

**2012-2013**

**Kansas State University**

**AG  
PROFITABILITY  
CONFERENCE**

**January 31, 2013**

**Blue Valley  
Telecommunications  
1559 Pony Express Hwy  
Home City, KS**

# *Beef & Cattle Market Outlook*

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Department of Agricultural Economics**

**KANSAS STATE UNIVERSITY**



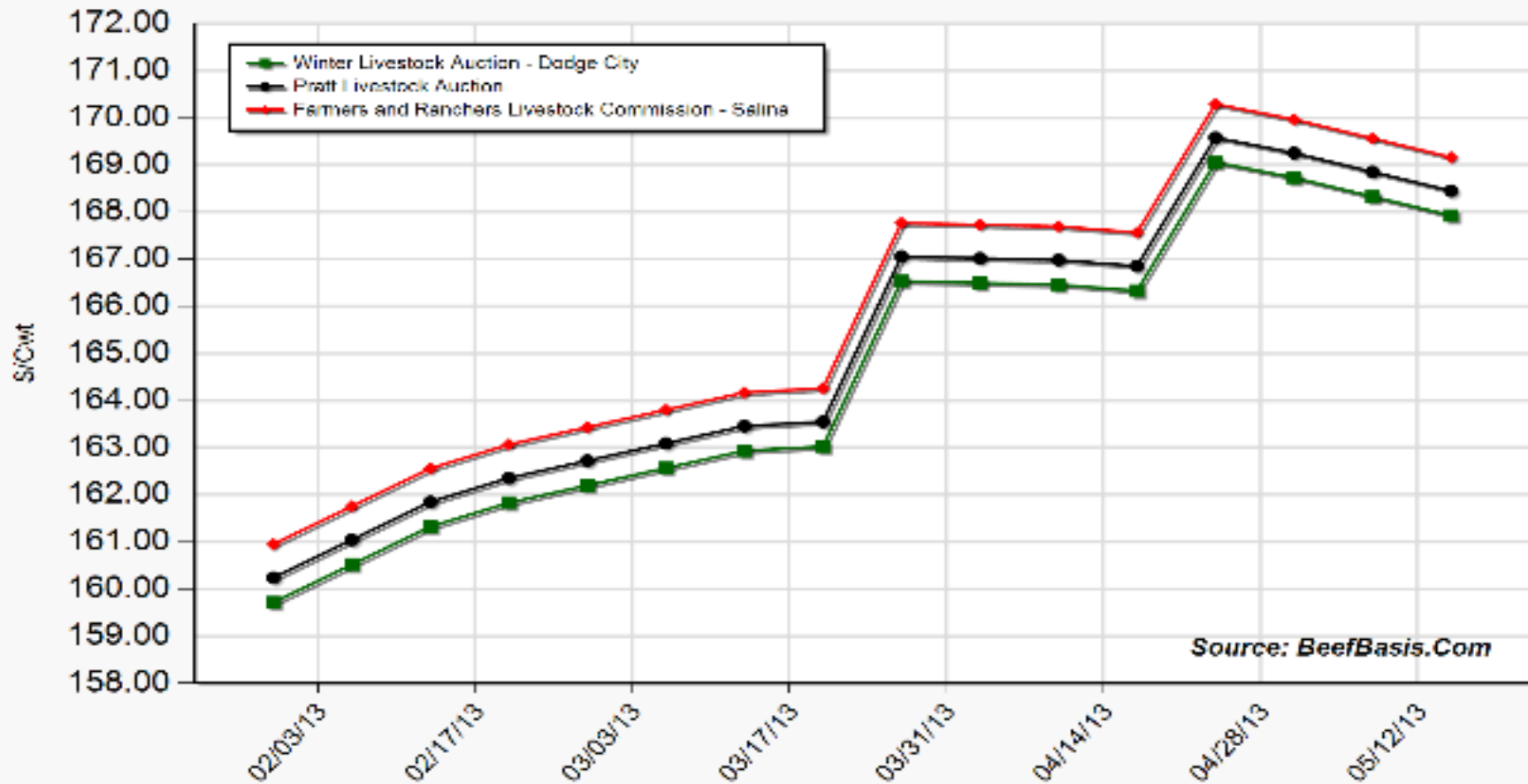
# Economic Outlook Overview: Cow-Calf Sector

- 2012 was a historical year for both calf price levels and variability...
  - National vs. regional drought magnified market impact compared to 2011
- 2013 market will reflect:
  - tight supplies, water & forage prospects, expansion possibilities, and updating meat demand signals... **oh my....**
- Feb. 1, Cattle Inventory Report (pre-release expectations):
  - Calf Crop: 97.9% [97.4%-98.8%]
  - Beef Replacement Heifers: 99.6% [92.1%-103.0%]
    - *Don't misinterpret +% if the report contains them...*
- 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 .... Read This:
    - [http://www.agmanager.info/livestock/budgets/production/beef/Cow-calf\\_EnterpriseAnalysis\(Nov2012\).pdf](http://www.agmanager.info/livestock/budgets/production/beef/Cow-calf_EnterpriseAnalysis(Nov2012).pdf)



As of: 1/30/13'

