

## Agricultural Lenders Conference



### FEATURING...

- Grain Market Outlook for 2016
- Precision Ag Technology and Data
  - Pasture Leases in Kansas
  - Animal Health
- Farm Management Budgets
- Beef Cattle Market Outlook for 2016
- Macro and Interest Rate Outlook

K-State SW Research Extension Center  
Garden City, September 29, 2015

International Grain Program Conference Center  
Manhattan, September 30, 2015

# Beef Cattle Market Outlook

Glynn Tonsor  
Dept. of Agricultural Economics  
Kansas State University



# Overarching Beef Industry Economic Outlook

- Supplies
  - Historically tight
    - Herd expansion well underway
- Demand
  - Confusing yet largely been positive
    - Recent concerns have driven market
- Combined
  - Heartburn or excitement depending on perspective...

# MED. & LRG. #1 STEER CALF PRICES

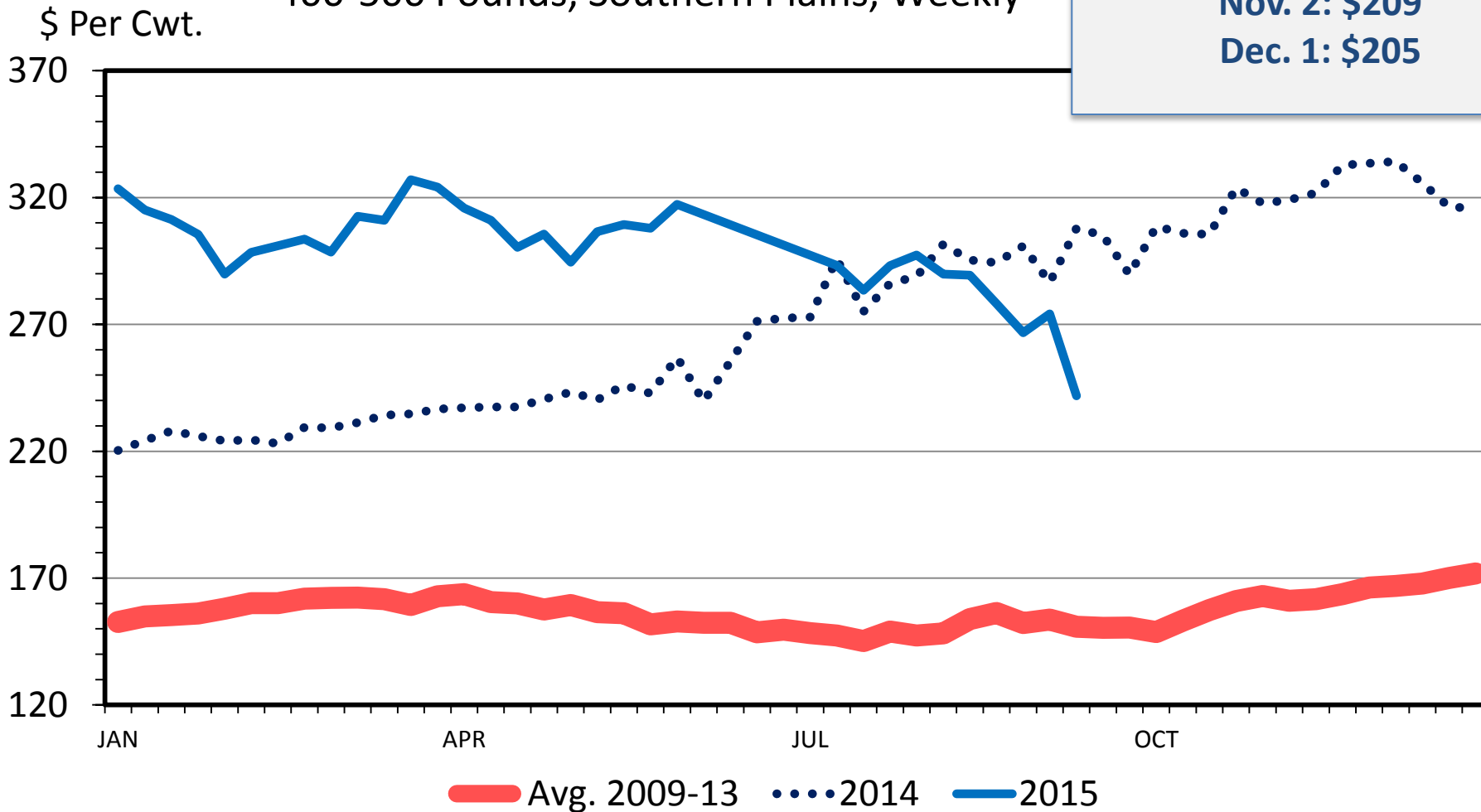
400-500 Pounds, Southern Plains, Weekly

**Beef Basis, Salina KS**  
**Projections (as of 9/28):**

**Oct. 1: \$212**

**Nov. 2: \$209**

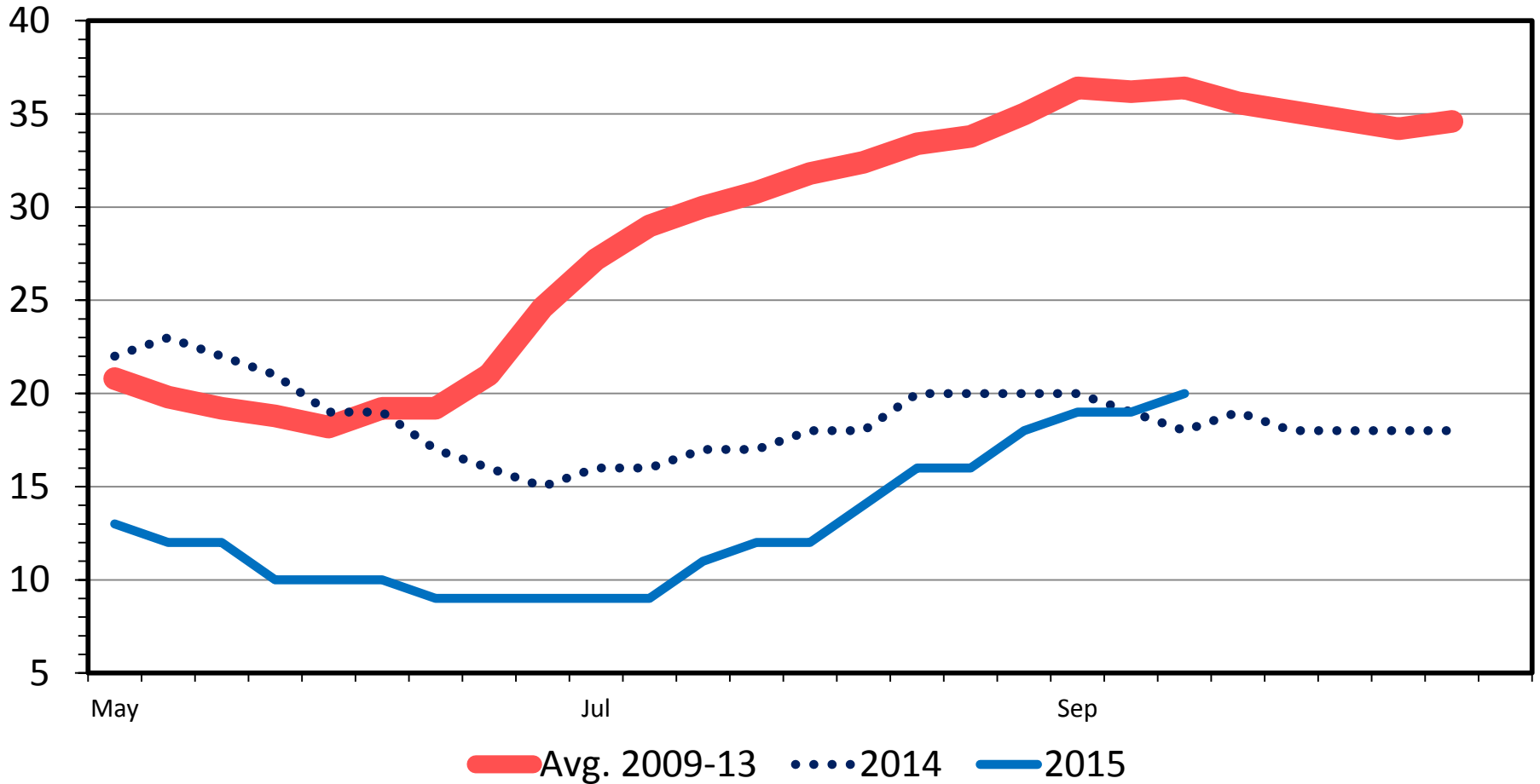
**Dec. 1: \$205**



# US RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly

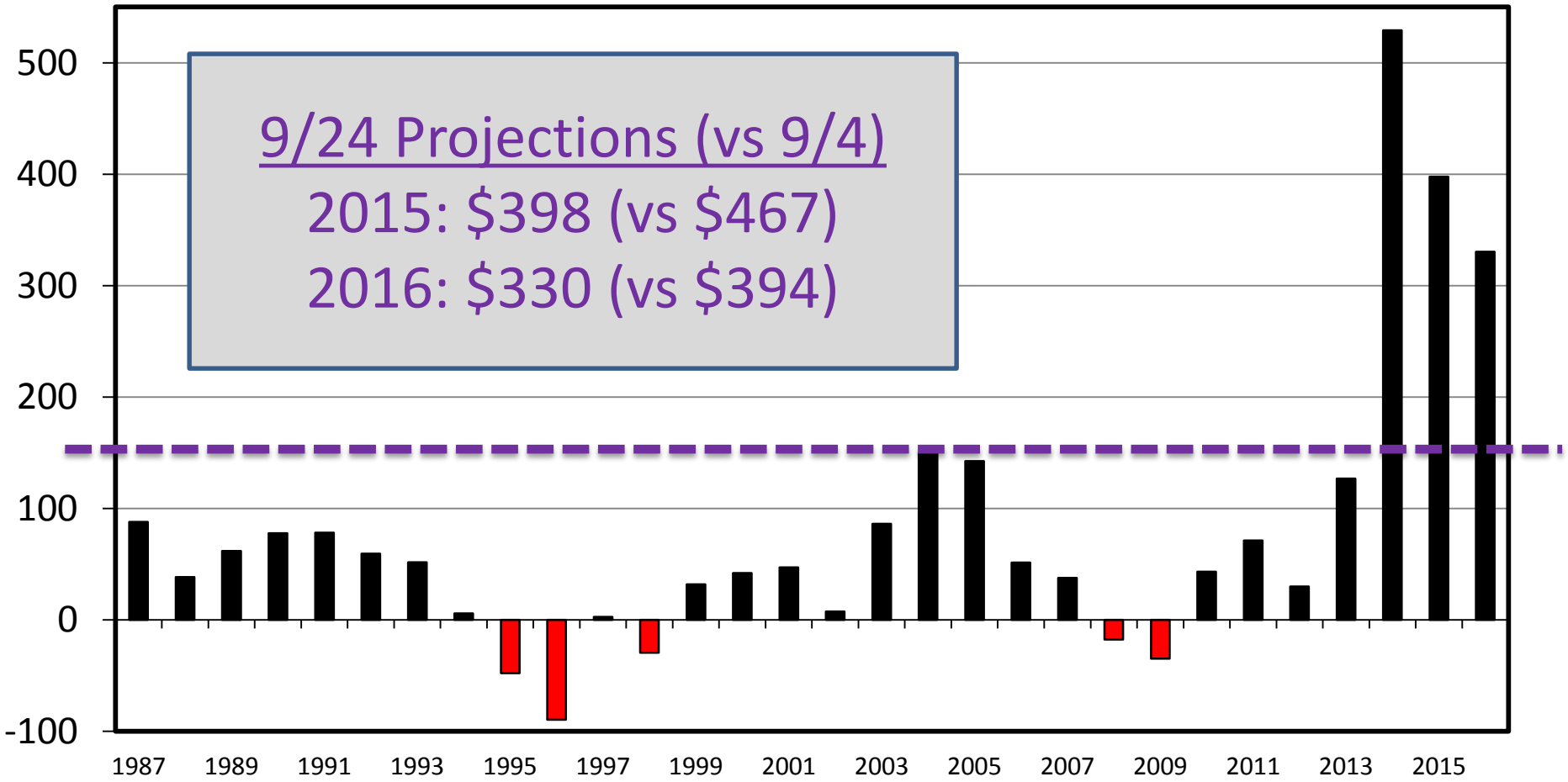
Percent



# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual

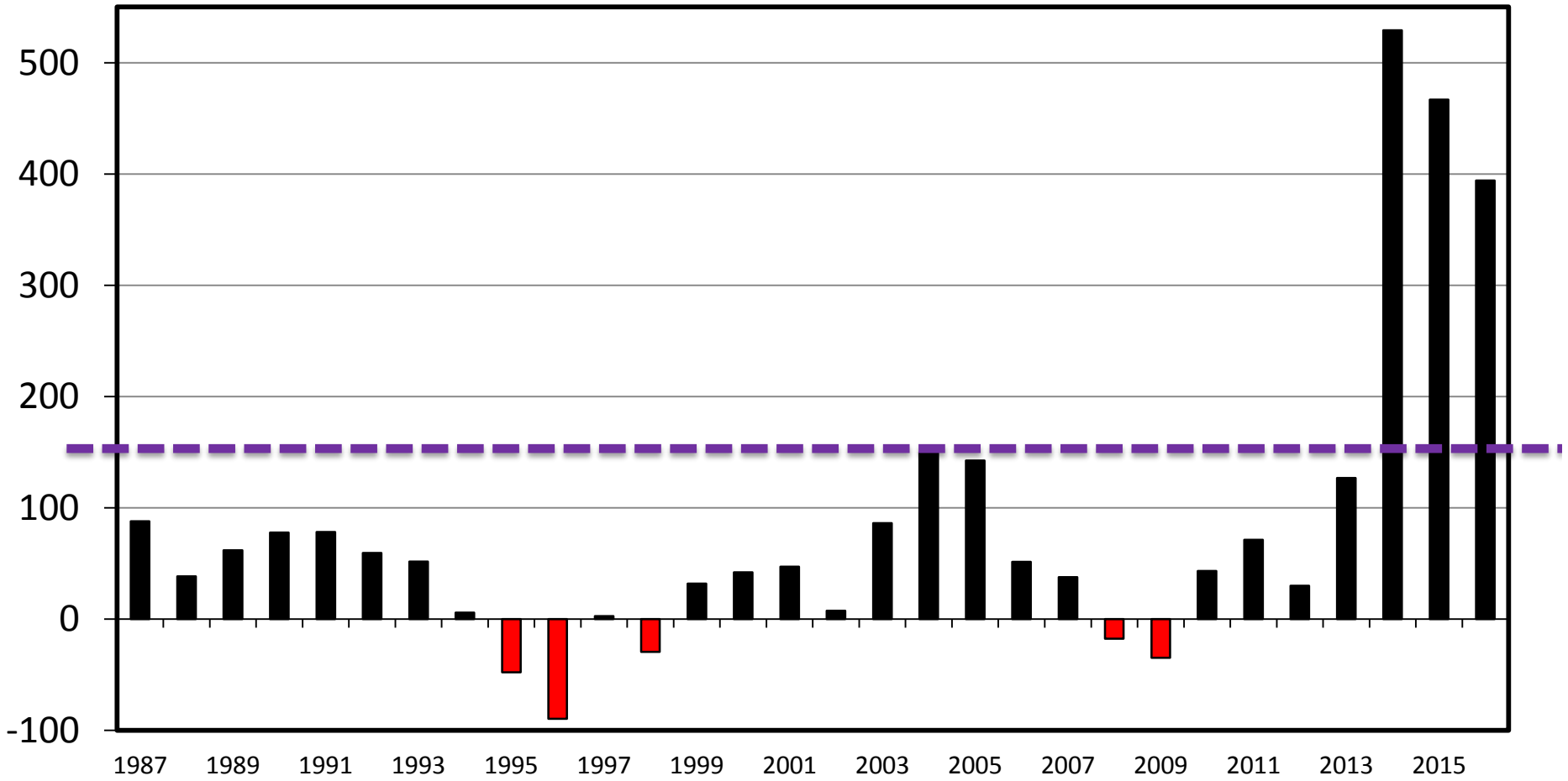
\$ Per Cow



# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual

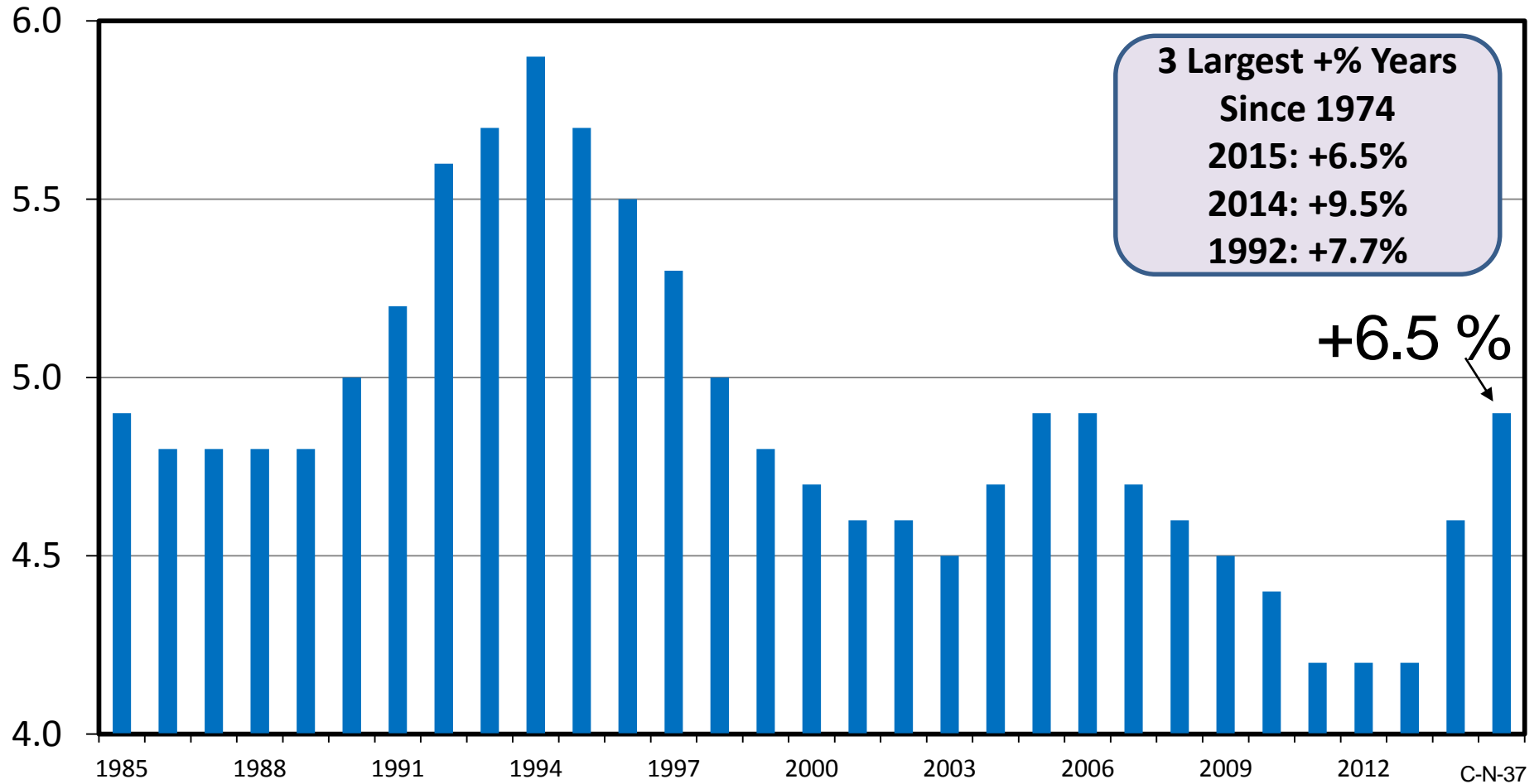
\$ Per Cow



# HEIFERS HELD AS BEEF COW REPLACEMENTS

July 1, U.S.

Mil. Head



**3 Largest +% Years  
Since 1974**  
2015: +6.5%  
2014: +9.5%  
1992: +7.7%

+6.5%

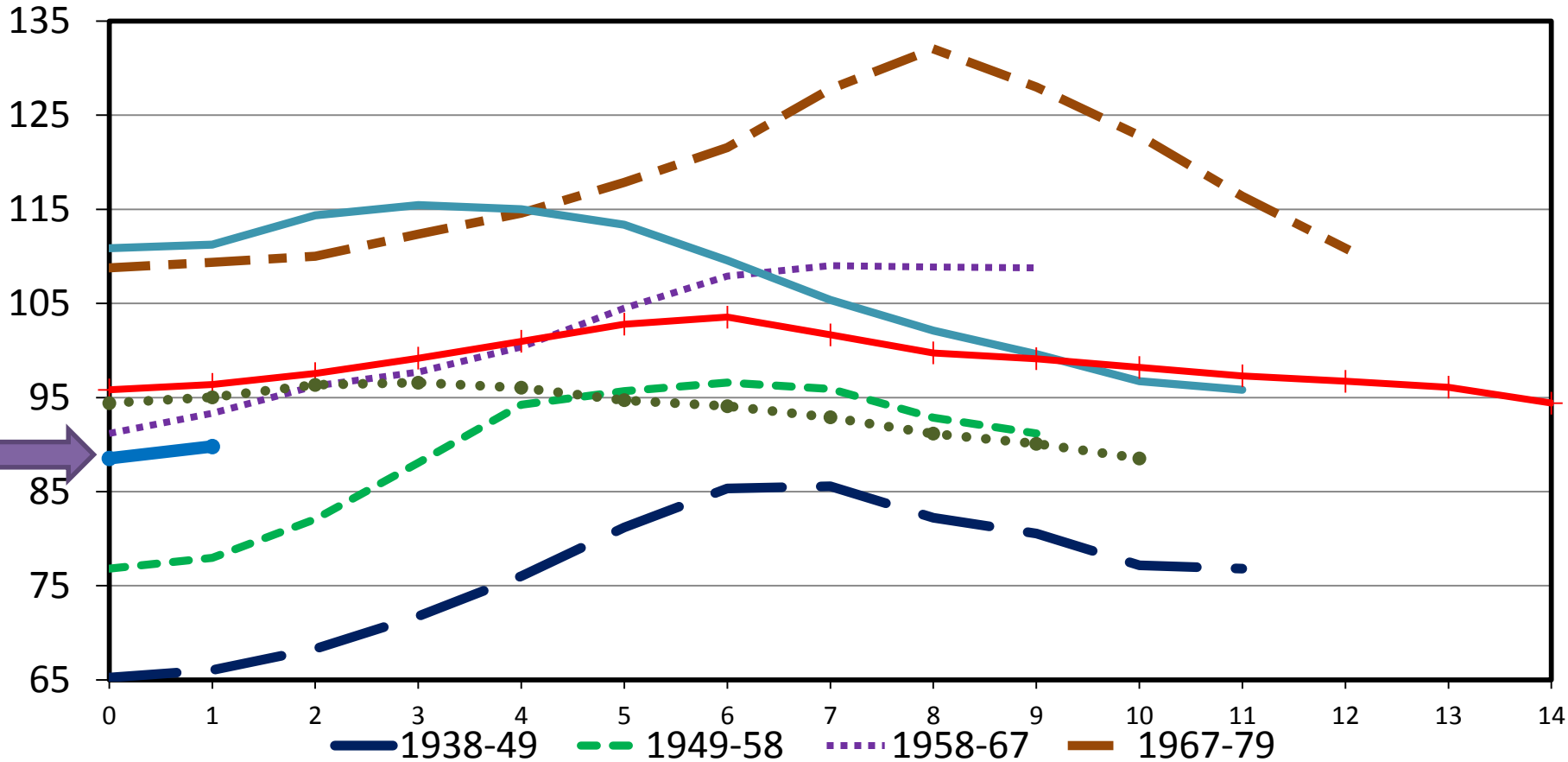
Data Source: USDA-NASS Livestock Marketing Information Center

