Cattle and Beef Markets: Short and Long Run Challenges and Opportunities

Current Market Situation

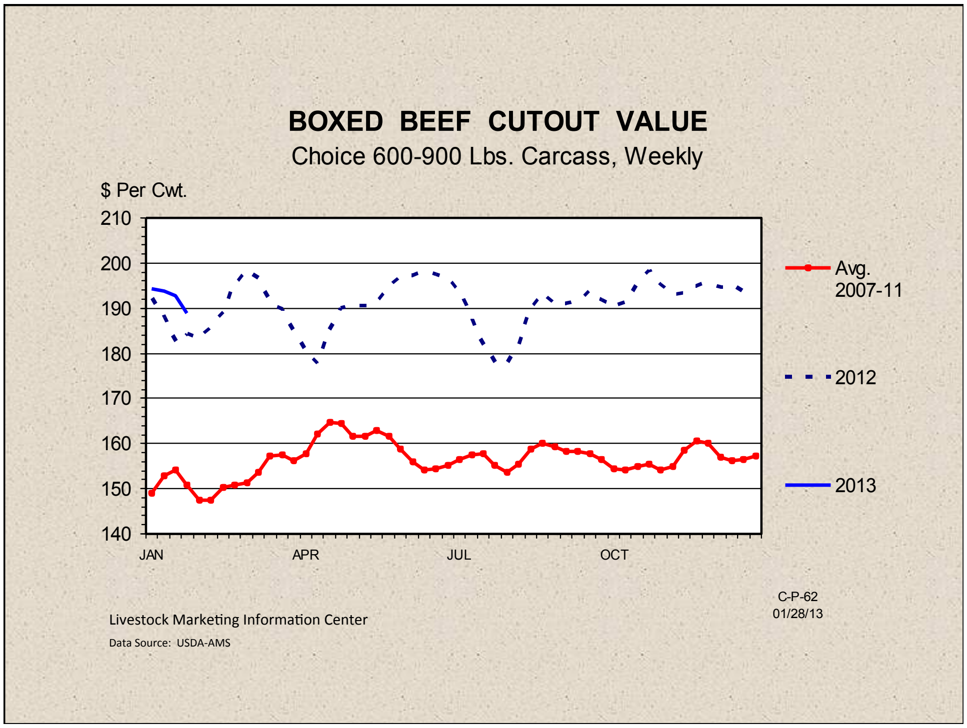
- Global
- U.S. Economy
- Agriculture
- Cattle Industry