Projected Price for 550 Lb Steer at Selected Kansas Auctions

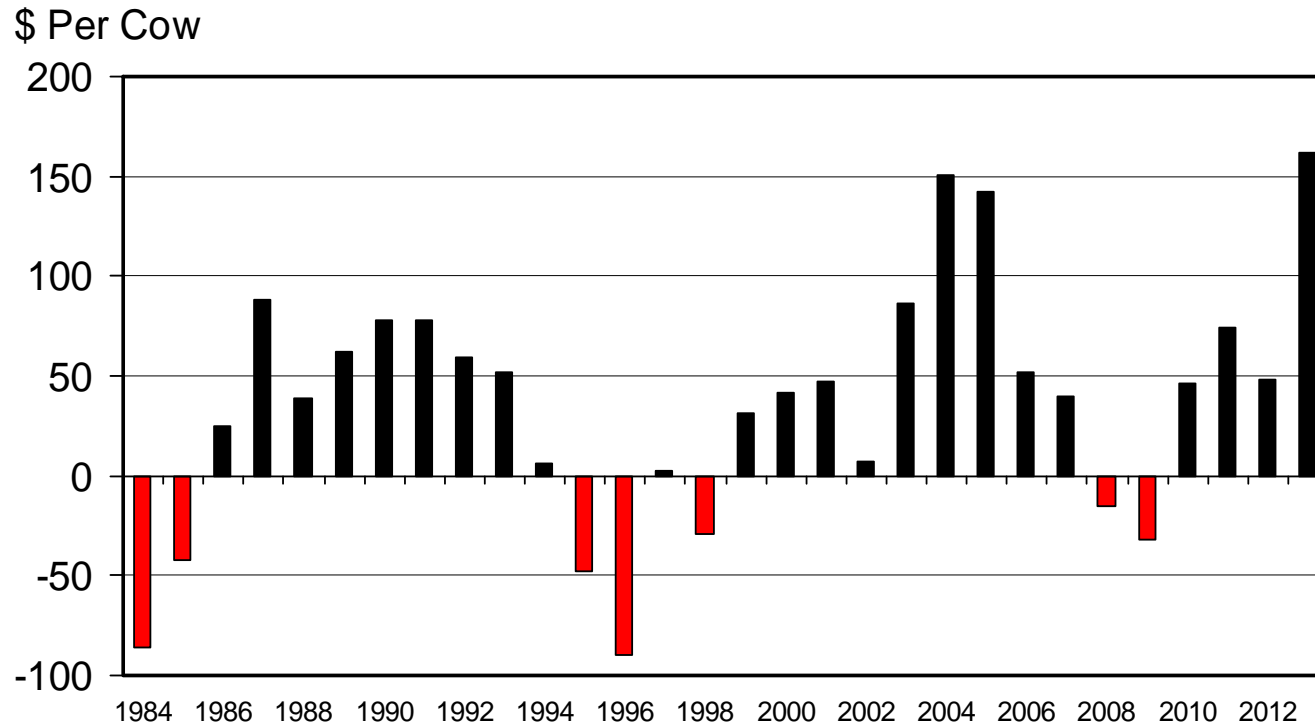


Source: BeefBasis.Com



# ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



C-P-66  
12/18/12

Livestock Marketing Information Center

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

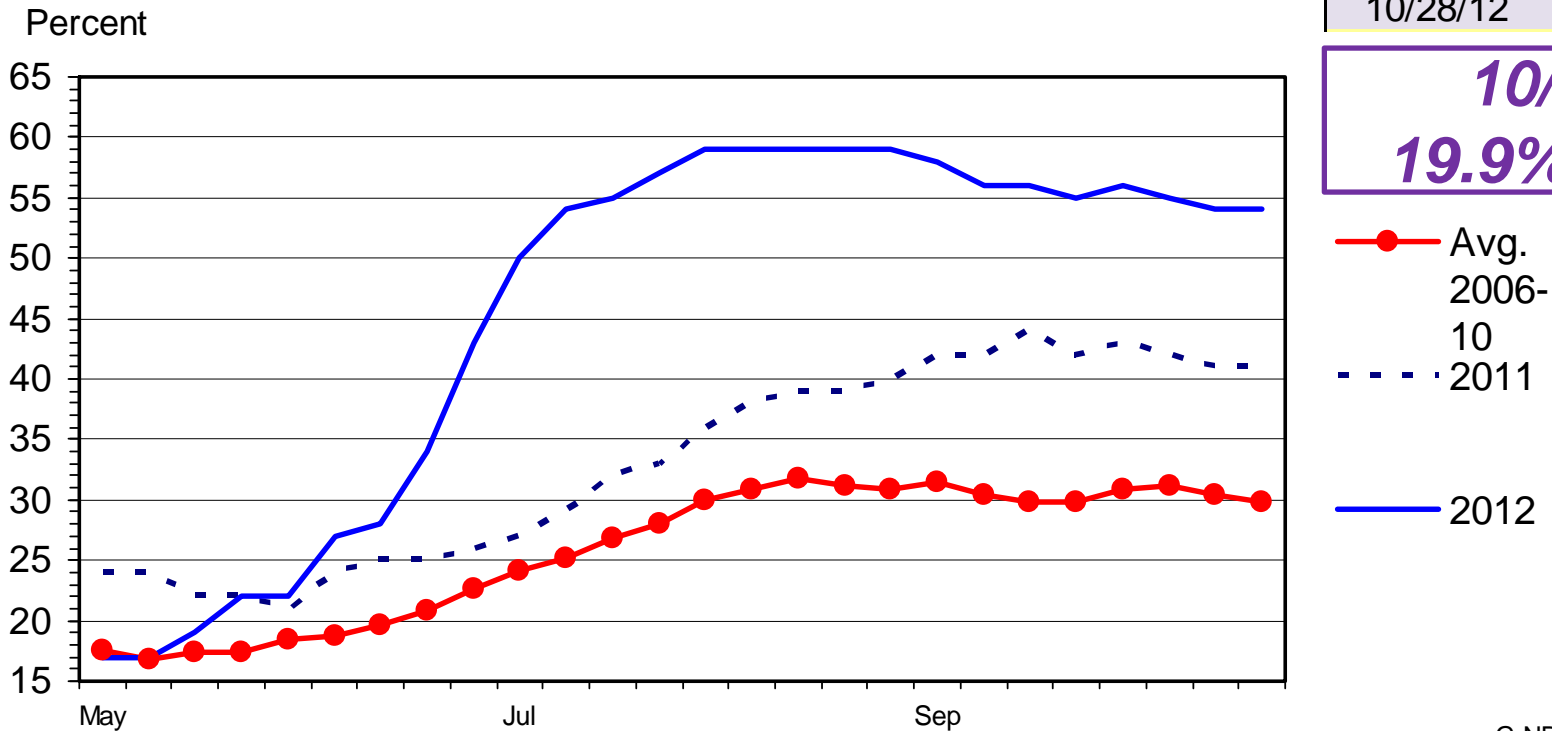


# US RANGE AND PASTURE CONDITION

## 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**



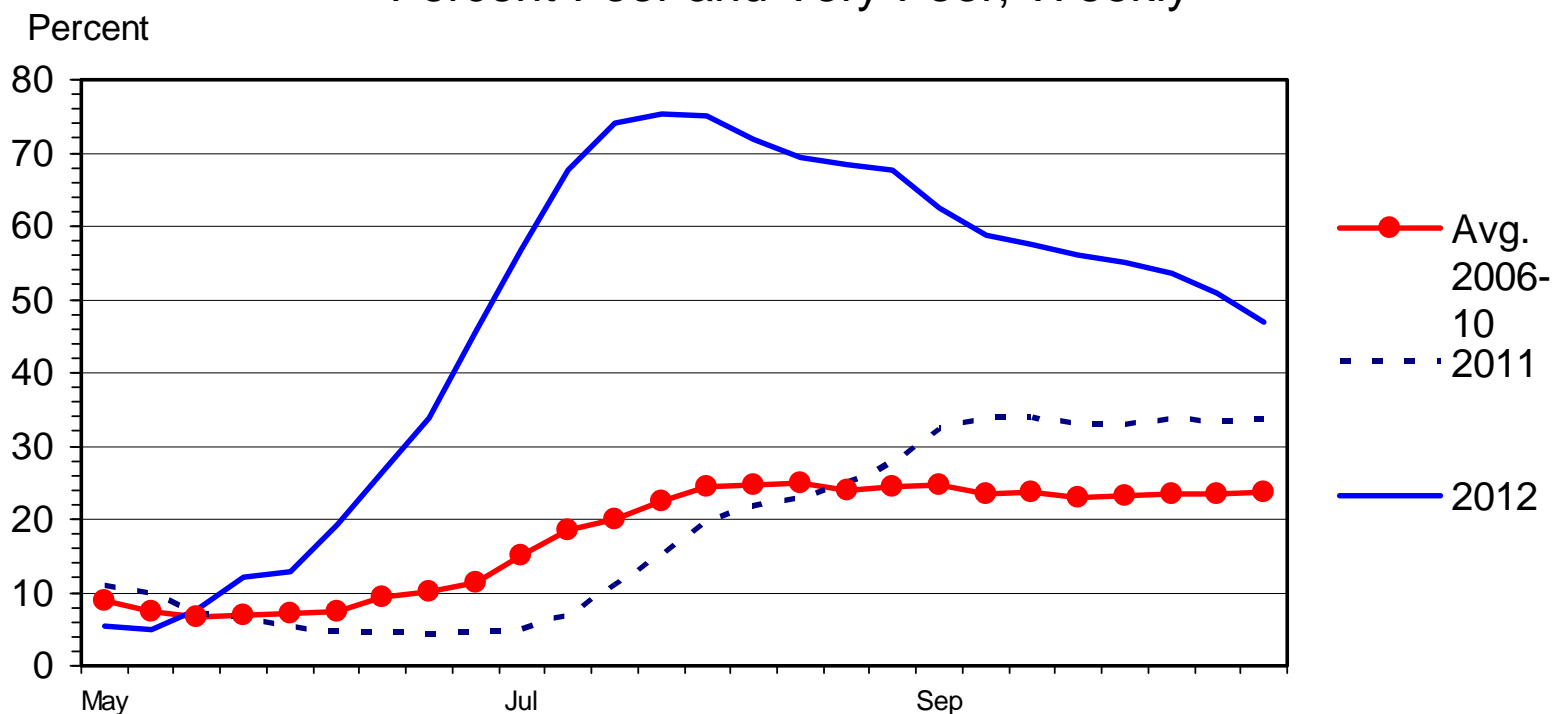
Livestock Marketing Information Center  
Data Source: USDA-NASS, Compiled & Analysis by LMIC

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

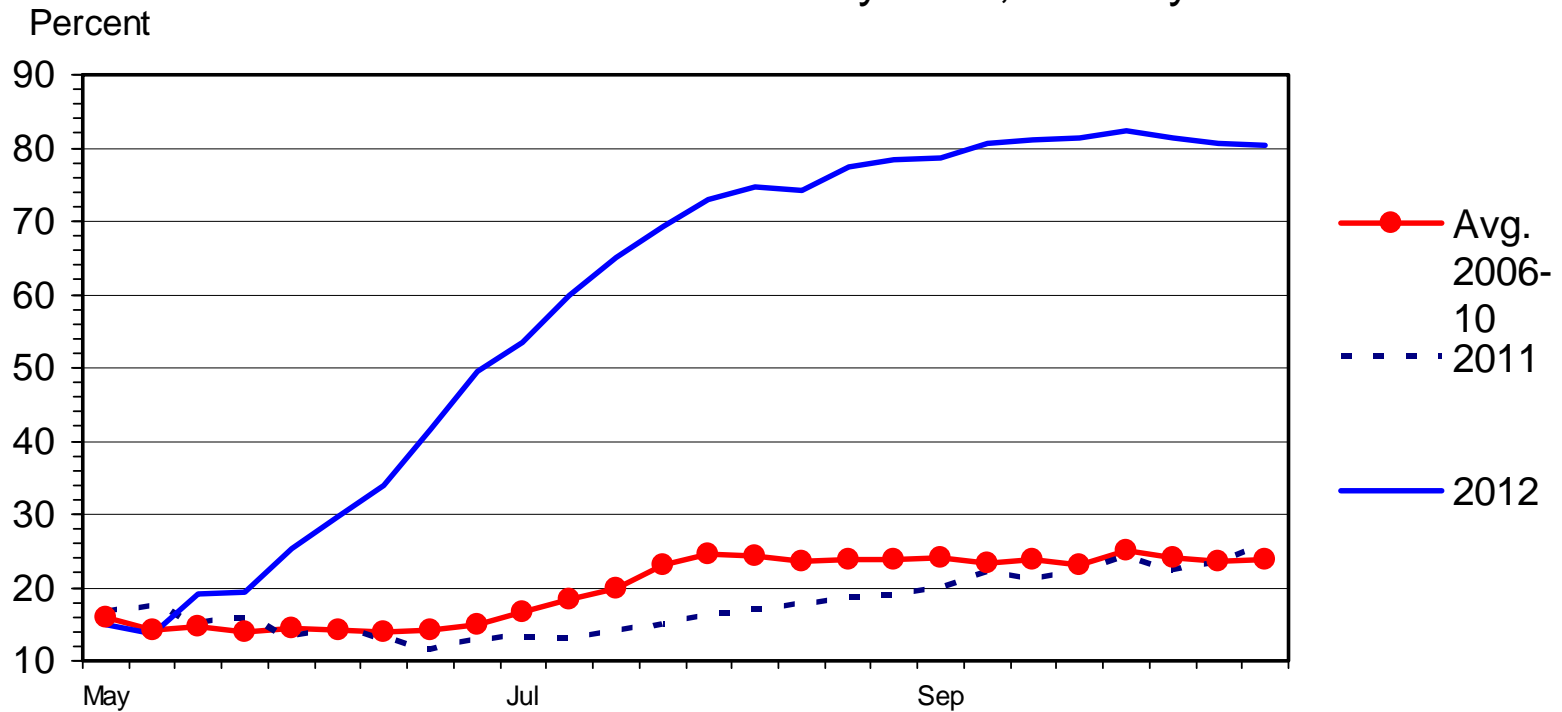
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CO, KS, MT, NE, ND,  
SD, & WY  
29.2% of Cows  
(2012)

