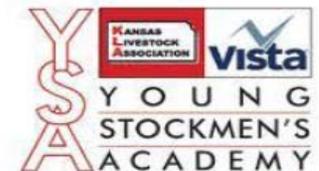


# *State and (Possible) Future of U.S. Cattle Industry*

**Glynn Tonsor**  
**Dept. of Agricultural Economics**  
**Kansas State University**

**November 1, 2012**



**KSU/Merck, YSA Alumni Beef Short Course:**

**KANSAS STATE UNIVERSITY**



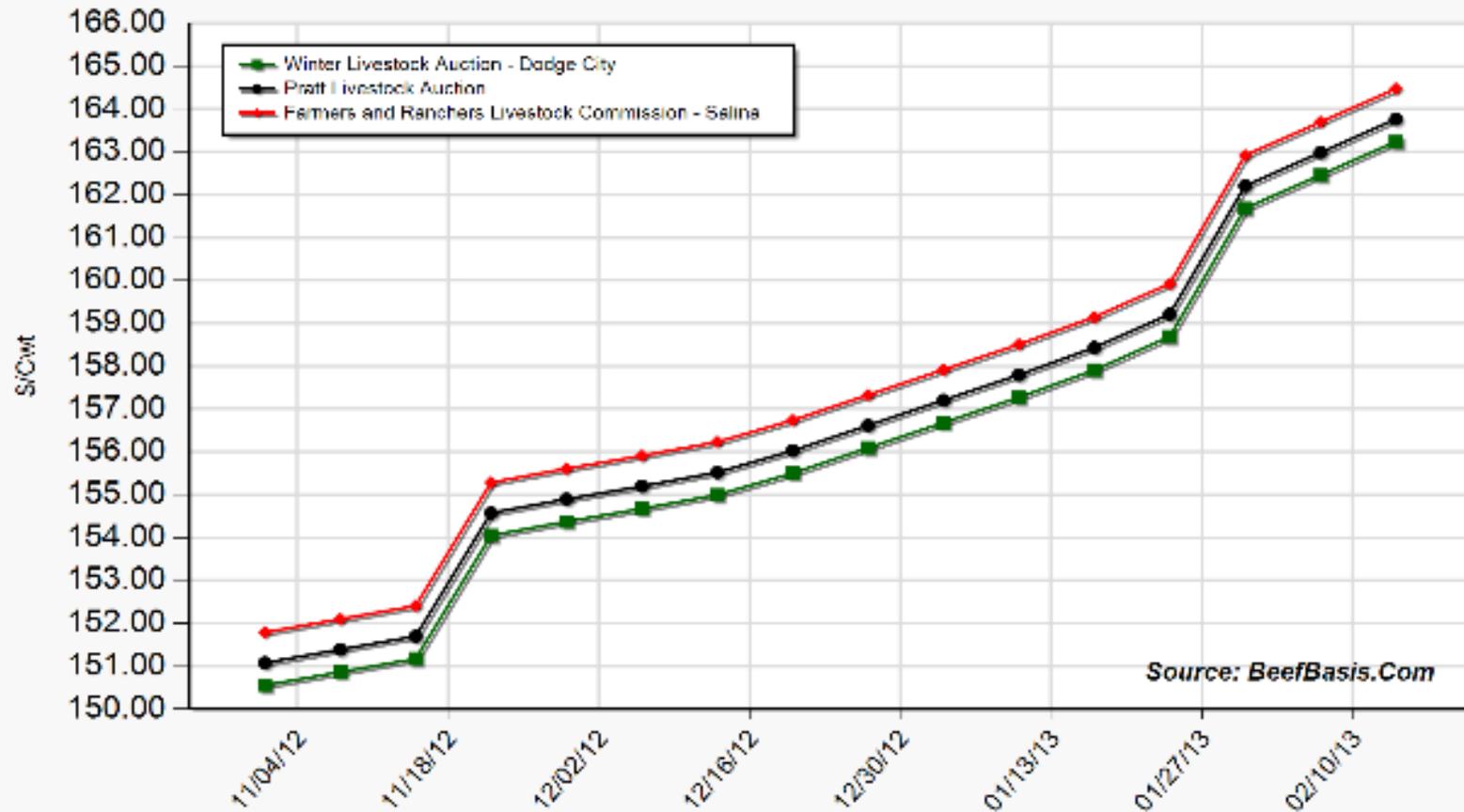
# Economic Outlook Overview: Cow-Calf Sector

- Strong calf price pullback during 2012
  - National vs. regional drought magnified market impact compared to 2011
- *Eventually*: return as beneficiary of tight supplies and probable expanded heifer retention...
  - But note majority of owners (not industry share of cows) are not necessarily seeking to maximize profits as core goal ...
- Returns over cash costs
  - 2012 (2013) estimates have fell over \$170/cow (\$75) since early spring
  - Will 2015 now be “the peak return year” ?
    - Further widening between top 1/3 and bottom 1/3 of producers?
      - Cost management drives majority of differences in returns and likely is even more critical in period of drought response ....



As of: 10/31/12

Projected Price for 550 Lb Steer at Selected Kansas Auctions



Source: BeefBasis.Com



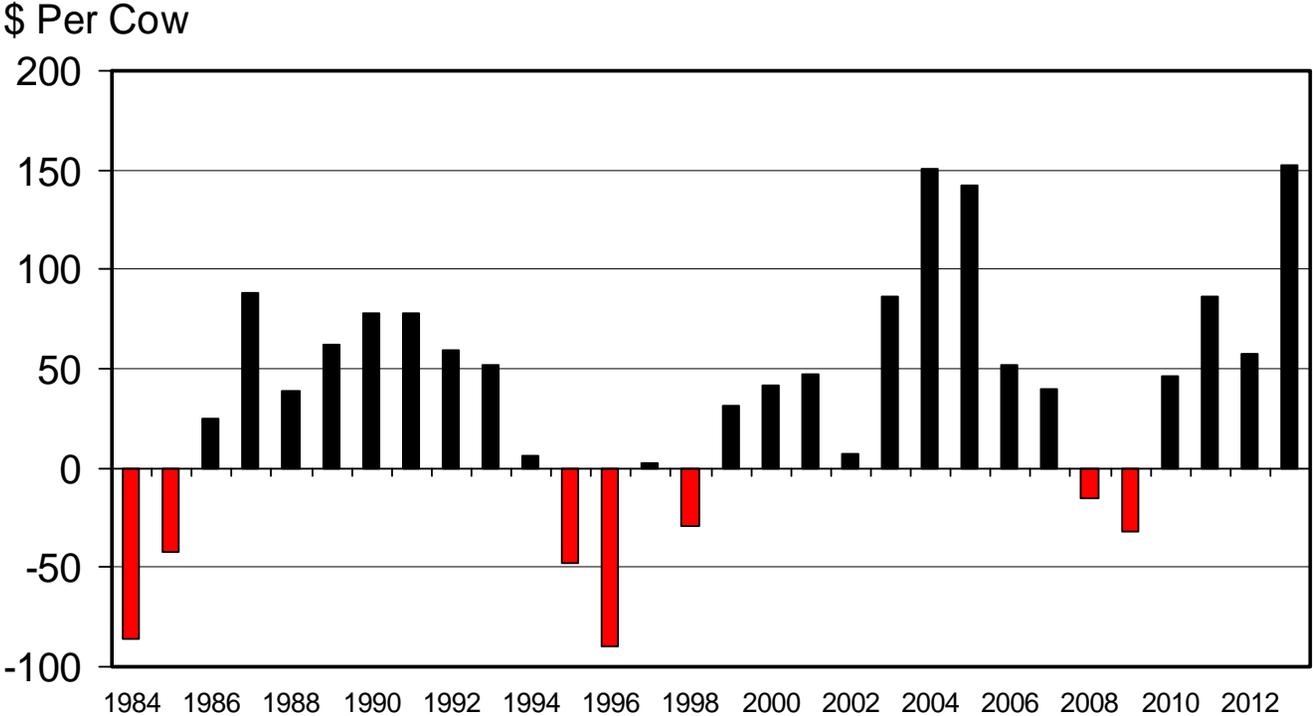
<http://www.agmanager.info/livestock/marketing/graphs/cattle/prices/default.asp>

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# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



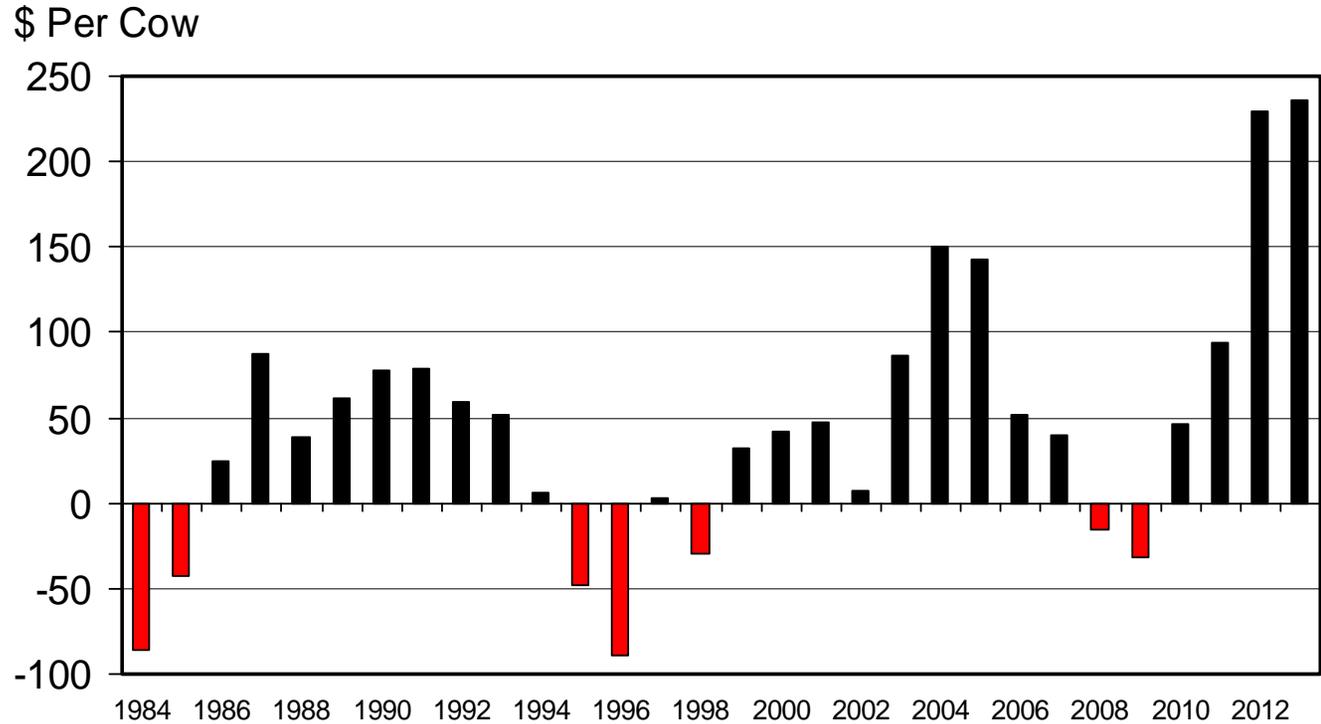
Livestock Marketing Information Center  
Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC

