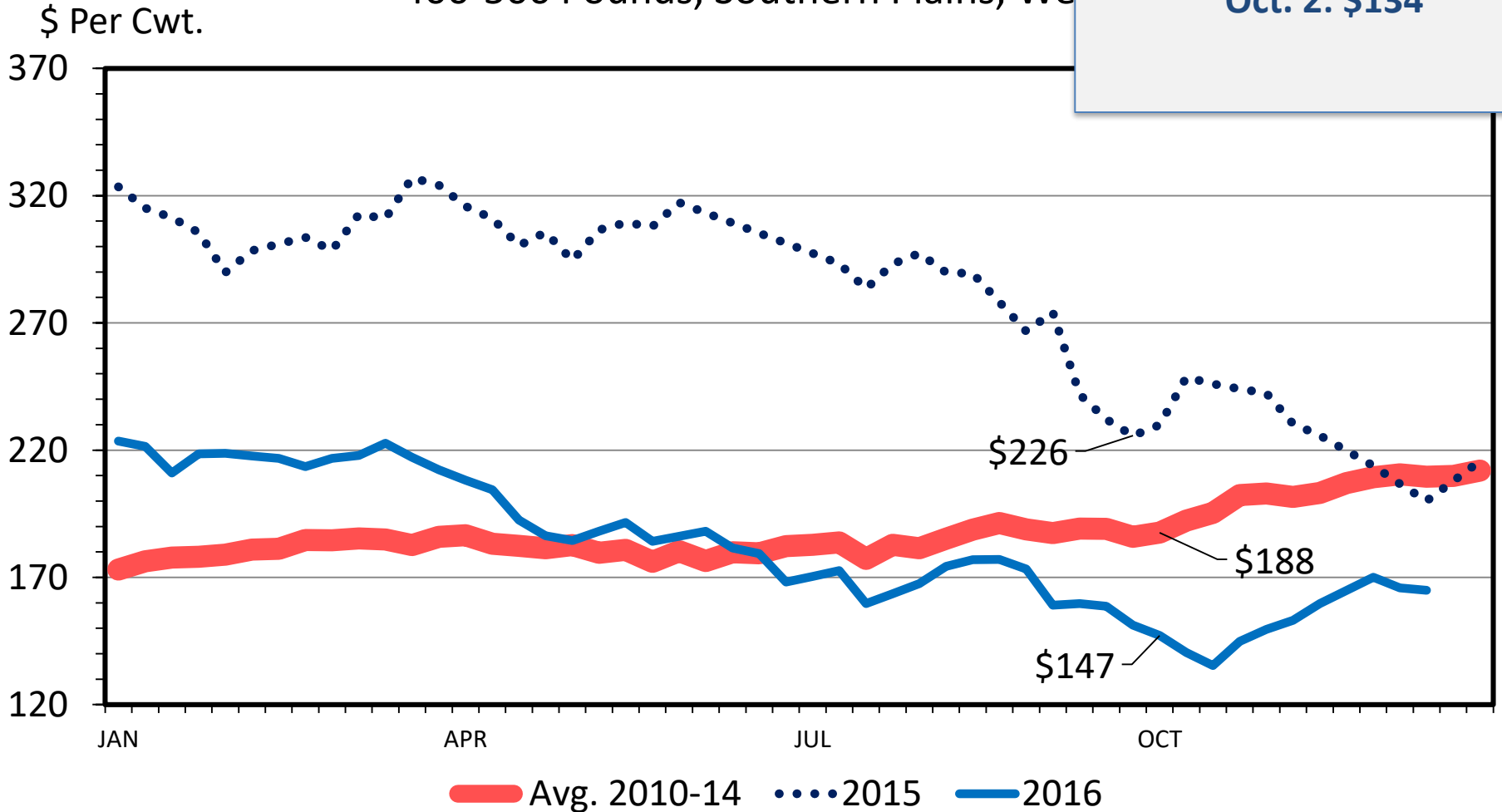
# Overarching Beef Industry Economic Outlook

- Supplies
  - Larger across all proteins
    - Herd expansion stopped?
  