## 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

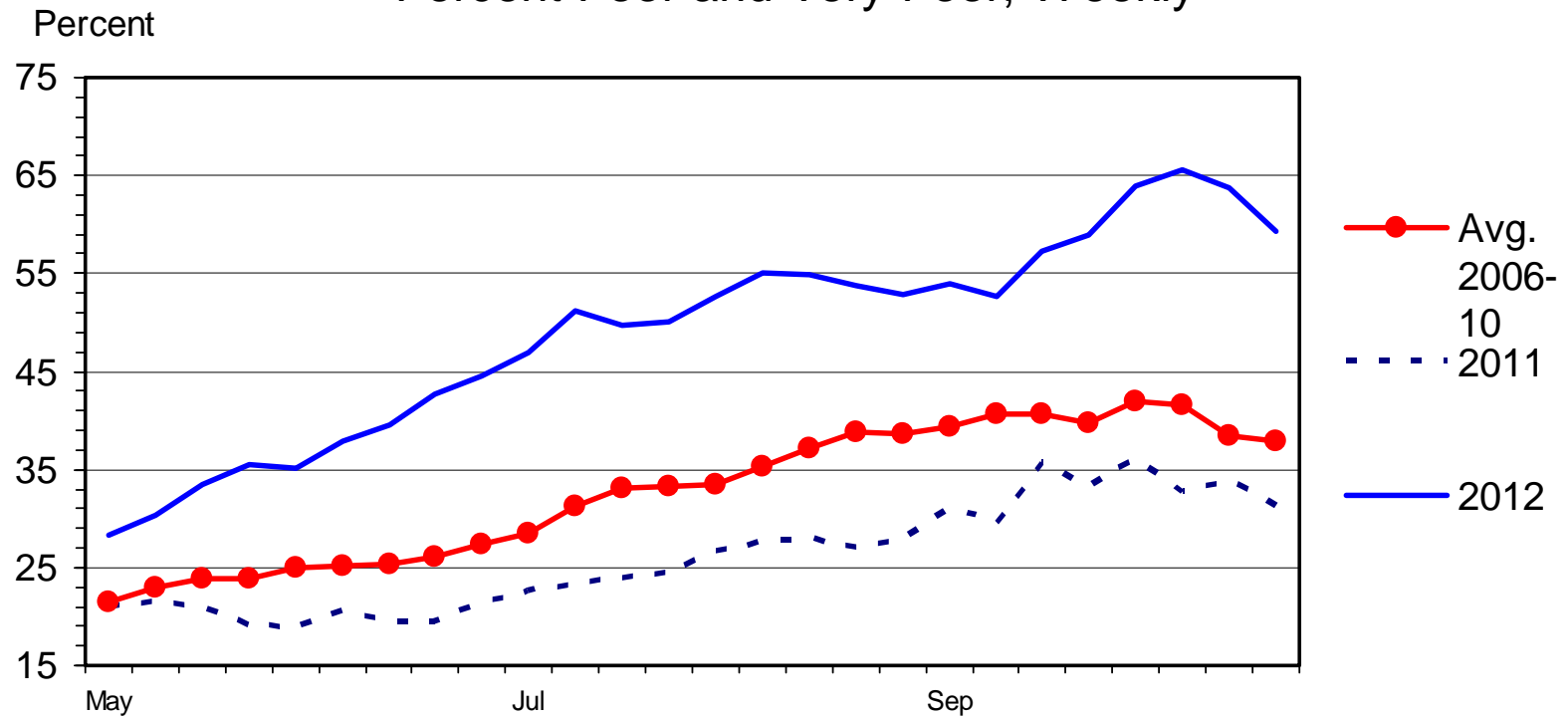
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AZ, CA, ID, NV, NM,  
OR, UT, & WA  
10.2% of Cows  
(2012)

## 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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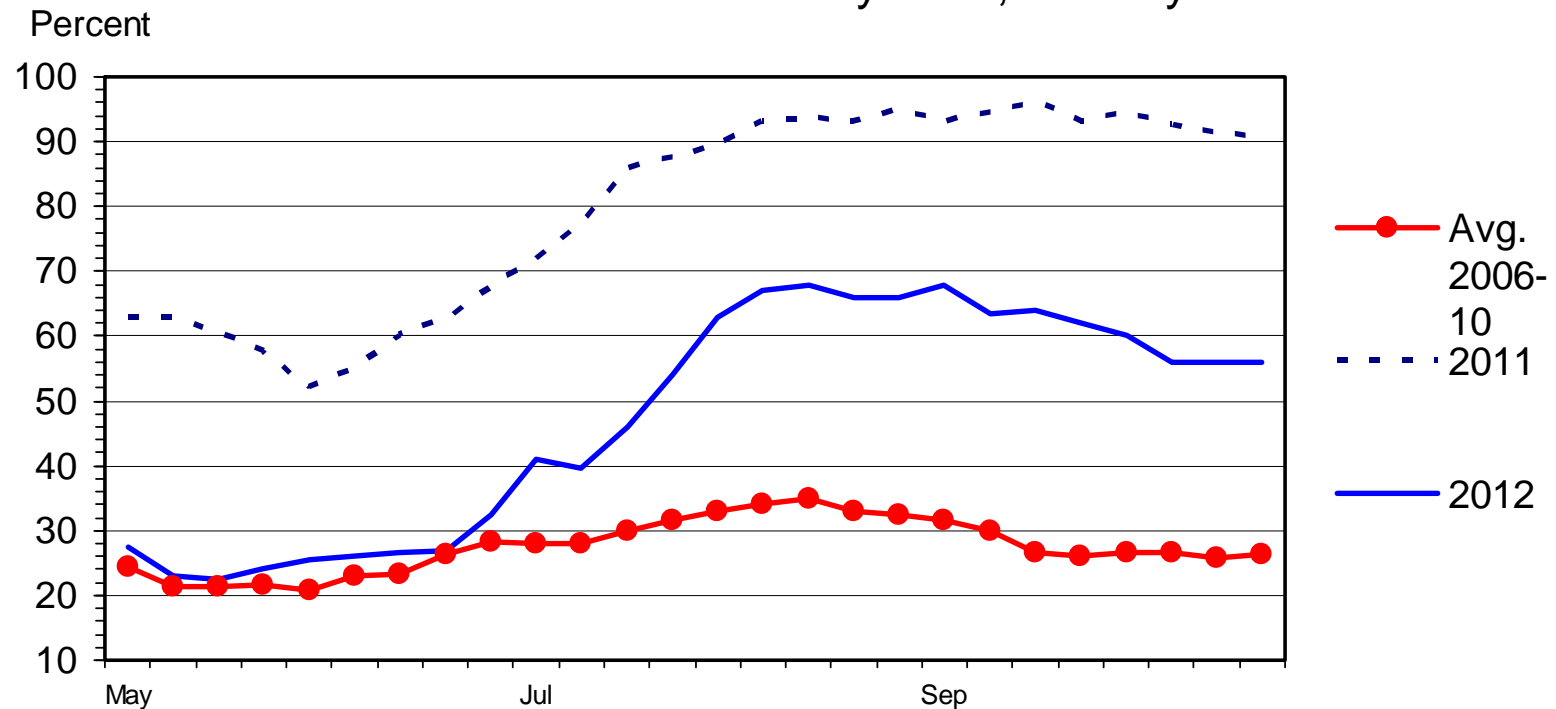