C-P-66  
09/20/12



# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



Livestock Marketing Information Center

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

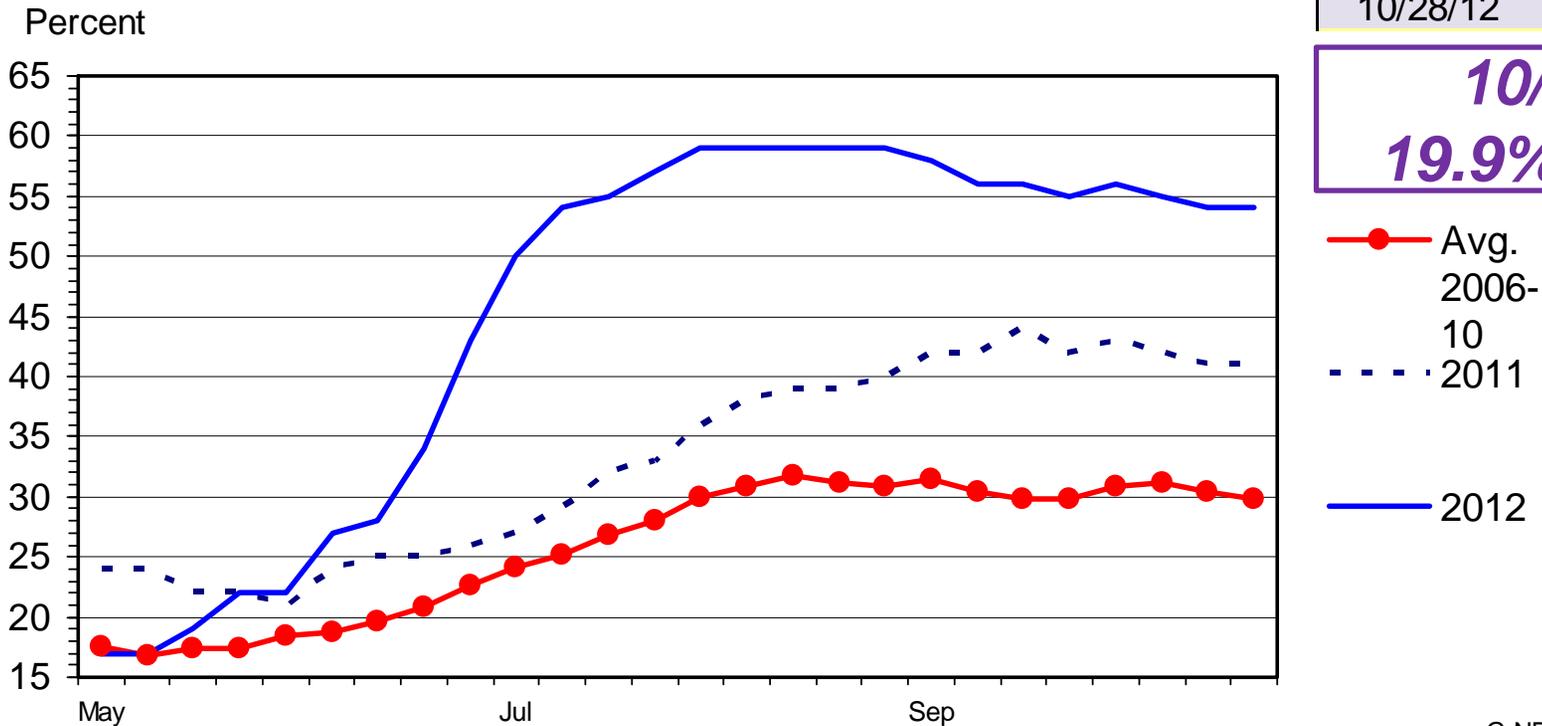
C-P-66  
03/21/12

# US RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly

Beef Cows in states with 40% Poor to Very Poor		
Last year	Cows	% of Total
10/23/11	14862	<b>48.31%</b>
10/30/11	14185	<b>46.11%</b>
This Year		
10/21/12	21009	<b>70.50%</b>
10/28/12	21009	<b>70.50%</b>

**10/31/10':  
19.9% of Cows**



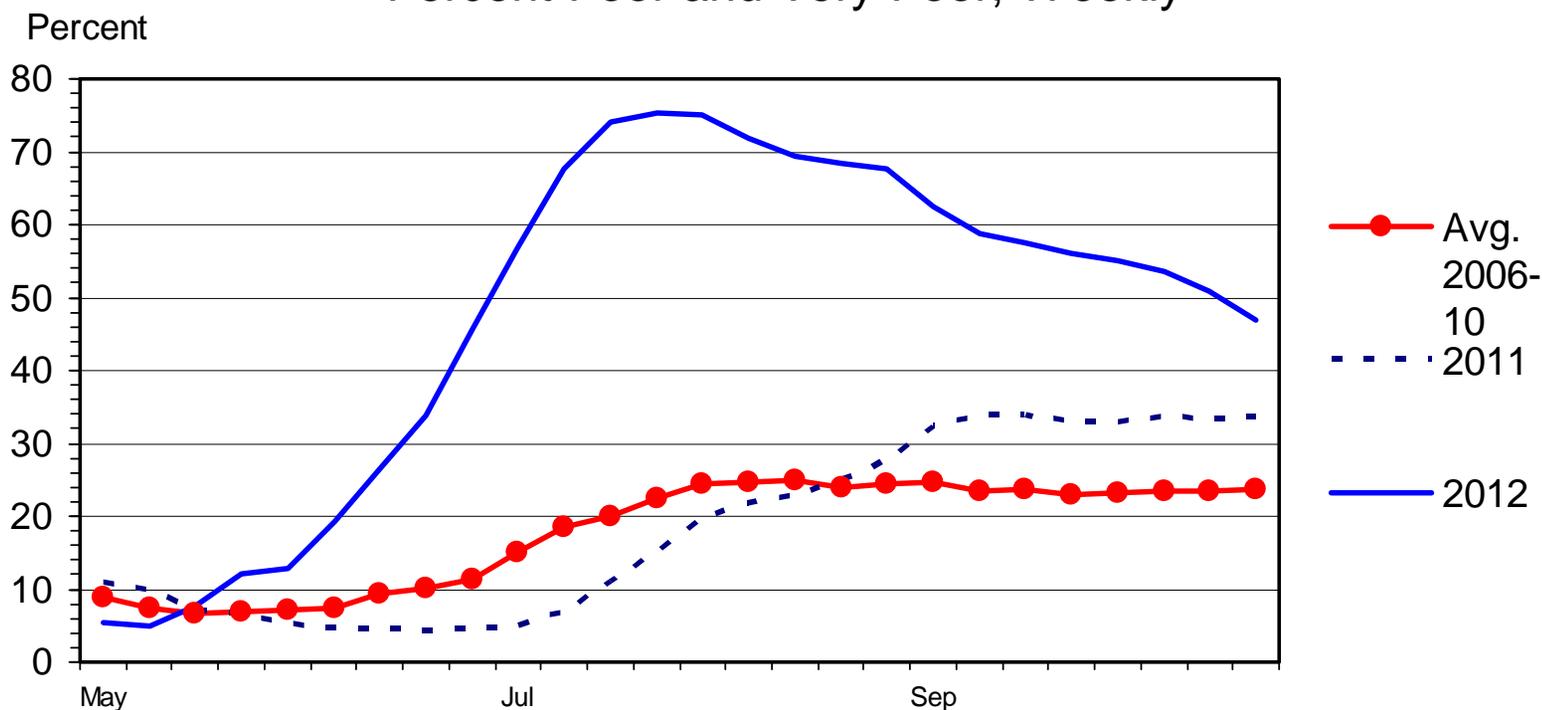
Livestock Marketing Information Center  
 Data Source: USDA-NASS, Compiled & Analysis by LMIC

G-NP-30  
 10/31/12

IL, IN, IA, MI, MN,  
MO, OH, & WI  
14.5% of Cows  
(2012)

## CORNBELT REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



G-NP-34  
10/31/12

Livestock Marketing Information Center

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

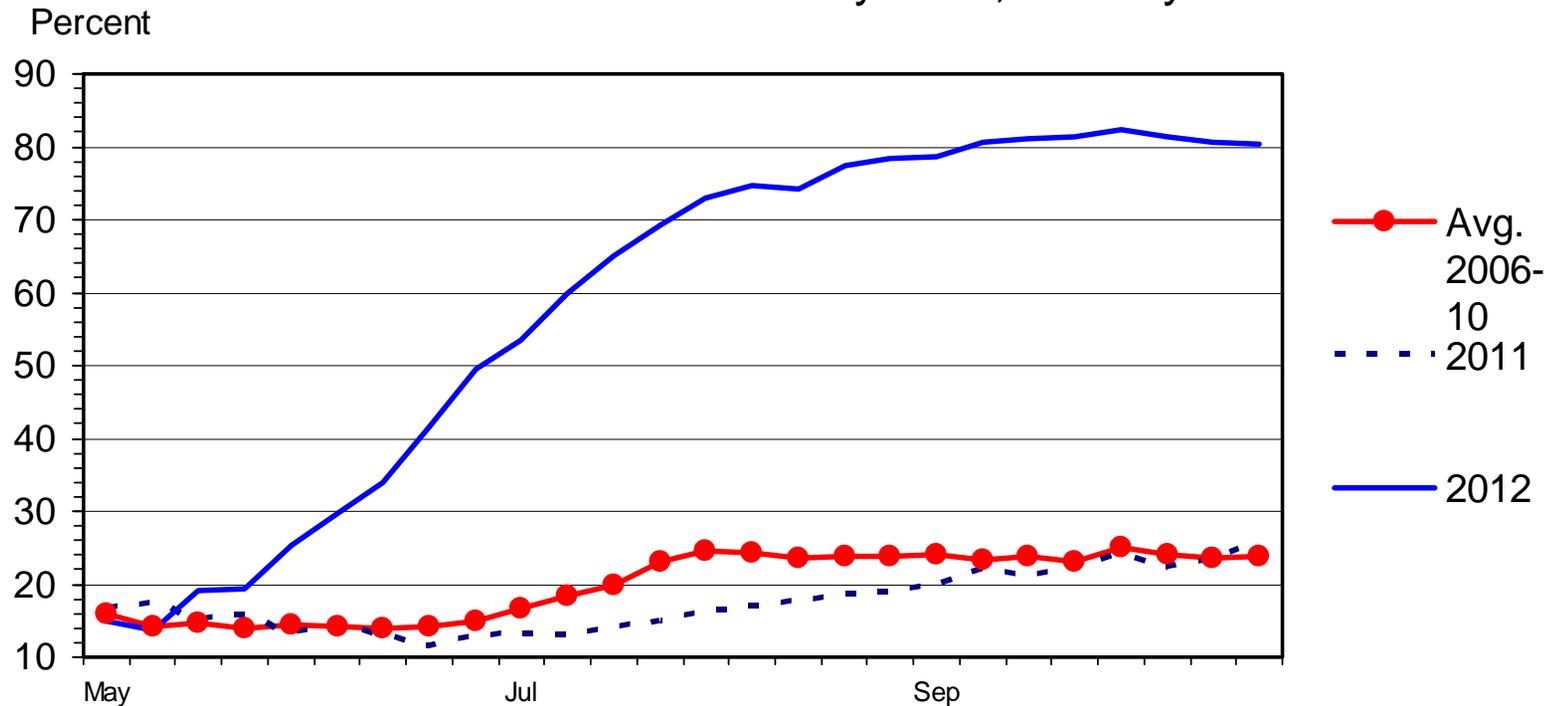
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CO, KS, MT, NE, ND,  
SD, & WY  
29.2% of Cows  
(2012)