C-N-37  
07/28/15

# TOTAL CATTLE INVENTORY BY CYCLE

U.S., January 1

Mil. Head



Data Source: USDA-NASS

Livestock Marketing Information Center

—●— 1938-49   
 - - - 1949-58   
 ⋯ 1958-67   
 - - - 1967-79  
— 1979-90   
 —+— 1990-04   
 ●●● 2004-14   
—●— 2014-15



# Economic Outlook Overview: Stockers

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

- Salina, KS 9/28/15 situation:
  - Buy 575 lb steer on 10/14/15 (\$193)
  - Sell 800 lb steer on 02/01/16 (\$167) {2.03 ADG}
    - VOG: \$100/cwt
  - IF COG \$80/cwt THEN Exp. Profit = +/- \$50/hd

# Stocker - Feeder Cattle Output Price Hedging Considerations (as of 9/23/15)

- Salina, KS 9/23/15 situation:
  - Plan to sell 800 lb steers on 2/1/16
  - Current Exp. Price = \$169/cwt
  - Interested in downside price protection

–USE:

***FeederCattleRiskMgmtTool.xlsx***

<http://www.agmanager.info/Tools/default.asp#LIVESTOCK>

# Stocker - Feeder Cattle Output Price Hedging Considerations (as of 9/23/15)

- Sell 800 lb steers on 2/1/16
- Compare alternatives:
  - 250 hd on LRP:
    - Coverage Price \$161.01 & Premium of \$3.114
  - 4 FC Futures Contracts (+/- 63 hd per contract)
    - MAR FC @ \$176 & Exp. Basis: -\$7.42
  - 4 FC Options Contracts
    - MAR Put @ \$168 & Premium of \$5.525
  - Cash
    - Expected Price of \$169/cwt

<http://www.agmanager.info/Tools/default.asp#LIVESTOCK>  
(*FeederCattleRiskMgmtTool.xlsx*)

# Stocker - Feeder Cattle Output Price Hedging Considerations (as of 9/23/15)

	Futures	LRP	Put	Call	Put	Call
Number of contracts	4	250	4	4	4	4
Strike price(s), \$/cwt		\$161.01	\$168.00	\$180.00	\$168.00	\$178.00
Premium, \$/cwt		\$3.114	\$5.525	\$6.750	\$5.525	\$7.675