OK & TX  
20.4% of Cows  
(2012)

## 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

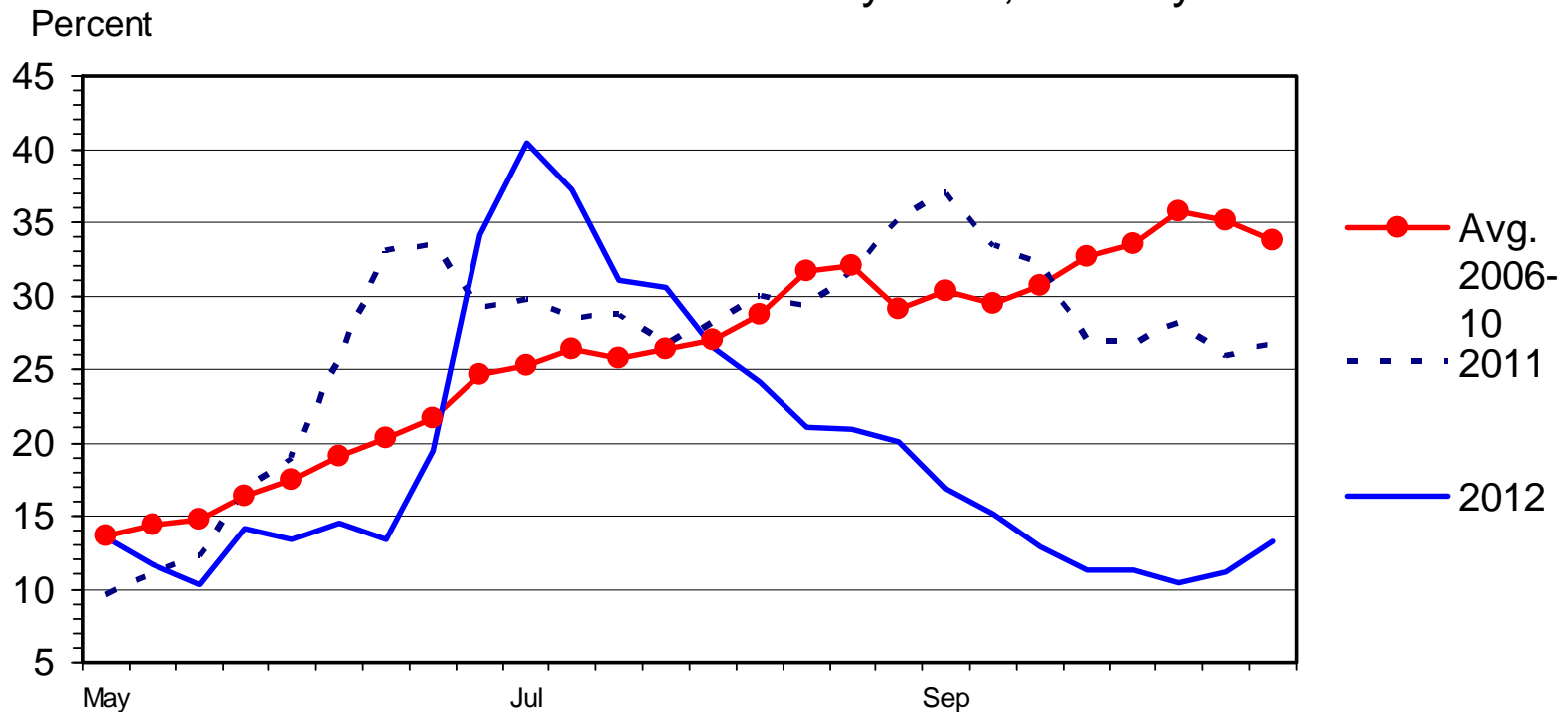
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AL, AR, FL, GA, KY,  
 LA, MS, NC, SC, TN,  
 VA, & WV  
 24.5% of Cows (2012)