- Demand
  - Confusing & slower in 2016

# MED. & LRG. #1 STEER CALF PR

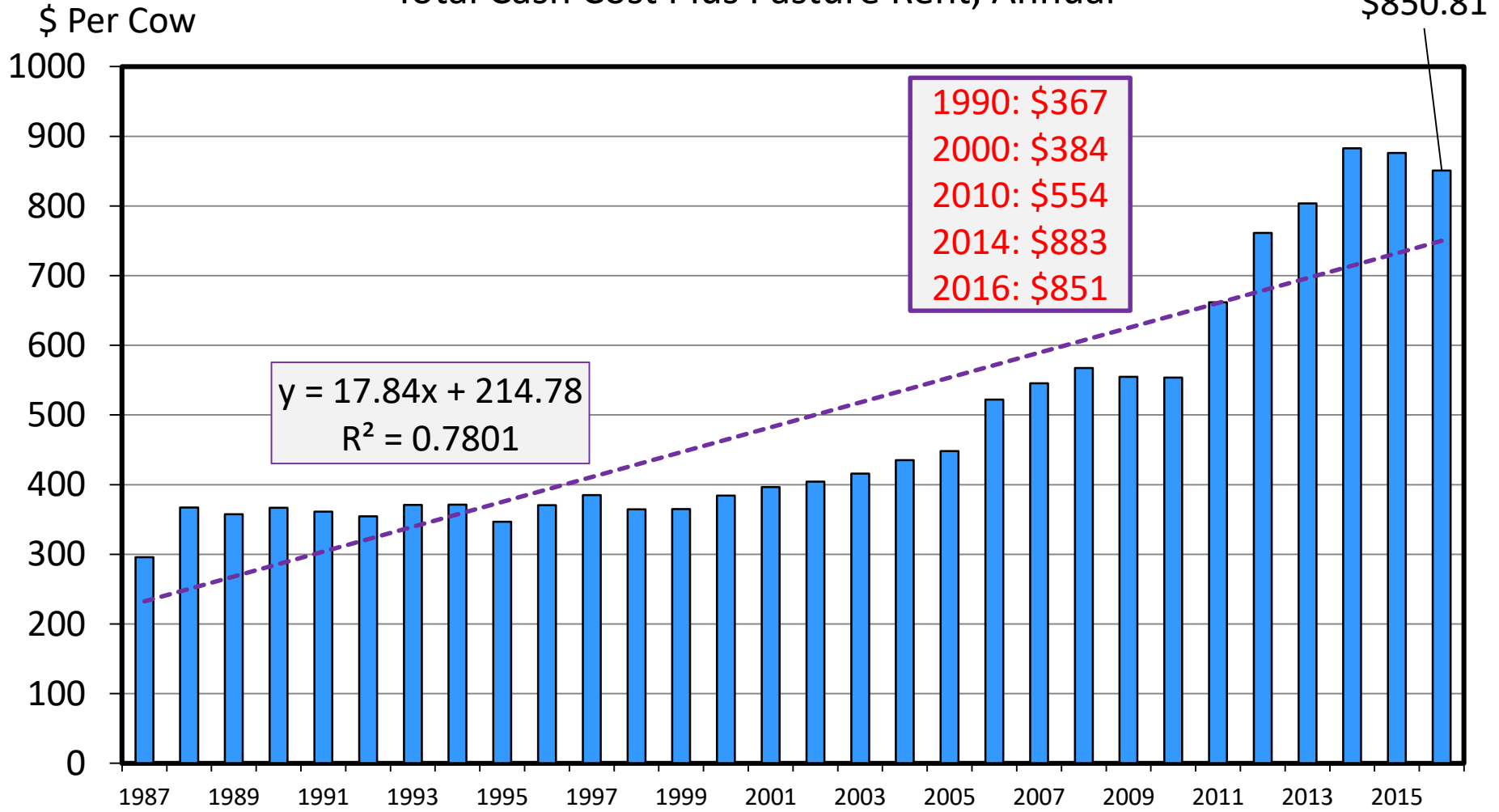
400-500 Pounds, Southern Plains, We

Beef Basis, Salina KS  
 Projections (as of 1/17):  
 Oct. 2: \$134



# ESTIMATED AVERAGE COW CALF COSTS

Total Cash Cost Plus Pasture Rent, Annual



Data Source: USDA & LMIC, Compiled by LMIC

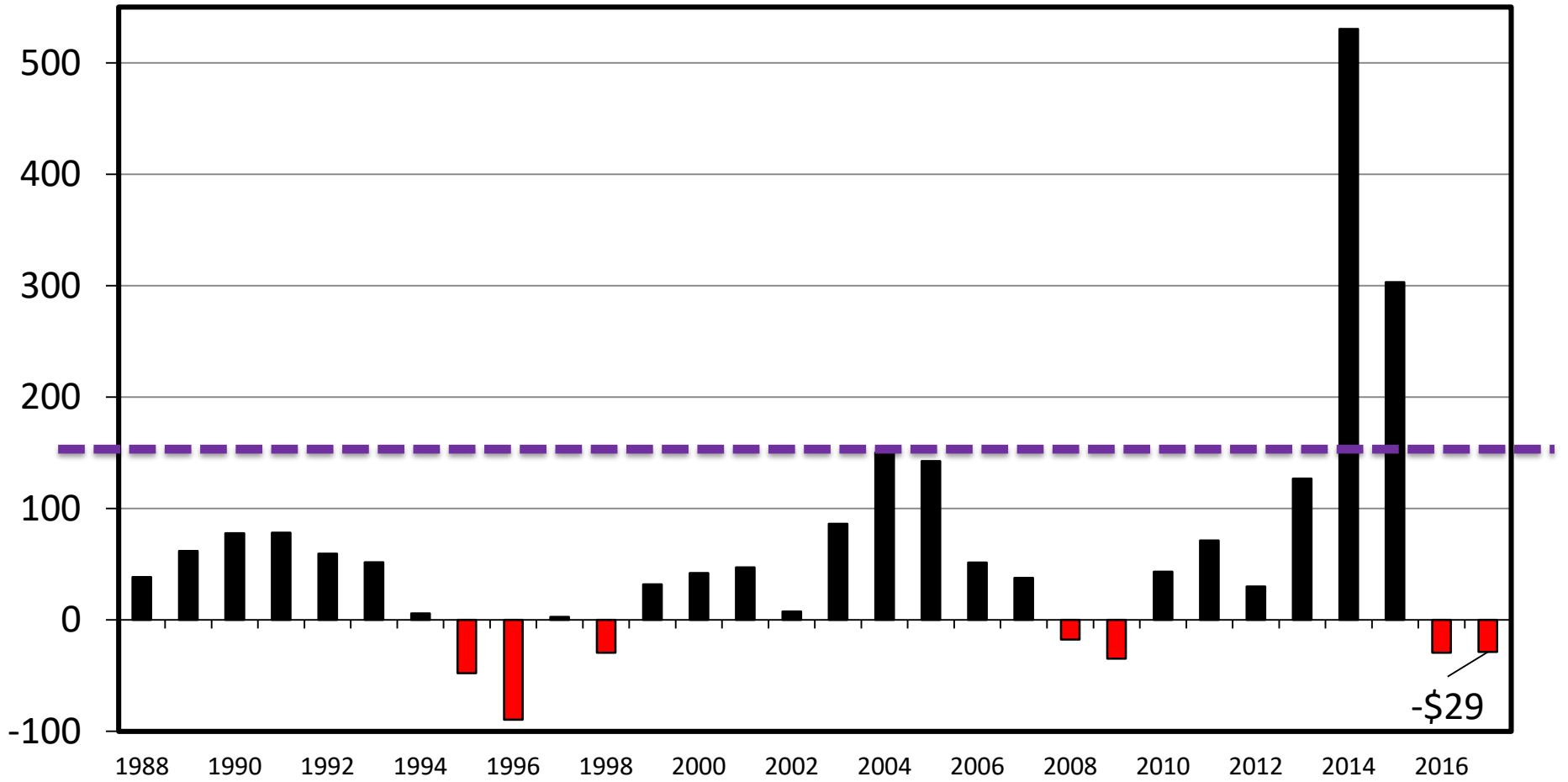
Livestock Marketing Information Center

08/02/16

# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual

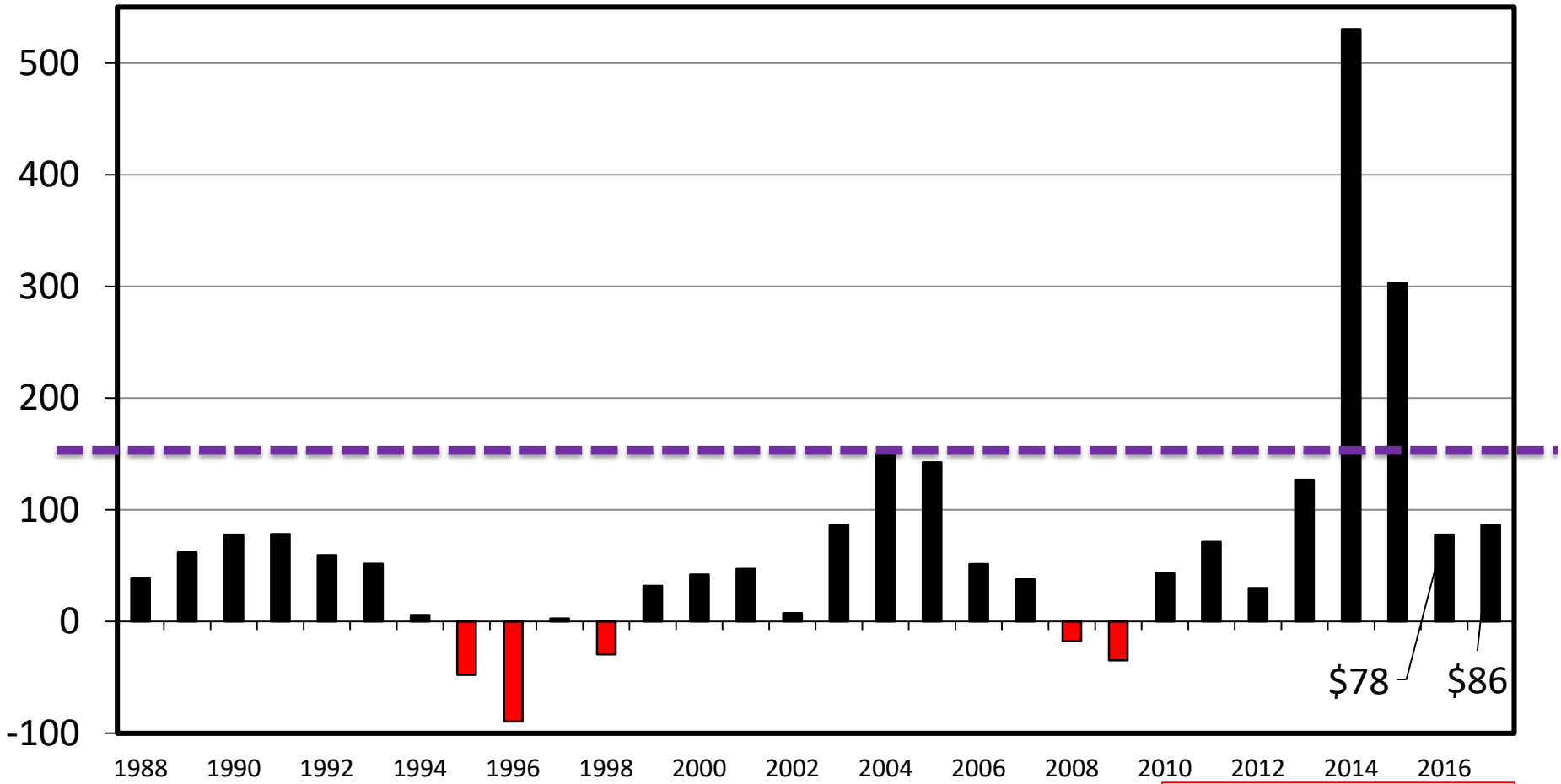
\$ Per Cow



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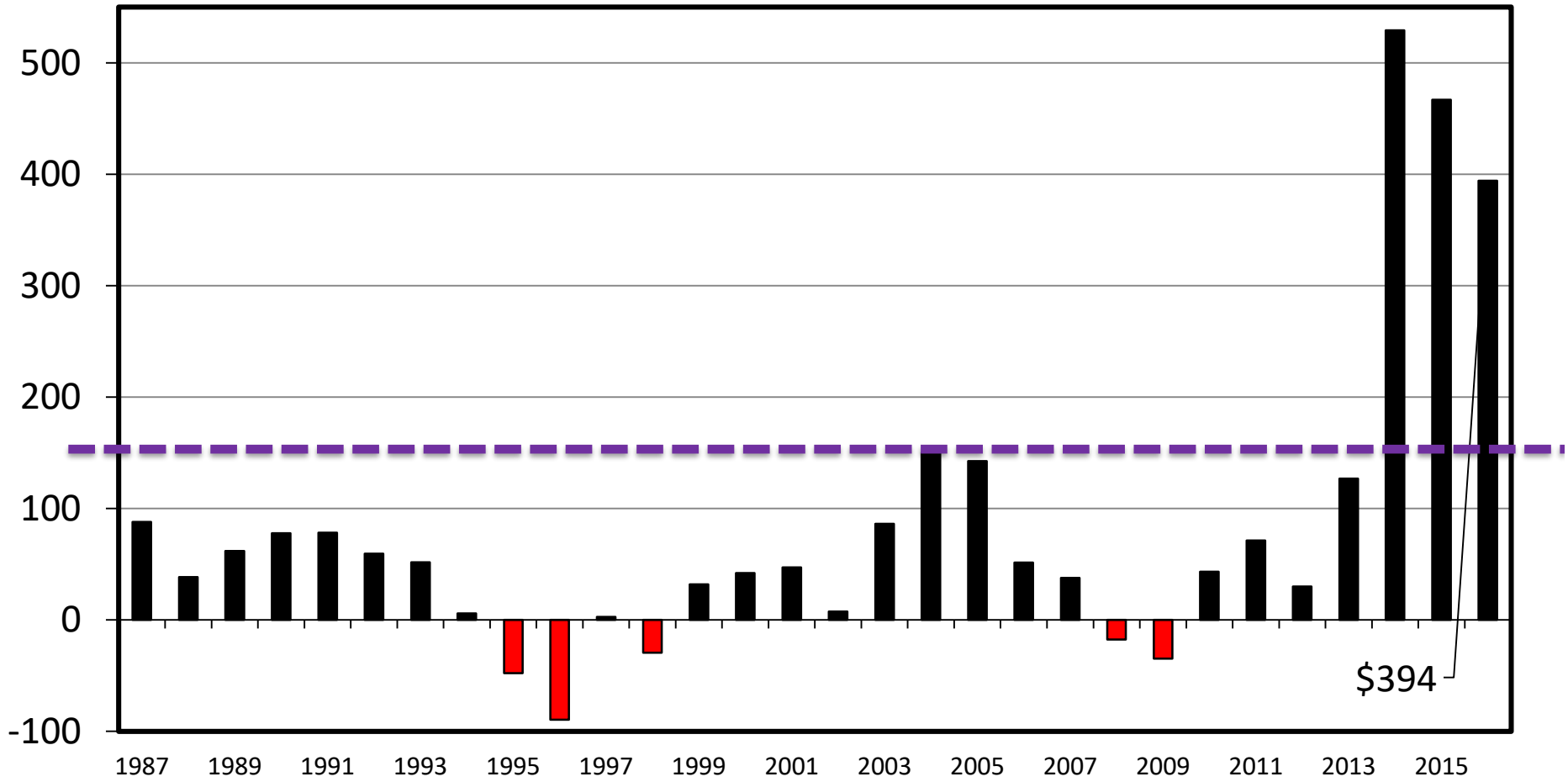
Data Source: USDA & LMIC, Compiled by LMIC  
Livestock Marketing Information Center

**C-P-66**  
**09/02/16**

# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual

\$ Per Cow



\$394

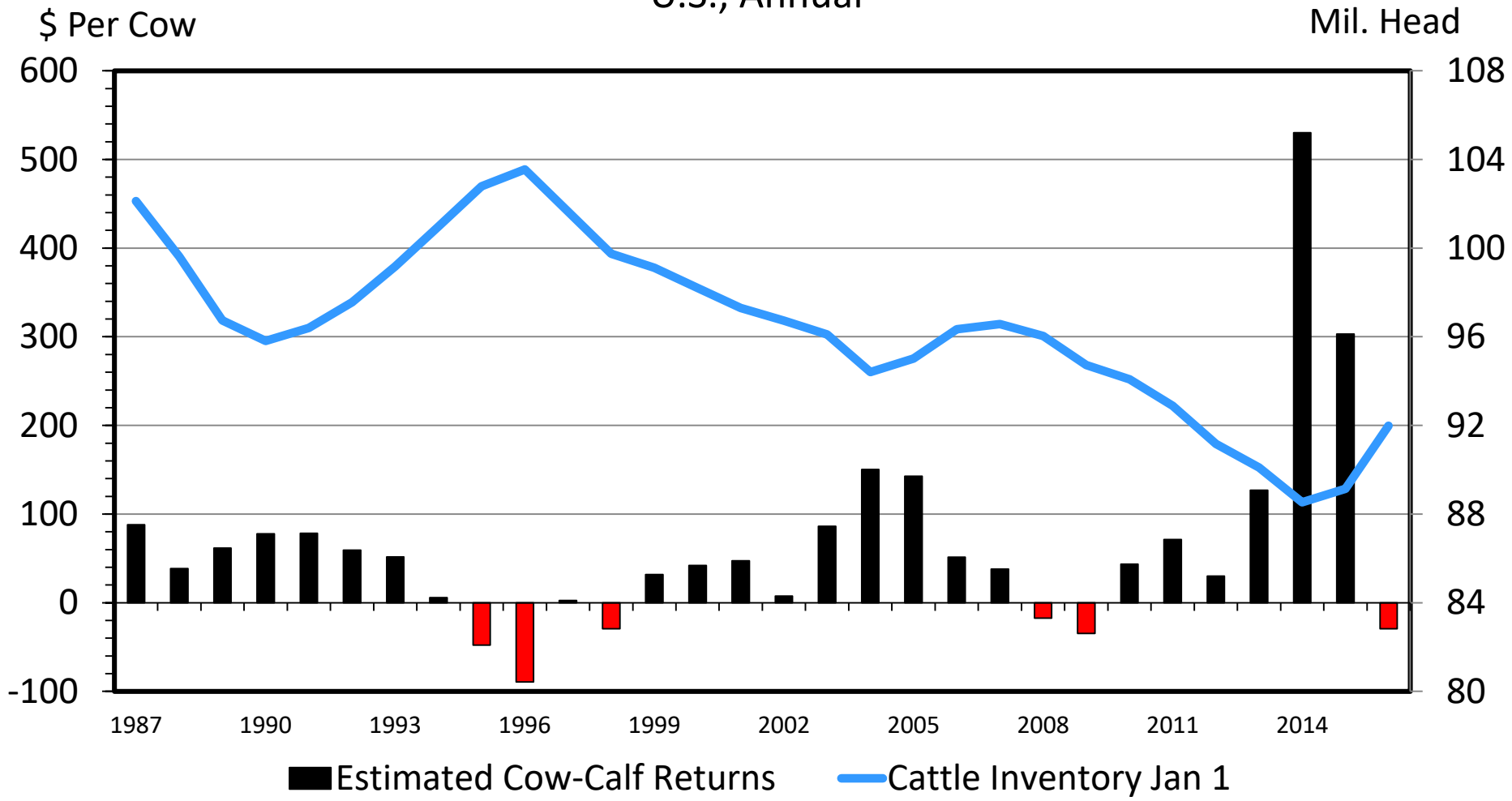
Data Source: USDA & LMIC, Compiled by LMIC  
 Livestock Marketing Information Center