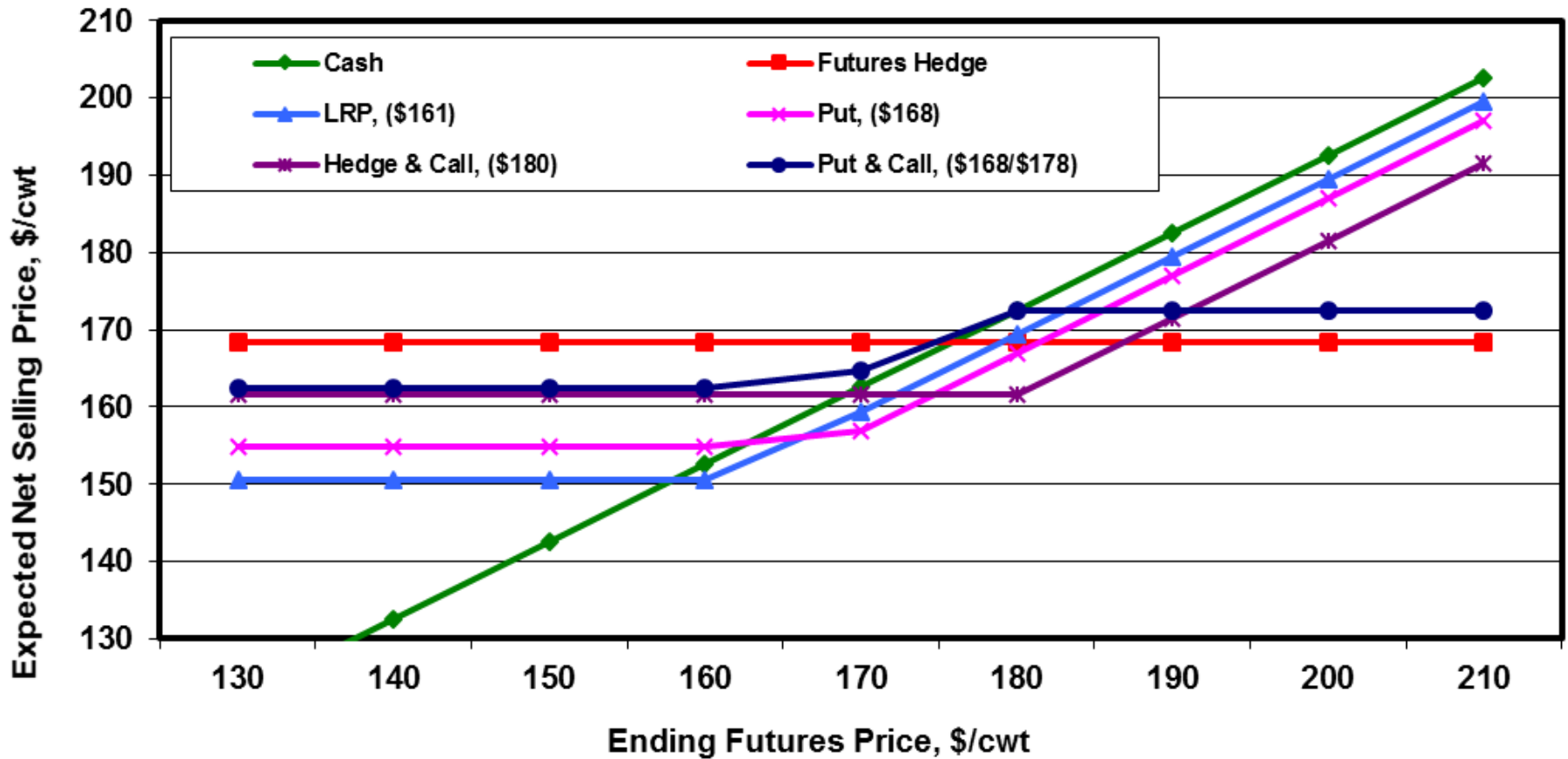
## Expected Net Selling Prices

Futures price	Cash	Hedge	LRP	Put	Hedge & Call	Put & Call
\$130.00	\$122.58	\$168.41	\$150.48	\$154.94	\$161.60	\$162.55
\$140.00	\$132.58	\$168.41	\$150.48	\$154.94	\$161.60	\$162.55
\$150.00	\$142.58	\$168.41	\$150.48	\$154.94	\$161.60	\$162.55
\$160.00	\$152.58	\$168.41	\$150.48	\$154.94	\$161.60	\$162.55
\$170.00	\$162.58	\$168.41	\$159.47	\$157.00	\$161.60	\$164.61
\$180.00	\$172.58	\$168.41	\$169.47	\$167.00	\$161.60	\$172.55
\$190.00	\$182.58	\$168.41	\$179.47	\$177.00	\$171.54	\$172.55
\$200.00	\$192.58	\$168.41	\$189.47	\$187.00	\$181.54	\$172.55
\$210.00	\$202.58	\$168.41	\$199.47	\$197.00	\$191.54	\$172.55
\$10.00	<= futures price increment				Signifies maximum price in row	

<http://www.agmanager.info/Tools/default.asp#LIVESTOCK>  
 (FeederCattleRiskMgmtTool.xlsx)

# Stocker - Feeder Cattle Output Price Hedging Considerations (as of 9/23/15)

Comparison of Alternative Expected Net Selling Prices



<http://www.agmanager.info/Tools/default.asp#LIVESTOCK>  
*(FeederCattleRiskMgmtTool.xlsx)*

# Stocker Research of Note: Emily Mollohan's MS Thesis

- 1993-2013 Calf (500#) and Yearling (700#) Prices
- 1% increase in corn price:
  - Drops Calf-Yearling price spread by 0.37%
- 1% increase in expected fed cattle price:
  - Expands Calf-Yearling price spread by 1.17%

# Stocker Research of Note: Emily Mollohan's MS Thesis

- 1993-2013 Calf (500#) and Yearling (700#) Prices
- +1% corn price: -0.37% price spread
- +1% expected fed cattle price: +1.17% price spread
- Consider 9/1 to 9/24 Changes:
  - Dec. C: +3.3% (\$3.80 vs. \$3.68) = -1.2% calf-yearling spread
  - Feb. LC: -5.6% (\$135 vs \$143) = -6.5% calf-yearling spread
    - 9/1 to 9/18 KS (Combined Auctions) 500-550 vs 700-750:
      - -\$6.93/cwt (\$32 vs \$39)

# Economic Outlook Overview: Feedlots

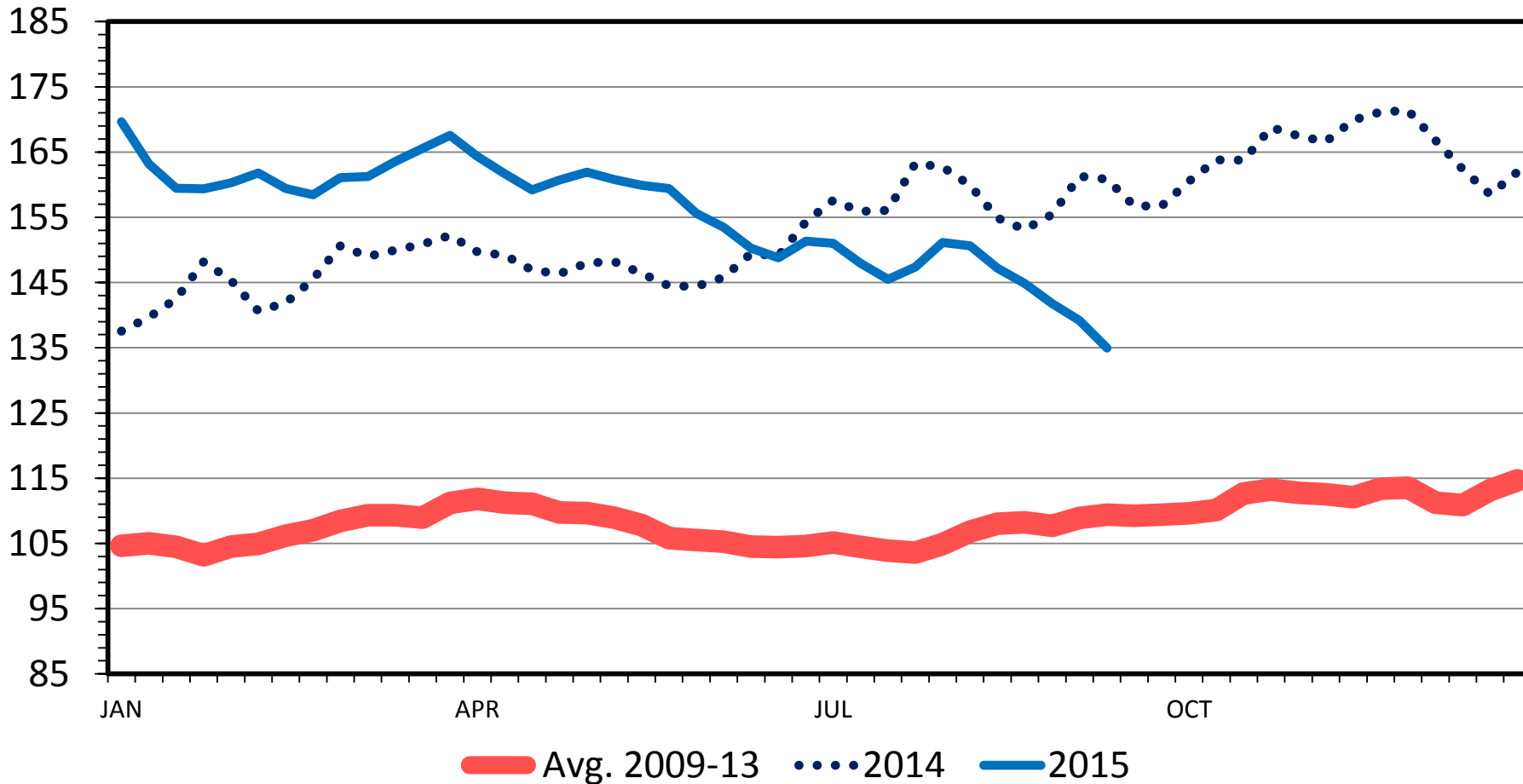
- 2015 cash returns continue to worsen
- Structural concerns persist:
  - Excess capacity
    - Heifer Retention, Plant Closures, MCOOL, ...



# SLAUGHTER STEER PRICES

## 5 Market Weighted Average, Weekly

\$ Per Cwt.



Data Source: USDA-AMS

Livestock Marketing Information Center

09/21/15

# Historical and Projected Kansas Feedlot Net Returns (as of 9/10/15')

(<http://www.agmanager.info/livestock/marketing/outlook/newsletters/FinishingReturns/default.asp>)

## July 15': -\$156/steer

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

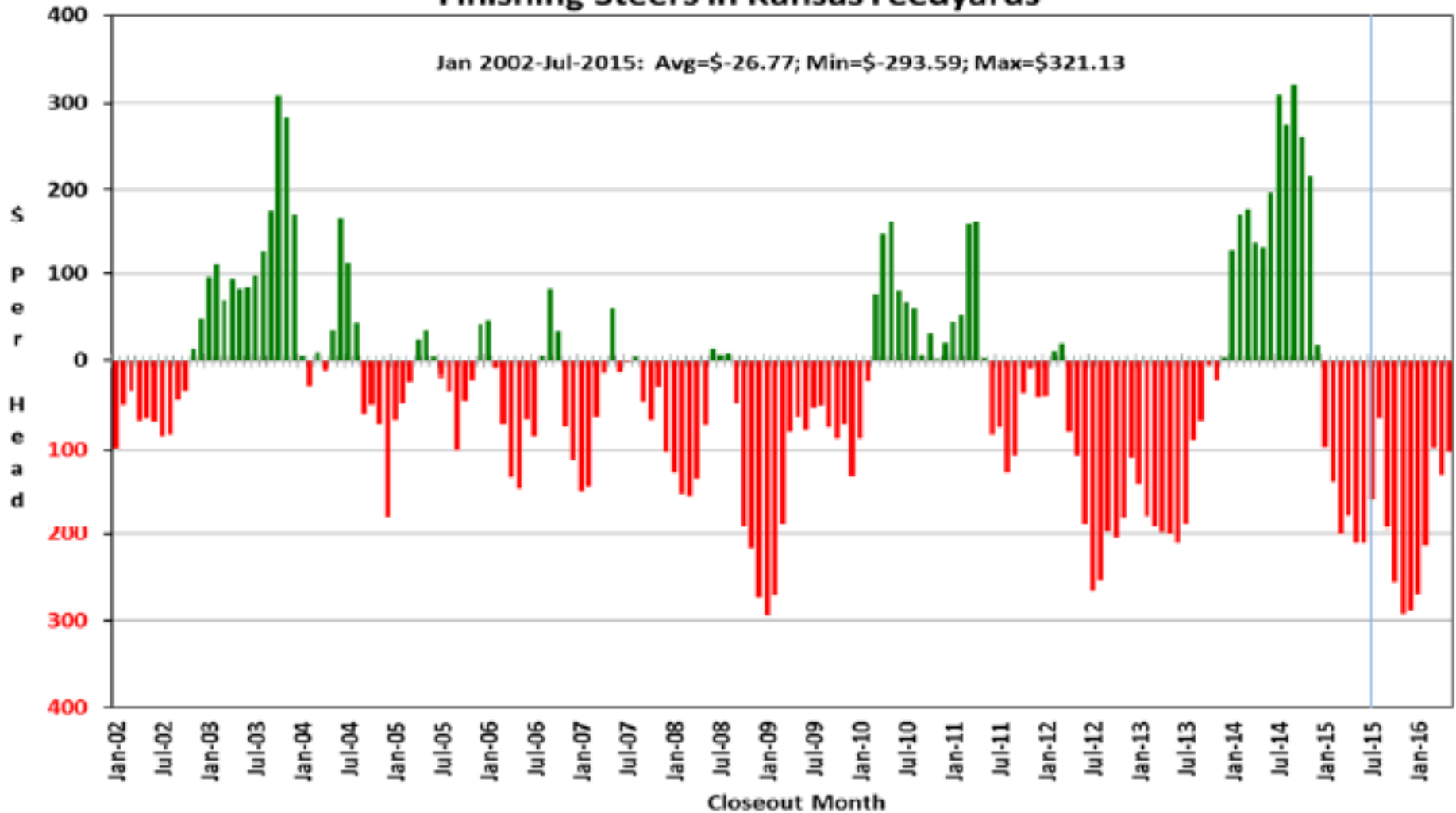
Closeout Mo-Yr	Net Return	FCOG**	Fed Price	Feeder Price	Breakeven FCOG**	Breakeven Fed Price	Breakeven Feeder Price
Aug-15	-63.20	83.21	149.08	202.11	72.85	153.52	194.32
Sep-15	-194.60	83.68	143.64	208.72	52.04	157.29	184.71
Oct-15	-255.72	85.81	146.99	215.84	42.73	164.78	185.55
Nov-15	-292.19	85.95	145.98	218.69	36.14	166.52	183.75
Dec-15	-288.17	87.56	146.08	213.84	37.38	166.08	180.59
Jan-16	-269.92	88.72	147.34	210.68	39.38	166.34	179.79
Feb-16	-214.05	89.45	147.04	209.10	52.80	162.23	183.16
Mar-16	-96.61	88.66	147.79	194.08	71.11	154.76	182.53
Apr-16	-128.22	87.15	140.06	190.12	65.28	149.25	174.27
May-16	-102.09	87.27	142.05	187.97	69.41	149.35	175.62