## 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

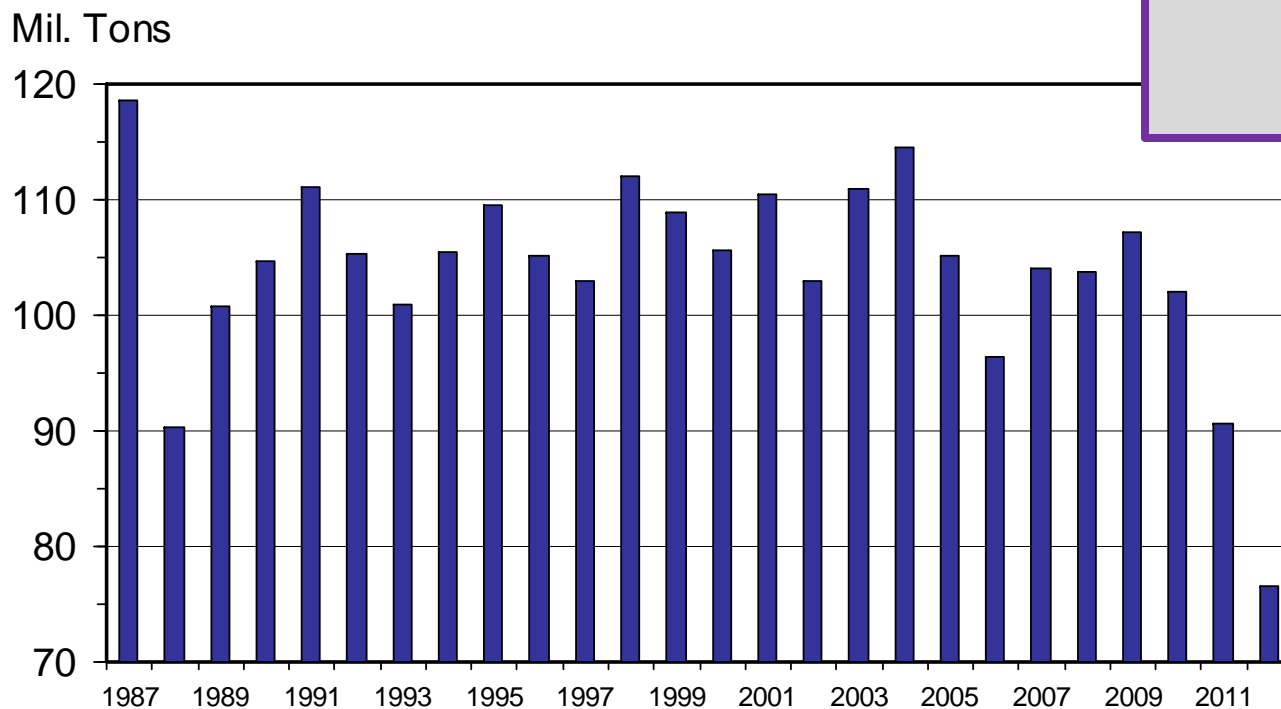


# U S ALL HAY STOCKS

## December 1

**Dec. 1 US Stocks:  
Smallest since 1957**

**Dec. 1 KS Stocks:  
3.0 mil tons (12')  
3.9 mil tons (11')  
4.5 mil tons (10')**



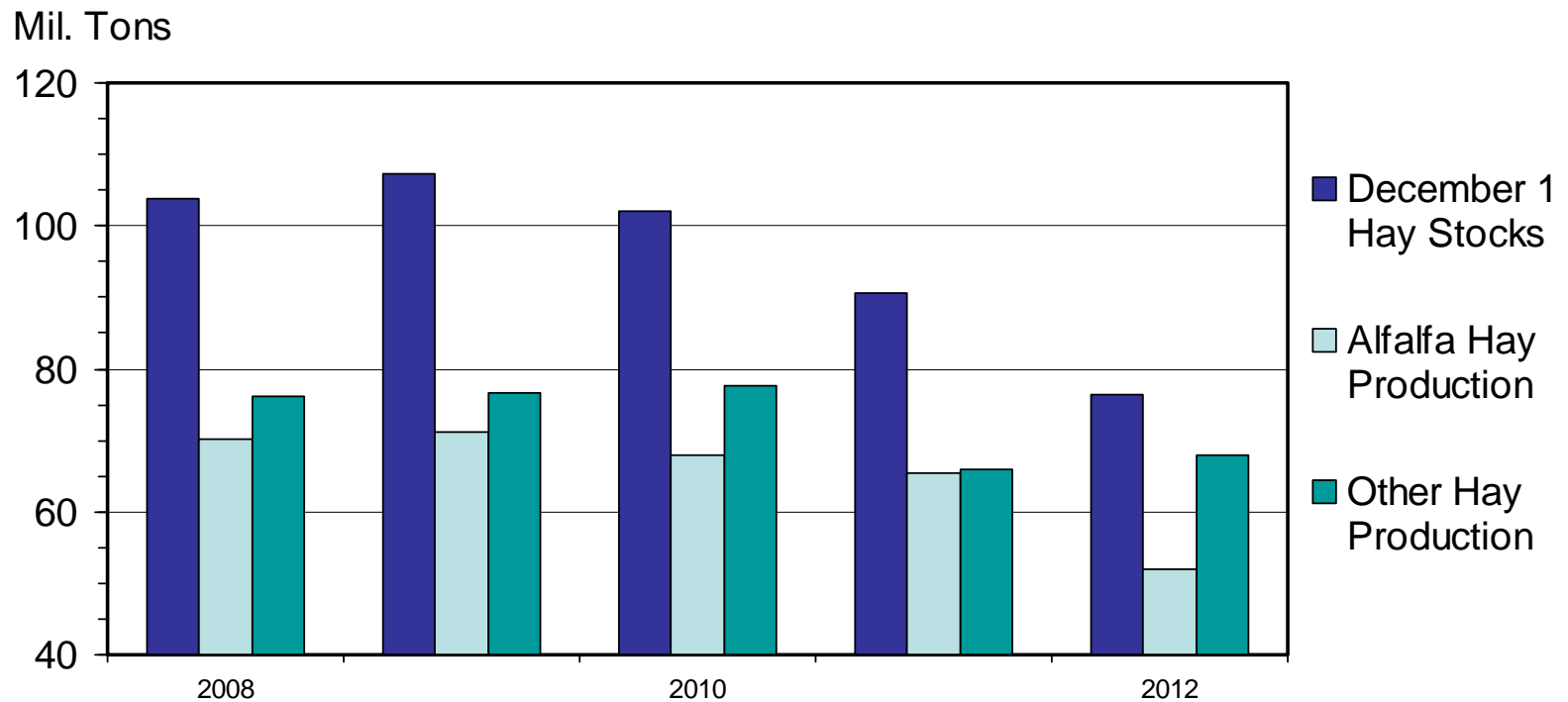
Livestock Marketing Information Center

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

G-NP-22  
01/11/13

# U S HAY STOCKS AND PRODUCTION

## Crop Year



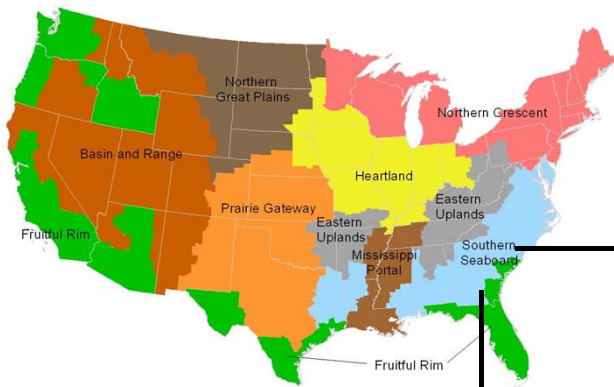
Livestock Marketing Information Center

01/11/13

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

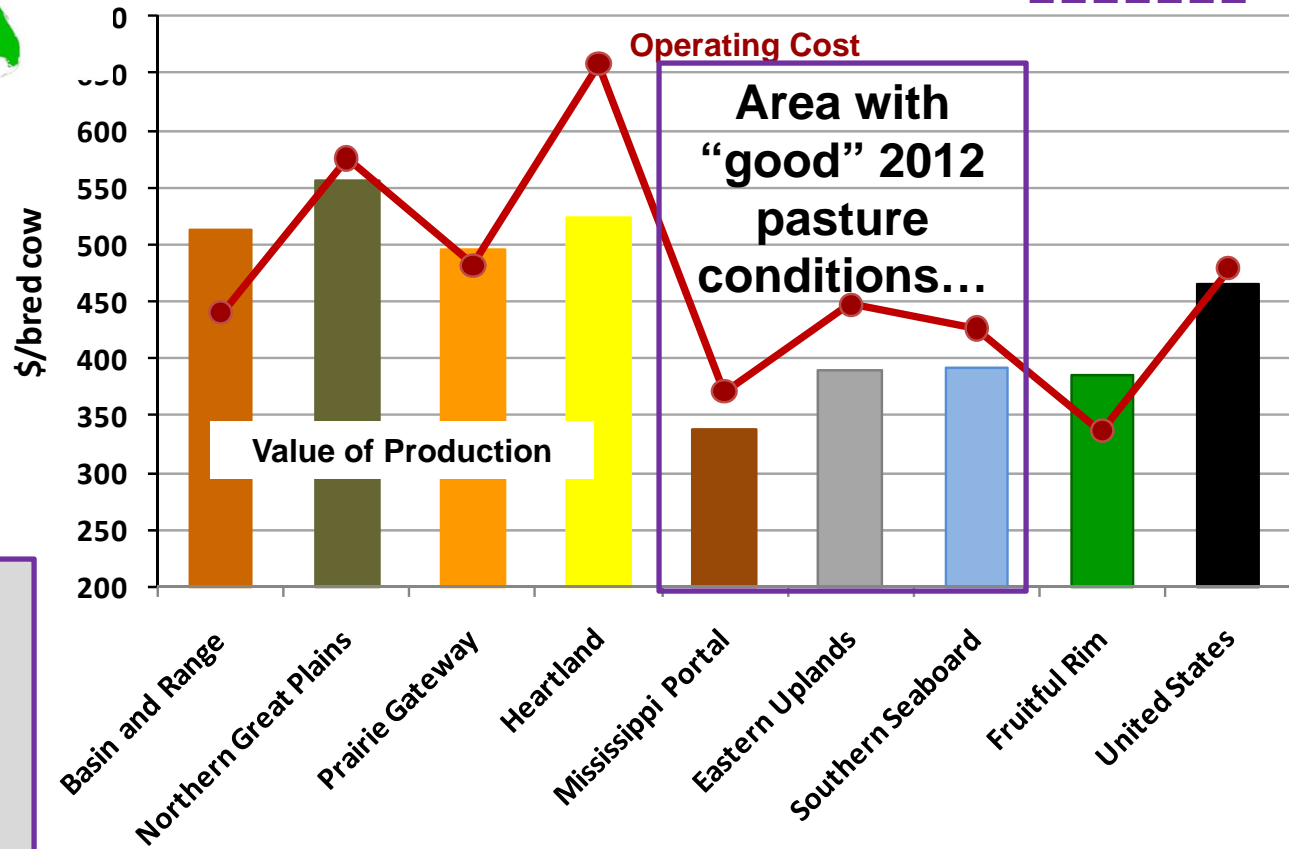
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# Do some regions have an economic advantage for expansion?

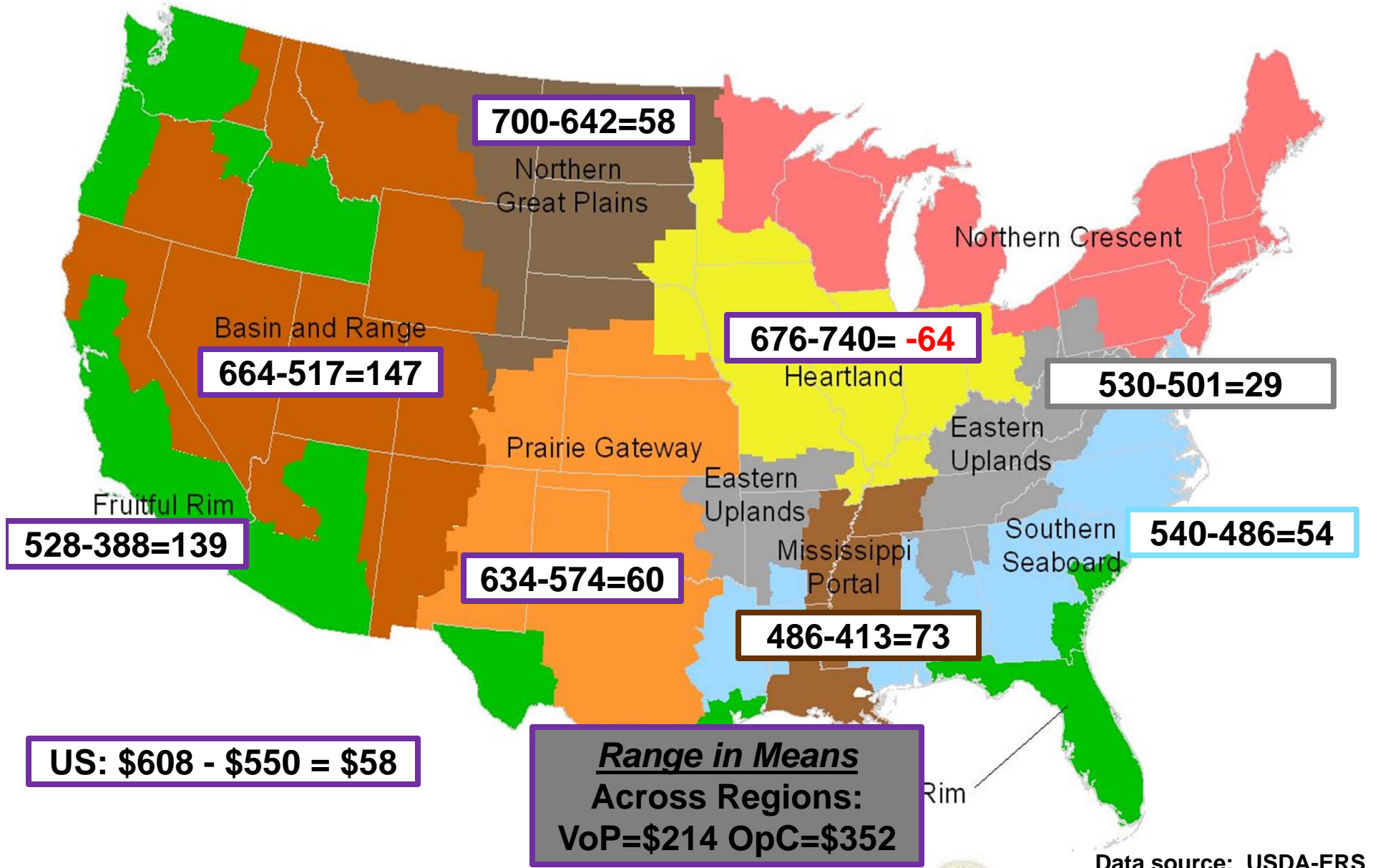
Value of Production and Operating Cost by Region, 2008-2010