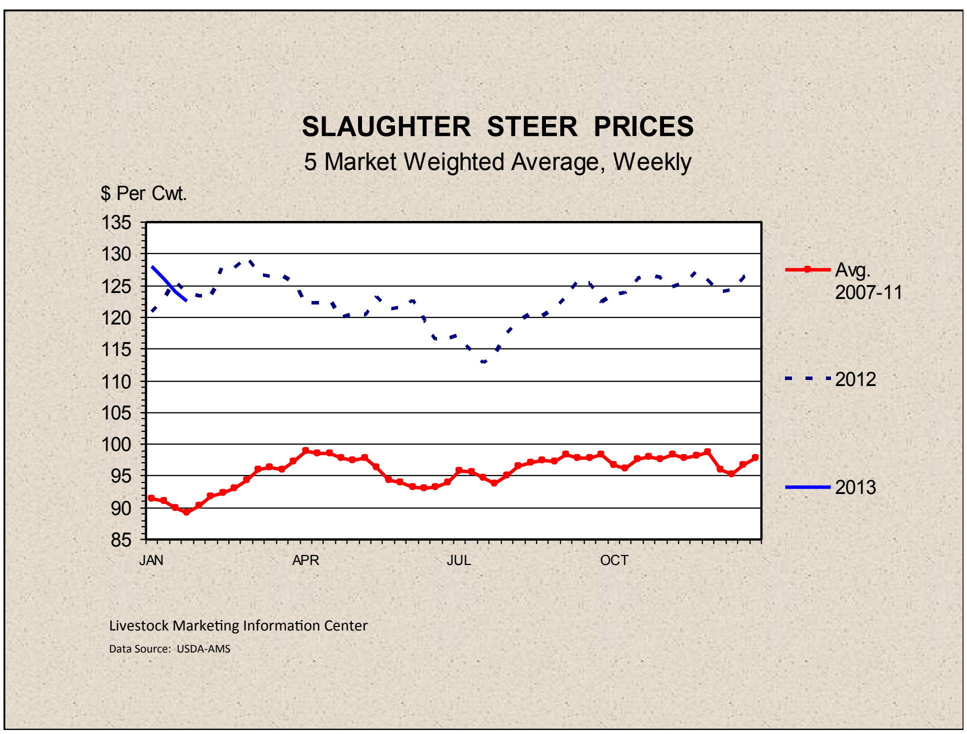
2012 Recap

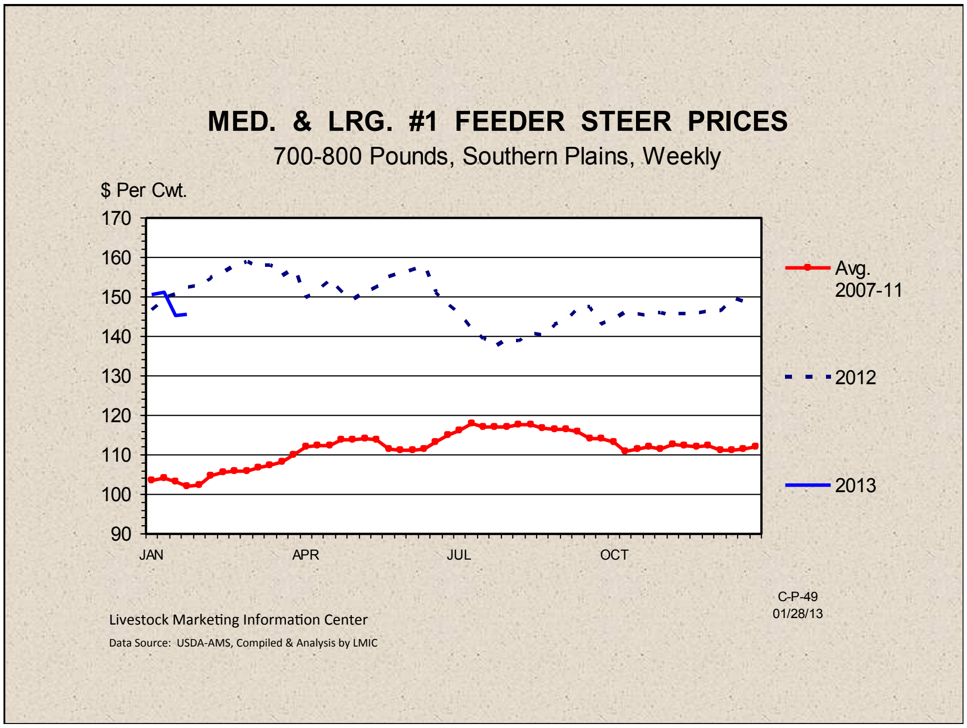
- Widespread drought in U.S.
  - Continued herd liquidation
  - Not as severe in Oklahoma this summer
    - Limited water and forage for winter
- Record high grain and forage prices
- Record high cattle prices
  - Reduced cow-calf profitability
  - Poor feedlot and packer margins
- Higher wholesale and retail beef prices
  - Limited beef demand
  - Weaker beef exports

Major Beef Market Factors

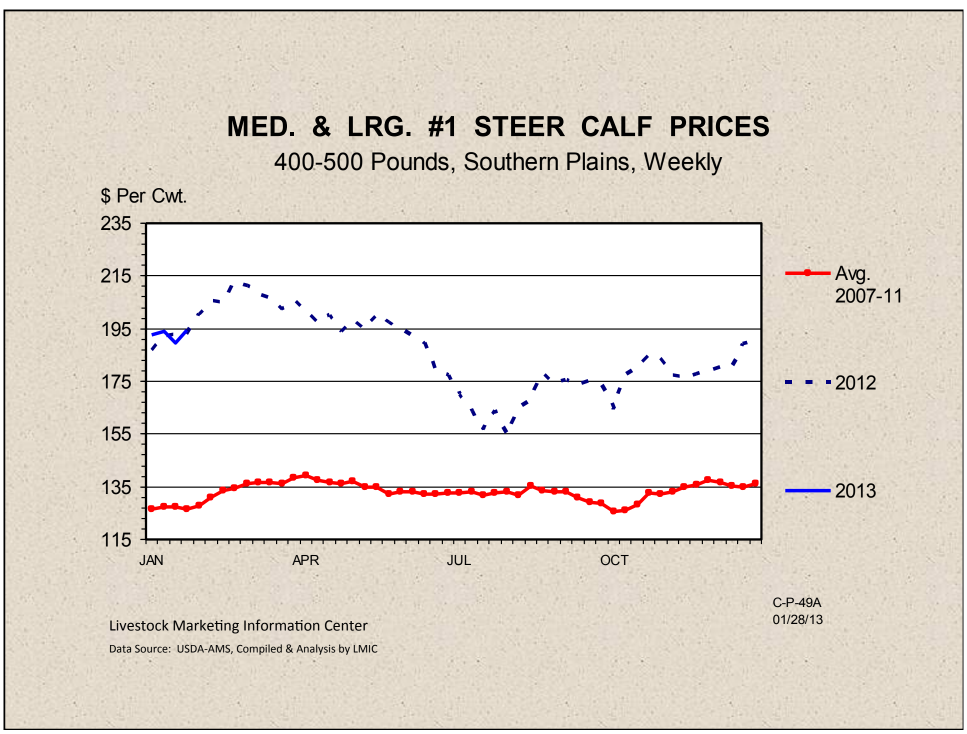
- Cattle Inventory and Beef Production
- Beef Demand
- International Trade
- Feed and Input Markets
- Forage Conditions