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**09/04/15**



# COW-CALF RETURNS AND CATTLE INVENTORY

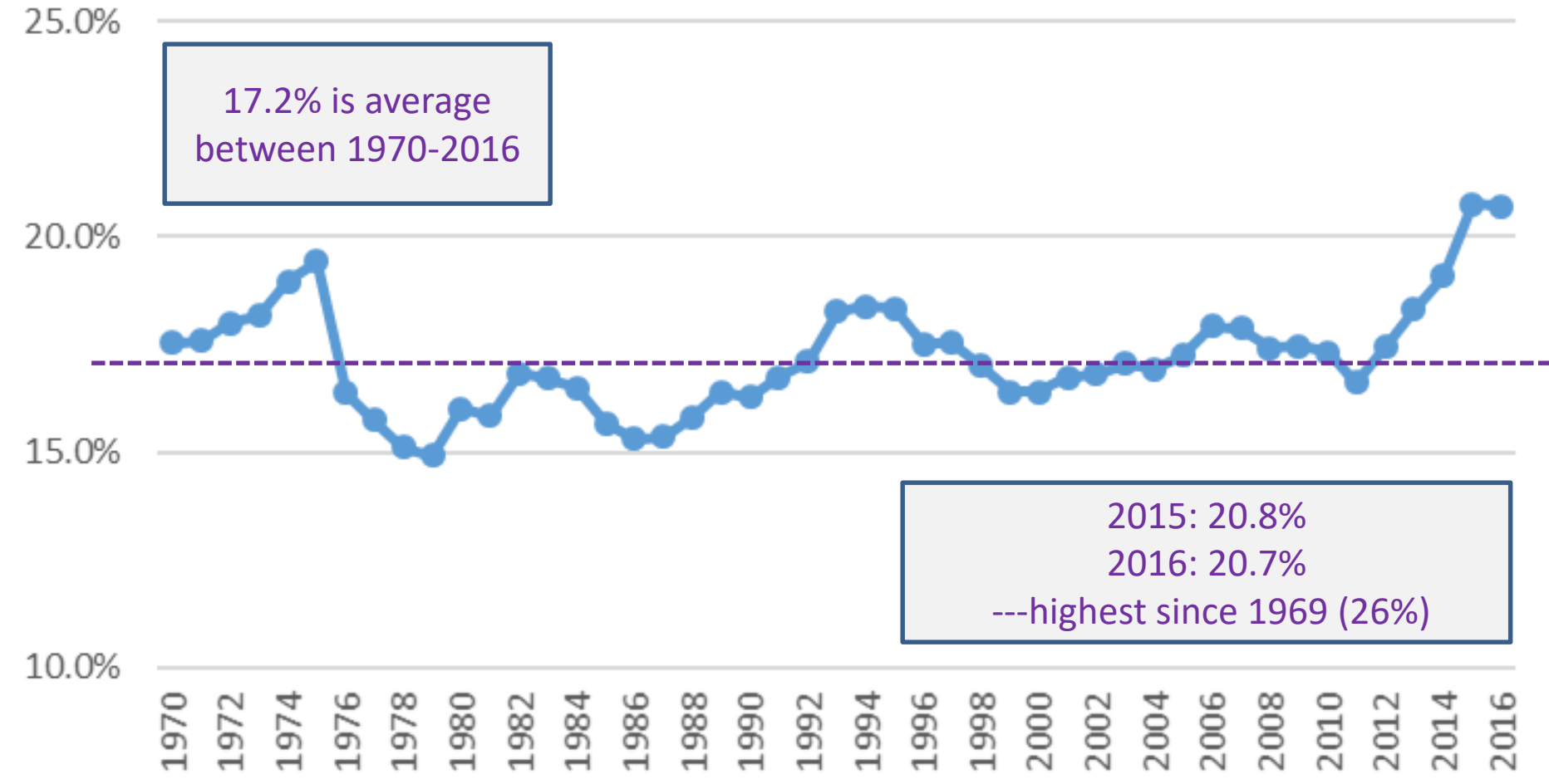
U.S., Annual



Data Source: USDA-AMS & USDA-NASS, Compiled and Analysis by LMIC  
 Livestock Marketing Information Center

C-P-67  
 12/29/16

# Heifer Retention as % of Total Beef Cows



Data Source: USDA-NASS  
Livestock Marketing Information Center

# **Differences Between High-, Medium-, and Low-Profit Cow-Calf Producers: An Analysis of 2011-2015 Kansas Farm Management Association Cow-Calf Enterprise**

*Dustin L. Pendell ([dpendell@ksu.edu](mailto:dpendell@ksu.edu)) and Kevin L. Herbel ([kherbel@ksu.edu](mailto:kherbel@ksu.edu))*

*Kansas State University Department of Agricultural Economics – November 2016*

[http://www.agmanager.info/sites/default/files/pdf/DifferencesBetweenHighMediumLowProfitCow-CalfProducers\\_2011-2015.pdf](http://www.agmanager.info/sites/default/files/pdf/DifferencesBetweenHighMediumLowProfitCow-CalfProducers_2011-2015.pdf)

# Variability of Cow-Calf Returns

- Variability over 41 Years
  - Avg Returns Over Total Cost:  $-\$91/\text{cow}$
  - Low of  $-\$306$  & High of  $+\$226$
- Greater Variability ACROSS PRODUCERS

# Variability of Cow-Calf Returns

**Table 1. Beef Cow-Calf Enterprise Returns over Total Costs, 2011-2015 (minimum of 3 years)\***

	All Farms	Profit Category			Difference between High 1/3 and Low 1/3	
		High 1/3 Head / \$	Mid 1/3 Head / \$	Low 1/3 Head / \$	Absolute	%
Number of Farms	72	24	24	24		
Labor allocated to livestock, %	33.7	39.9	29.7	31.5	8	27%
Number of Cows in Herd	140	200	120	101	99	98%
Number of Calves Sold	128	184	111	91	93	103%
Calves Sold per Cow in Herd	0.916	0.919	0.926	0.897	0.02	2%
Weight of Calves Sold, lbs.	618	642	619	594	48	8%
Calf Sales Price / Cwt	\$167.22	\$166.39	\$164.51	\$170.75	-\$4.36	-3%
<b>Gross Income</b>	<b>\$1,005.67</b>	<b>\$1,049.70</b>	<b>\$1,008.67</b>	<b>\$958.64</b>	<b>\$91.06</b>	<b>9%</b>
Feed	\$369.31	\$279.89	\$378.70	\$449.33	-\$169.44	-38%
Pasture	\$164.33	\$170.88	\$164.82	\$157.28	\$13.60	9%
Interest	\$149.09	\$142.96	\$151.16	\$153.16	-\$10.21	-7%
Vet Medicine / Drugs	\$28.40	\$23.63	\$29.61	\$31.97	-\$8.34	-26%
Livestock Marketing / Breeding	\$19.15	\$10.52	\$23.41	\$23.53	-\$13.02	-55%
Depreciation	\$57.89	\$44.25	\$56.54	\$72.88	-\$28.63	-39%
Machinery	\$96.39	\$86.38	\$93.75	\$109.05	-\$22.66	-21%
Labor	\$172.28	\$152.55	\$161.36	\$202.93	-\$50.38	-25%
Other	\$48.65	\$43.15	\$41.30	\$61.50	-\$18.34	-30%
<b>Total Cost</b>	<b>\$1,105.49</b>	<b>\$954.20</b>	<b>\$1,100.65</b>	<b>\$1,261.63</b>	<b>-\$307.43</b>	<b>-24%</b>
<b>Net Return to Management</b>	<b>-\$99.83</b>	<b>\$95.50</b>	<b>-\$91.98</b>	<b>-\$302.99</b>	<b>\$398.49</b>	

\*Sorted by Net Returns over Total Costs per Cow

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# Cow-Calf – Expansion Discussion

- *What Can I pay for a Replacement?*
  - *KSU-Beef Replacement* spreadsheet
  - Two fact sheets and video tutorial also available online:
    - <http://www.agmanager.info/livestock/budgets/production/default.asp>

# Cow-Calf – Expansion Discussion

## • *What Can I pay for a Replacement?*

***KSU-Beef Replacement*** spreadsheet (<http://www.agmanager.info/livestock/budgets/production/default.asp>)

[Print information](#)

### Input Assumptions

Number of replacements purchased	100	Percent marketable calves (1 - death loss)	97.0%
Year of purchase	2017	Annual cow death loss	0.5%
First year for calf sales	2018	Annual cull rate	15.0%
Cull cow weight, lbs/hd	1,250	Annual inflation rate on costs	1.0%
Annual cow costs, \$/year	\$800	Annual increase in average weaning weight	0.0%
Price scenario to use (1-3) (USDA (As of Dec. '16))	1	Discount rate (interest rate)	7.5%
Weaning weight scenario to use (1-3)	1		

### Net Present Value Analysis

Year	Cows at		Prices, \$/cwt		Calf Income	Cull Income			Cost Adj.	Net Income	Discount factor	NPV**	
	BOY*	Calf	Calf wt	Calf		Cull	Annual	Age					Cost
2018	100.0	1	542	\$170.60	\$75.69	\$897	\$141.92	\$800	\$808	\$0	\$231	0.9302	\$958
2019	84.5	2	552	\$166.96	\$74.46	\$755	\$117.97	\$665	\$690	\$0	\$184	0.8653	\$949
2020	71.4	3	562	\$153.03	\$68.71	\$596	\$91.98	\$518	\$589	\$0	\$99	0.8050	\$871
2021	60.3	4	567	\$149.27	\$67.24	\$495	\$76.06	\$428	\$502	\$0	\$69	0.7488	\$826
2022	51.0	5	572	\$141.37	\$63.95	\$400	\$61.13	\$344	\$429	\$0	\$32	0.6966	\$768
2023	43.1	6	572	\$141.14	\$63.84	\$337	\$51.57	\$291	\$366	\$0	\$23	0.6480	\$731
2024	36.4	7	567	\$138.12	\$62.33	\$277	\$42.54	\$240	\$312	\$0	\$7	0.6028	\$691
2025	30.8	8	565	\$137.19	\$61.85	\$231	\$35.67	\$201	\$266	\$0	\$0	0.5607	\$660
2026	26.0	9	562	\$135.69	\$61.08	\$192	\$29.77	\$168	\$227	\$0	-\$5	0.5216	\$632
2027	22.0	10	559	\$135.95	\$61.08	\$162	\$25.15	\$142	\$194	\$0	-\$7	0.4852	\$610