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

# Build herd -- How much can I pay for a heifer/cow?

**KSU-Beef Replacements.xls --- A spreadsheet program to evaluate the economic value of purchasing beef replacements females.**


*Version 1-16-12*

**INPUTS vs CALCULATED VALUES**  
In the Price and weights and Net Present Value tabs all **blue** numbers are inputs and all black numbers are calculated from these inputs.


**DESCRIPTION OF INPUTS:**  
Several input cells (i.e., **blue number**) have a **red diamond** in the upper right hand corner of the cell. By moving your mouse cursor over this diamond, a brief description of the input will be displayed on the screen.

**MACROS**  
This spreadsheet uses macros to print the three different pages, however printing can also be done manually by highlighting the desired range and using the menu print commands.

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Ready | Introduction | Prices and weights | Net present value | Prices and weights (2) | 95%

***KSU-Beef Replacements.xls*** developed to help producers consider how much they can pay for replacement females given various assumptions.

(Excel spreadsheet available: <http://www.agmanager.info/livestock/budgets/production/default.asp#Beef Cattle> )



# Build herd -- How much can I pay for a heifer/cow?

## Average cow costs of middle 1/3 = \$803

### Input Assumptions

Print Information

Number of replacements purchased	100	Percent marketable calves (1 - death loss)	97.0%
Year of purchase	2013	Annual cow death loss	0.5%
First year for calf sales	2014	Annual cull rate	15.0%
Cull cow weight, lbs/hd	1,250	Annual inflation rate on costs	1.0%
Annual cow costs, \$/year	\$803	Annual increase in average weaning weight	0.0%
Price scenario to use (1-3) (GTT Adj LMIC)	1	Discount rate (interest rate)	6.5%
Weaning weight scenario to use (1-3)	1		

### Net Present Value Analysis

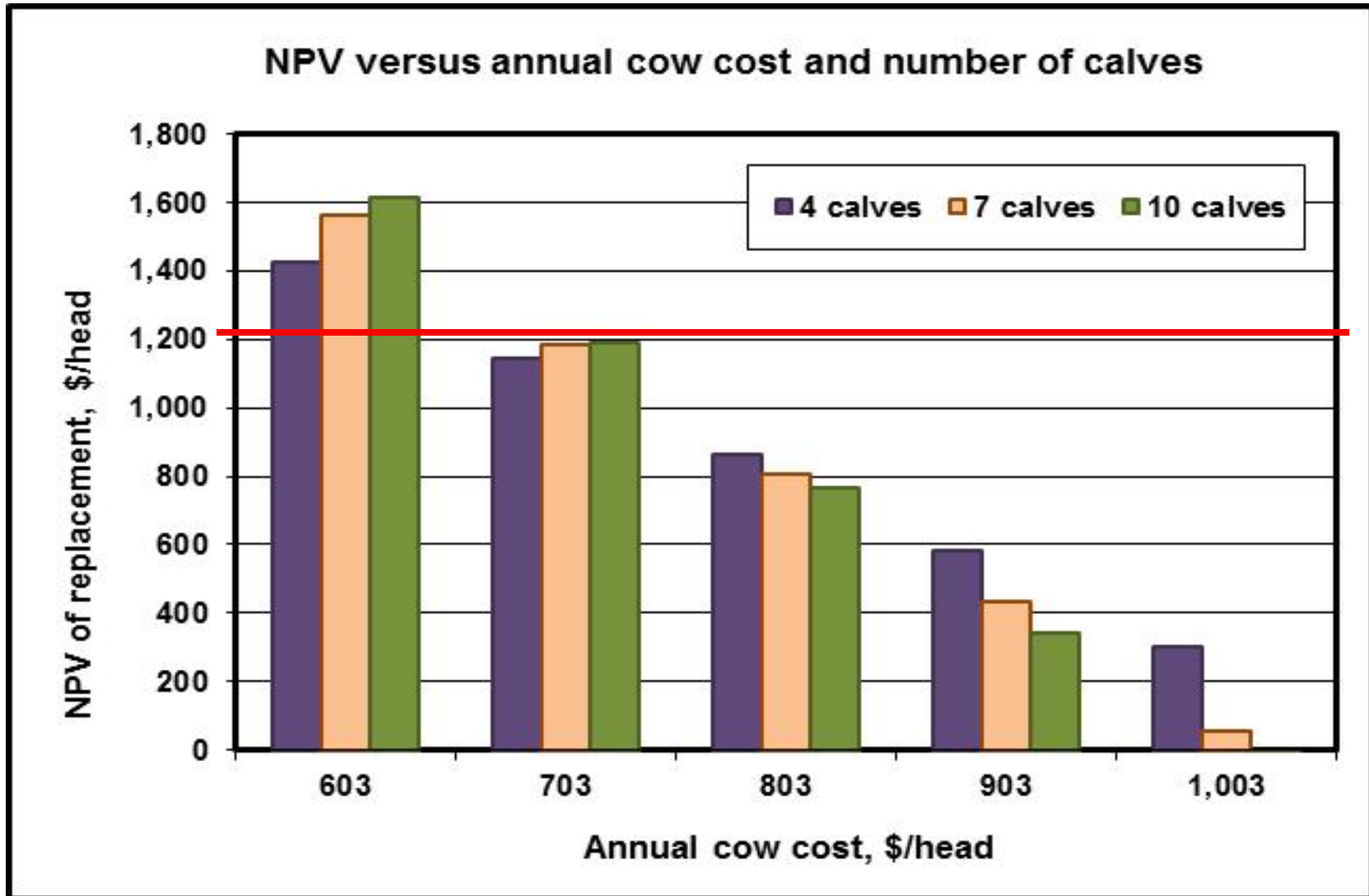
Year	Cows at		Prices, \$/cwt		Calf Income	Cull Income		Cost	Net	Discount	NPV**		
	BOY*	Calf	Calf wt	Calf		Cull	Annual					Age	Cost
2014	100.0	1	542	\$170.48	\$70.00	\$896	\$131.25	\$739	\$811	\$0	\$217	0.9390	\$898
2015	84.5	2	552	\$164.88	\$70.00	\$746	\$110.91	\$625	\$692	\$0	\$165	0.8817	\$899
2016	71.4	3	562	\$159.28	\$70.00	\$620	\$93.72	\$528	\$591	\$0	\$123	0.8278	\$887
2017	60.3	4	567	\$153.98	\$70.00	\$511	\$79.19	\$446	\$504	\$0	\$86	0.7773	\$864
2018	51.0	5	572	\$153.68	\$70.00	\$435	\$66.92	\$377	\$430	\$0	\$71	0.7299	\$844
2019	43.1	6	572	\$153.68	\$70.00	\$367	\$56.54	\$319	\$367	\$0	\$57	0.6853	\$826
2020	36.4	7	567	\$153.98	\$70.00	\$308	\$47.78	\$269	\$313	\$0	\$43	0.6435	\$809
2021	30.8	8	565	\$154.10	\$70.00	\$260	\$40.37	\$227	\$267	\$0	\$33	0.6042	\$793
2022	26.0	9	562	\$154.28	\$70.00	\$219	\$34.12	\$192	\$228	\$0	\$24	0.5674	\$778
2023	22.0	10	559	\$154.46	\$70.00	\$184	\$28.83	\$162	\$195	\$0	\$18	0.5327	\$765