BOXED BEEF CUTOUT VALUE
Choice 600-900 Lbs. Carcass, Weekly
$ Per Cwt.
210
200
190
180
170
160
150
140
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-P-62
01/28/13
Livestock Marketing Information Center
Data Source: USDA-AMS

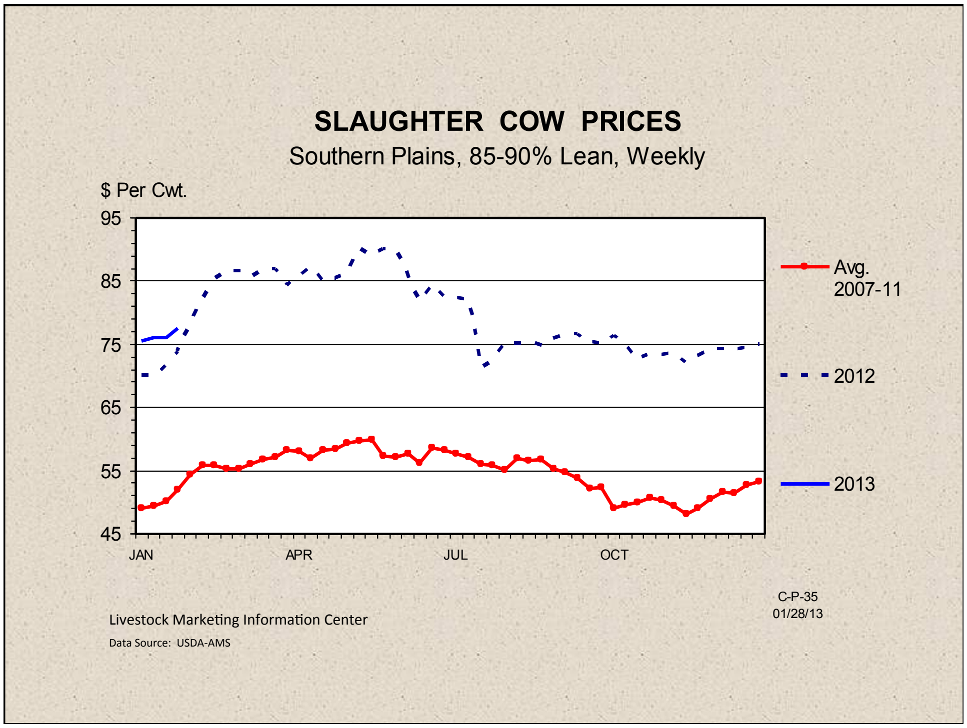

SLAUGHTER STEER PRICES
5 Market Weighted Average, Weekly
$ Per Cwt.
135
130
125
120
115
110
105
100
95
90
85
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
Livestock Marketing Information Center
Data Source: USDA-AMS