\* BOY = Beginning of year

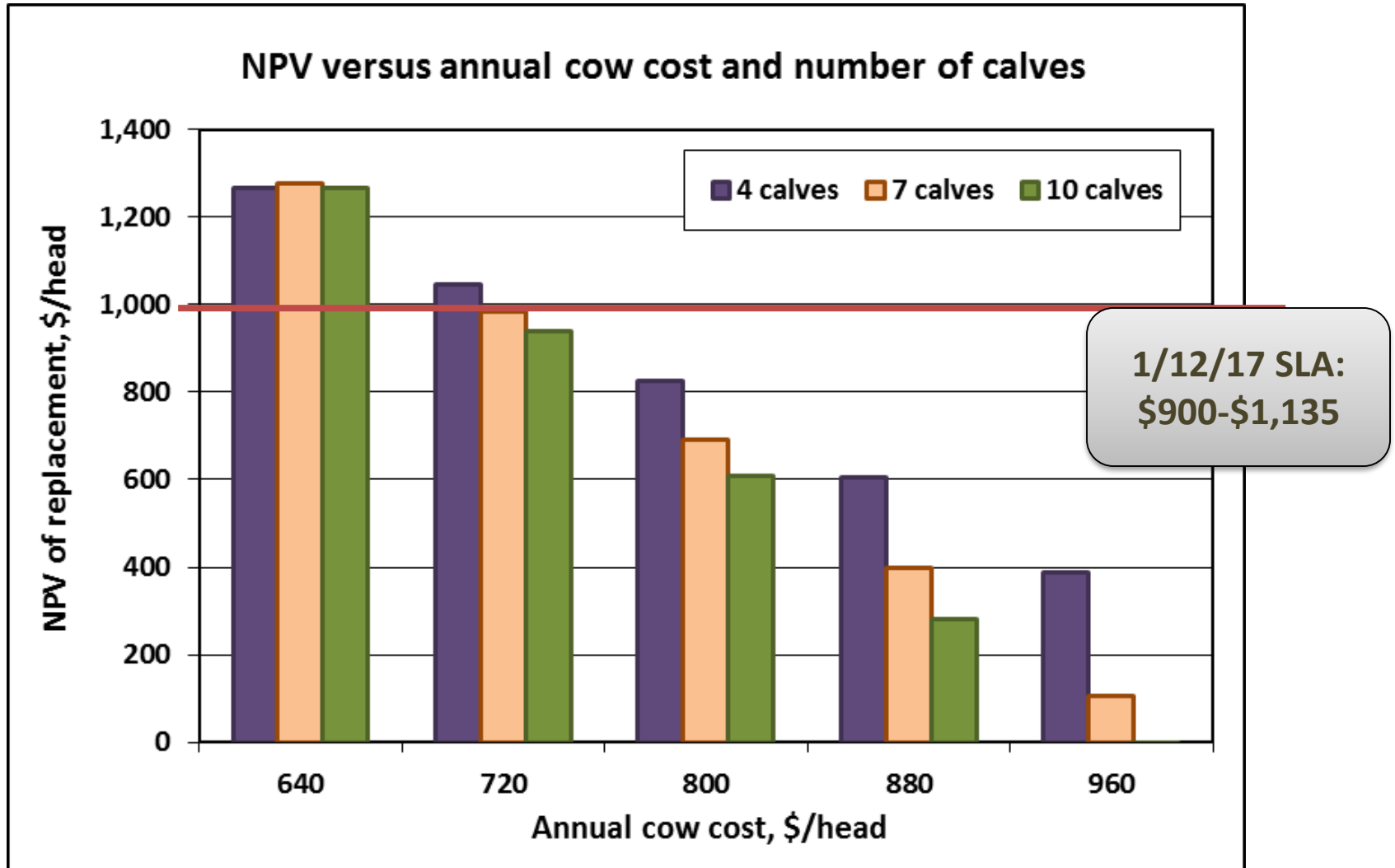
\*\* Net present value if replacement is sold in this year



# Cow-Calf – Expansion Discussion

- *What Can I pay for a Replacement?*

*KSU-Beef Replacement* spreadsheet (<http://www.agmanager.info/livestock/budgets/production/default.asp>)



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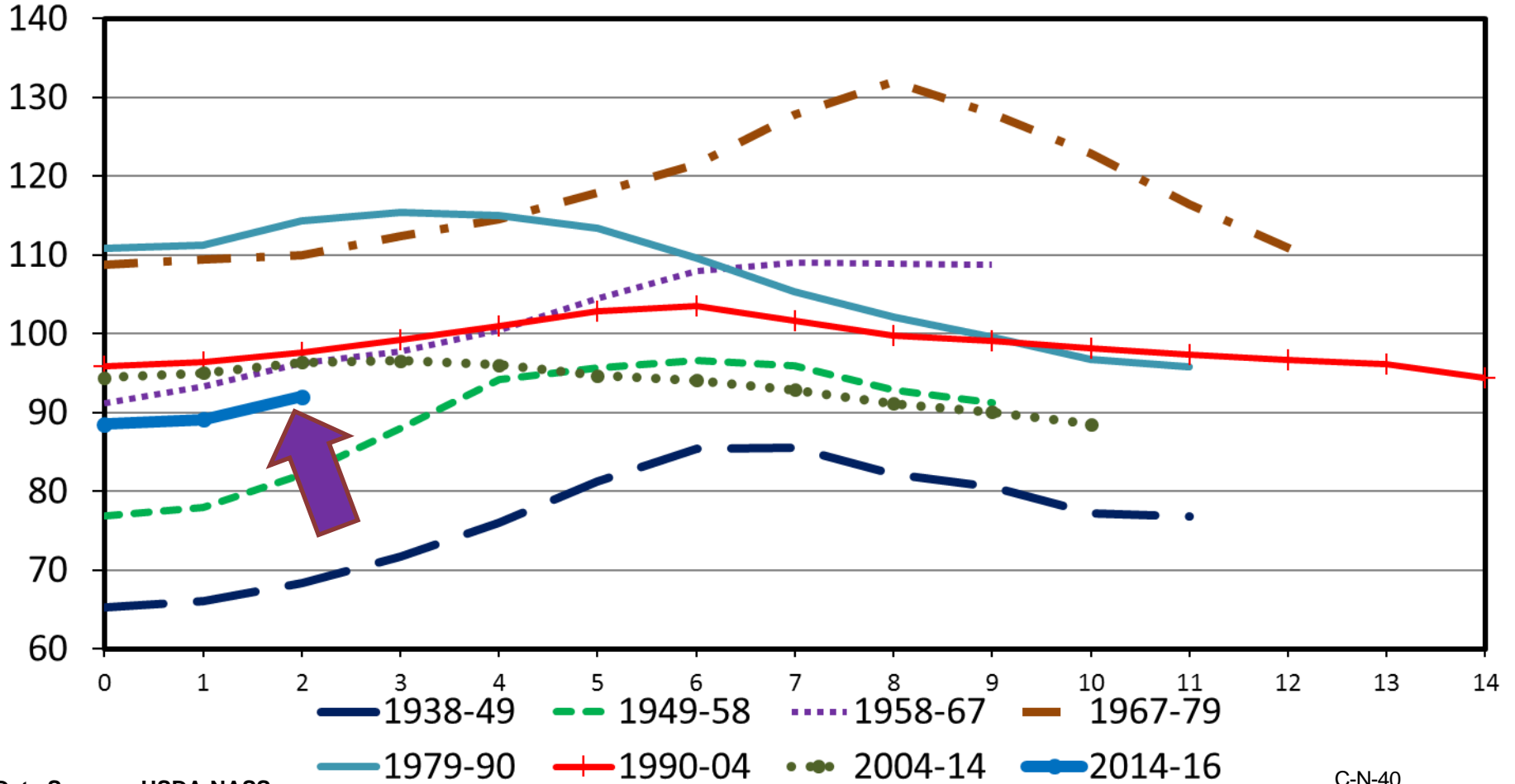
**Table 1. Net Present Value of Beef Replacements, Sensitivity Analysis Summary\***

Year	Number of Calves	Base Case	10% Lower Cow Costs/yr	10% Lower Discount Rate	10% Higher Calf Prices
2018	1	\$958	\$1,034	\$965	\$1,130
2019	2	\$949	\$1,084	\$961	\$1,180
2020	3	\$871	\$1,053	\$885	\$1,143
2021	4	\$826	\$1,046	\$842	\$1,132
2022	5	\$768	\$1,017	\$784	\$1,098
2023	6	\$731	\$1,004	\$748	\$1,082
2024	7	\$691	\$984	\$707	\$1,058
2025	8	\$660	\$967	\$675	\$1,039
2026	9	\$632	\$951	\$646	\$1,020
2027	10	\$610	\$938	\$623	\$1,005

# TOTAL CATTLE INVENTORY BY CYCLE

U.S., January 1

Mil. Head



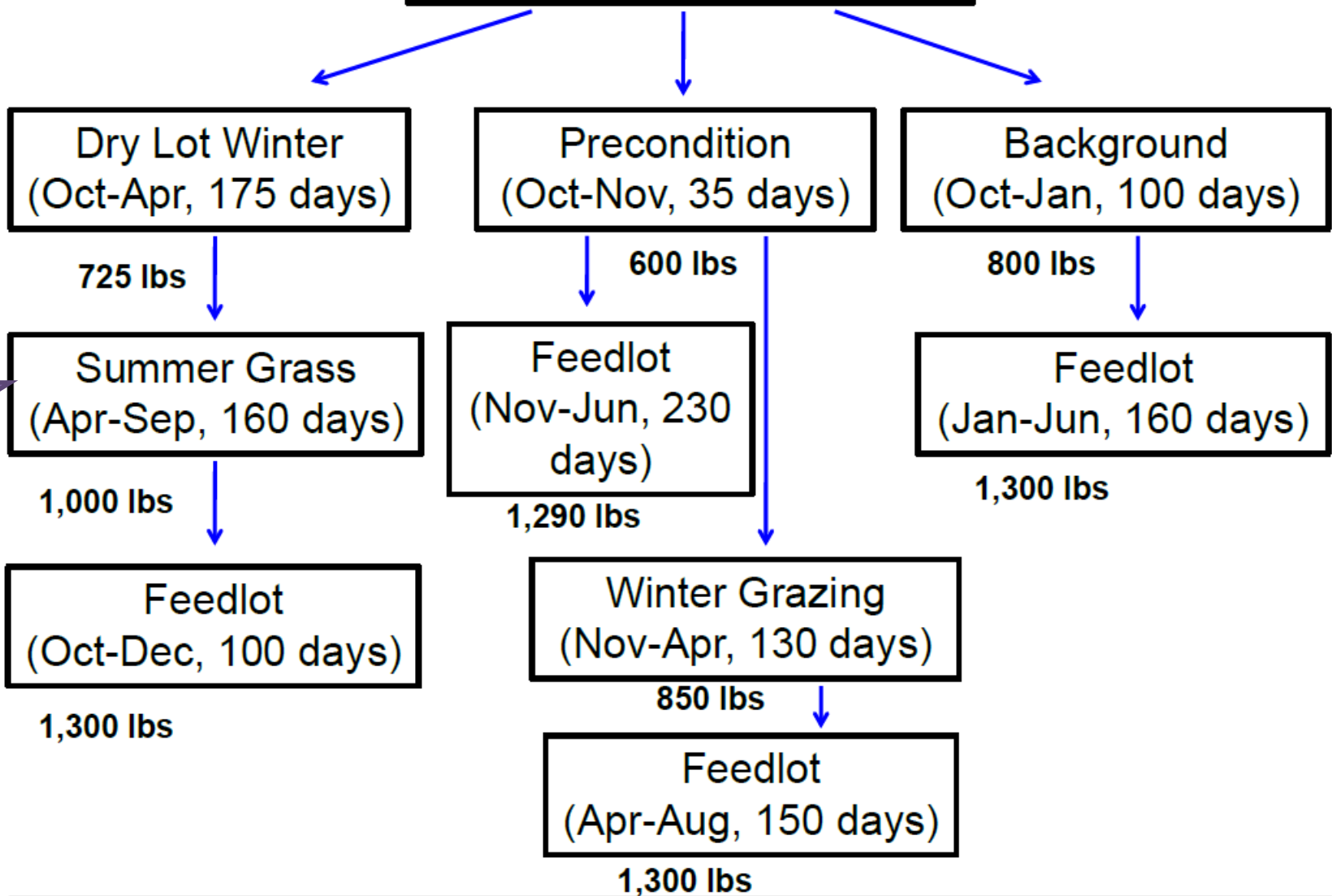
Data Source: USDA-NASS

Livestock Marketing Information Center

C-N-40  
02/01/16

# Economic Outlook Overview: Backgrounding/Stockers

# Fall Weaned 550# Calf



# Economic Outlook Overview: Stockers

<http://www.beefbasis.com/ForecastingTools/ValueofGain/tabid/1132/Default.aspx>

- Salina, KS 1/17/17 Summer Grass, 155 DOF Case:
  - Buy 725 lb steer on 04/05/17 (\$129.17)
  - Sell 900 lb steer on 09/06/17 (\$119.63) {ADG 1.13}
    - VOG: \$80.13/cwt