## GREAT PLAINS REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



G-NP-32  
10/31/12

Livestock Marketing Information Center

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

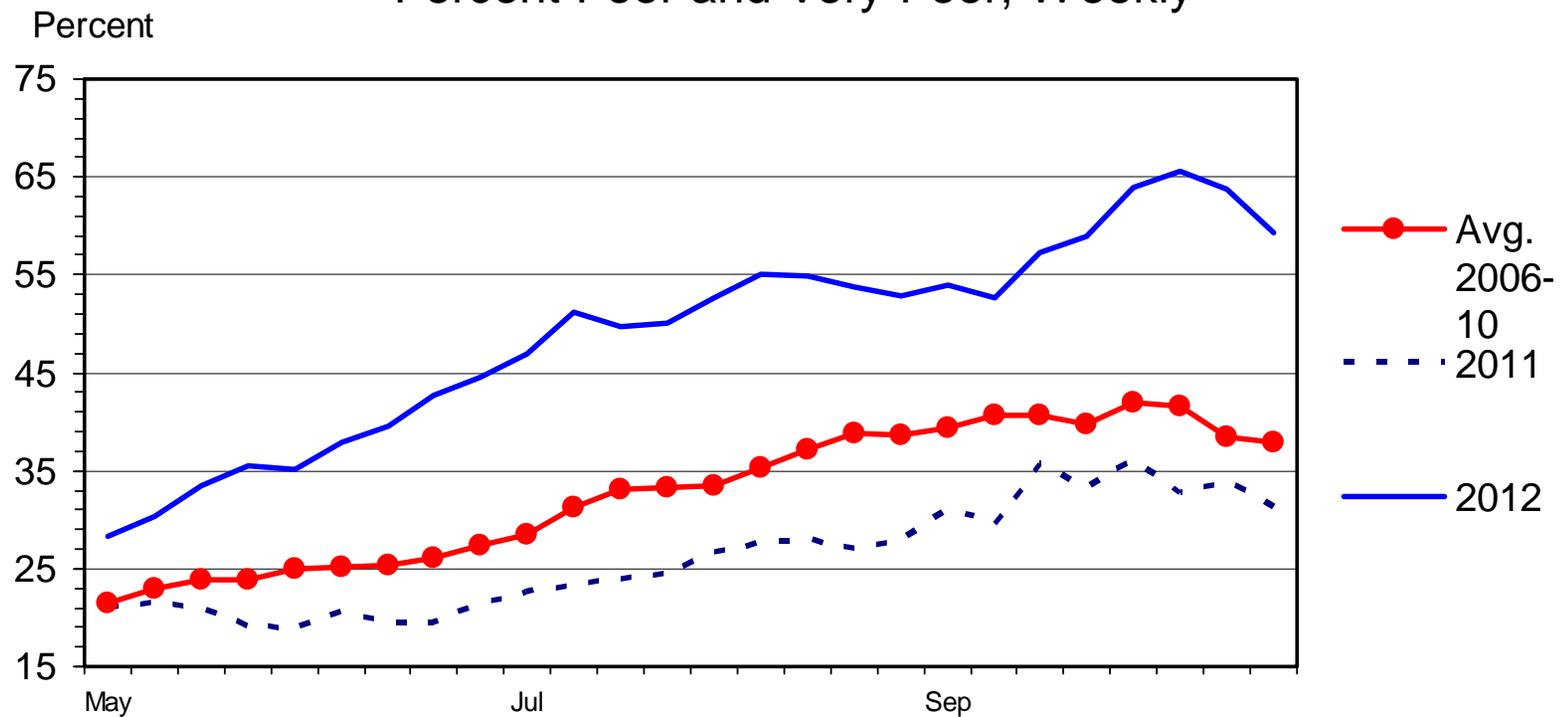
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AZ, CA, ID, NV, NM,  
OR, UT, & WA  
10.2% of Cows  
(2012)

## WESTERN REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



G-NP-31  
10/31/12

Livestock Marketing Information Center

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

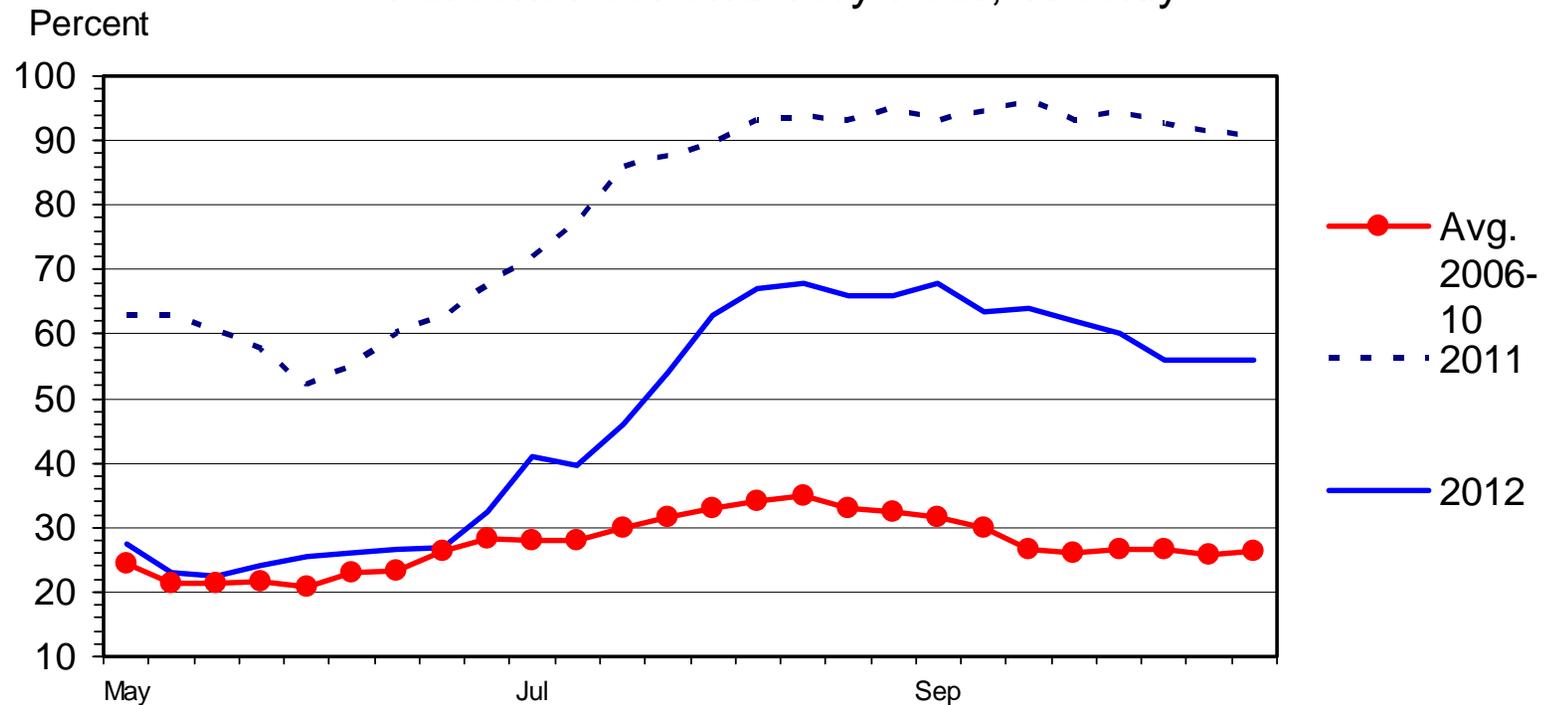
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OK & TX  
20.4% of Cows  
(2012)

## SOUTHERN PLAINS REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



G-NP-33  
10/31/12

Livestock Marketing Information Center

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

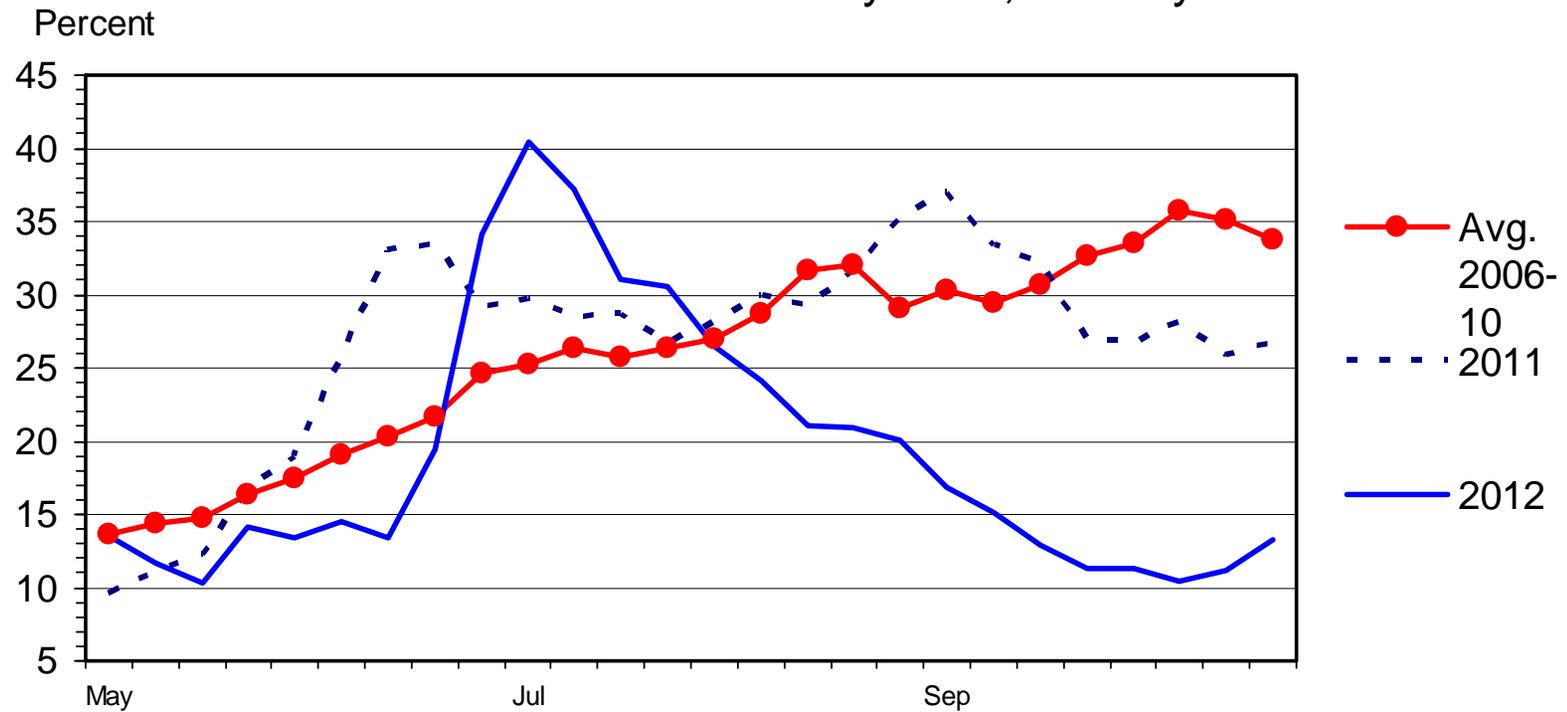
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AL, AR, FL, GA, KY,  
 LA, MS, NC, SC, TN,  
 VA, & WV  
 24.5% of Cows (2012)