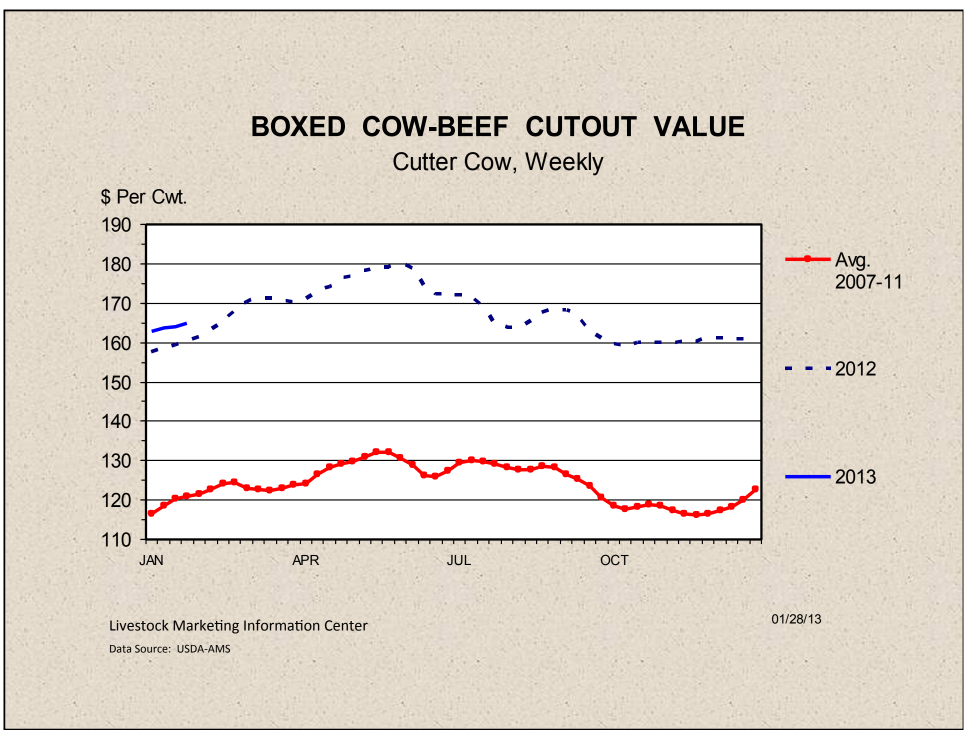


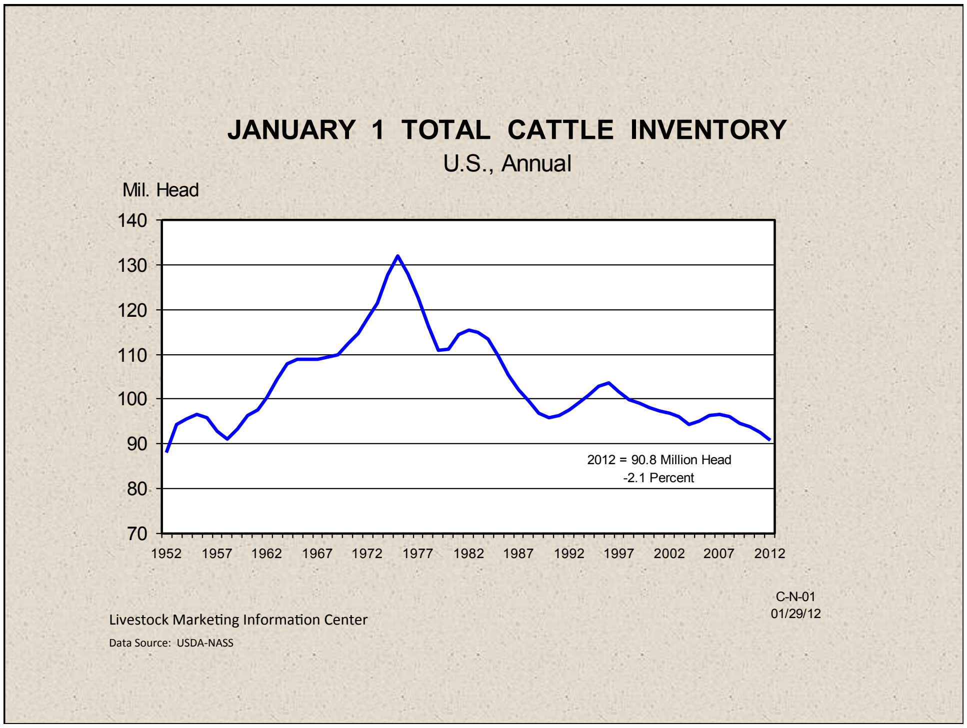
MED. & LRG. #1 FEEDER STEER PRICES
700-800 Pounds, Southern Plains, Weekly
$ Per Cwt.
170
160
150
140
130
120
110
100
90
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-P-49
01/28/13
Livestock Marketing Information Center
Data Source: USDA-AMS, Compiled & Analysis by LMIC