\* BOY = Beginning of year

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







# Build herd -- How much can I pay for a heifer/cow?



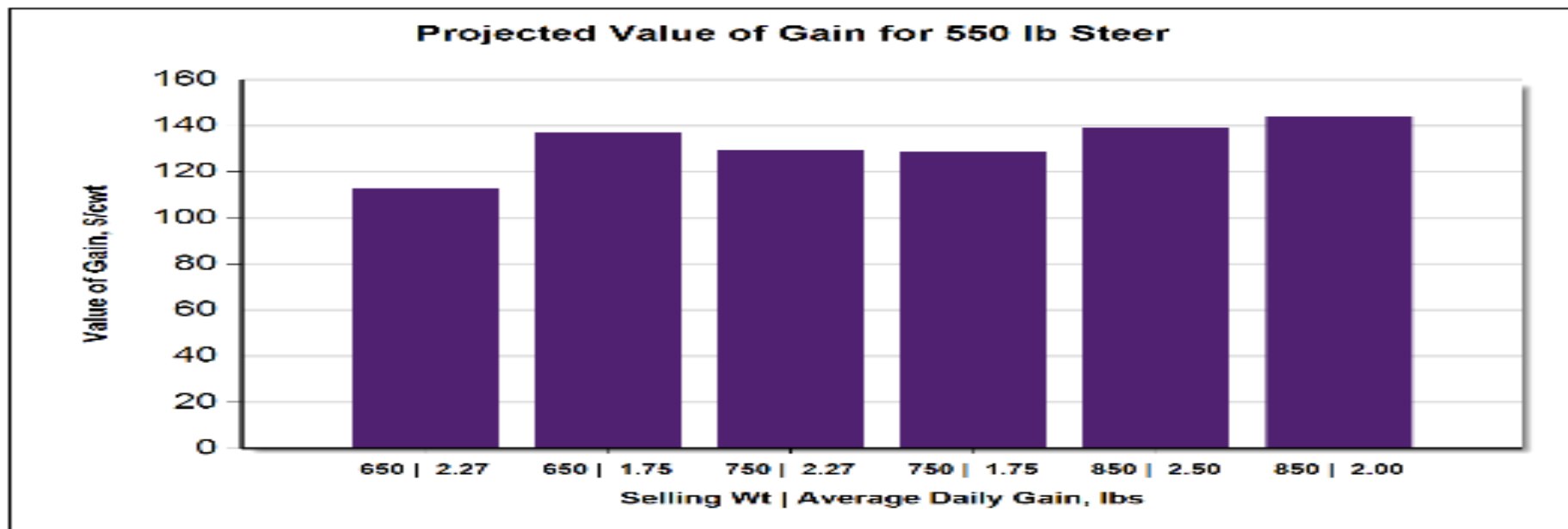
Total costs of bottom, middle, and top 1/3 operations (07'-11' KFMA):  
\$961/cow, \$803/cow, and \$697/cow



# 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?*





Projected Value of Gain					
Beginning Weight, lbs	Ending Weight, lbs	Date	Weight Gain, lbs/hd	ADG, lbs	Value of Gain, \$/cwt
550	650	03/15/2013	100	2.27	\$112.85
550	650	03/28/2013	100	1.75	\$136.90
550	750	04/28/2013	200	2.27	\$129.05
550	750	05/24/2013	200	1.75	\$128.49
550	850	05/30/2013	300	2.50	\$139.04
550	850	06/29/2013	300	2.00	\$143.69

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

1/30/2013



<http://www.agmanager.info/livestock/marketing/graphs/cattle/prices/VOG.asp>  
<http://www.beefbasis.com/ForecastingTools/ValueofGain/tabid/1132/Default.aspx>

# Economic Outlook Overview: Feedlots

- Excess capacity concerns remain & are growing...
  - Drought & Mexican feeder supplies:
    - mitigated this initially / magnifying it now and going forward ...
- Closeouts have been at historically high losses...
  - 12 month rolling avg. thru Nov. 12' **-\$126.23**
- Watch response to shrinking available supplies...



# Historical and Projected Kansas Feedlot Net Returns (as of 1/3/13')

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

November 12': **-\$177.66/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-12	-83.77	116.22	125.13	139.75	101.55	131.33	129.02
Jan-13	-13.90	120.85	131.74	138.41	118.38	132.76	136.67
Feb-13	15.72	121.45	135.87	140.87	124.27	134.74	142.77
Mar-13	44.59	117.87	137.11	142.68	125.53	133.85	148.36
Apr-13	-2.84	115.47	133.82	144.85	114.98	134.03	144.48
May-13	26.66	113.10	135.92	147.04	117.51	133.98	150.49

**Representative Barometer for Trends in Profitability**

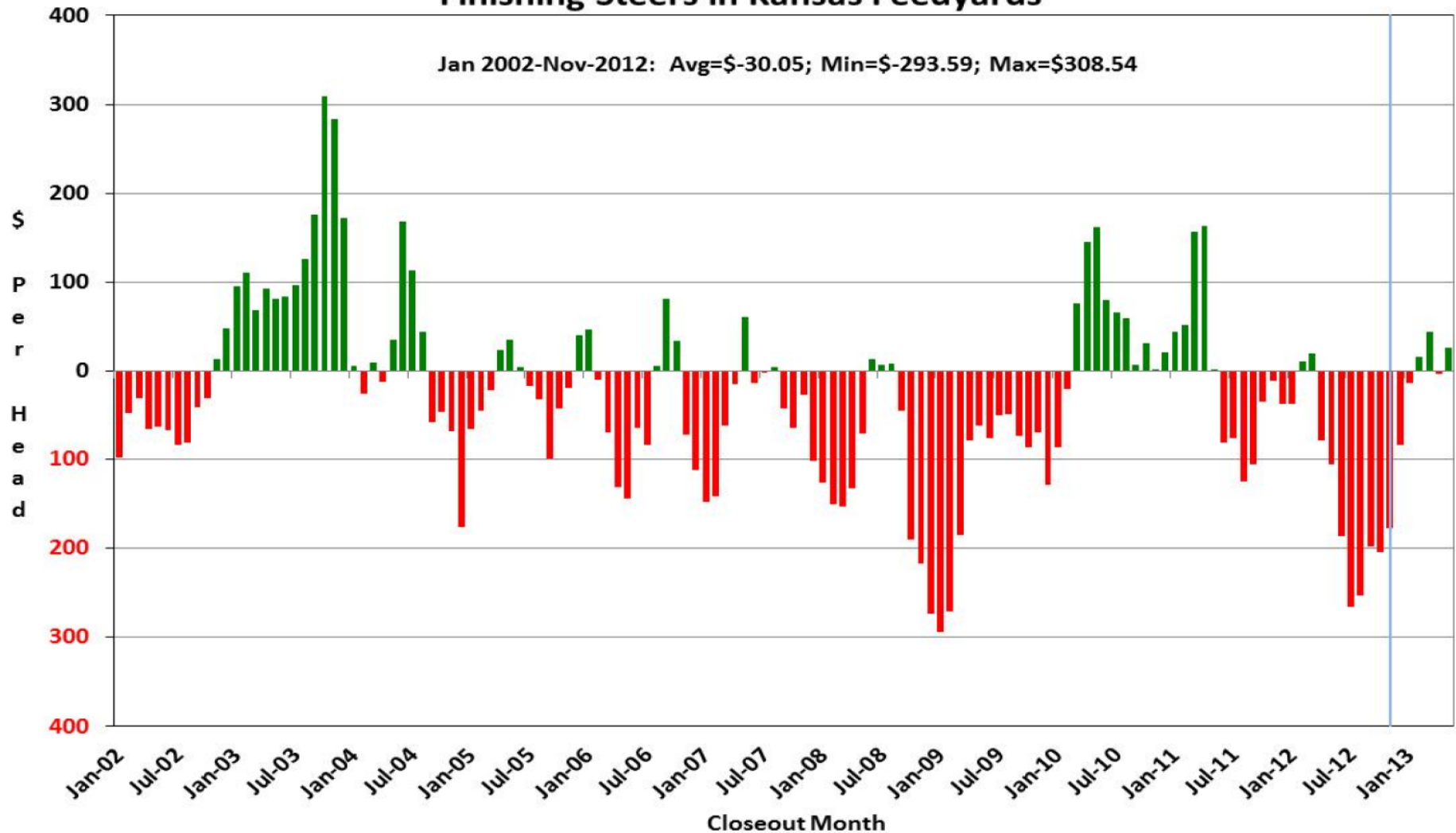
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# Historical and Projected Kansas Feedlot Net Returns as of 1/3/13'

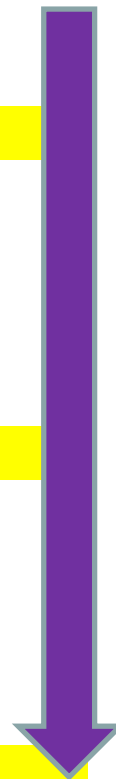
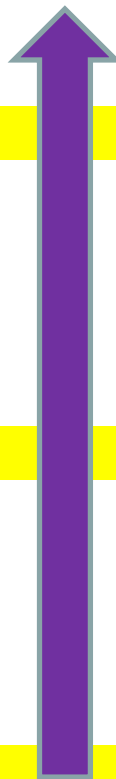
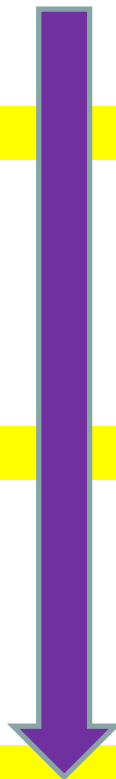
(<http://www.agmanager.info/livestock/marketing/outlook/newsletters/FinishingReturns/default.asp>)