## SOUTHEAST REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



G-NP-36  
 10/31/12

Livestock Marketing Information Center

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



# Economic Outlook Overview : Stickers

- Historically high Values of Gain (VOG)
  - But also historically high Costs of Gain (COG)...
- Of course, not everyone has their typical feedstuffs/resources to engage this fall/winter
  -  VOG =  rewards for sound management
  -  COG =  pain of hiccups or poor management
    - Many producers feeding something new...
      - *Is there a widening gap between returns of stocker operations?*

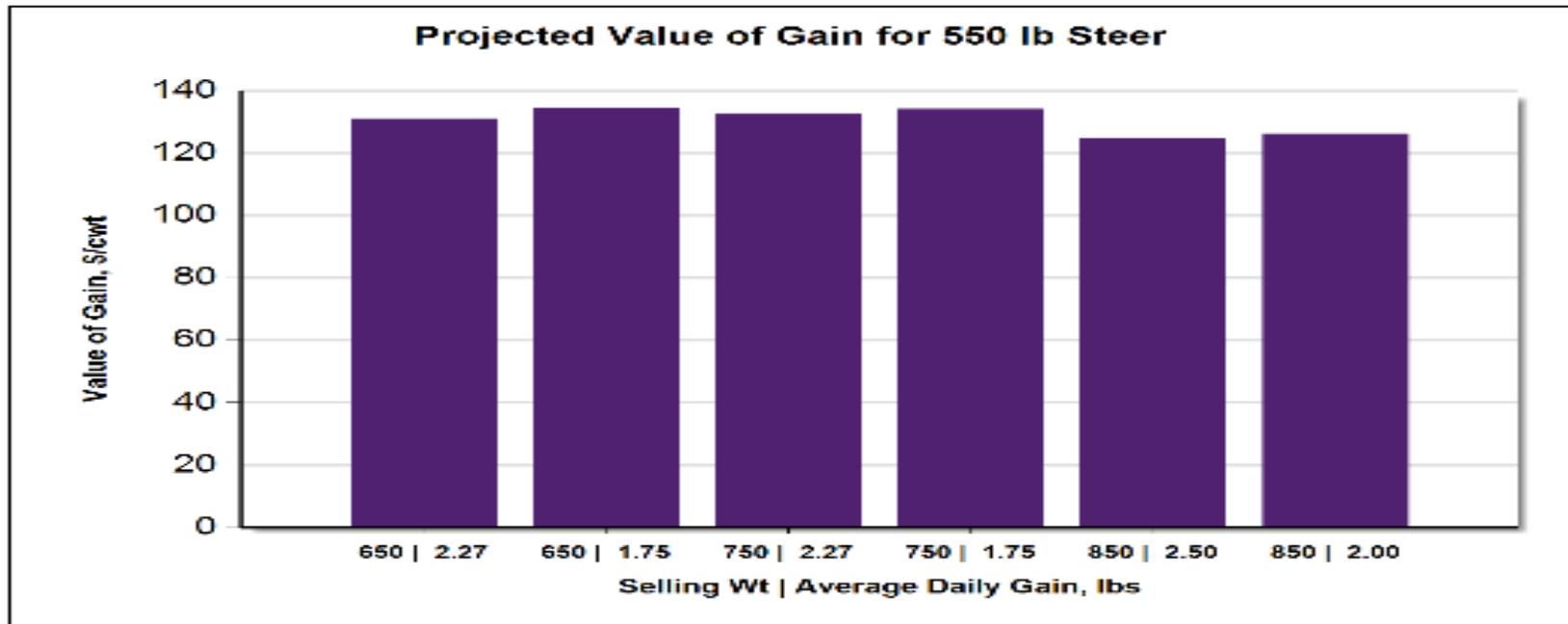


# How Should VOG Be Projected?

- Naïve (current cash market offering) vs. Forward Looking (futures market & basis)
  - Important to recognize no crystal ball exist
  - Salina, KS / 550 to 750 lb in 3 month case / Jan. 07' to July 12' period: naïve is less accurate
  - *Forward-looking VOG projections are now updated daily on AgManager*

[http://www.agmanager.info/livestock/budgets/production/beef/KSU\\_FactSheet\\_ValueOfGainForecastingApproaches.pdf](http://www.agmanager.info/livestock/budgets/production/beef/KSU_FactSheet_ValueOfGainForecastingApproaches.pdf)





Projected Value of Gain					
Beginning Weight, lbs	Ending Weight, lbs	Date	Weight Gain, lbs/hd	ADG, lbs	Value of Gain, \$/cwt
550	650	12/15/2012	100	2.27	\$131.12
550	650	12/28/2012	100	1.75	\$134.43
550	750	01/28/2013	200	2.27	\$132.45
550	750	02/23/2013	200	1.75	\$134.18
550	850	03/01/2013	300	2.50	\$124.56
550	850	03/31/2013	300	2.00	\$126.14

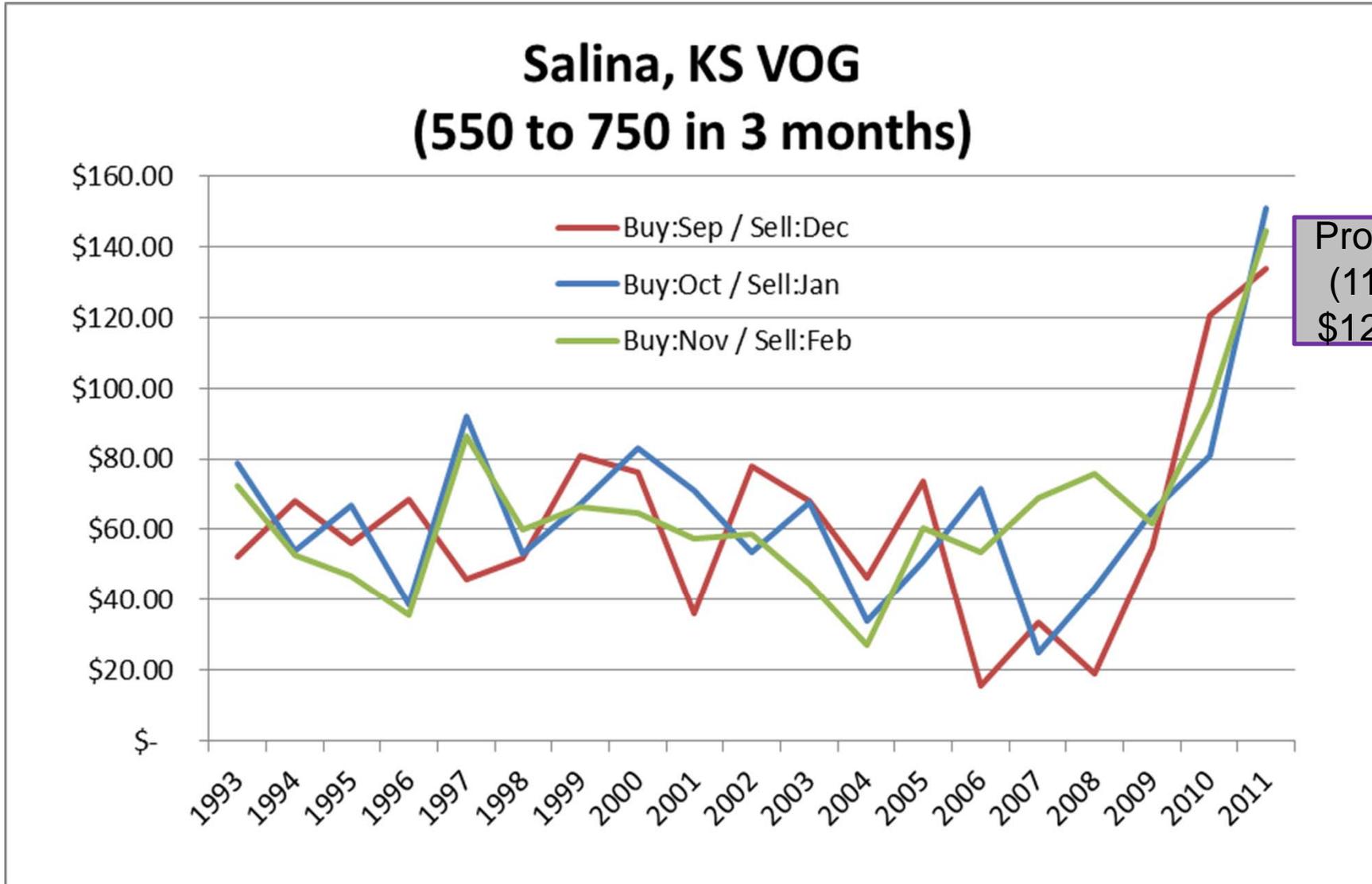
Note: Projections derived for the Salina, KS market using BeefBasis.com  
 Related information is available at: BeefBasis.com

11/1/2012



<http://www.agmanager.info/livestock/marketing/graphs/cattle/prices/VOG.asp>

# Historical VOG



Projections  
(11/1/12):  
\$125-\$135

# Economic Outlook Overview: Feedlots

- Excess capacity concerns remain & will be growing...
  - Drought: mitigates this initially / magnifies it later ...
  - Mexican supplies: mitigates this recently / magnifies it soon
- Losses persist...
  - July & August closeouts were at historically high losses...
    - Elevated cost of gain + Feeders purchased before spring pullback
- Recent placements at break-even or + projections...
  - Important to watch response to shrinking available supplies



# Historical and Projected Kansas Feedlot Net Returns (as of 10/4/12')

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

August 12': **-\$253.16/steer**  
 Rolling 12 month average thru August: **-\$90.56/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
Sep-12	-180.15	109.54	124.95	153.01	75.93	137.99	131.71
Oct-12	-127.94	110.96	128.94	153.26	87.87	138.16	137.90
Nov-12	-69.18	112.45	129.68	147.48	100.52	134.61	139.08
Dec-12	22.68	114.57	132.23	139.93	118.48	130.55	142.89
Jan-13	-5.04	118.83	131.52	138.64	117.95	131.89	137.99
Feb-13	22.70	120.18	135.47	140.55	124.16	133.83	143.36