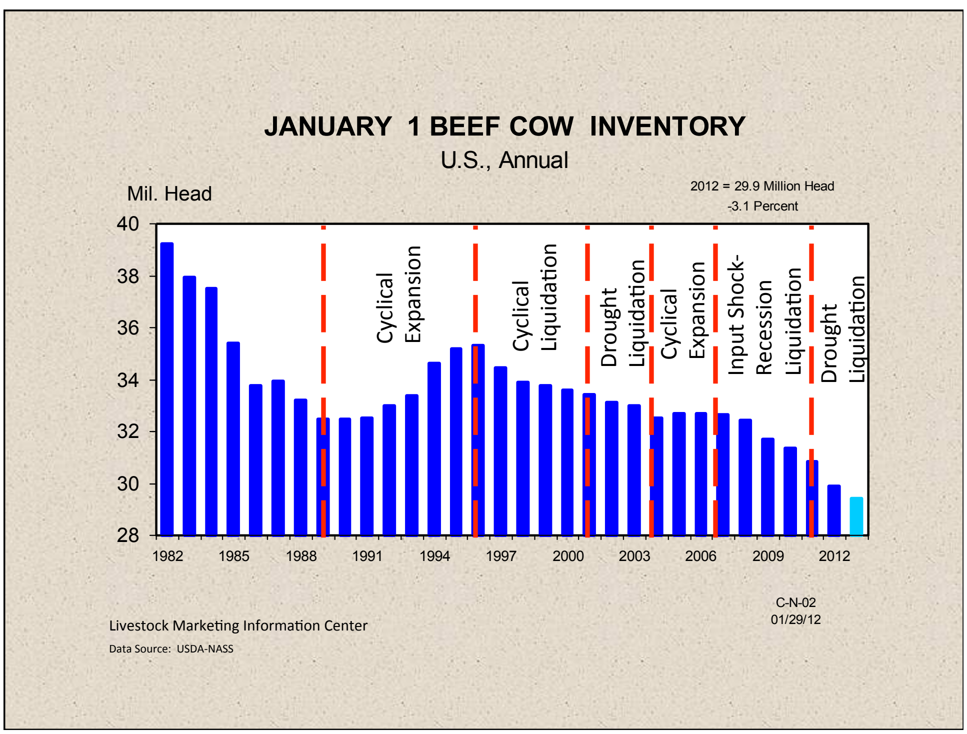


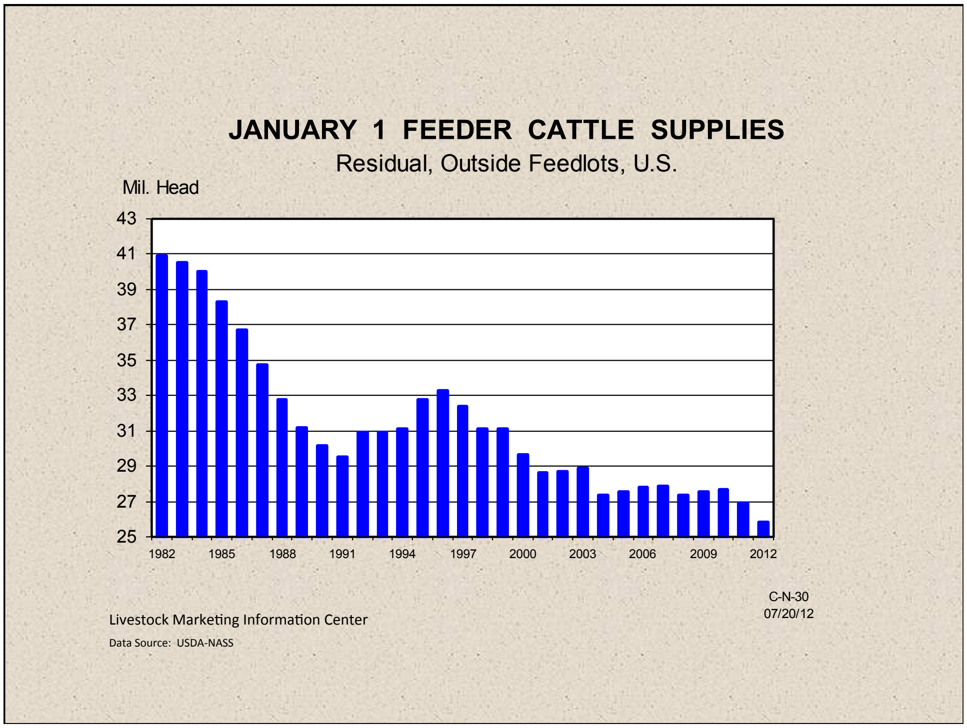
MED. & LRG. #1 STEER CALF PRICES
400-500 Pounds, Southern Plains, Weekly
$ Per Cwt.
235
215
195
175
155
135
115
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-P-49A
01/28/13
Livestock Marketing Information Center
Data Source: USDA-AMS, Compiled & Analysis by LMIC