**Representative Barometer for Trends in Profitability**

# Historical and Projected Kansas Feedlot Net Returns (as of 9/10/15')

(<http://www.agmanager.info/livestock/marketing/outlook/newsletters/FinishingReturns/default.asp>)

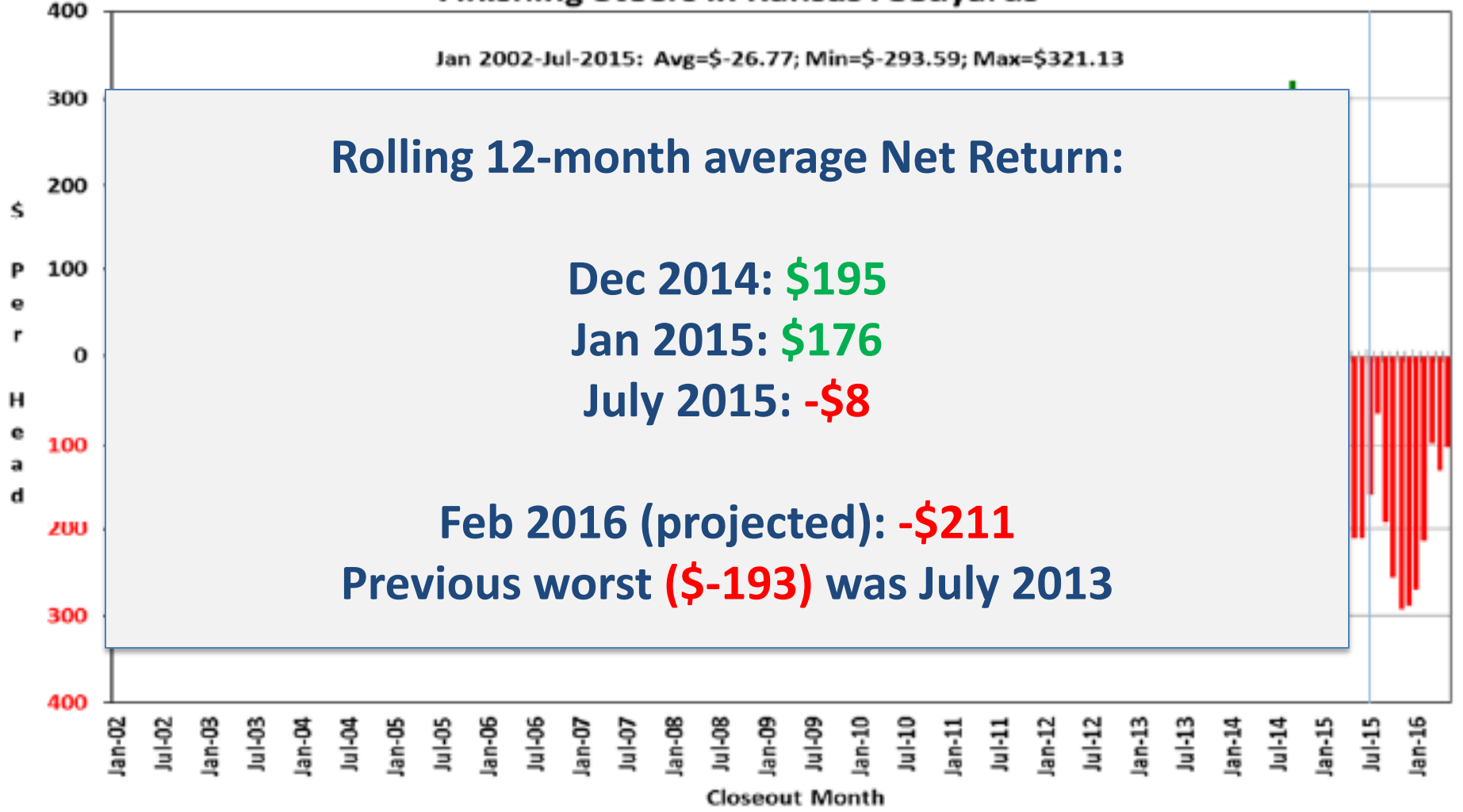
**Figure 1. Historical & Projected Average Net Returns for Finishing Steers in Kansas Feedyards**



# Historical and Projected Kansas Feedlot Net Returns (as of 9/10/15')

(<http://www.agmanager.info/livestock/marketing/outlook/newsletters/FinishingReturns/default.asp>)

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



# Cattle on Feed (9/18 report)

- Sept 1 On Feed: +3%
    - Vs. +3.7% pre-report est. (+2.2%, +4.0%)
      - KS: Flat @ 100% of last year
  - Aug. Placements: -5%
    - Vs. +0.3% pre-report est. (-2.3%, +3.2%)
      - KS: -10% vs. last yr; largest drop of 3 main states
  - Aug. Marketings: -6%
    - Vs. -6.2% pre-report est. (-6.6%, -3.7%)
      - KS: -10% (NE: -4%, TX -7%)
- KS #s consistent w/ “heavy cattle stacking up” in Aug-Sep

# Quarterly Forecasts (LMIC: 9/28/15)

Year	Comm'l Slaughter	% Chg. from Year Ago	Average Dressed Weight	% Chg. from Year Ago	Comm'l Beef Production	% Chg. from Year Ago
<b>2015</b>						
I	6,967	-5.5	813.0	2.2	5,664	-3.5
II	7,227	-7.8	810.1	2.7	5,855	-5.3
III	7,297	-4.4	831.0	2.6	6,064	-1.9
IV	7,358	0.4	832.8	1.3	6,128	1.8
<b>Year</b>	<b>28,849</b>	<b>-4.4</b>	<b>821.9</b>	<b>2.2</b>	<b>23,711</b>	<b>-2.2</b>
<b>2016</b>						
I	7,144	2.5	822.4	1.2	5,875	3.7
II	7,411	2.5	813.1	0.4	6,026	2.9
III	7,604	4.2	835.5	0.5	6,353	4.8
IV	7,532	2.4	837.0	0.5	6,304	2.9
<b>Year</b>	<b>29,691</b>	<b>2.9</b>	<b>827.1</b>	<b>0.6</b>	<b>24,558</b>	<b>3.6</b>
<b>2017</b>						
I	7,395	3.5	827.6	0.6	6,120	4.2
II	7,690	3.8	816.1	0.4	6,276	4.1
III	7,804	2.6	839.2	0.4	6,549	3.1
IV	7,871	4.5	842.1	0.6	6,628	5.1
<b>Year</b>	<b>30,760</b>	<b>3.6</b>	<b>831.4</b>	<b>0.5</b>	<b>25,573</b>	<b>4.1</b>

# Quarterly Forecasts (LMIC: 9/28/15)

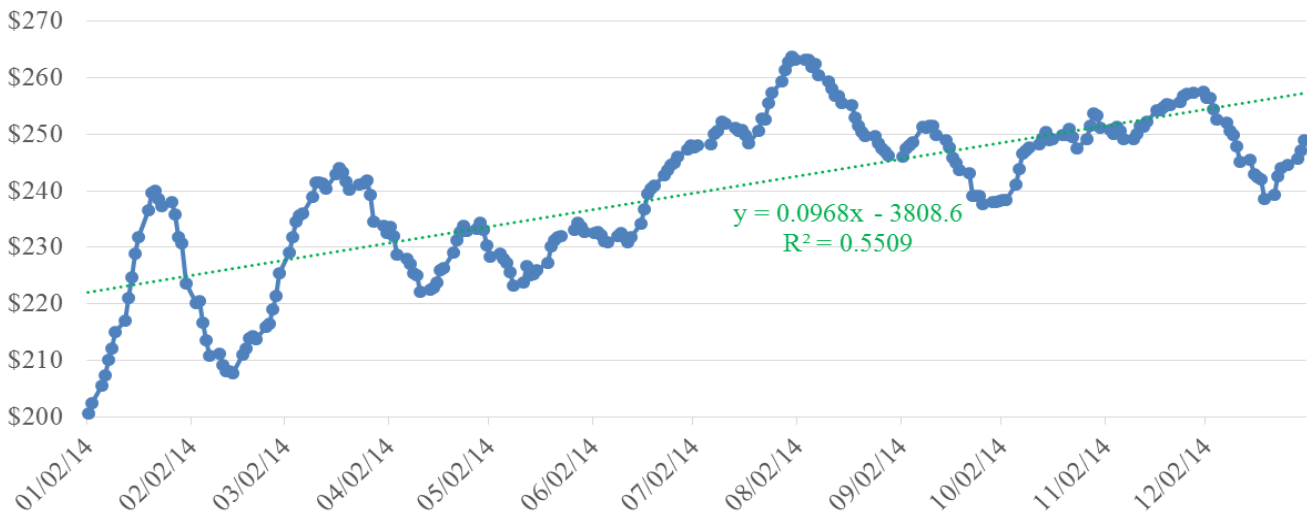
Year Quarter	Live Sltr. Steer Price 5-Mkt Avg	% Chg. from Year Ago	Feeder Steer Price Southern Plains	
			7-800#	5-600#
<b>2015</b>				
I	162.43	11.0	215.87	276.14
II	158.11	7.0	225.29	279.32
III	143-144	-9.5	214-216	247-249
IV	148-150	-10.0	193-196	230-234
<b>Year</b>	<b>153-154</b>	<b>-0.7</b>	<b>212-213</b>	<b>258-259</b>
<b>2016</b>				
I	149-152	-7.3	191-195	235-240
II	149-153	-4.5	190-195	238-244
III	143-148	1.4	186-192	234-243
IV	144-150	-1.3	181-188	226-236
<b>Year</b>	<b>147-150</b>	<b>-3.3</b>	<b>188-192</b>	<b>233-241</b>
<b>2017</b>				
I	143-150	-2.7	179-187	228-239
II	143-151	-2.6	180-189	230-241
III	138-147	-2.1	177-187	225-237
IV	139-149	-2.0	173-185	219-232
<b>Year</b>	<b>142-148</b>	<b>-2.4</b>	<b>178-186</b>	<b>226-237</b>