## Representative Barometer for Trends in Profitability

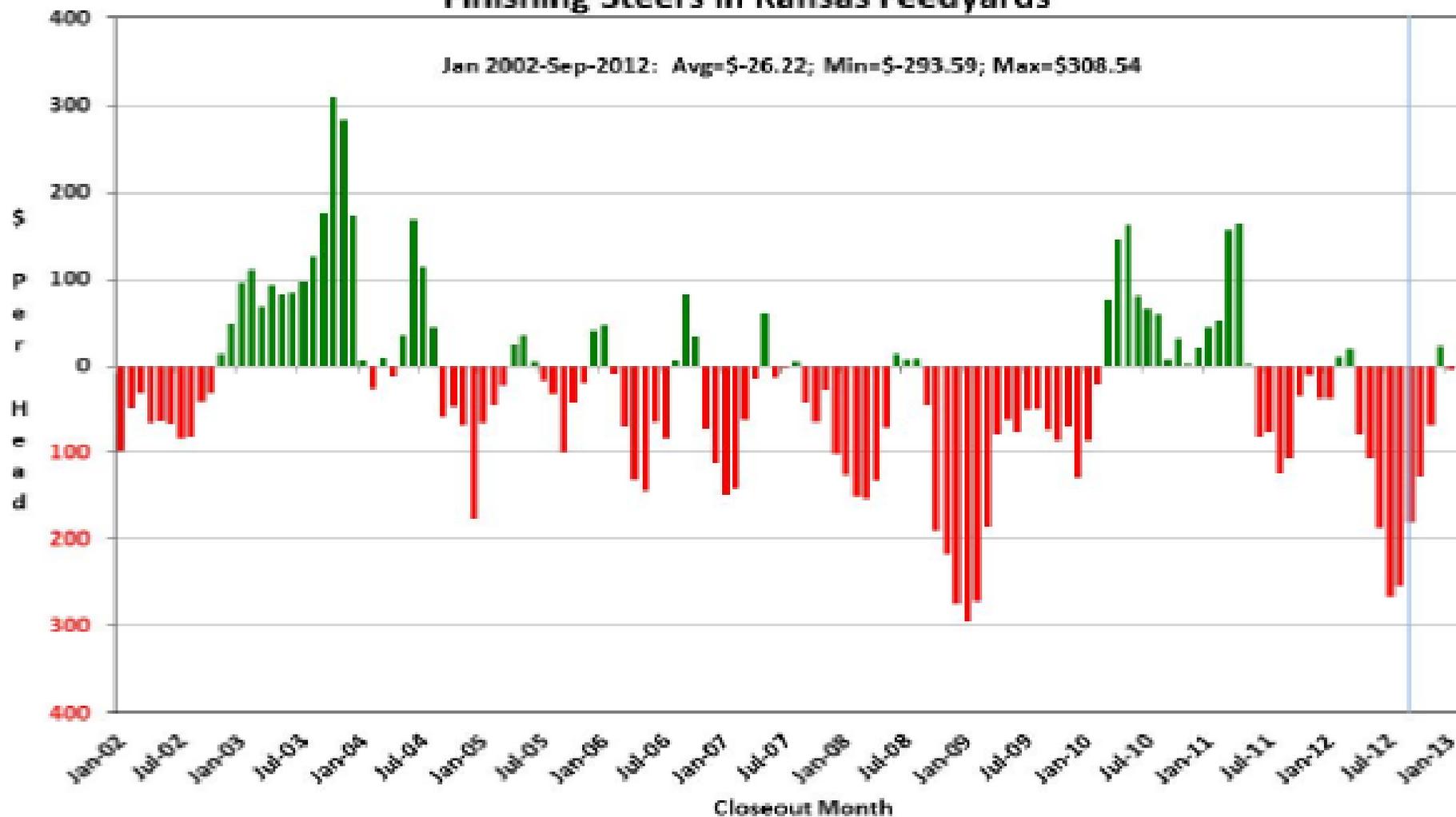
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# Historical and Projected Kansas Feedlot Net Returns (as of 10/4/12')

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

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



# QUARTERLY FORECASTS (LMIC: 10/26/12)

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>2011</b>						
I	8,314	1.8	771	0.7	6,410	2.6
II	8,640	-0.5	759	0.7	6,559	0.2
III	8,738	-0.2	771	-0.3	6,736	-0.5
IV	8,395	-3.0	773	-0.8	6,490	-3.7
<b>Year</b>	<b>34,087</b>	<b>-0.5</b>	<b>768</b>	<b>0.1</b>	<b>26,195</b>	<b>-0.4</b>
<b>2012</b>						
I	8,027	-3.5	783	1.5	6,283	-2.0
II	8,311	-3.8	779	2.6	6,475	-1.3
III	8,332	-4.6	790	2.5	6,584	-2.3
IV	8,236	-1.9	790	2.2	6,508	0.3
<b>Year</b>	<b>32,906</b>	<b>-3.5</b>	<b>786</b>	<b>2.2</b>	<b>25,850</b>	<b>-1.3</b>
<b>2013</b>						
I	7,735	-3.6	782	-0.1	6,048	-3.7
II	7,984	-3.9	779	-0.0	6,218	-4.0
III	8,044	-3.5	794	0.5	6,389	-3.0
IV	7,669	-6.9	797	0.8	6,111	-6.1
<b>Year</b>	<b>31,432</b>	<b>-4.5</b>	<b>788</b>	<b>0.3</b>	<b>24,766</b>	<b>-4.2</b>
<b>2014</b>						
I	7,284	-5.8	791	1.2	5,763	-4.7
II	7,513	-5.9	786	0.9	5,903	-5.1
III	7,585	-5.7	803	1.1	6,089	-4.7
IV	7,219	-5.9	805	1.1	5,814	-4.9
<b>Year</b>	<b>29,601</b>	<b>-5.8</b>	<b>796</b>	<b>1.1</b>	<b>23,569</b>	<b>-4.8</b>



# QUARTERLY FORECASTS (LMIC: 10/26/12)

Year Quarter	Live Sltr. Steer Price	% Chg. from	Feeder Steer Price	
	5-Mkt Avg	Year Ago	7-800#	5-600#
<b>2011</b>				
I	110.12	23.1	129.06	150.07
II	112.79	17.1	132.03	148.61
III	114.05	19.5	135.93	141.69
IV	121.99	21.7	143.15	153.11
<b>Year</b>	<b>114.74</b>	<b>20.3</b>	<b>135.04</b>	<b>148.37</b>
<b>2012</b>				
I	125.29	13.8	154.25	182.41
II	120.91	7.2	152.65	178.65
III	119.69	4.9	141.82	150.57
IV	125-126	2.9	144-146	155-158
<b>Year</b>	<b>122-123</b>	<b>6.8</b>	<b>148-149</b>	<b>166-168</b>
<b>2013</b>				
I	128-131	3.4	141-145	158-162
II	128-132	7.5	146-151	161-167
III	126-131	7.4	148-154	165-172
IV	128-134	4.4	149-156	162-169
<b>Year</b>	<b>128-132</b>	<b>6.1</b>	<b>147-151</b>	<b>162-167</b>
<b>2014</b>				
I	132-139	4.6	154-162	174-183
II	134-142	6.2	157-167	177-189
III	132-140	5.8	158-169	173-186
IV	133-143	5.3	156-168	170-185
<b>Year</b>	<b>134-140</b>	<b>5.4</b>	<b>158-165</b>	<b>176-183</b>



# Economic Outlook Overview :

## Beef Demand

- Meat prices rising w/i basket of purchases...
  - “bacon shortage” discussions are exaggerations; record retail meat prices in 2013 are not...
  - as prices increase, public will require more quality...
    - Quality and value are in the eye of the beholder...
      - = debates on various technologies likely will intensify within industries, with customers, and with consumers...



# Economic Outlook Overview :

## Beef Demand

- Discussion on demand “getting complicated”
  - Growing request for information regarding “how my food is produced”
    - Animal welfare, food safety, antibiotics, hormone use, local, organic, sustainability, traceability...
      - Requests do not necessary = higher WTP...
      - Voting vs. buying behavior disconnect is growing...
  - “Perception is reality” implications are growing



- Mixed views on technology
- Animal welfare, food security, product convenience, all noted...

Yuck...

Beats eating  
GMO. Reduces  
animal slaughter.  
Solves world  
hunger. Looks  
promising.

Your  
move,  
Taco  
Bell!

Americans  
have been proven  
to eat anything that  
comes in a nice  
package with  
the right  
marketing.

## SOCIAL MEDIA

# Man-Made Meat

A TIME.com piece on the world's first lab-grown burger, to be served in 2012, got our Google+ followers so riled up that they maxed out the site's 500-comment limit, with many answering our question, Would you eat test-tube meat?

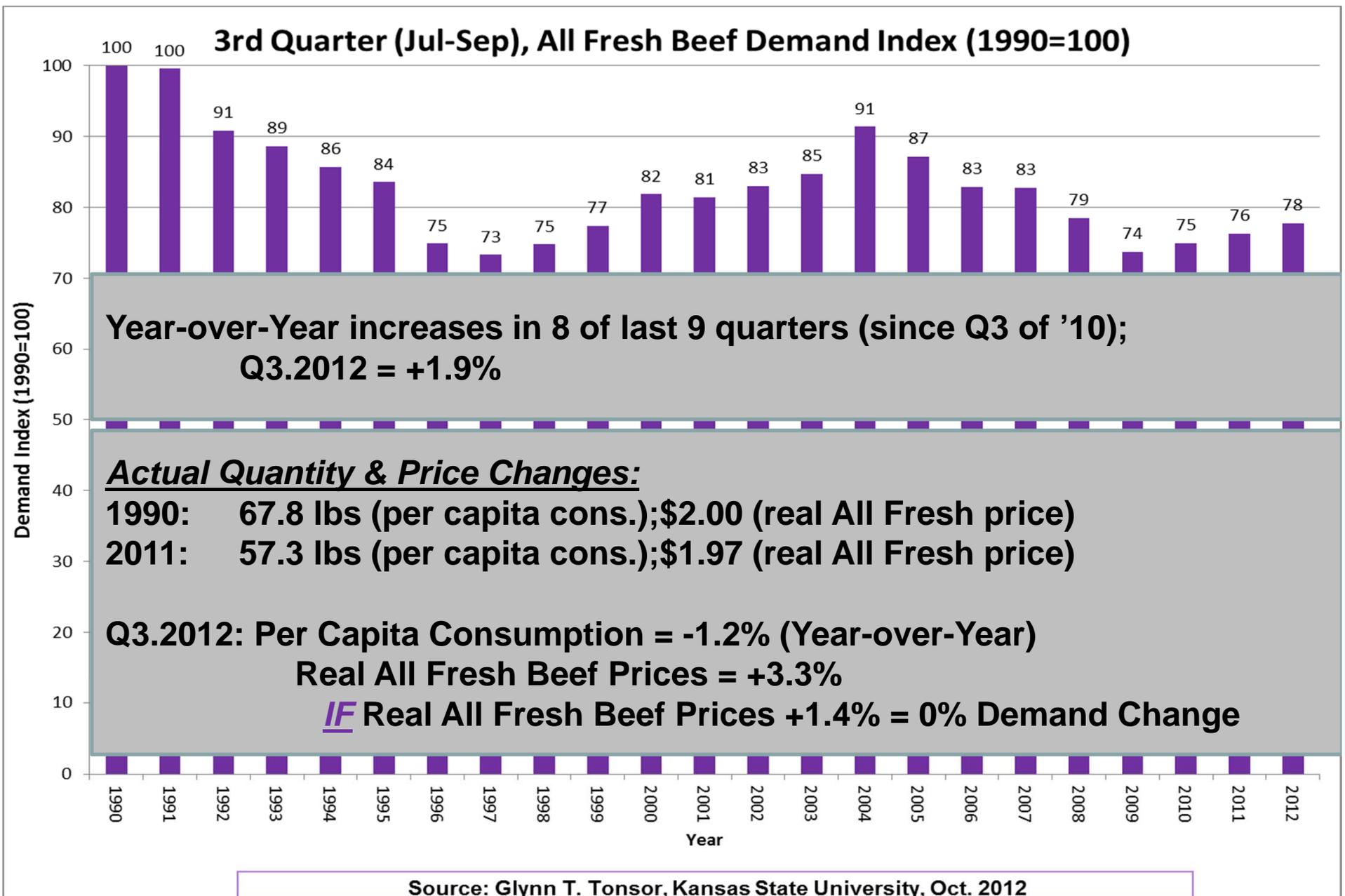


Comments, clockwise from left: Brontae Hunter, Miss M, Gian Robinson, Phil DiNuzzo

Source: March 12, 2012 TIME magazine

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# Beef Demand

- Current situation is not entirely new, but implications need to be appreciated...