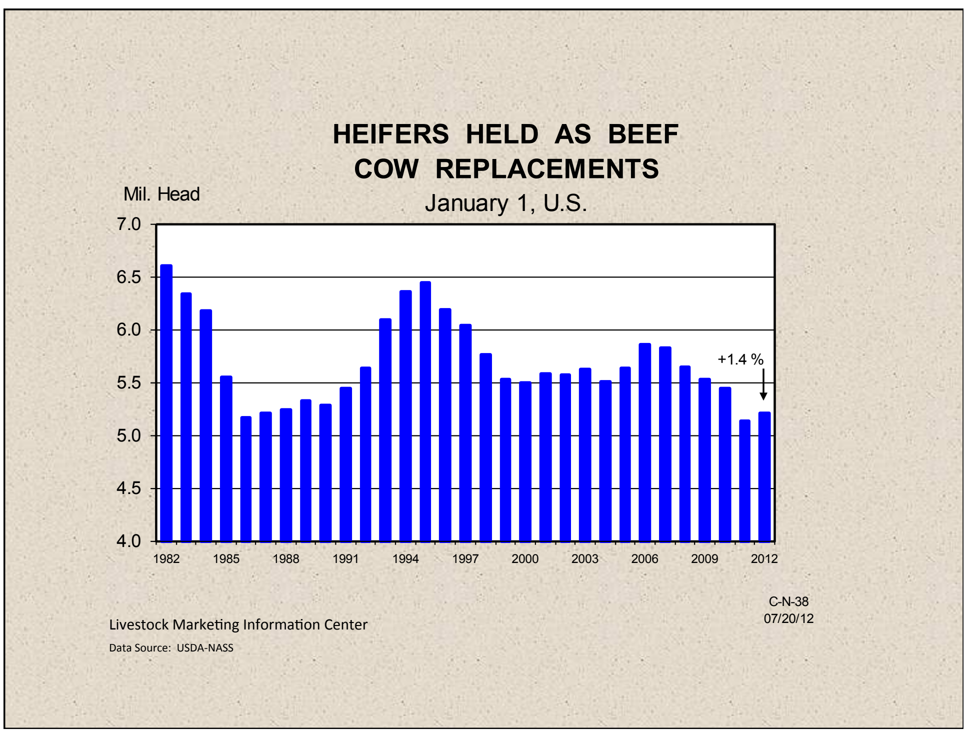

SLAUGHTER COW PRICES
Southern Plains, 85-90% Lean, Weekly
$ Per Cwt.
95
85
75
65
55
45
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-P-35
01/28/13
Livestock Marketing Information Center
Data Source: USDA-AMS

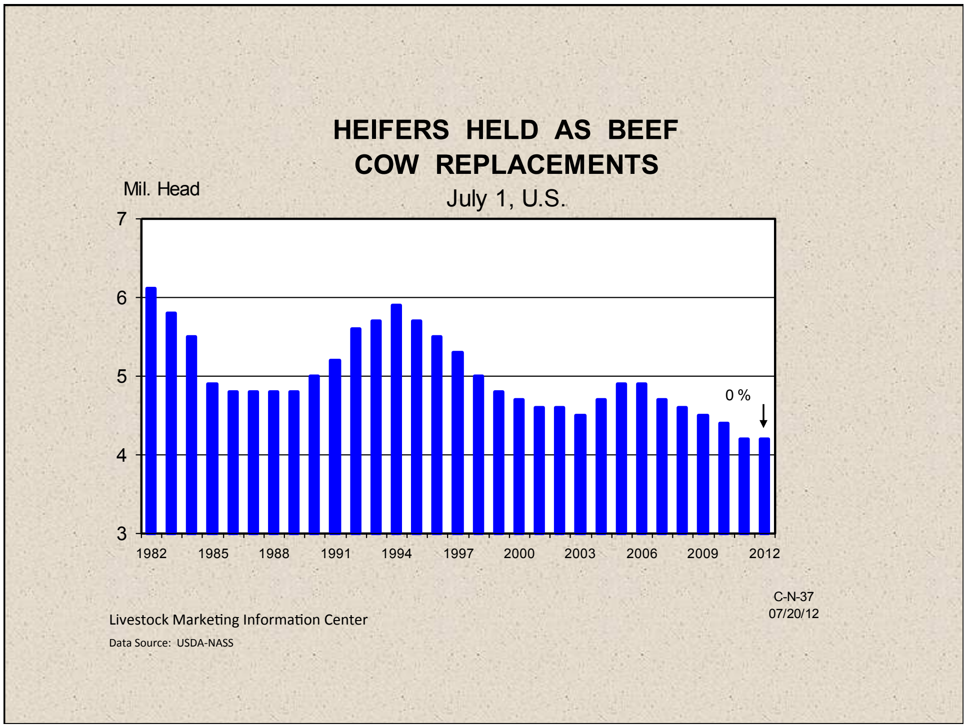

BOXED COW-BEEF CUTOUT VALUE
Cutter Cow, Weekly
$ Per Cwt.
190
180
170
160
150
140
130
120
110
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
01/28/13
Livestock Marketing Information Center
Data Source: USDA-AMS