Trade & Meat Supplies  
*Maintain Context*

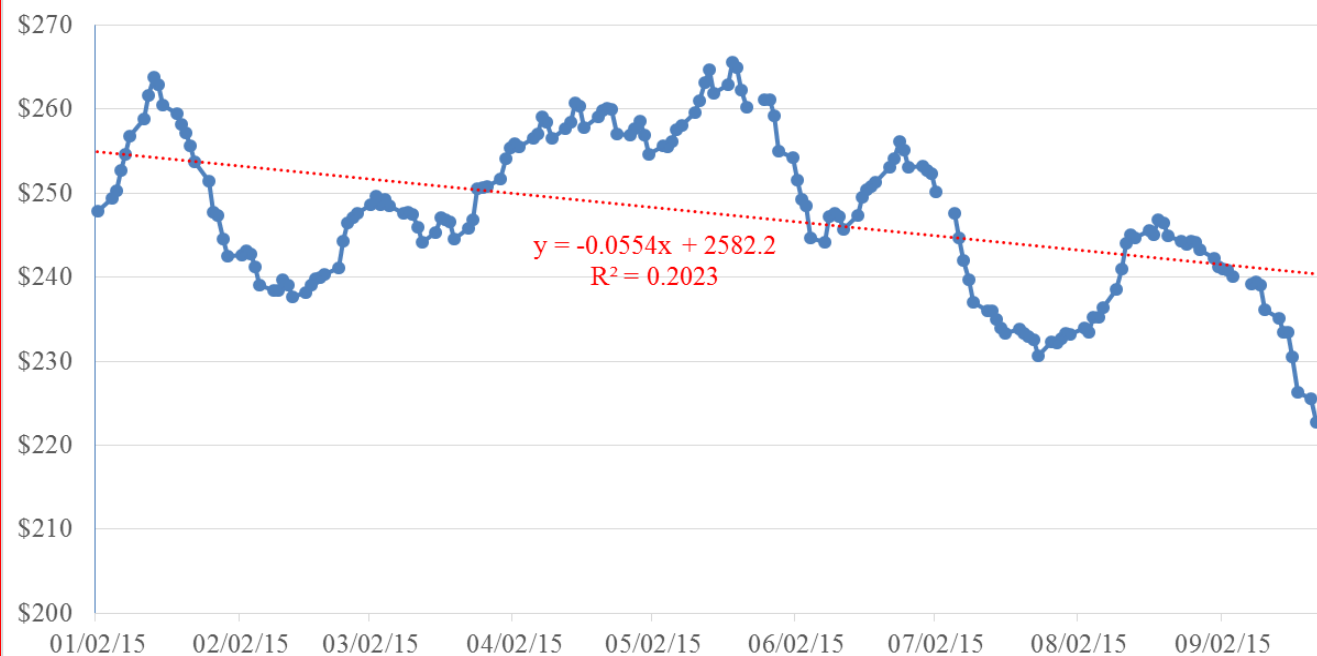


# 2015 To-Date & 2014 Choice Cutout Values

Choice Cutout Value - 2014



Choice Cutout Value - 2015 To-Date



Source: USDA  
LM\_XB403, LMIC,  
Tensor Analysis

# 2015 To-Date & 2014 Choice Cutout Values

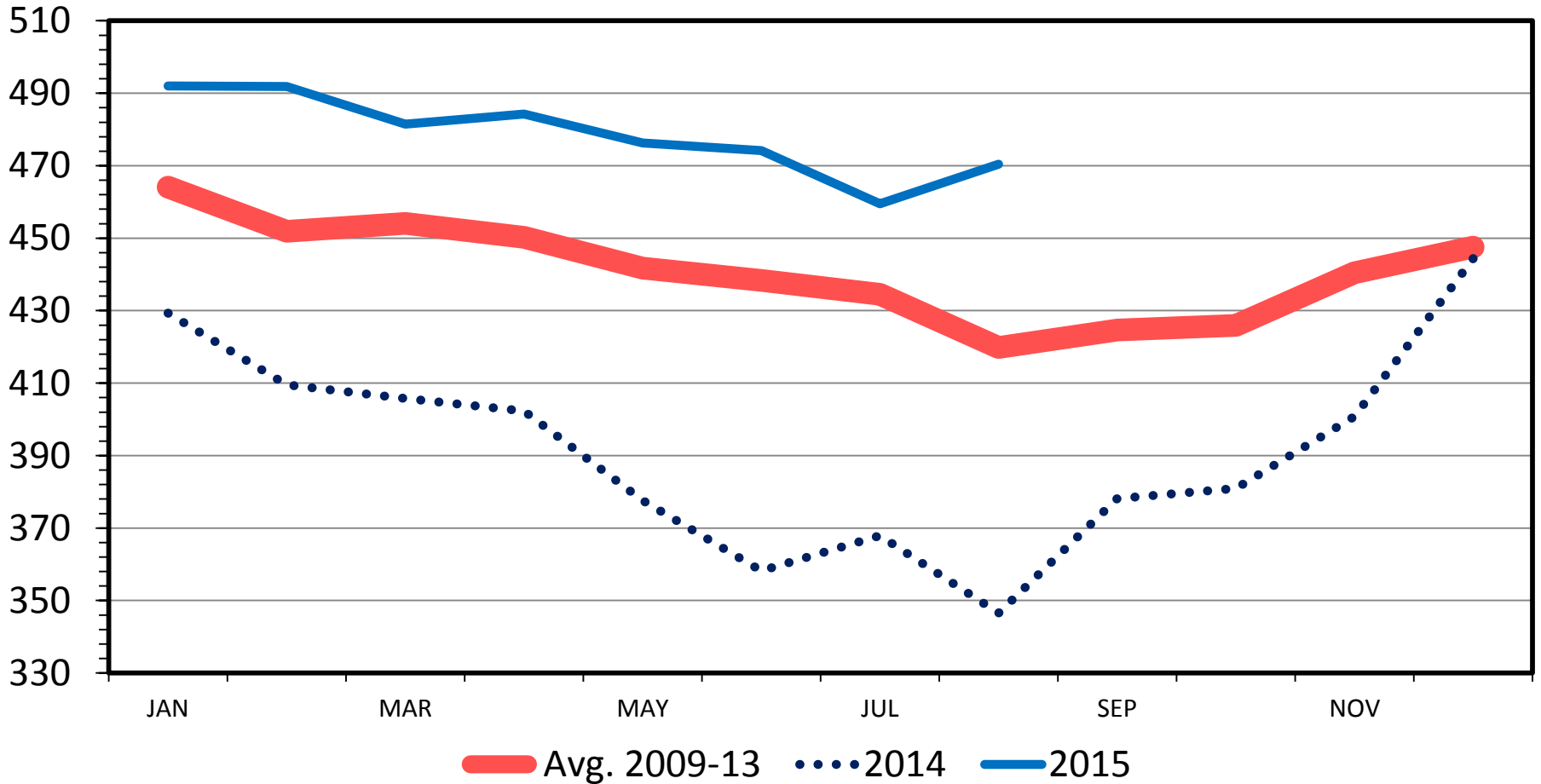
Choice Cutout Value Changes (as of 9/22/15)								
	CUTOUT						SHORT	
	VALUE	RIB	CHUCK	ROUND	LOIN	BRISKET	PLATE	FLANK
Since 9/1/15:	-\$18.44	-\$34.21	-\$13.24	-\$14.17	-\$27.19	-\$12.13	-\$6.58	-\$17.71
	-8%	-10%	-7%	-7%	-8%	-7%	-4%	-13%
Since 7/1/15:	-\$29.52	-\$44.89	-\$26.61	-\$26.67	-\$30.08	-\$13.66	-\$34.74	-\$30.65
	-12%	-13%	-12%	-12%	-9%	-8%	-20%	-21%
Since 1/2/15:	-\$25.06	-\$25.40	-\$35.20	-\$35.90	\$10.75	-\$64.54	-\$33.02	-\$13.86
	-10%	-8%	-16%	-15%	4%	-29%	-19%	-11%
9/22/15 Values:	\$222.77	\$307.33	\$186.58	\$202.67	\$307.12	\$156.99	\$143.13	\$117.02