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



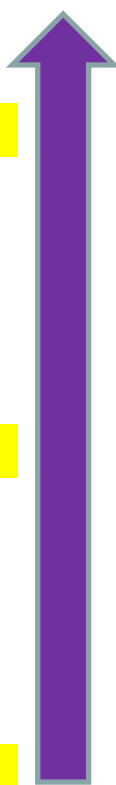
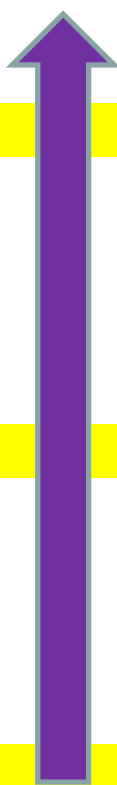
# Quarterly Forecasts (LMIC:01/29/13)

Year	Comm'l	% Chg.	Average	% Chg.	Comm'l	% Chg.
Quarter	Slaughter	from	Dressed	from	Beef	from
		Year Ago	Weight	Year Ago	Production	Year Ago
<b>2012</b>						
I	8,027	-3.5	782.7	1.5%	6,283	-2.0
II	8,311	-3.8	779.1	2.6%	6,475	-1.3
III	8,332	-4.6	790.3	2.5%	6,584	-2.3
IV	8,281	-1.4	793.5	2.6%	6,571	1.2
<b>Year</b>	<b>32,950</b>	<b>-3.3</b>	<b>786.4</b>	<b>2.3%</b>	<b>25,912</b>	<b>-1.1</b>
<b>2013</b>						
I	7,740	-3.6	787.6	0.6%	6,096	-3.0
II	7,894	-5.0	779.6	0.1%	6,154	-5.0
III	7,956	-4.5	796.0	0.7%	6,333	-3.8
IV	7,705	-7.0	798.4	0.6%	6,152	-6.4
<b>Year</b>	<b>31,295</b>	<b>-5.0</b>	<b>790.4</b>	<b>0.5%</b>	<b>24,735</b>	<b>-4.5</b>
<b>2014</b>						
I	7,223	-6.7	796.1	1.1%	5,750	-5.7
II	7,428	-5.9	786.3	0.9%	5,841	-5.1
III	7,515	-5.5	804.8	1.1%	6,048	-4.5
IV	7,289	-5.4	806.4	1.0%	5,878	-4.5
<b>Year</b>	<b>29,455</b>	<b>-5.9</b>	<b>798.4</b>	<b>1.0%</b>	<b>23,517</b>	<b>-4.9</b>



# Quarterly Forecasts (LMIC:01/29/13)

Year Quarter	Live Sltr.	% Chg. from Year Ago	Feeder Steer Price	
	Steer Price 5-Mkt Avg		Southern Plains	
			7-800#	5-600#
<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	125.54	2.9	146.50	161.42
<b>Year</b>	<b>122.86</b>	<b>7.1</b>	<b>148.81</b>	<b>168.26</b>
<b>2013</b>				
I	127-129	2.2	146-149	164-168
II	128-131	7.1	146-151	165-171
III	126-130	6.9	148-154	164-173
IV	128-133	4.0	149-156	163-170
<b>Year</b>	<b>127-131</b>	<b>5.0</b>	<b>148-152</b>	<b>164-170</b>
<b>2014</b>				
I	132-138	5.5	154-162	175-184
II	134-141	6.2	157-167	178-190
III	132-140	6.3	158-169	174-187
IV	134-143	6.1	156-168	171-185
<b>Year</b>	<b>134-140</b>	<b>6.2</b>	<b>158-165</b>	<b>177-184</b>





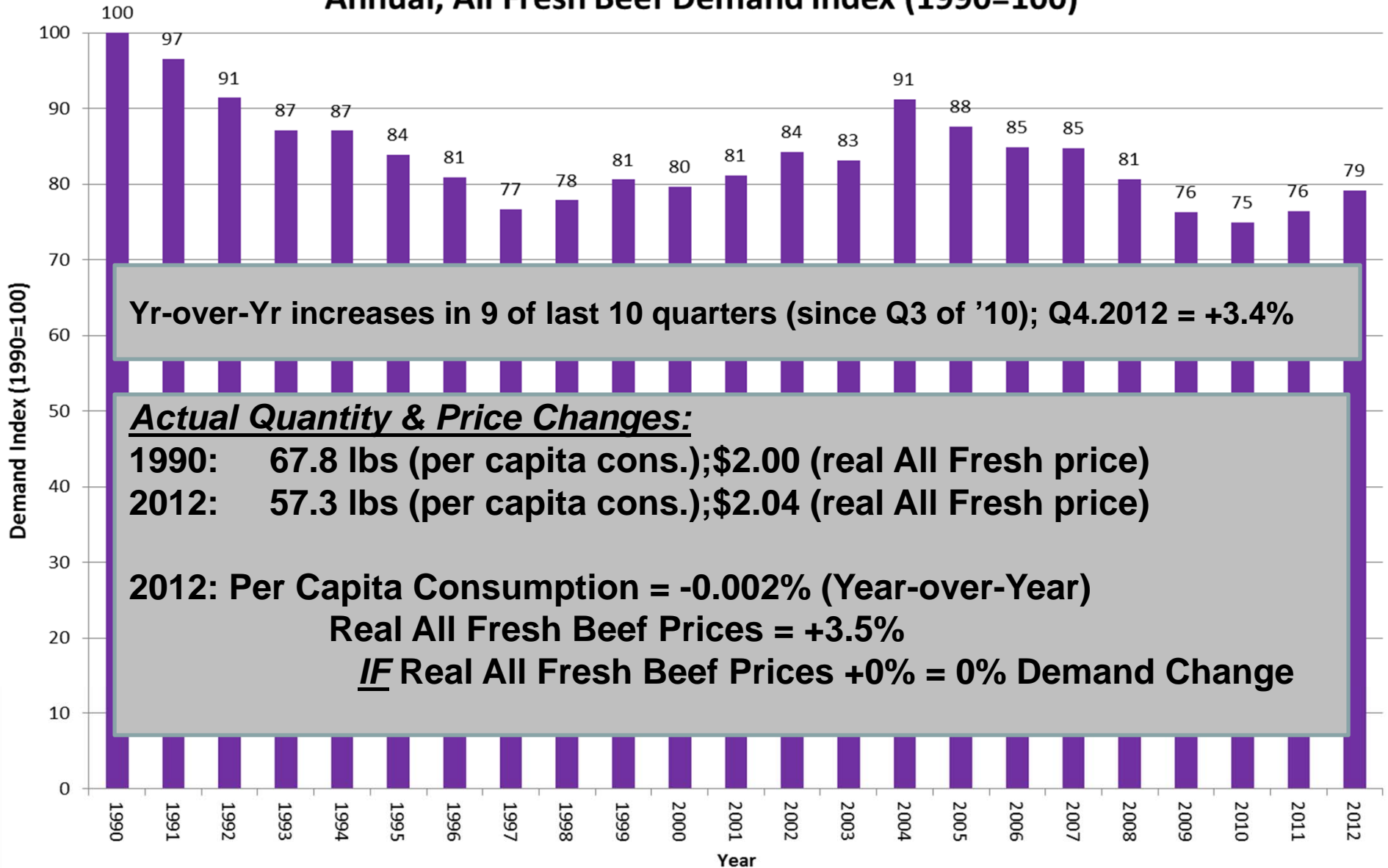
# Economic Outlook Overview :

## 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...



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



Source: Glynn T. Tonsor, Kansas State University, Jan. 2013

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

# 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



# 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 Things To Converse Over

- MCOOL: Aggregate economic loss is apparent
- Animal Welfare: 1 of several “social concerns”
- Animal ID & Traceability: How far behind is the U.S. globally?



## Big Picture Points to Ponder

- Complex relationship & views on technology:
  - Feed 9 billion, “control” prices, and do so in an “acceptable” manner is the story...
- Many things are elevating uncertainty...
  - *Ben Franklin: “In this world nothing can be said to be certain, except death and taxes.”*
  - *How much does today’s uncertainty change a “\$100/hd expansion” rule of thumb???*
  - *How much does this impact a feedyard or packing plant’s willingness to wait for better margins???*



## What To Do?

- In a period of increasingly updated & changing information: utilize available resources
  - Decision aides, these events, regularly updated online pieces...
- I encourage you to:
  1. “Look in the mirror” – do you know your comparative advantage?
  2. Recognize this “isn’t your father’s world” anymore and manage accordingly...
  3. “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



TONSOR

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.

**2013 schedule (all webinars begin at 1:30 CST)**

February 14

May 14

August 13

November 5

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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