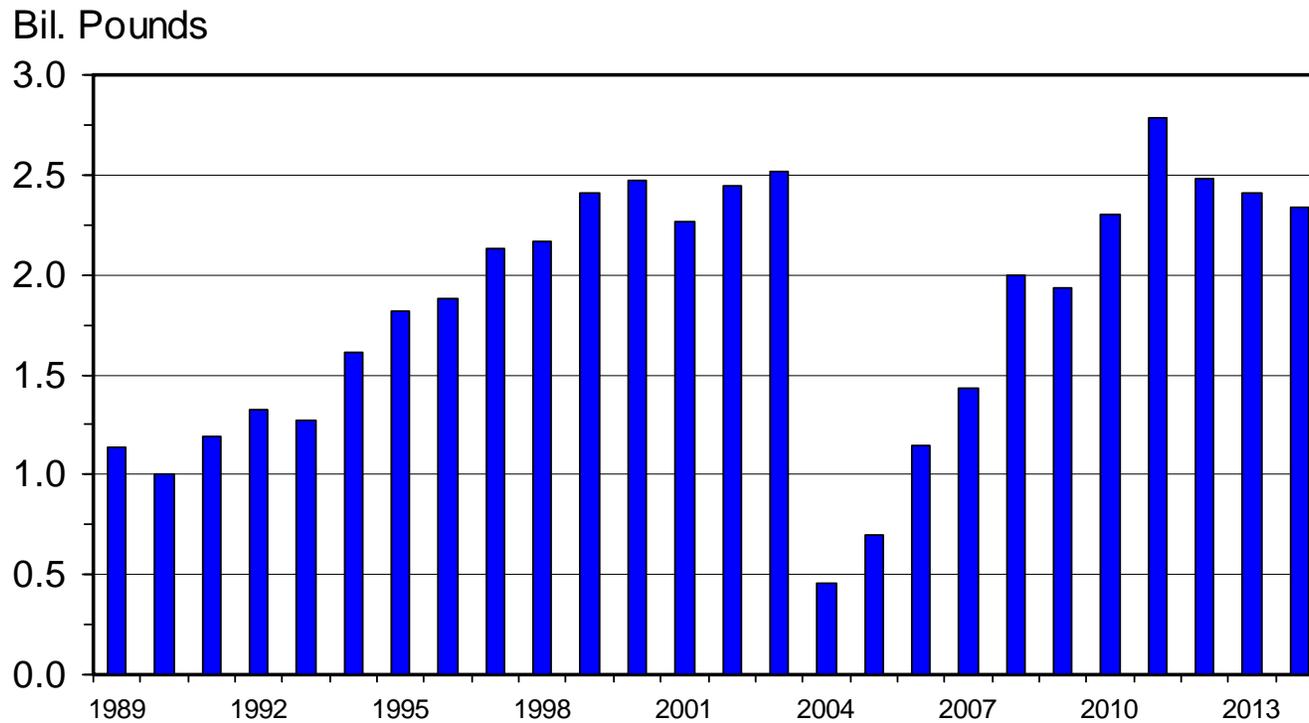
	Retail Beef Consumption (lbs/capita)	Choice		All Fresh	
		Real Beef Price (1982-84=100)	Beef Demand Index (1990=100)	Real Beef Price (1982-84=100)	Beef Demand Index (1990=100)
<b>Q3.2012:</b>					
vs. Q3.2011	-1.2%	0.6%	-0.8%	3.3%	1.9%
vs. Q3.2007	-11.5%	7.5%	-8.9%	10.9%	-6.1%
vs. Q3.2001	-14.6%	12.5%	-10.3%	19.7%	-4.5%

- Ongoing efforts to understand demand drivers & identify factors the industry should focus on...



# U S BEEF AND VEAL EXPORTS

## Carcass Weight, Annual



Livestock Marketing Information Center

Data Source: USDA-ERS & USDA-FAS, Compiled & Analysis by LMIC

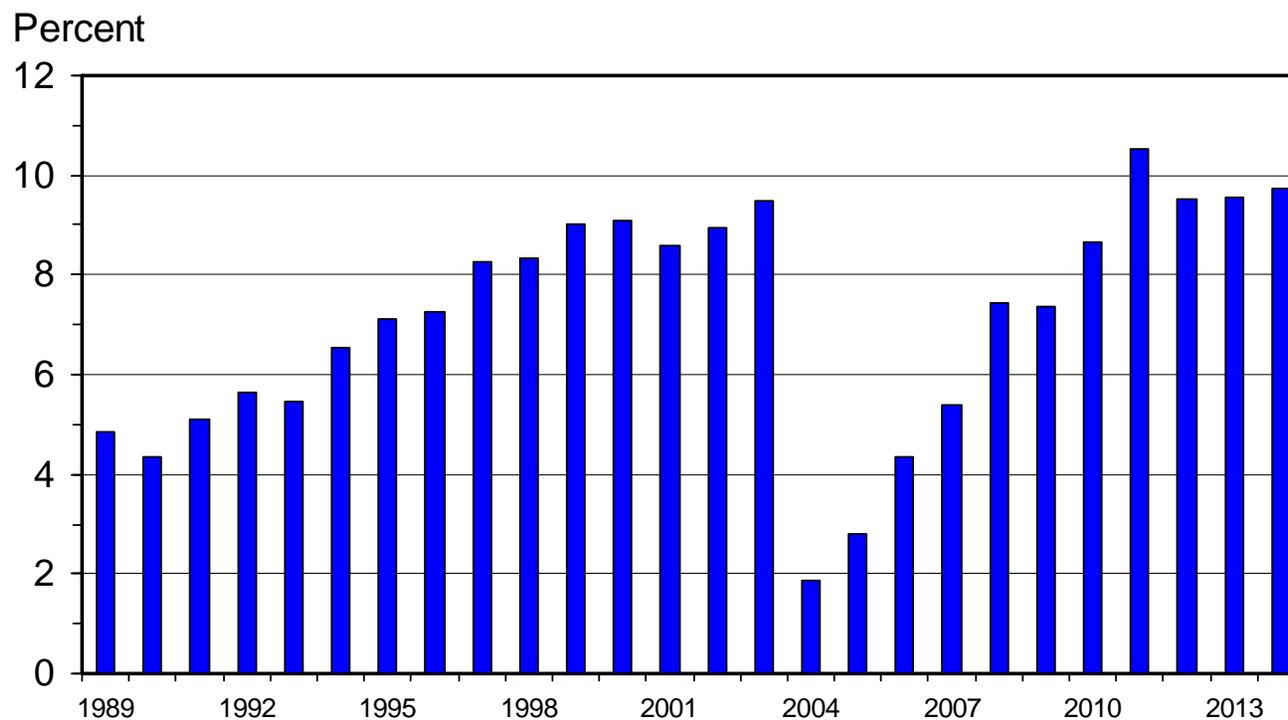
I-N-06  
08/10/12

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# U S BEEF AND VEAL EXPORTS

As a Percentage of Production, Carcass Weight, Annual



Livestock Marketing Information Center

Data Source: USDA-ERS & USDA-FAS, Compiled & Analysis by LMIC

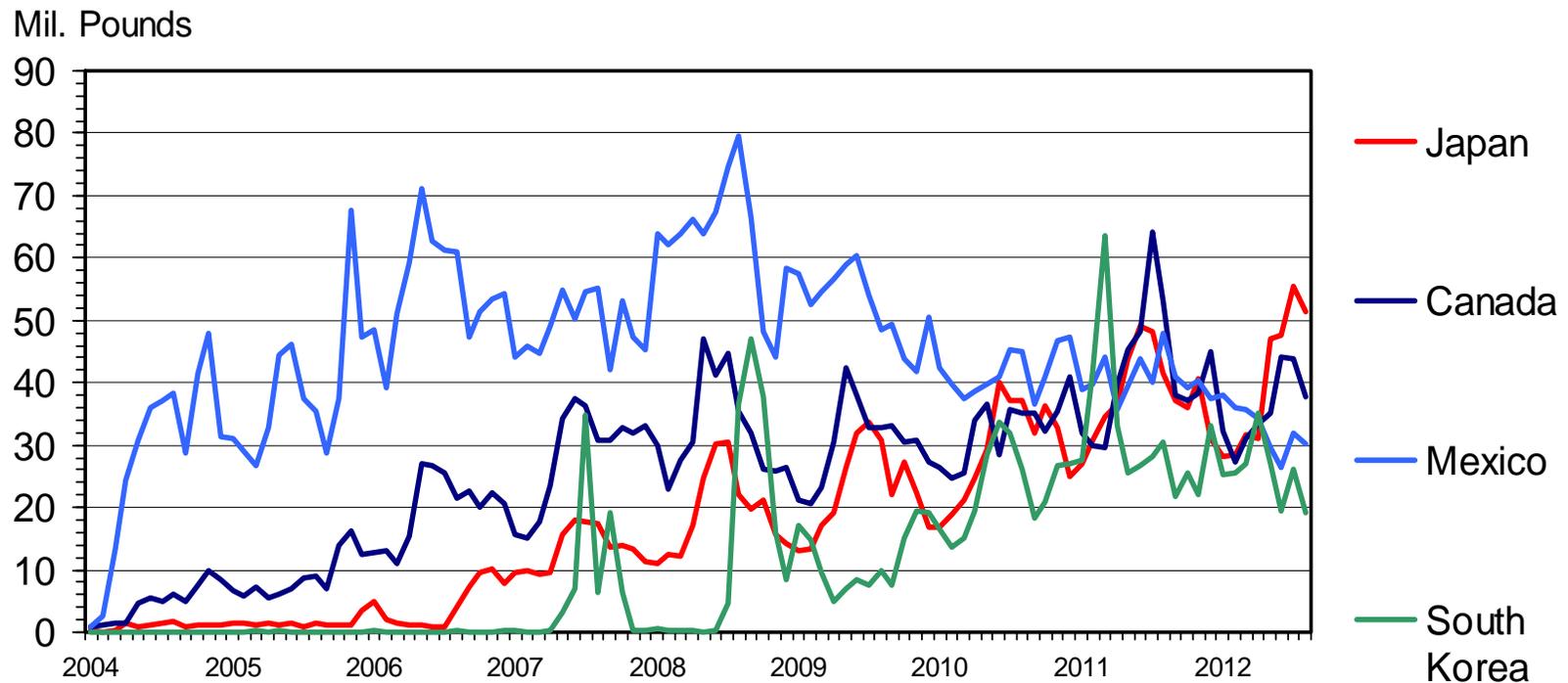
I-N-07  
08/10/12

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# U S BEEF EXPORTS TO MAJOR MARKETS

## Carcass Weight, Monthly



Livestock Marketing Information Center

Data Source: USDA-ERS & USDA-FAS

**MCOOL:**  
**Consumers are unaware;**  
**No aggregate demand +;**  
**WTO resolution pending**

I-N-35  
 10/12/12



# Industry Size Going Forward ...

- The U.S. beef cow industry has been downsizing for a long time...
  - Even if national herd expands, the number of operations will likely continue to decline...
- Alignment with those “in it for the long haul” is increasingly important