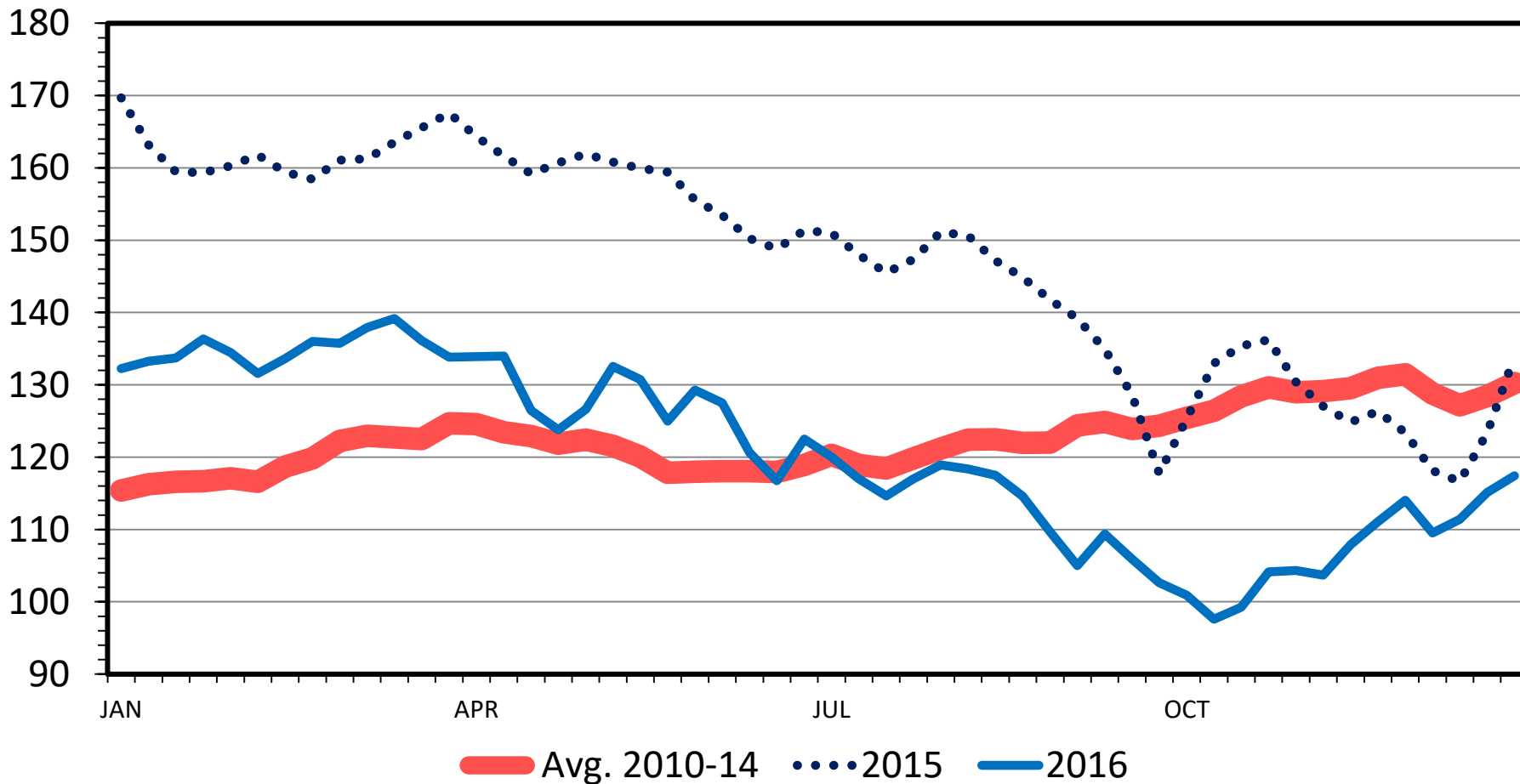
# Economic Outlook Overview: Feedlots

- 2016 remained tough
- Structural concerns persist:
  - Excess capacity & Slowed/Stalled Herd Growth

# SLAUGHTER STEER PRICES

## 5 Market Weighted Average, Weekly

\$ Per Cwt.



Data Source: USDA-AMS

Livestock Marketing Information Center

01/04/17



# Historical and Projected Kansas Feedlot Net Returns

(as of 1/12/17')

(<http://www.agmanager.info/livestock-meat/cattle-finishing-historical-and-projected-returns>)

Nov. 16': -\$83/steer

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

Closeout Mo-Yr	Net Return	FCOG**	Fed Price	Feeder Price	Breakeven FCOG**	Breakeven Fed Price	Breakeven Feeder Price
Dec-16	-34.34	76.37	114.24	140.08	70.31	116.62	136.14
Jan-17	10.84	76.18	119.66	144.71	78.07	118.89	145.99
Feb-17	55.25	75.58	117.82	137.76	85.14	113.89	144.43
Mar-17	128.09	76.50	119.43	129.27	99.91	110.30	144.22
Apr-17	-10.45	77.29	108.92	128.64	75.38	109.68	127.36
May-17	27.28	77.56	113.35	131.24	82.54	111.36	134.56
Jun-17	-5.37	77.55	105.10	121.73	76.58	105.49	121.08
Jul-17	-25.94	78.50	104.93	122.38	73.72	106.79	119.35
Aug-17	-29.73	80.27	103.66	118.78	74.55	105.79	115.37
Sep-17	-39.58	79.89	103.48	120.95	72.68	106.30	116.32

Representative Barometer for Trends in Profitability

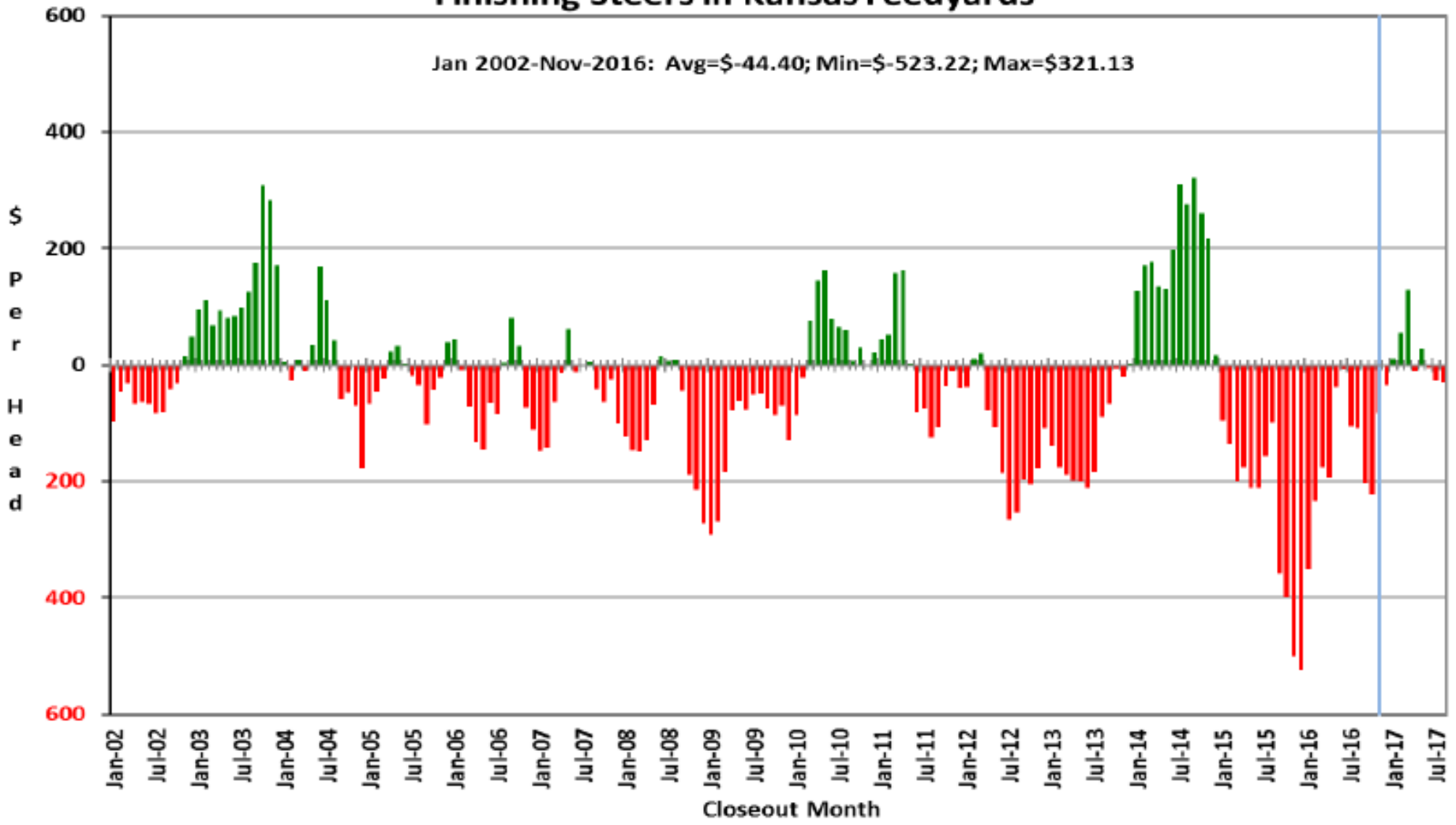
*CME LC up ~\$2/cwt since 1/12*

# Historical and Projected Kansas Feedlot Net Returns

(as of 1/12/17')

(<http://www.agmanager.info/livestock-meat/cattle-finishing-historical-and-projected-returns>)

**Figure 1. Historical & Projected Average Net Returns for Finishing Steers in Kansas Feedyards**



# Quarterly Forecasts (LMIC: 1/11/17)

Year Quarter	Comm'l Slaughter	% Chg. from Year Ago	Average Dressed Weight	% Chg. from Year Ago	Comm'l Beef Production	% Chg. from Year Ago
<b>2016</b>						
I	7,181	3.0	826.5	1.7	5,935	4.8
II	7,629	5.5	810.9	0.1	6,187	5.6
III	7,840	7.5	825.0	-0.9	6,468	6.6
IV	7,910	8.9	836.5	-0.5	6,617	8.3
<b>Year</b>	<b>30,559</b>	<b>6.3</b>	<b>824.8</b>	<b>0.1</b>	<b>25,206</b>	<b>6.4</b>
<b>2017</b>						
I	7,494	4.4	828.7	0.3	6,210	4.6
II	7,974	4.5	815.0	0.5	6,499	5.1
III	8,049	2.7	828.7	0.4	6,670	3.1
IV	8,088	2.3	838.0	0.2	6,778	2.4
<b>Year</b>	<b>31,605</b>	<b>3.4</b>	<b>827.6</b>	<b>0.3</b>	<b>26,157</b>	<b>3.8</b>
<b>2018</b>						
I	7,724	3.1	832.7	0.5	6,432	3.6
II	8,163	2.4	818.9	0.5	6,685	2.9
III	8,266	2.7	832.7	0.5	6,883	3.2
IV	8,313	2.8	841.7	0.4	6,997	3.2
<b>Year</b>	<b>32,466</b>	<b>2.7</b>	<b>831.5</b>	<b>0.5</b>	<b>26,997</b>	<b>3.2</b>