Source: USDA  
LM\_XB403, LMIC,  
Tonsor Analysis

# BEEF IN COLD STORAGE

End of the Month

Mil. Pounds



Data Source: USDA/NASS

Livestock Marketing Information Center

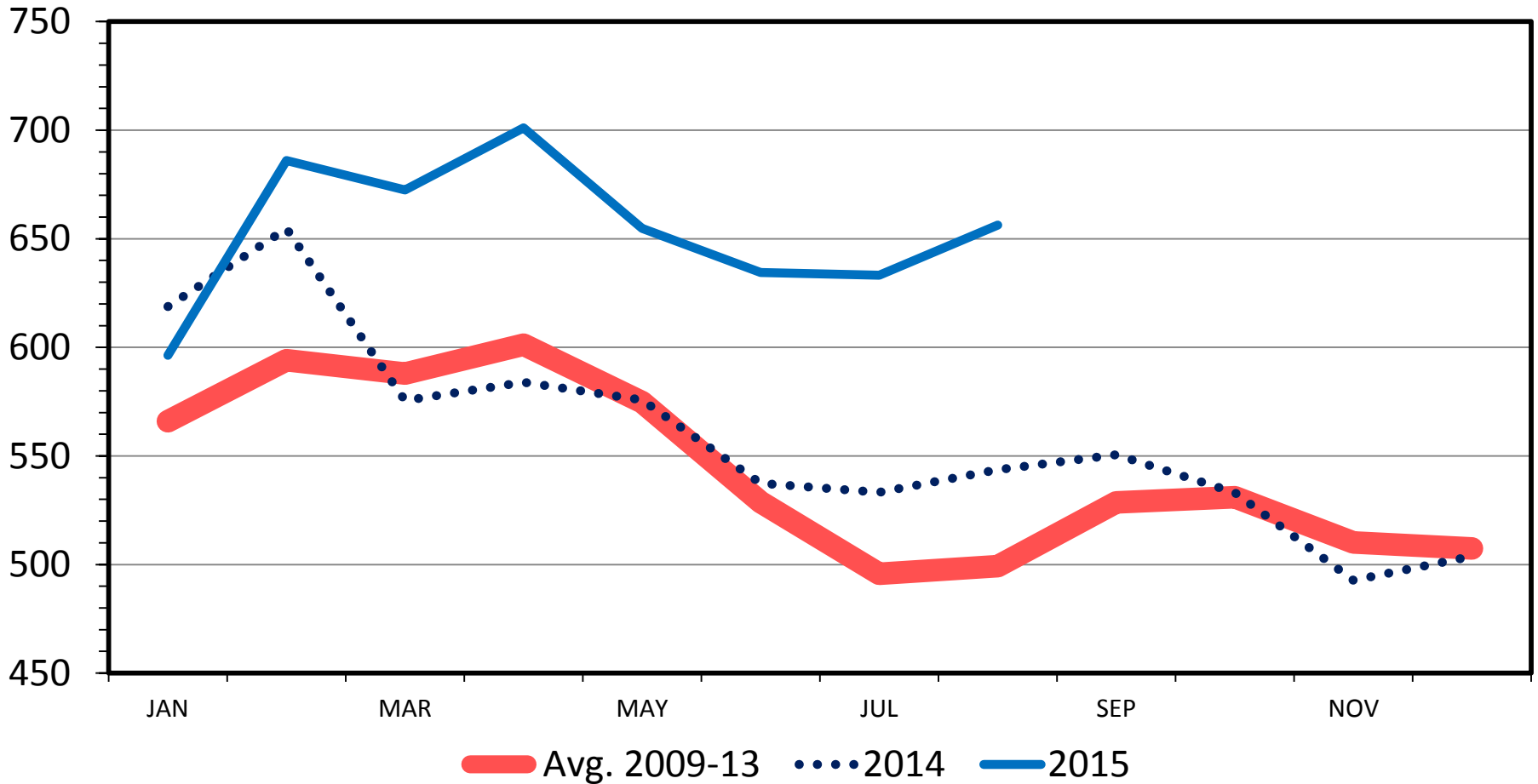
M-S-09

09/22/15

# PORK IN COLD STORAGE

## Frozen and Cured, End of the Month

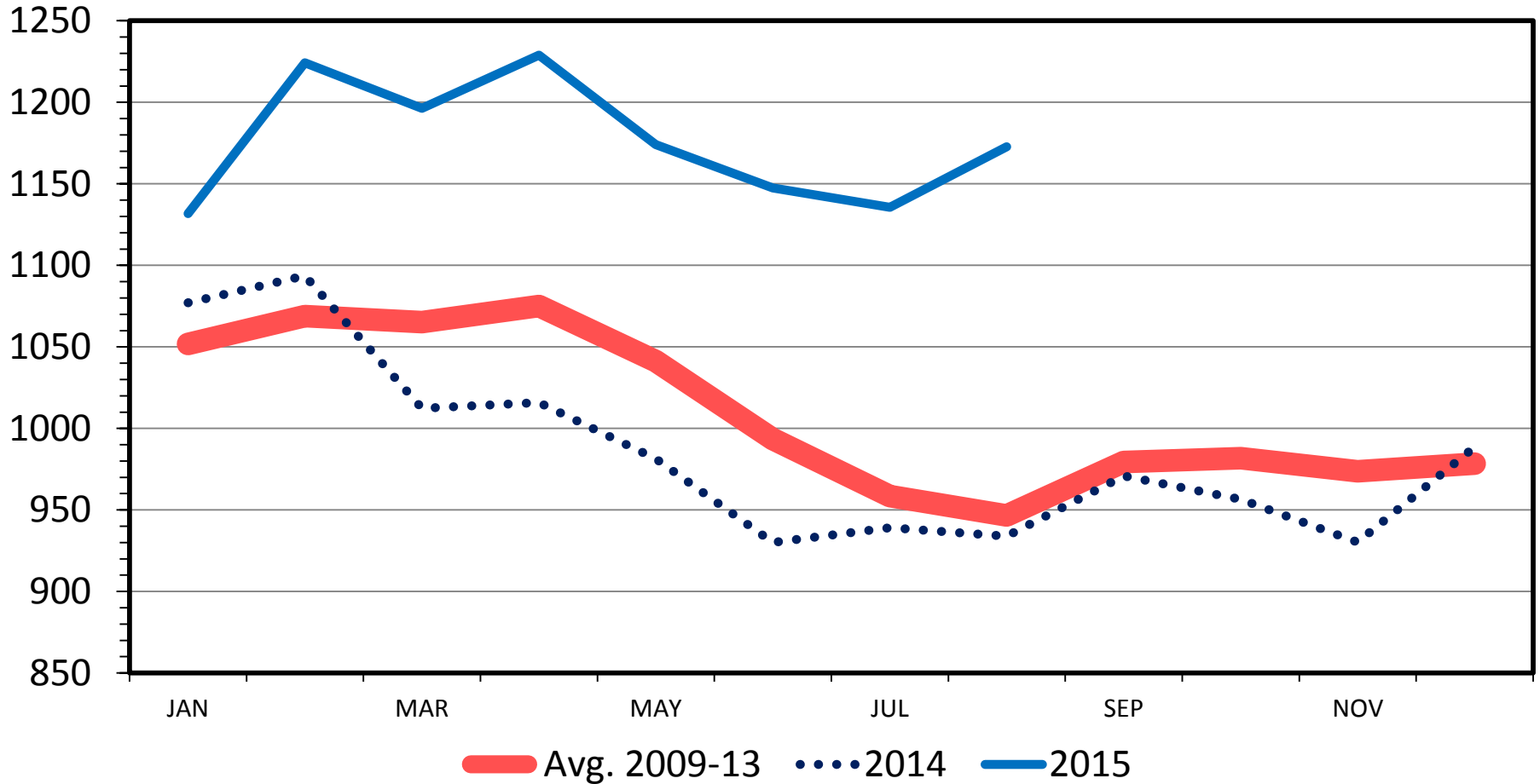
Mil. Pounds



# TOTAL RED MEAT IN COLD STORAGE

End of the Month

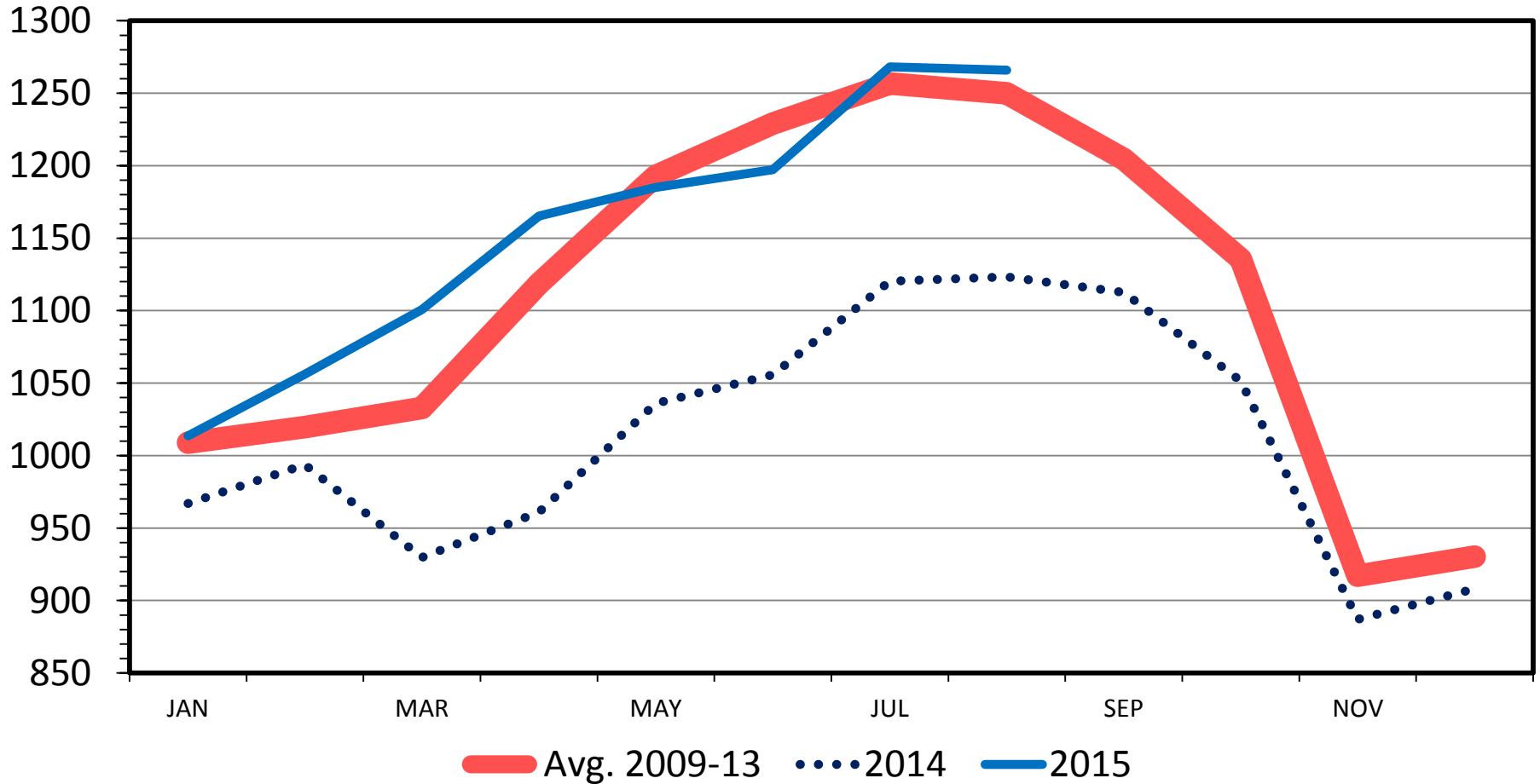
Mil. Pounds



# TOTAL POULTRY IN COLD STORAGE

End of the Month

Mil. Pounds

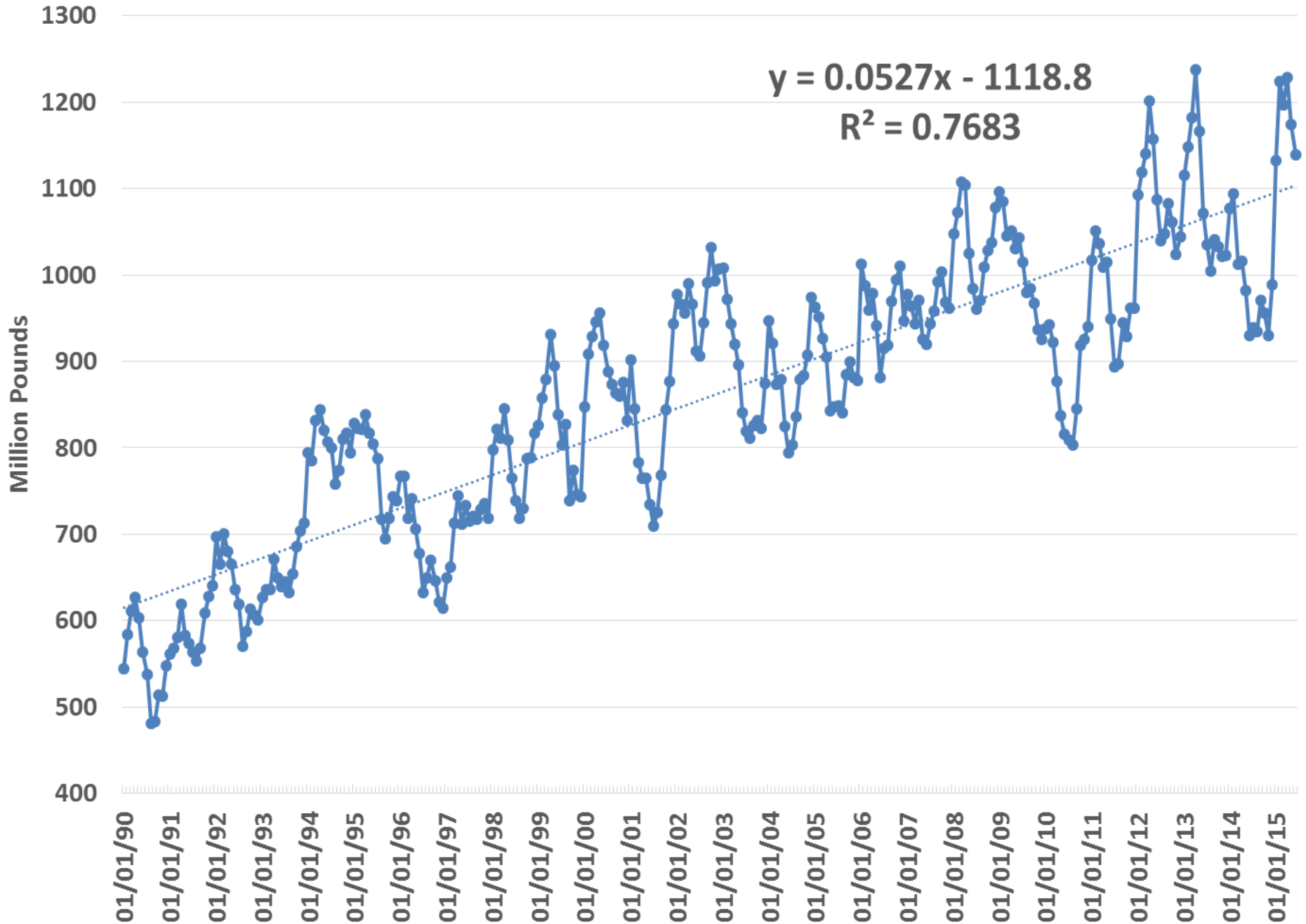


Data Source: USDA/NASS

Livestock Marketing Information Center

P-S-03  
09/22/15

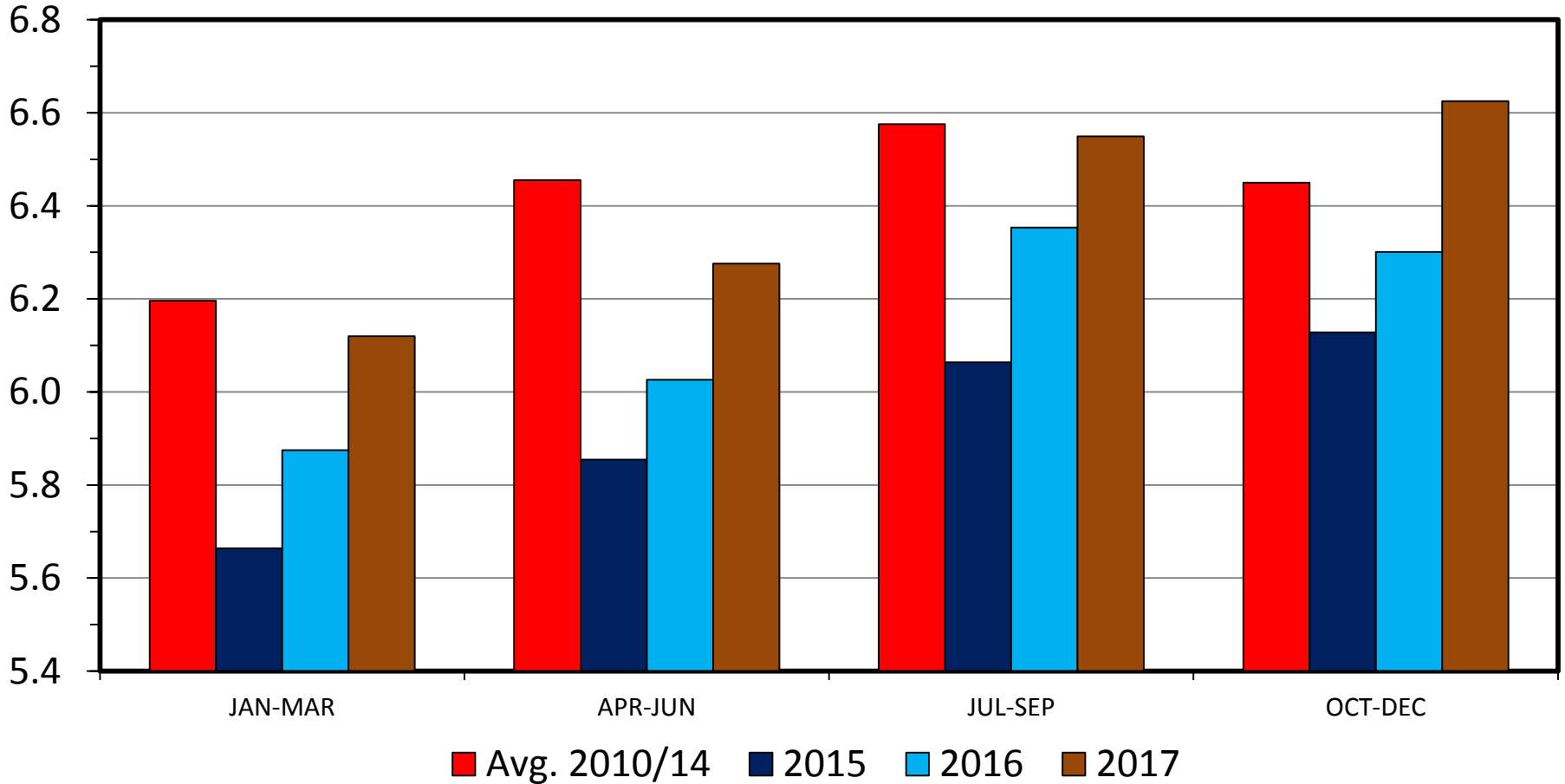
# Total Red Meat in Cold Storage (End of Month)



# COMMERCIAL BEEF PRODUCTION

## US, Quarterly

Bil. Pounds

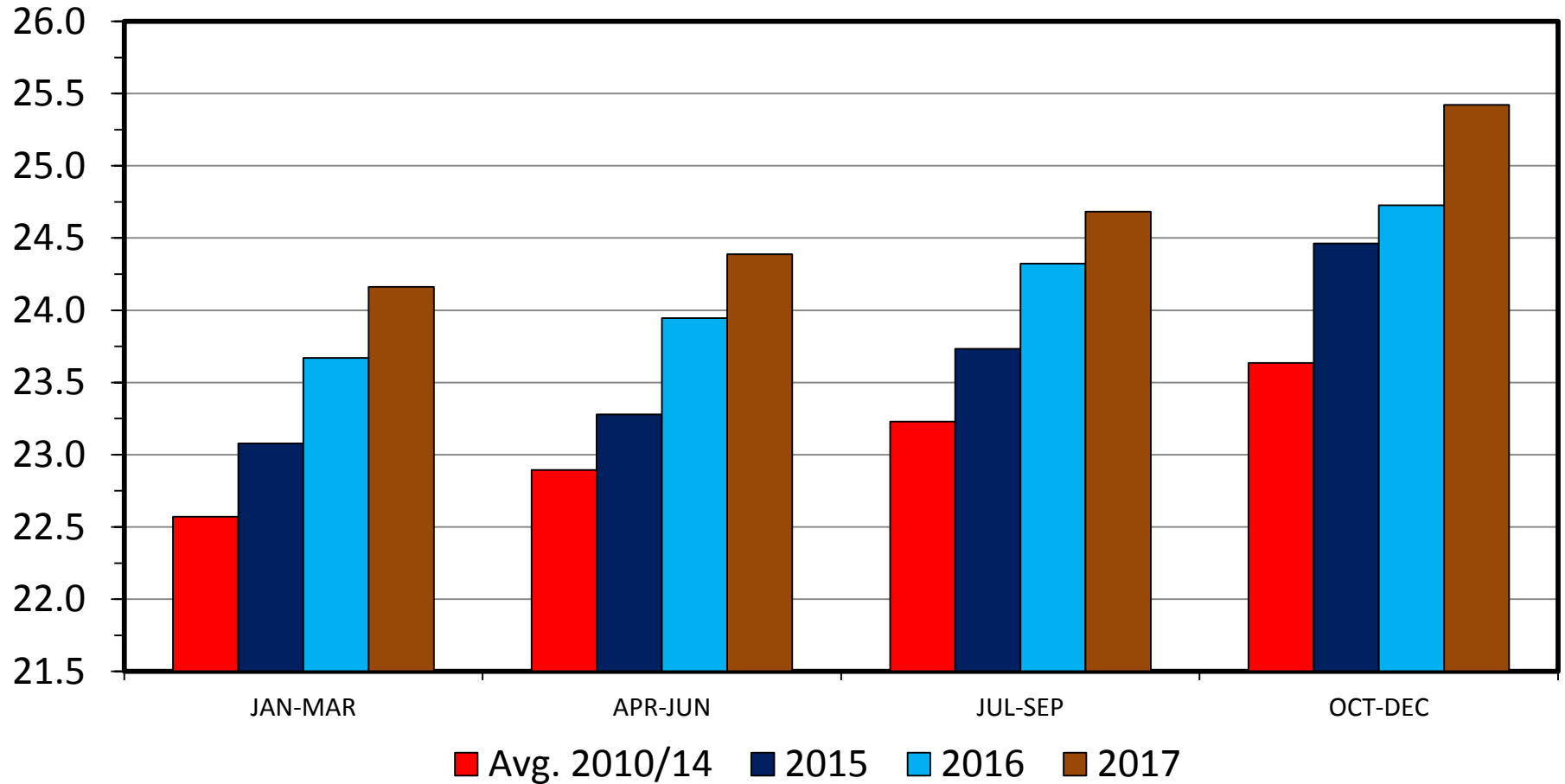




# TOTAL RED MEAT & POULTRY PRODUCTION

## US, Quarterly

Bil. Pounds



# USDA Long-Term projections (2015-2024)

Feb. 11, 2015 report (<http://www.usda.gov/oce/commodity/projections/index.htm>)