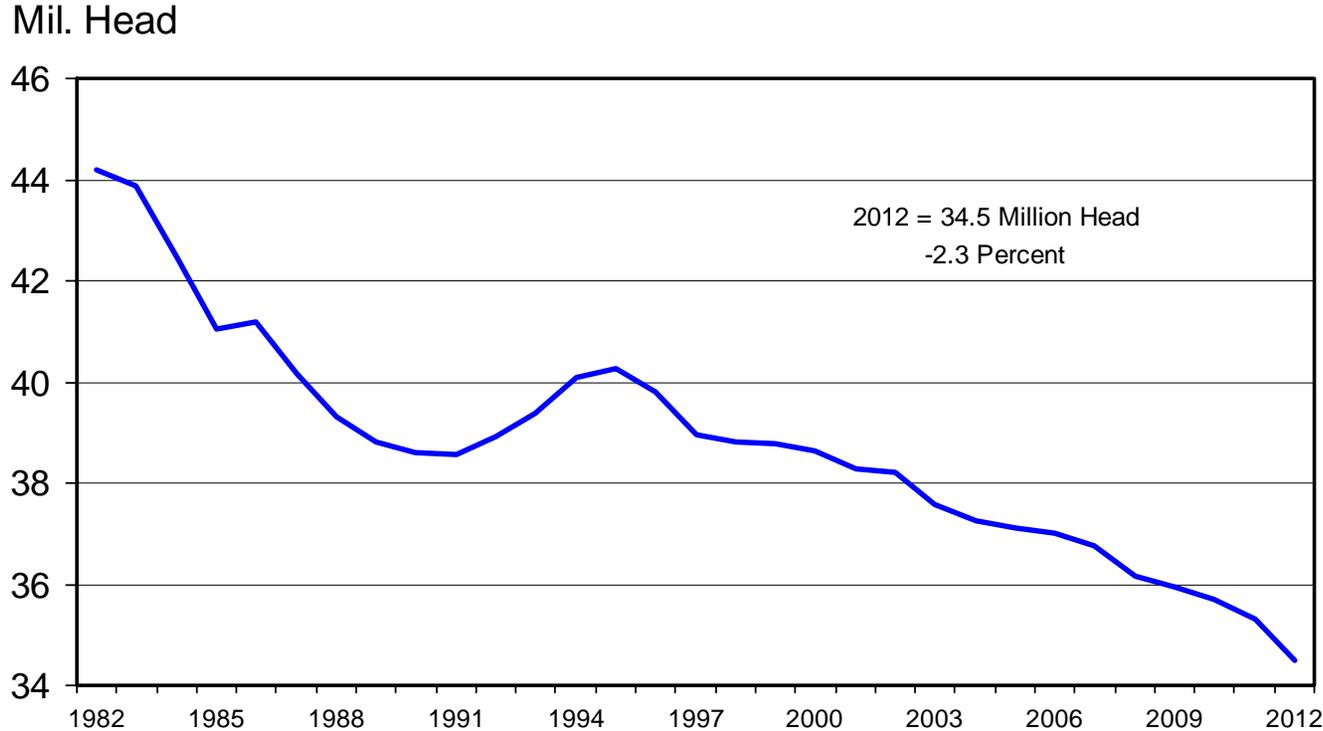
# July 1 Cattle Inventory Report

- Report was eliminated, reinstated for 2012, and future availability is unknown ...
  - Example of ongoing public/private data discussions
- Downsizing of herd continues (yr-on-yr changes)
  - Beef cows: -3% (900,000 hd)
  - Beef heifer replacements: 0% (was +1.4% in Jan.)
  - 2012 calf crop estimate: -2.3% (800,000 hd)
  - Feeder supplies outside feedlots: -3.2% (1.18 mil. Hd)



# CALF CROP

## July 1 Estimates, U.S., Annual



Livestock Marketing Information Center

Data Source: USDA-NASS

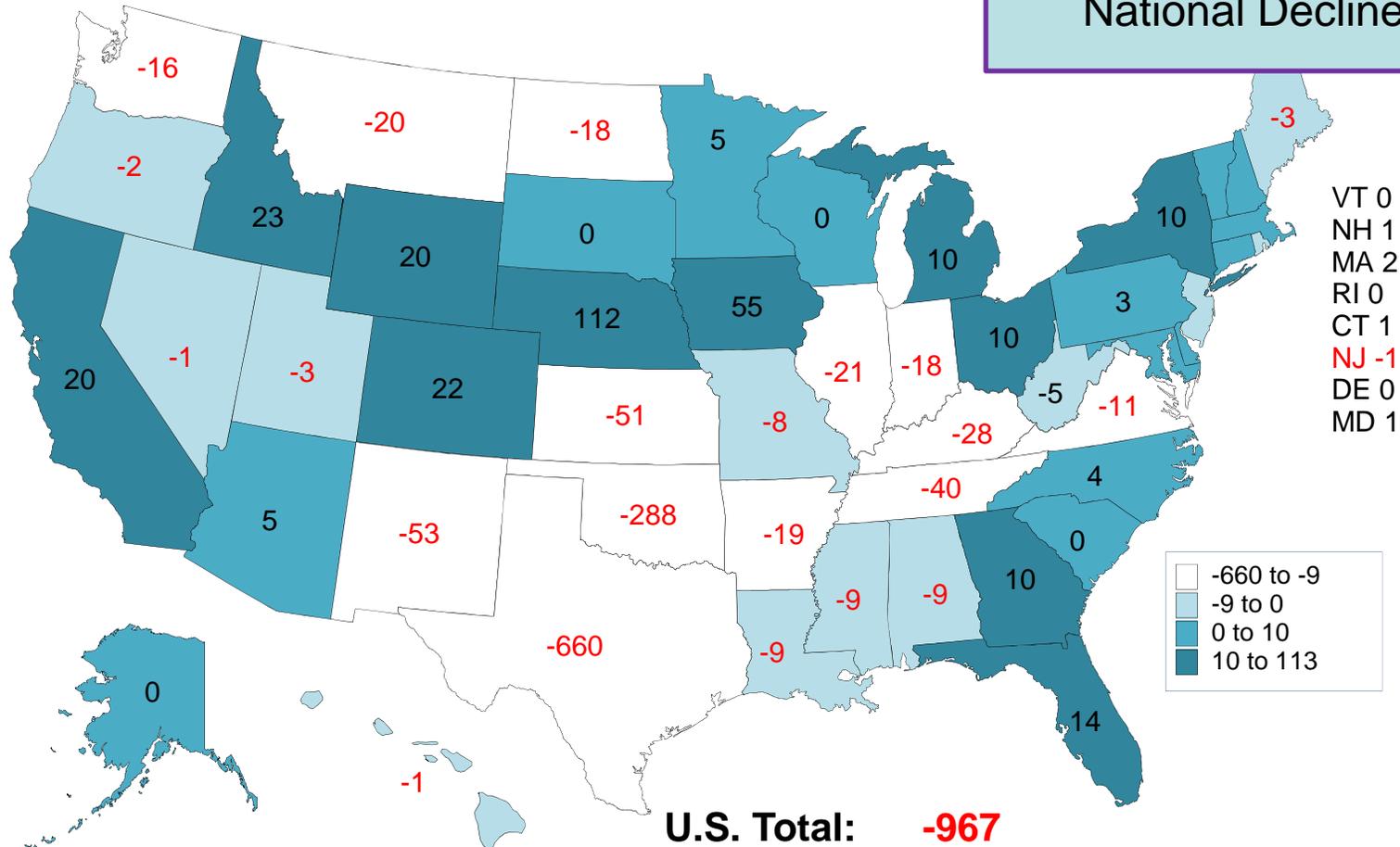
C-N-18B  
07/20/12



National Herd:  
**- 3.1%** (vs. 2011)  
 Smallest since 1962

## CHANGE IN BEEF COWS NUMBERS JANUARY 1, 2011 TO JANUARY 2012 (1000 Head)

OK + TX = 98.1% of  
 National Decline



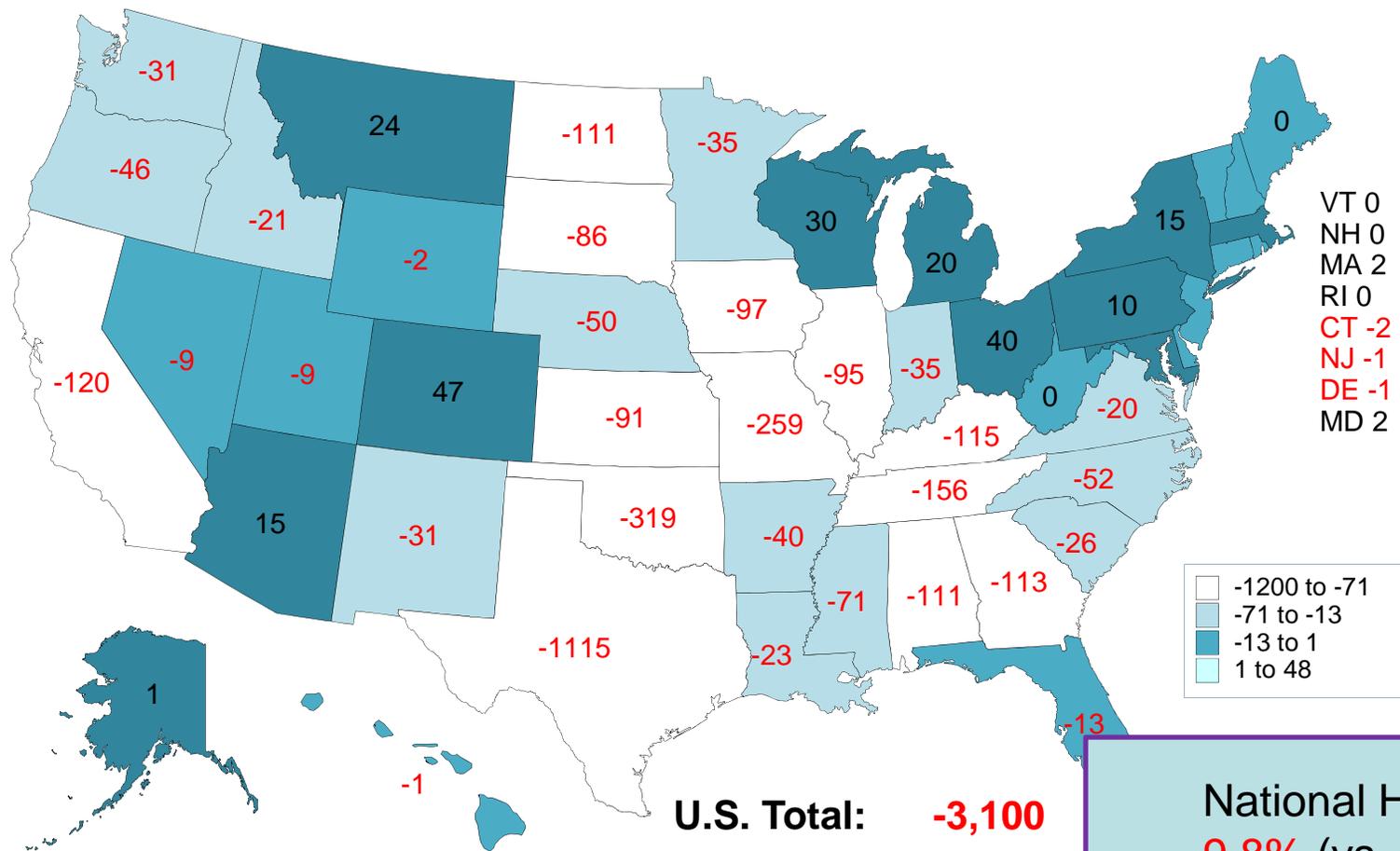
Livestock Marketing Information Center  
 Data Source: USDA-NASS