# Quarterly Forecasts (LMIC: 1/11/17)

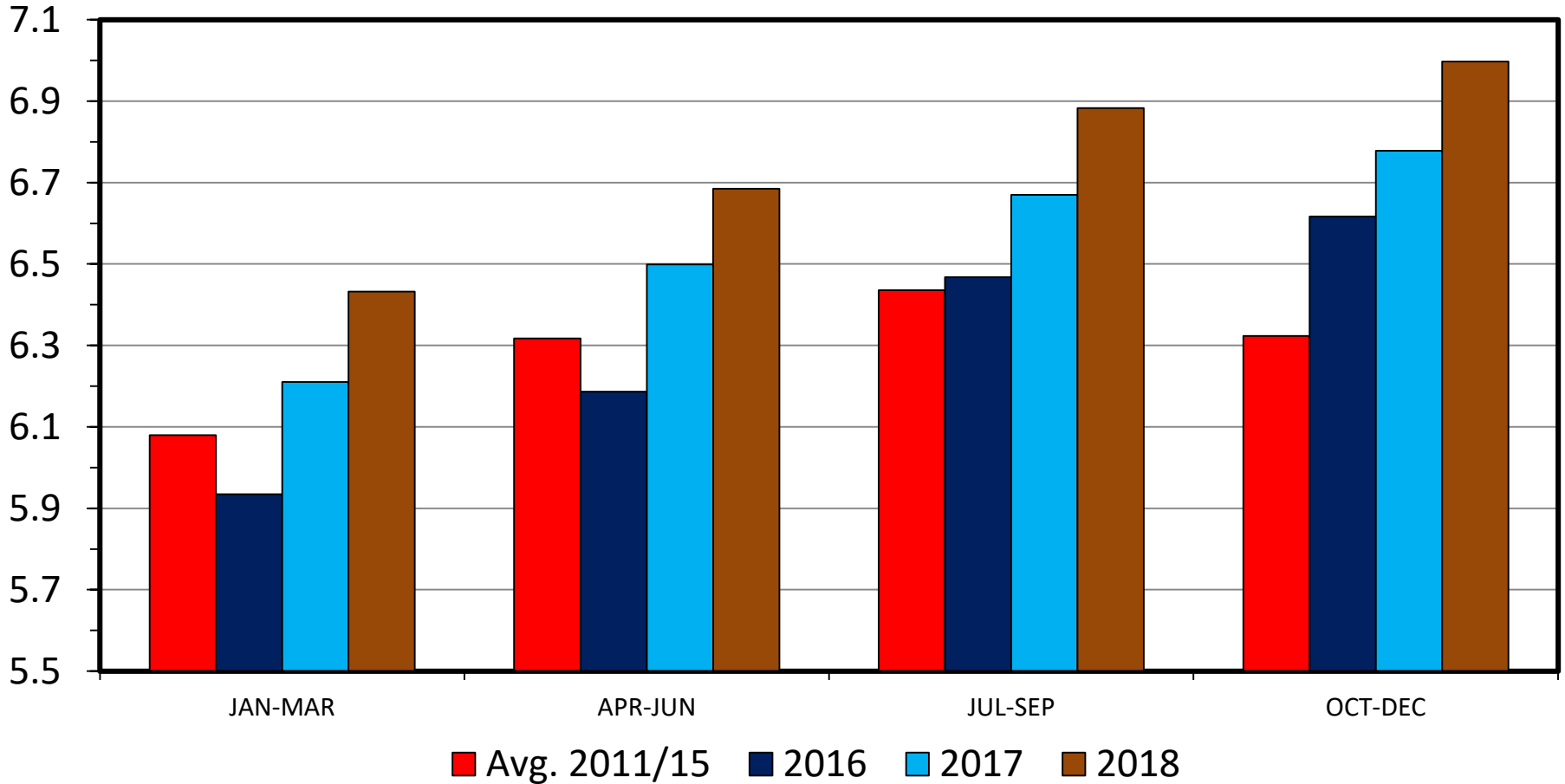
Year Quarter	Live Sltr. Steer Price	% Chg. from Year Ago	Feeder Steer Price Southern Plains	
	5-Mkt Avg		7-800#	5-600#
<b>2016</b>				
I	135	-17.0	160	196
II	128	-19.2	149	174
III	113	-21.5	144	157
IV	108	-15.7	129	138
<b>Year</b>	<b>121</b>	<b>-18.6</b>	<b>146</b>	<b>166</b>
<b>2017</b>				
I	115-117	-14.0	127-129	139-142
II	112-115	-11.1	129-133	142-148
III	106-110	-4.6	128-134	138-145
IV	107-112	1.7	126-133	133-142
<b>Year</b>	<b>110-114</b>	<b>-7.3</b>	<b>127-133</b>	<b>137-145</b>
<b>2018</b>				
I	108-114	-4.3	124-132	134-145
II	107-114	-2.6	127-136	137-149
III	103-111	-0.9	123-133	134-147
IV	104-113	-0.9	122-133	130-144
<b>Year</b>	<b>107-111</b>	<b>-2.7</b>	<b>126-132</b>	<b>136-144</b>

# Trade & Meat Supplies

# COMMERCIAL BEEF PRODUCTION

## US, Quarterly

Bil. Pounds



Data Source: USDA-NASS, Forecasts by LMIC

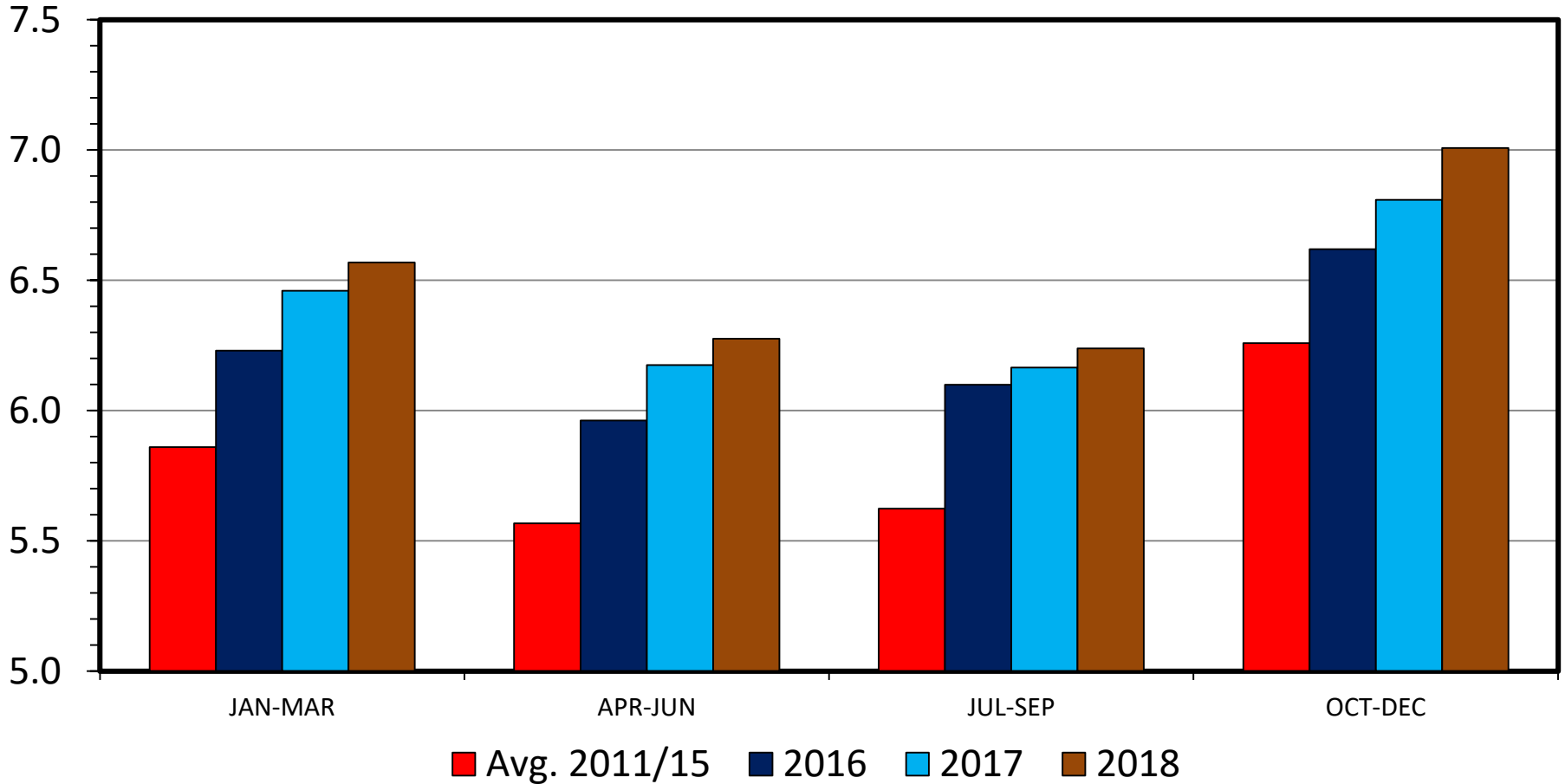
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01/12/17