Recent

NEXT 5 YEARS

10 Yrs Out

Per capita meat consumption, retail weight

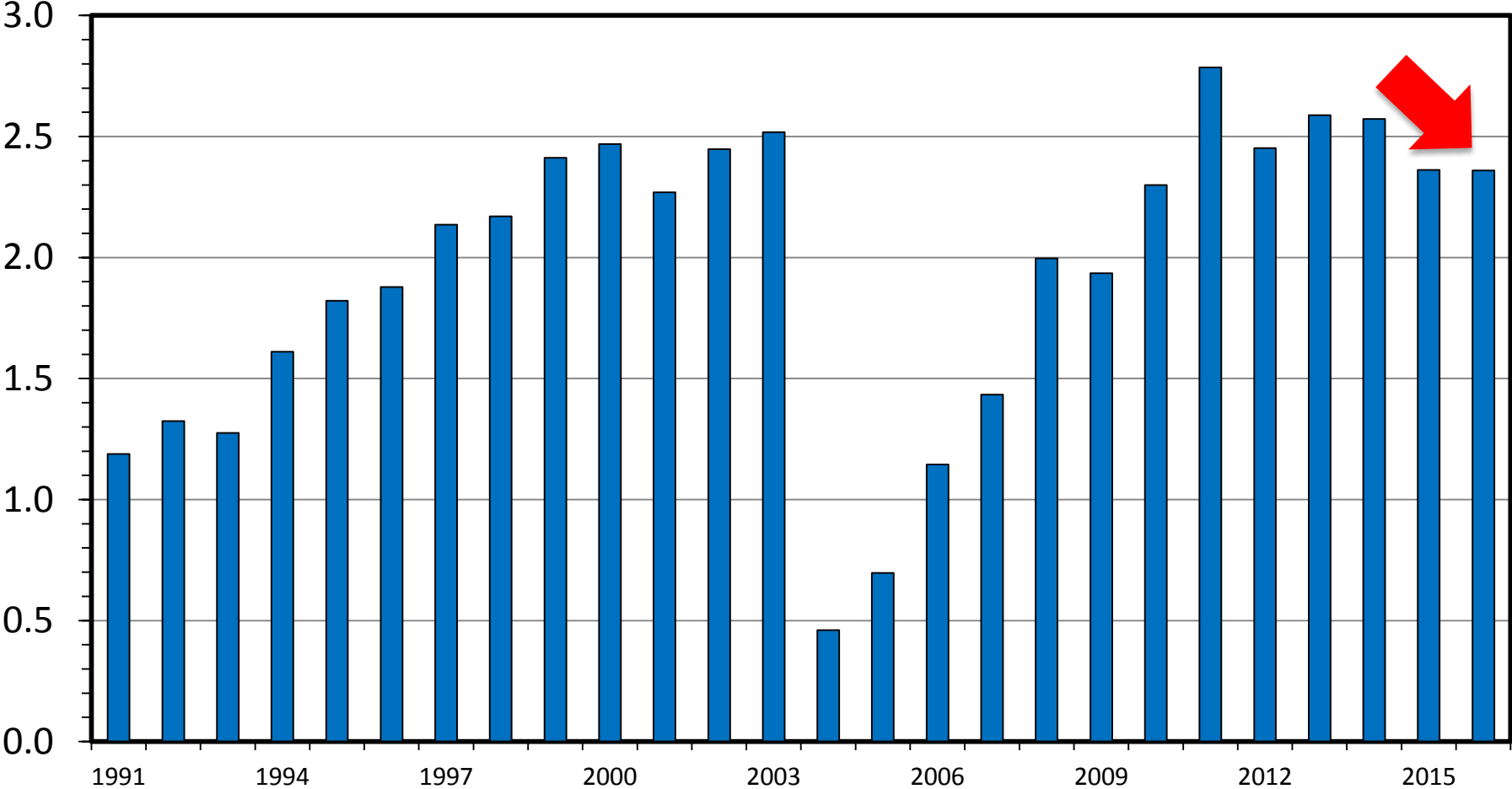
	Red Meat	Poultry	Total
1995	120	87	208
<b>2008</b>	113	103	<b>216</b>
2013	104	99	204
2014	102	100	202
2015	105	105	210
<b>2024</b>	103	112	<b>215</b>

**2024 (215 lbs) <  
2008 (216 lbs)**

# US BEEF AND VEAL EXPORTS

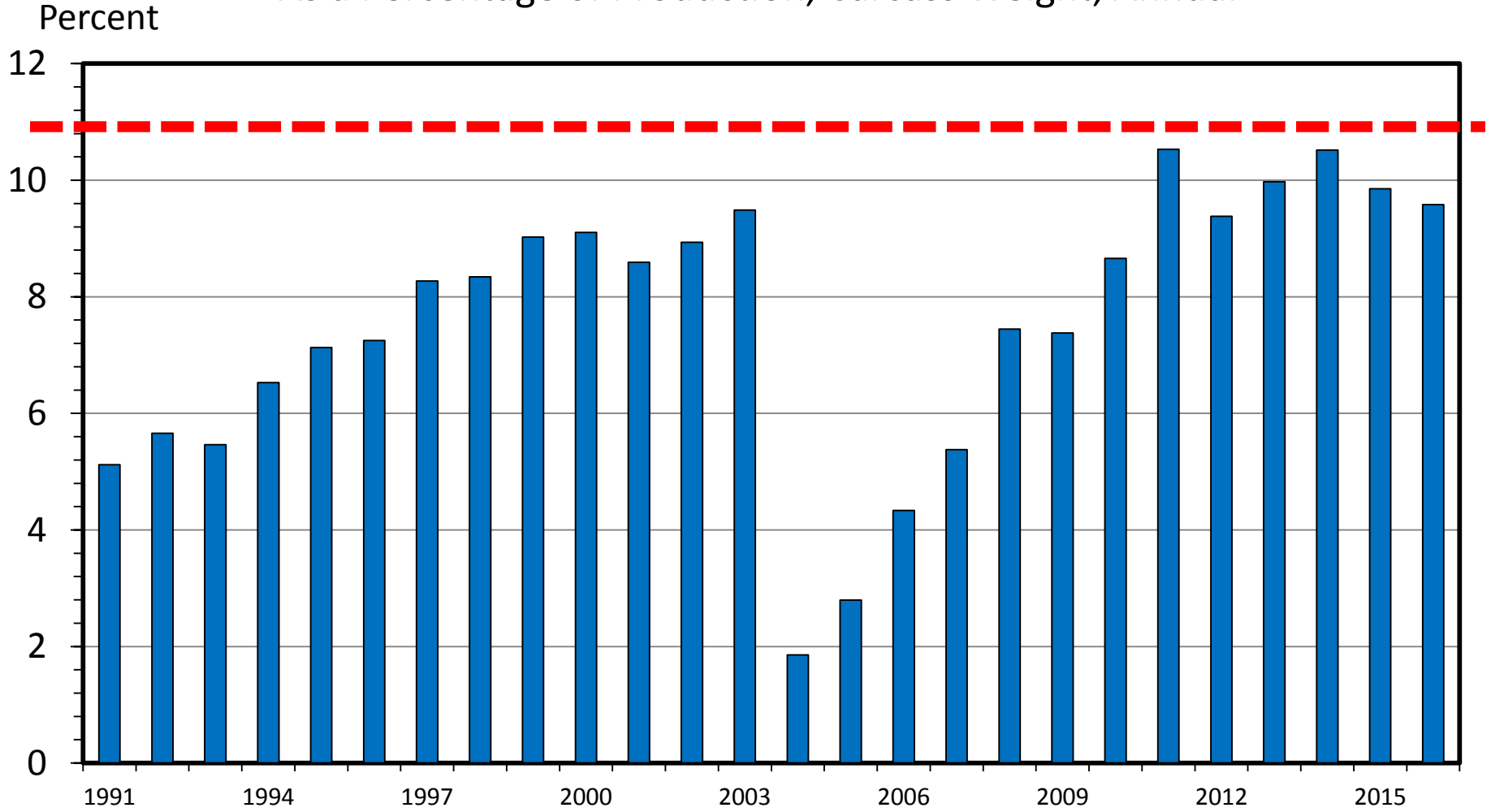
Carcass Weight, Annual

Bil. Pounds



# US BEEF AND VEAL EXPORTS

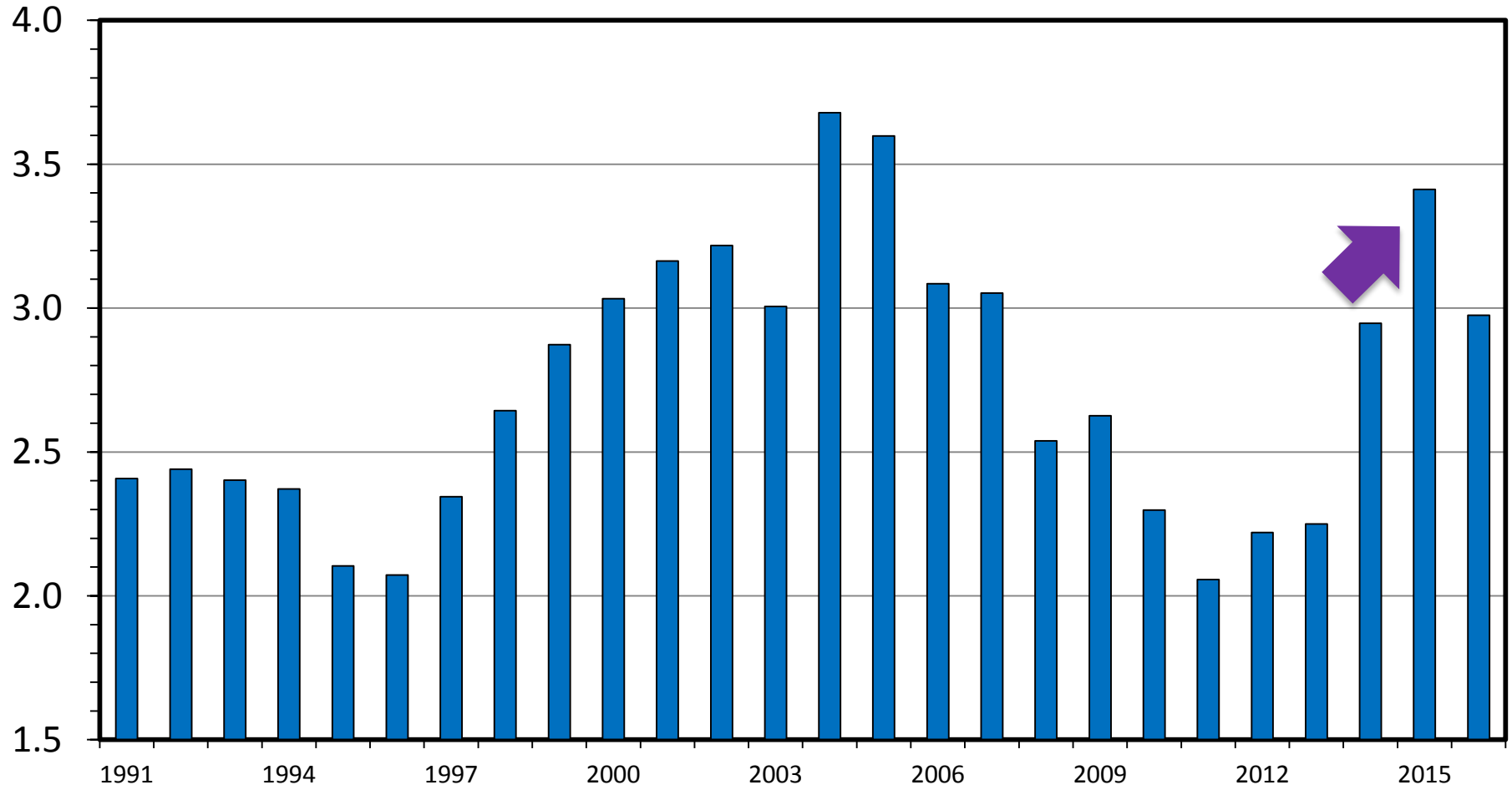
As a Percentage of Production, Carcass Weight, Annual