01/27/12



OK + TX = 46.2%  
of National Decline

# CHANGE IN BEEF COWS NUMBERS JANUARY 1, 2002 TO JANUARY 2012 (1000 Head)



**U.S. Total: -3,100**

**National Herd:  
- 9.8% (vs. 2002)**

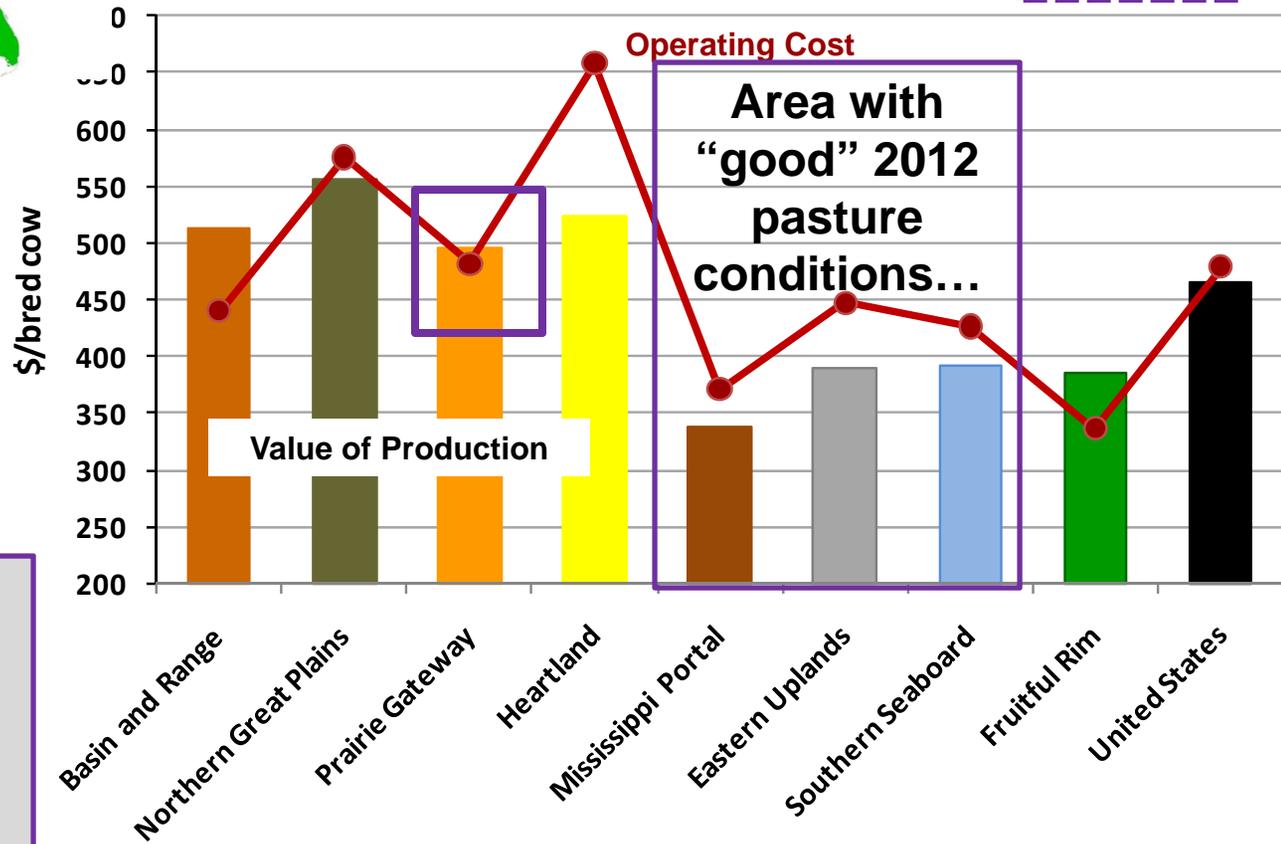
Livestock Marketing Information Center  
Data Source: USDA-NASS





# Do some regions have an economic advantage for expansion?

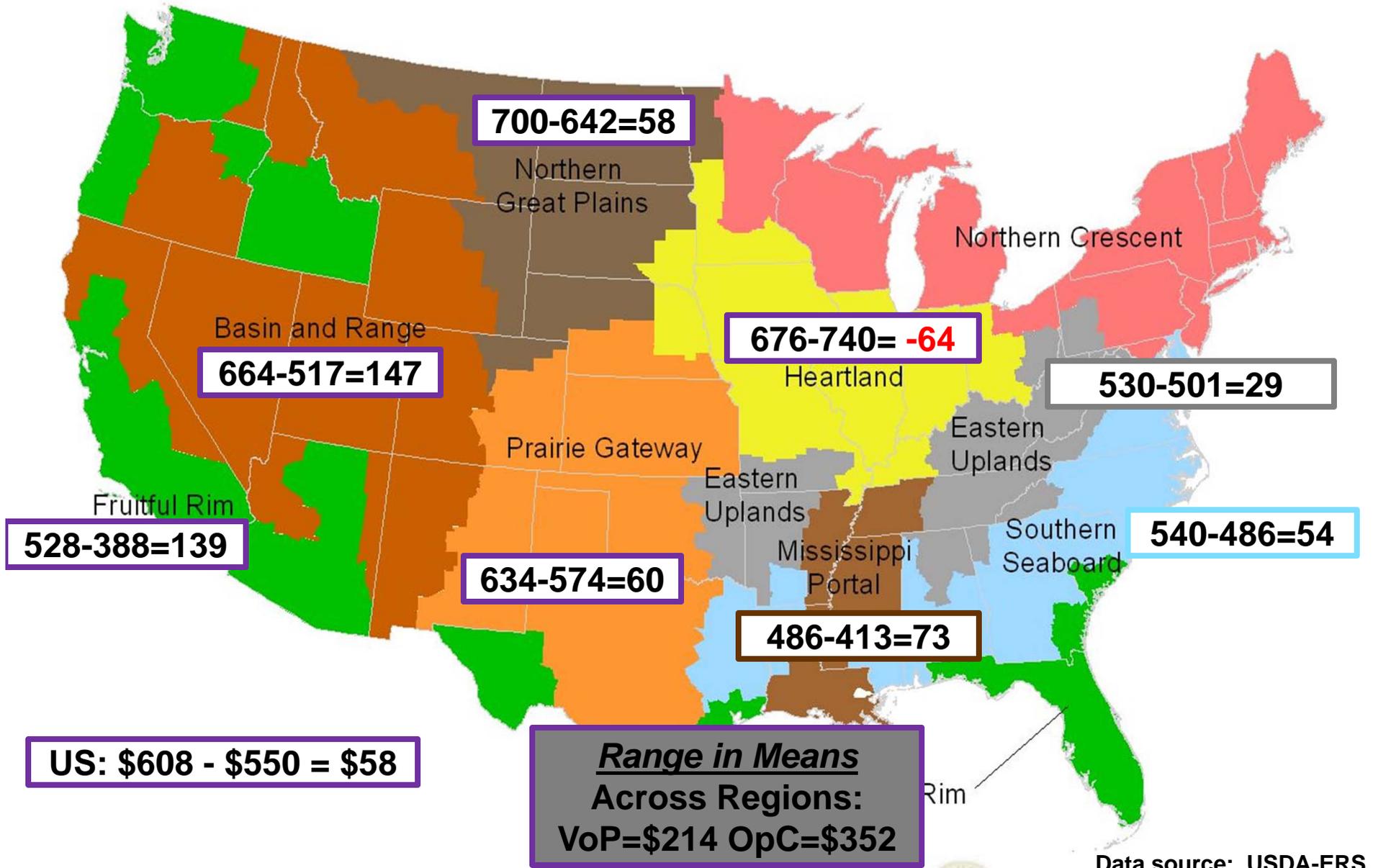
Value of Production and Operating Cost by Region, 2008-2010



Herds > 20 cows  
 Operating Costs = 37% (MP) to 52% (NGP) of Total Costs

Data source: USDA-ERS

# ERS 2011 (\$/cow): Value of Production LESS Operating Costs



Data source: USDA-ERS



# USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

- **U.S. beef cow inventory:**

- 29.8 million in 2012
- 34.5 million in 2021 (+/- 1997 levels) / was 39.3 million in 1982
  - Beef Production (billion lbs) : 25.4 (1997), 26.2 (2011)
    - *More beef per cow will continue = less throughput in # head...*

- **Domestic per capita red meat & poultry consumption:**

- 221 lbs in 04-07 (Beef=65.7 lbs; Pork=50.4 lbs; Poultry=103.8 lbs)
- 198 lbs in 2013 (Beef=51.3 lbs; Pork=46.3 lbs; Poultry=98.5 lbs)
- 213 lbs in 2021 (Beef=58.7 lbs; Pork=47.2 lbs; Poultry=105.8 lbs)
  - *These lower per capita volumes will be purchased with more consumer requests and hence requirements for industry-wide investment (& collaboration) in beef quality ...*



# Hot Topic/Big Picture Points to Ponder

- MCOOL
  - Aggregate economic loss is apparent
- Animal Welfare
  - Active USDA project
- Sustainability (more on that later...)
- Complex relationship & views on technology:
  - Feed 9 billion, “control” prices, and do so in an “acceptable” manner is the story...
- Issues vary in many facets BUT each raise uncertainty for industry stakeholders...



# Other points for discussion

- Global beef demand growth & restrictions from U.S. industry heterogeneity must be watched...
  - Comparative position of U.S. is critical...
- Growth of cow-herd vs. # of operations
  - Are traits of those who may expand more aligned with changing consumer requirements?
- How does regionally varying expansion (cow herd) &/or excess capacity resolution (feedlot and/or packer) influence your business?



# What To Do?

- Utilize available resources
  - VOG projections, decision aides, these events
- Do you know your comparative advantage?
  - Having a favorable cost structure is imperative...
- I encourage you to:
  - Recognize this “isn’t your father’s world” anymore and manage accordingly...
  - “Think globally, manage locally, and stay informed”



More information available at:



This presentation is available in PDF format at:

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

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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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<http://www.AgManager.info/Evaluation/Email.htm>



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# K-State Decision Aides: Cattle Price Oriented

(<http://www.agmanager.info/Tools/default.asp>)

- Expectations on Future Cash Prices
  - <http://www.beefbasis.com/>
- Examine Feeder Cattle Risk Management Alternatives
  - *“K-State Feeder Cattle Risk Management Tool”*
- Project Premium/Discount of Calf/Steer Attributes
  - *“K-State Feeder Cattle Price Analyzer”*
- Stocker Breakeven Selling/Purchasing Prices
  - *“Cattle Breakeven Selling and Purchase Prices”*



# Other K-State Decision Aides

(<http://www.agmanager.info/Tools/default.asp>)

- NPV of Beef Replacements
  - *“KSU-Beef Replacements”*
- Beef Cow Lease Agreements
  - *“KSU-CowLease”*
- Determining Flint Hills Pasture Rents
  - *“KSU-Graze.xls”*



# webinars



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WEBINAR

**Beef-Cattle Economics**

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## Beef-Cattle Economics webinar series

Series of quarterly webinars on beef-cattle markets and other industry-related issues.

**2012 schedule (all webinars begin at 1:30 CST)**

**February 7**

**May 1**

**August 7**

**November 8**

For details about specific topics and registering for webinars see additional information on [AgManager.info](http://AgManager.info) AND <http://www.meatingplace.com/Industry/Webinars>

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