# COMMERCIAL PORK PRODUCTION

## US, Quarterly

Bil. Pounds



Data Source: USDA-NASS, Forecasts by LMIC

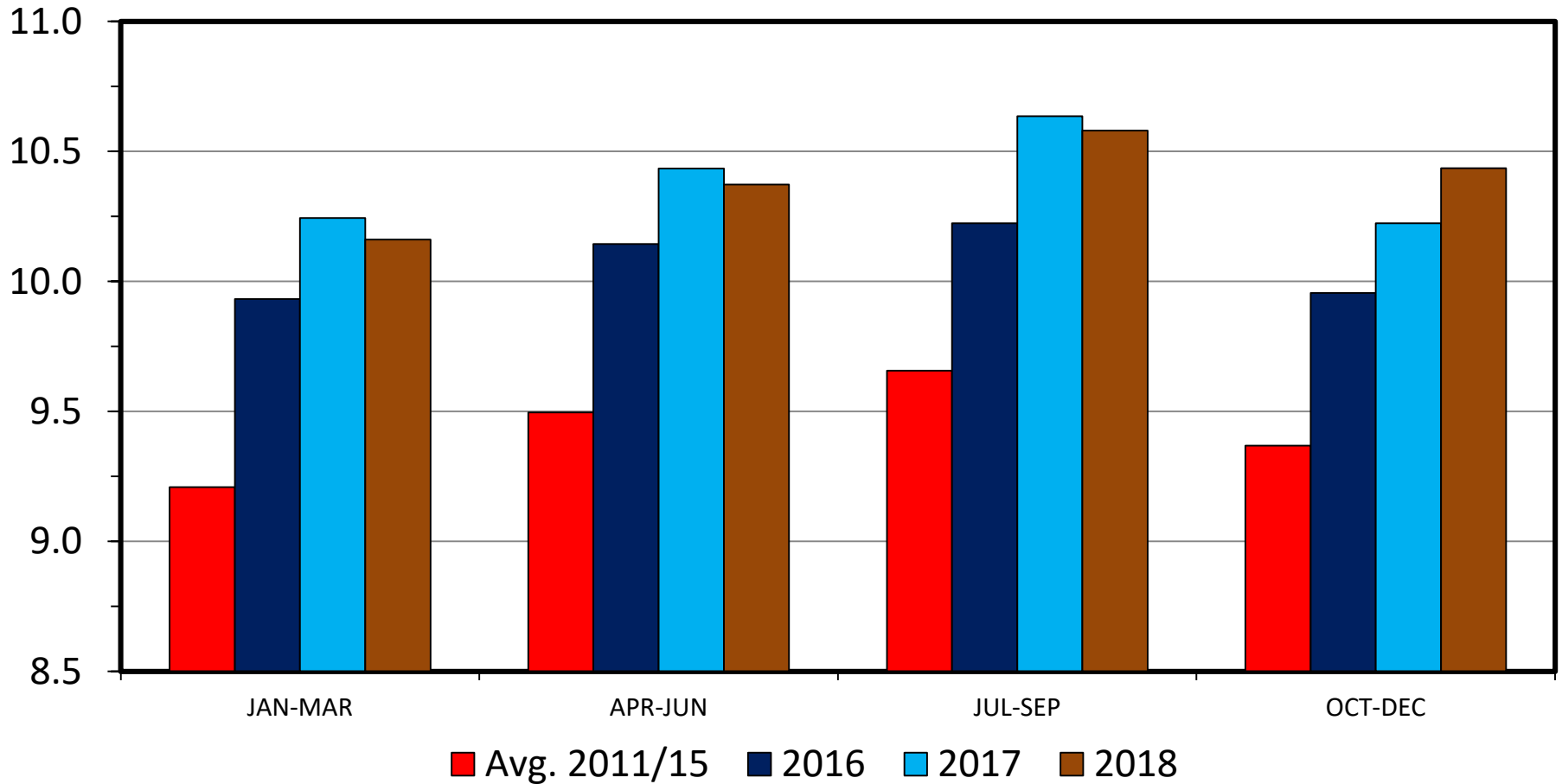
Livestock Marketing Information Center

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# RTC BROILER PRODUCTION

## US, Quarterly

Bil. Pounds



Data Source: USDA-NASS, Forecasts by LMIC

Livestock Marketing Information Center

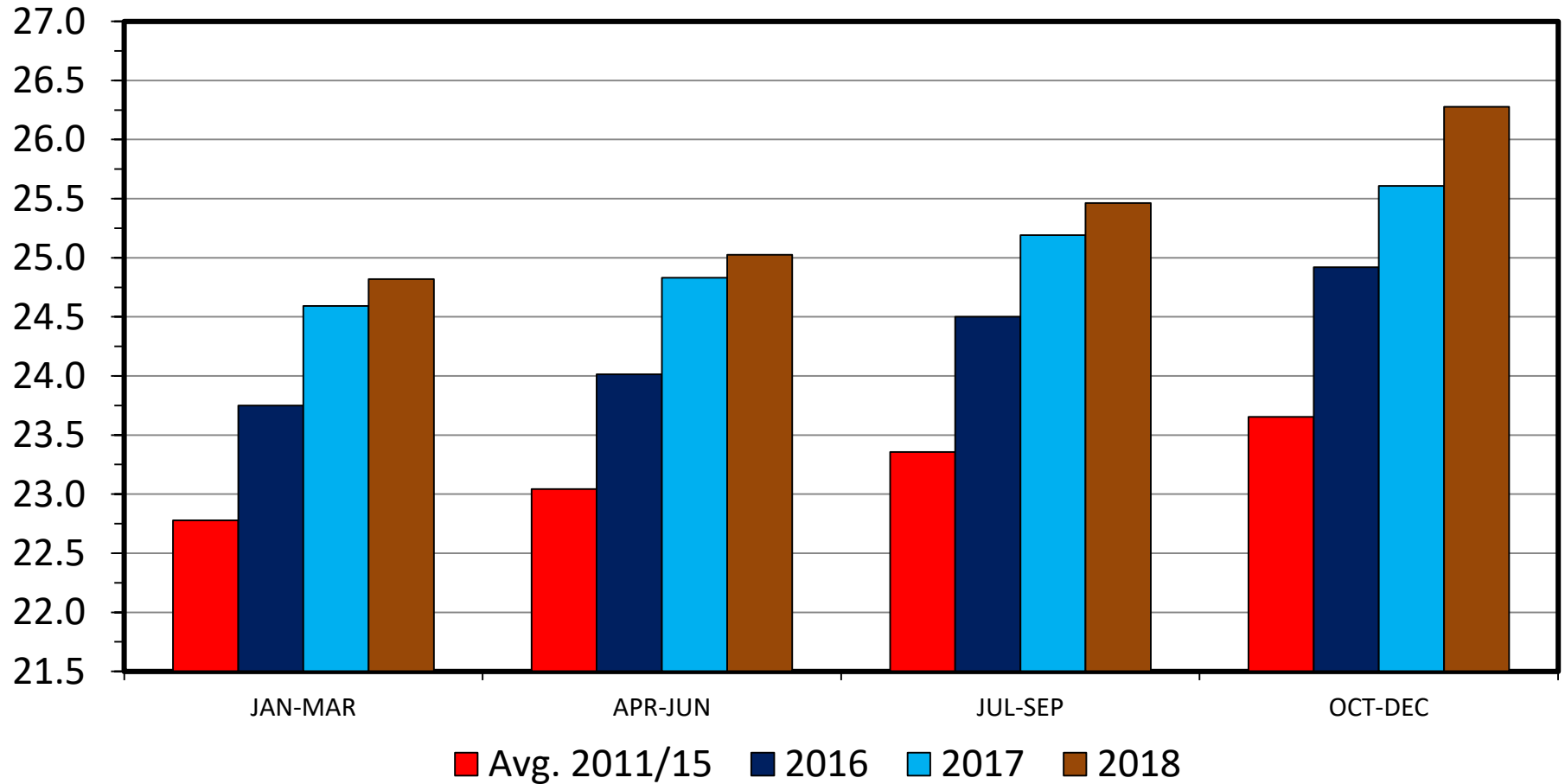
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# TOTAL RED MEAT & POULTRY PRODUCTION

## US, Quarterly

Bil. Pounds



Data Source: USDA-NASS, Forecasts by LMIC

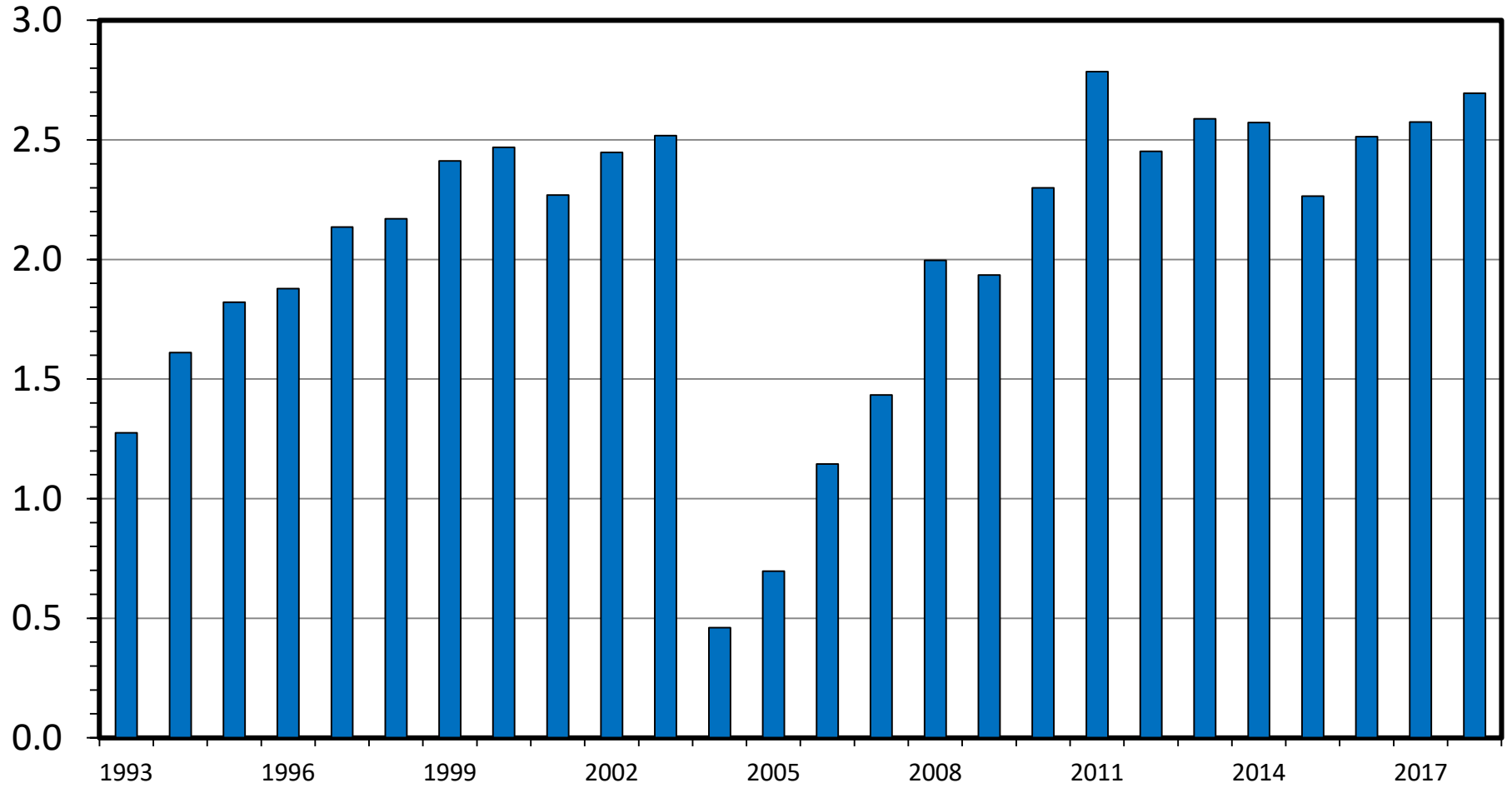
Livestock Marketing Information Center

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# US BEEF AND VEAL EXPORTS

Carcass Weight, Annual

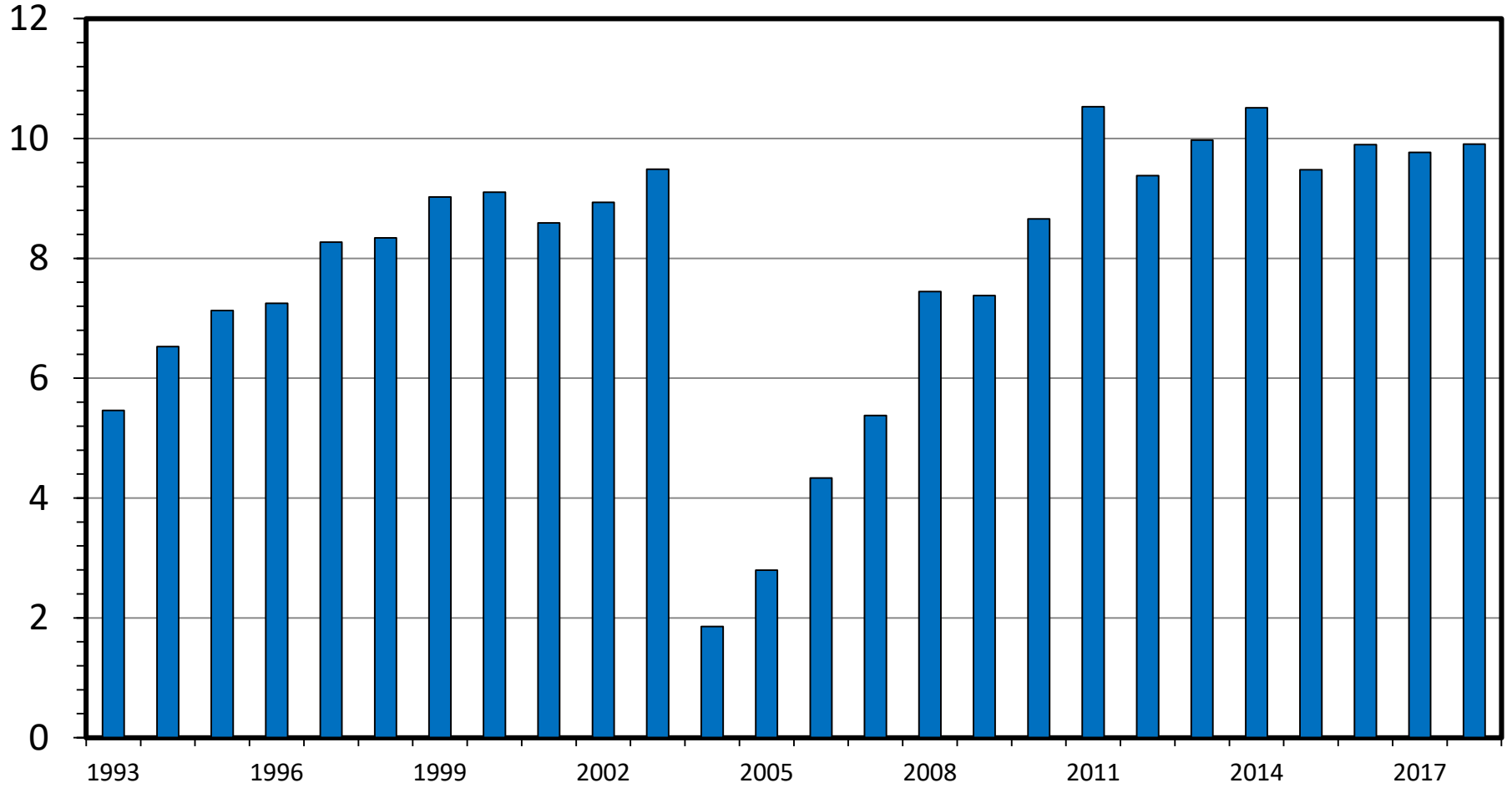
Bil. Pounds



# US BEEF AND VEAL EXPORTS

As a Percentage of Production, Carcass Weight, Annual

Percent



# View on Trade & Technology

- Key is Diverse Products from Each Carcass
- Brazil-US: Top Sirloin Cap (Picanha) vs. Ground Beef