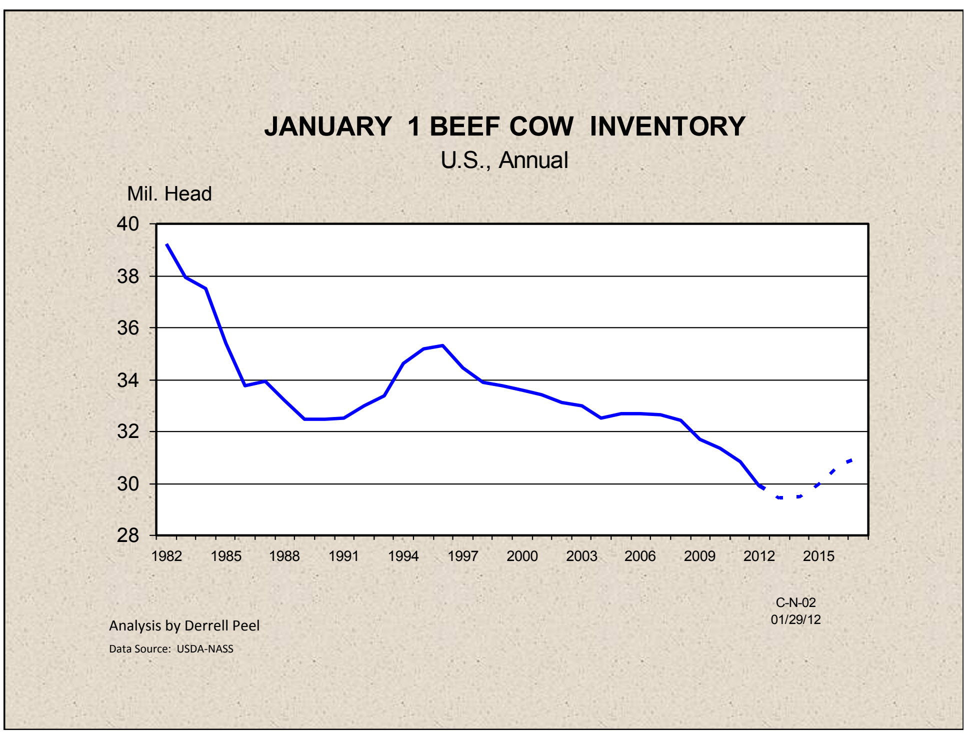

JANUARY 1 TOTAL CATTLE INVENTORY
U.S., Annual
Mil. Head
140
130
120
110
100
90
80
70
1952 1957 1962 1967 1972 1977 1982 1987 1992 1997 2002 2007 2012
2012 = 90.8 Million Head
-2.1 Percent
C-N-01
01/29/12
Livestock Marketing Information Center
Data Source: USDA-NASS

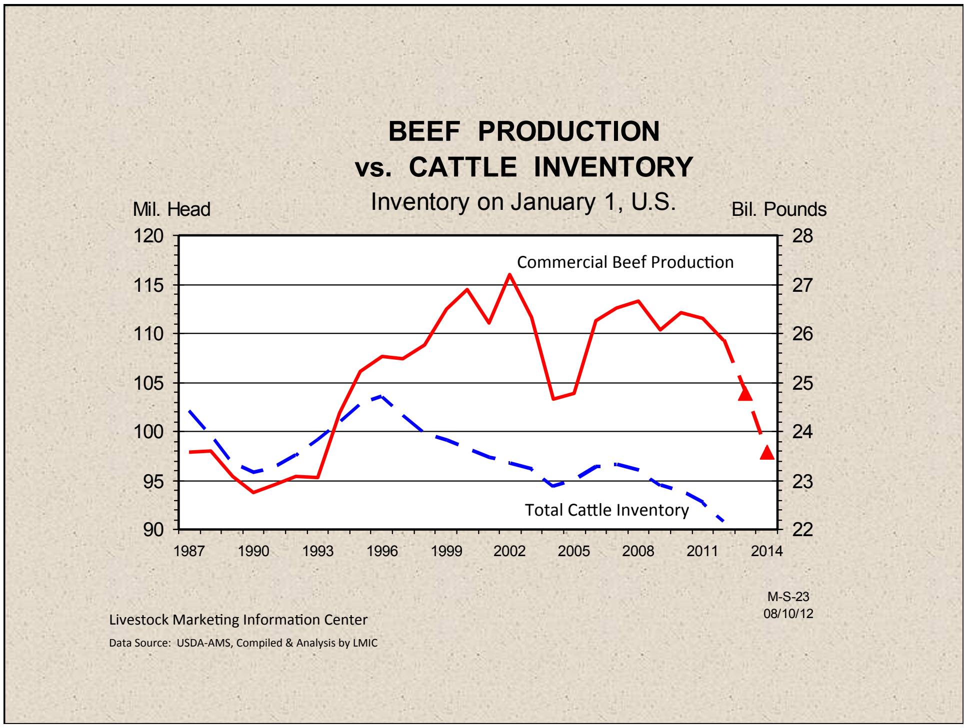

JANUARY 1 BEEF COW INVENTORY
U.S., Annual
Mil. Head
2012 = 29.9 Million Head
-3.1 Percent
40
38
36
34
32
30
28
Cyclical Expansion
Cyclical Liquidation
Drought Liquidation
Cyclical Expansion
Input Shock-Recession Liquidation
Drought Liquidation
1982 1985 1988 1991 1994 1997 2000 2003 2006 2009 2012
C-N-02
01/29/12
Livestock Marketing Information Center
Data Source: USDA-NASS