# US BEEF AND VEAL IMPORTS

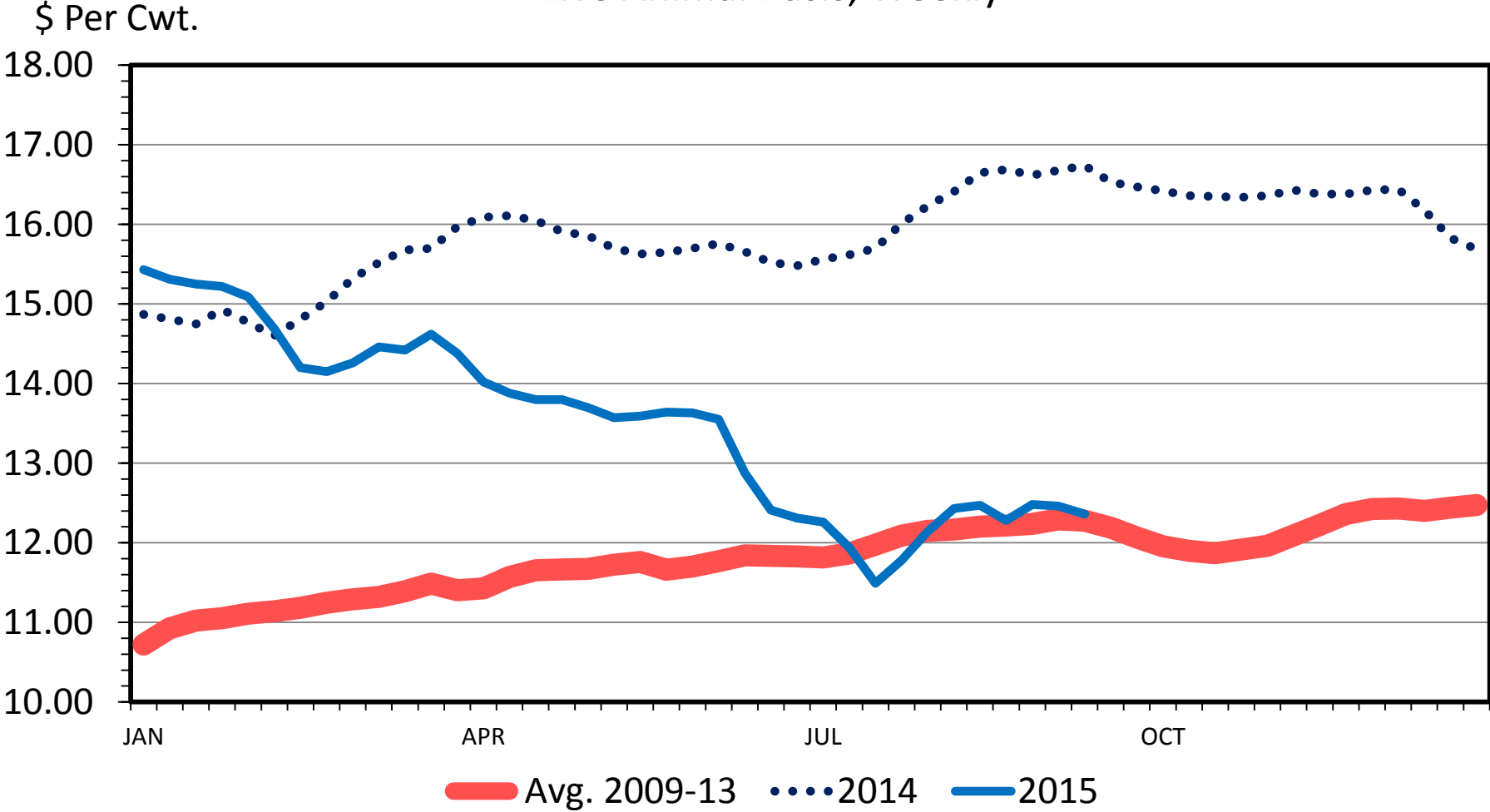
Carcass Weight, Annual

Bil. Pounds



# STEER HIDE AND OFFAL VALUE

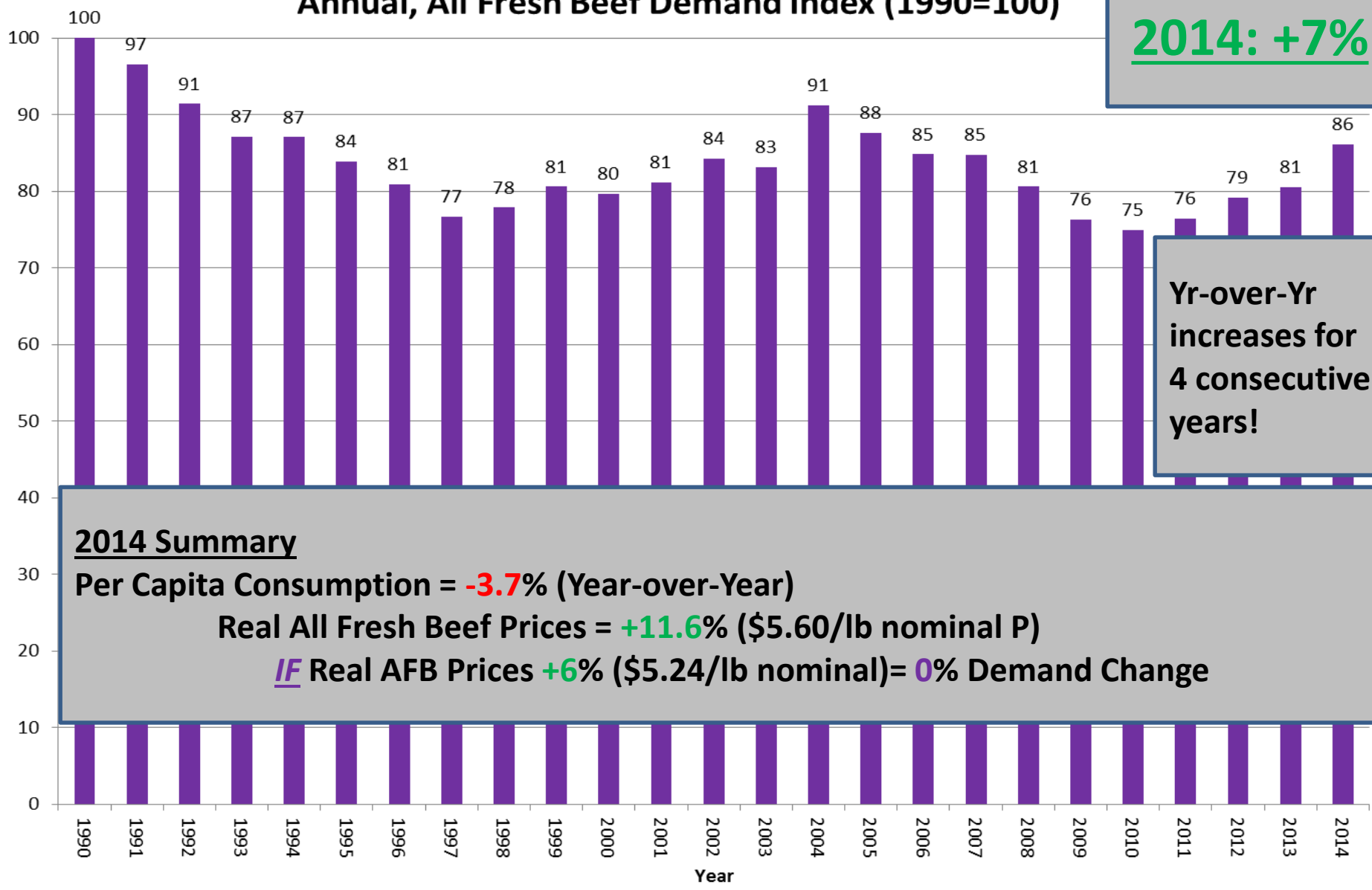
Live Animal Basis, Weekly



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

**2014: +7%**

Demand Index (1990=100)

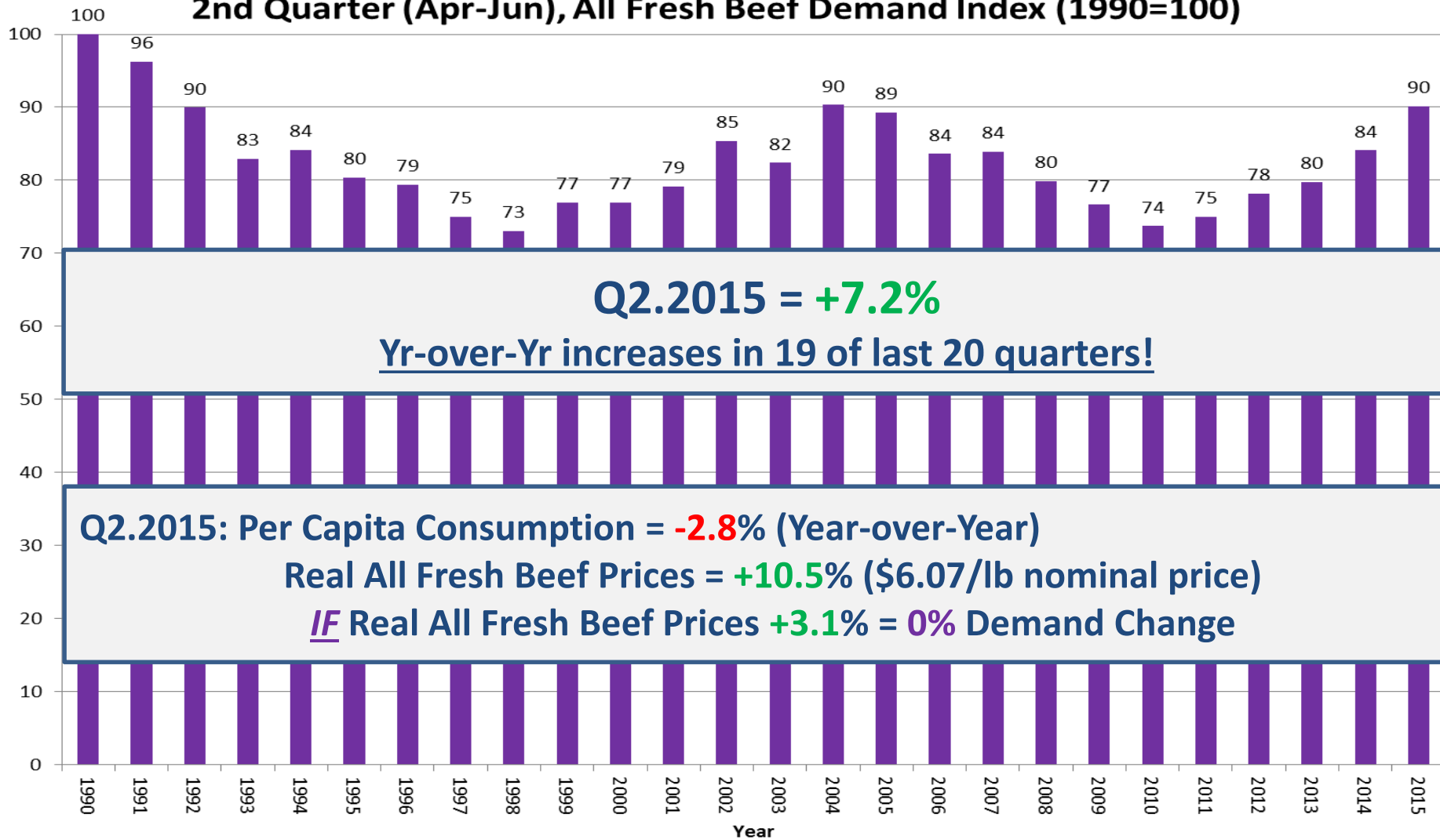


**Yr-over-Yr increases for 4 consecutive years!**

**2014 Summary**  
 Per Capita Consumption = **-3.7%** (Year-over-Year)  
 Real All Fresh Beef Prices = **+11.6%** (\$5.60/lb nominal P)  
*IF* Real AFB Prices **+6%** (\$5.24/lb nominal) = **0%** Demand Change

Source: Glynn T. Tonsor, Kansas State University, Jan. 2015

## 2nd Quarter (Apr-Jun), All Fresh Beef Demand Index (1990=100)



Source: Glynn T. Tonsor, Kansas State University, July 2015

<http://www.agmanager.info/livestock/marketing/Beef%20Demand/default.asp>



# 2015 (To-Date) vs. 2014 Retail Prices

	All			
Old	Fresh	Pork	Broiler	Turkey
Series	Retail	Retail	Retail	Retail
Beef	Beef	Price	Price	Price
2015				
Q1	602.1	393.5	154.7	147.6
Q2	606.5	372.3	151.2	151.8
Q3 thru Aug	612.3	380.2	145.8	155.7
2014				
Q1	522.1	377.2	152.6	171.5
Q2	548.5	405.5	153.0	160.6
Q3 thru Aug	567.5	416.4	153.4	162.3
2015 vs. 2014 (\$/cwt)				
Q1	80.1	16.3	2.1	-23.9
Q2	58.0	-33.2	-1.7	-8.8
Q3 thru Aug	44.9	-36.2	-7.6	-6.6
2015 vs. 2014 (%)				
Q1	15%	4%	1%	-14%
Q2	11%	-8%	-1%	-5%
Q3 thru Aug	8%	-9%	-5%	-4%

Source: USDA/ERS

# Take-Home Summary Points

- Industry at tipping point on role of tight supplies
- **Demand's role will become clearer going forward**
  - [http://www.agmanager.info/livestock/marketing/Beef%20Demand/BeefDemand\\_08-28-15.pdf](http://www.agmanager.info/livestock/marketing/Beef%20Demand/BeefDemand_08-28-15.pdf)
- Identifying & acting upon comparative advantage will increasingly be key!

More information available at:



This presentation will be available in PDF format at:

<http://www.agmanager.info/about/contributors/individual/tonsor.asp>

Glynn T. Tonsor  
Associate Professor  
Dept. of Agricultural Economics  
Kansas State University  
Email: [gtonsor@ksu.edu](mailto:gtonsor@ksu.edu)  
Twitter: @TonsorGlynn

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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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