# View on Trade & Technology

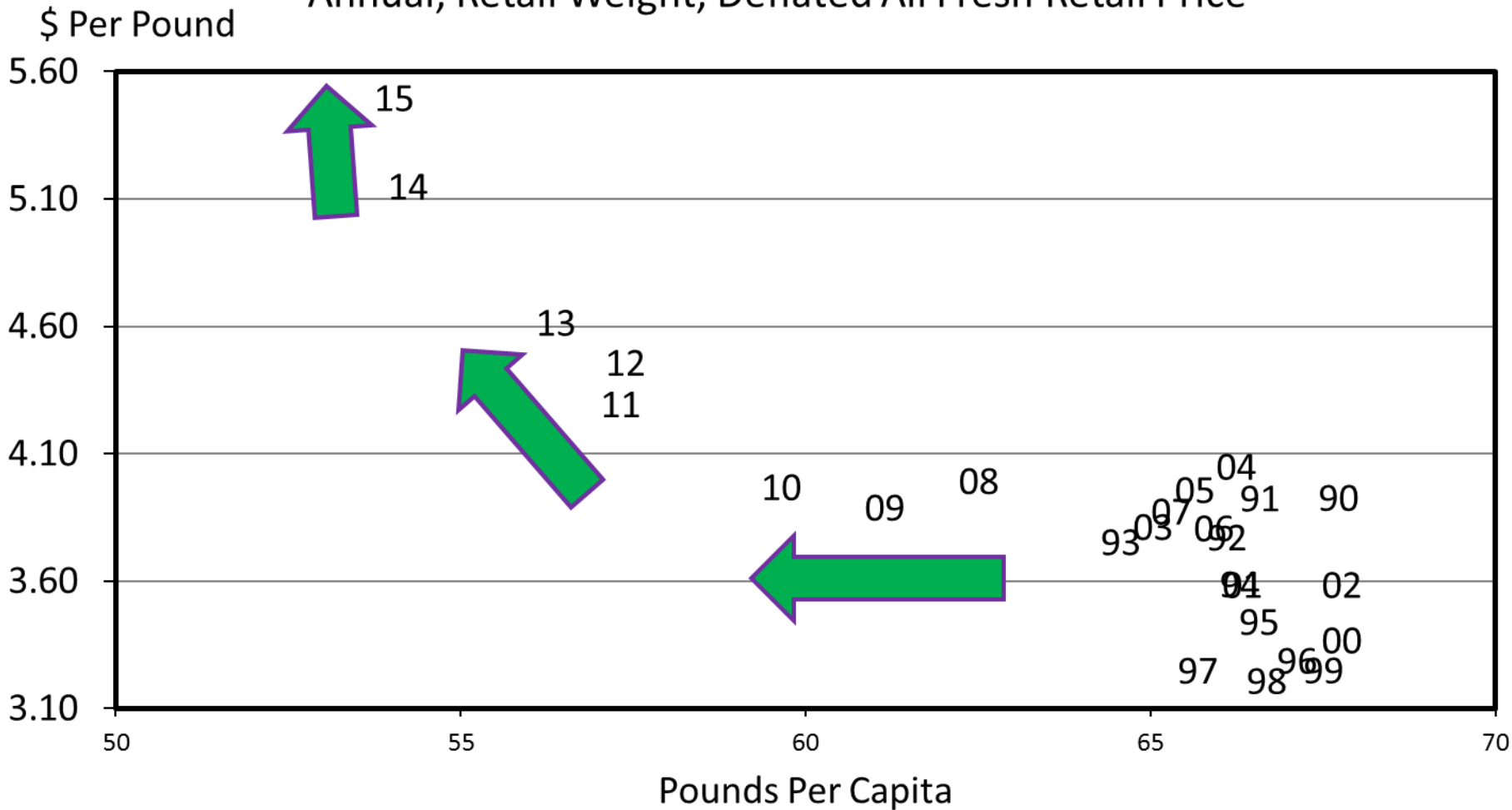
- Key is Diverse Products from Each Carcass
- Brazil-US: Picanha vs. Ground Beef



- Domestically:
  - “Large Steaks” vs. Cheaper Ground Beef

# BEEF PRICE-QUANTITY RELATIONSHIP

Annual, Retail Weight, Deflated All Fresh Retail Price

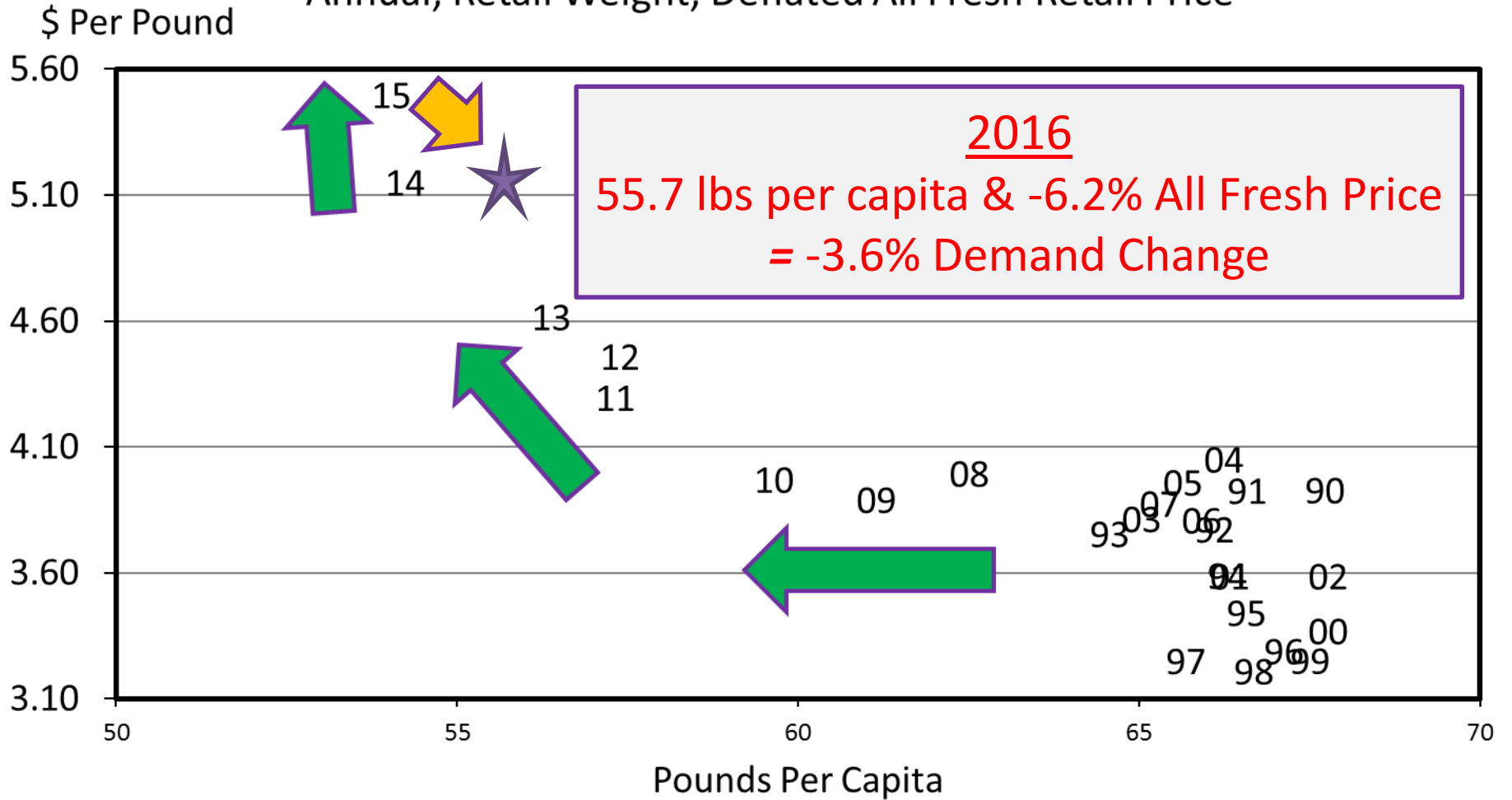


Data Source: Bureau of Economic Analysis & USDA-ERS, Compiled and Analysis by LMIC  
Livestock Marketing Information Center

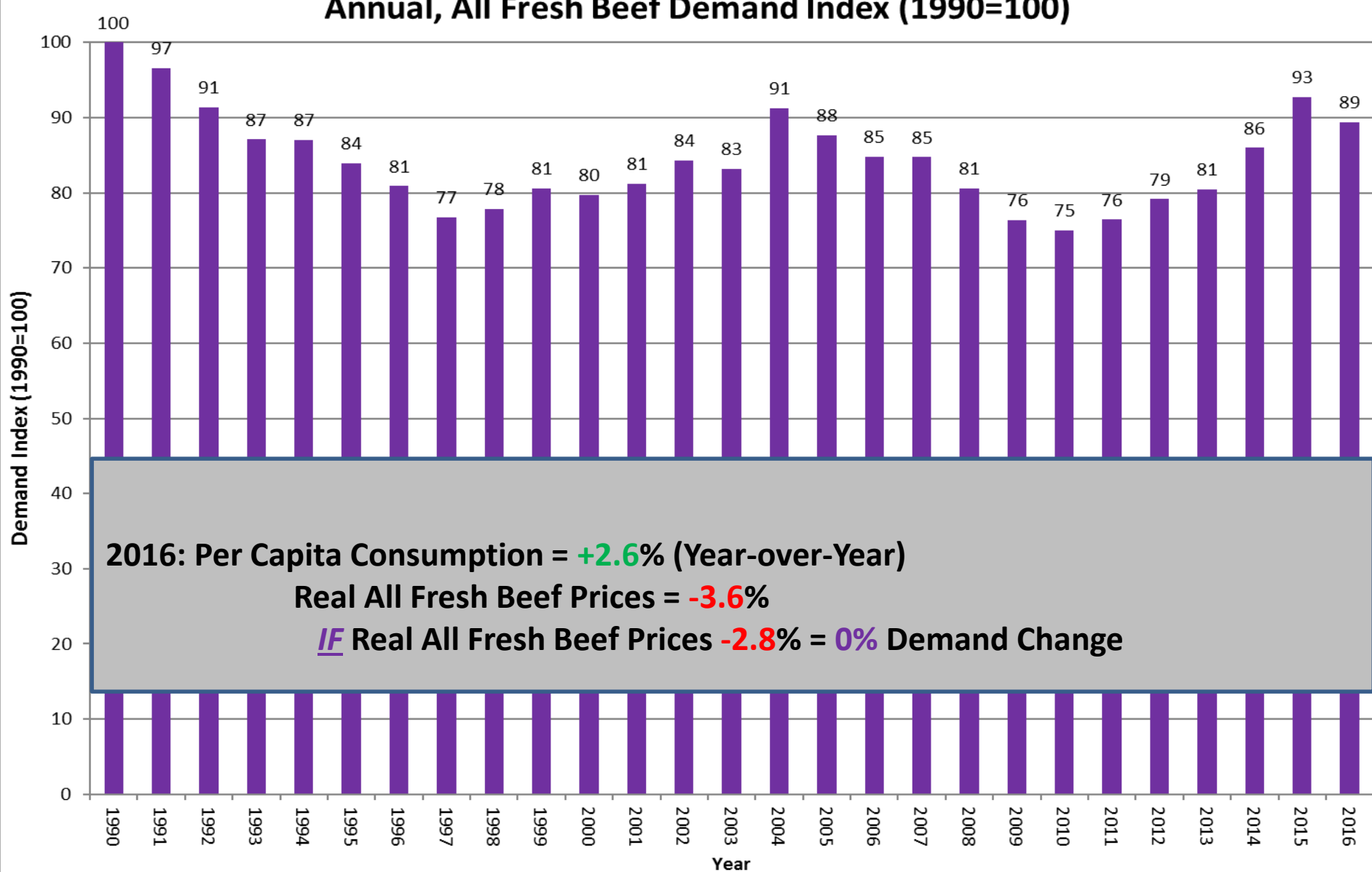
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# BEEF PRICE-QUANTITY RELATIONSHIP

Annual, Retail Weight, Deflated All Fresh Retail Price



# Annual, All Fresh Beef Demand Index (1990=100)



Source: Glynn T. Tonsor, Kansas State University, Jan. 2017



# Wrap-Up

- Broad Profitability Outlook
  - Cow-calf: Converging toward Long-Term Levels
  - Stocker: Opportunity varies widely across situations
  - Feedlot: Worst behind us (I think)

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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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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