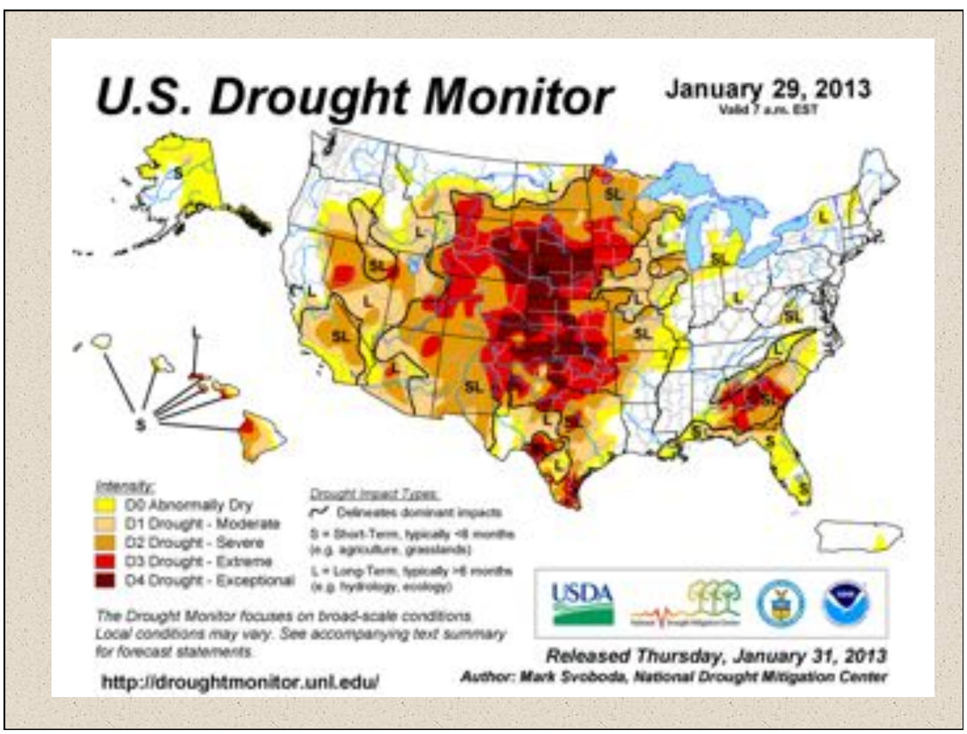

JANUARY 1 FEEDER CATTLE SUPPLIES
Residual, Outside Feedlots, U.S.
Mil. Head
43
41
39
37
35
33
31
29
27
25
1982
1985
1988
1991
1994
1997
2000
2003
2006
2009
2012
C-N-30
07/20/12
Livestock Marketing Information Center
Data Source: USDA-NASS

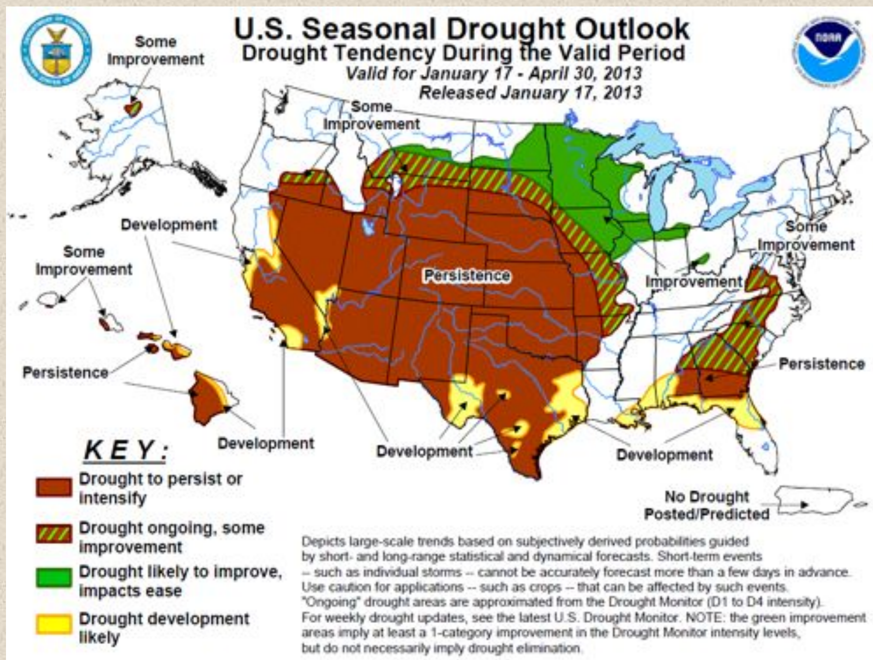

HEIFERS HELD AS BEEF
COW REPLACEMENTS
January 1, U.S.
Mil. Head
7.0
6.5
6.0
5.5
5.0
4.5
4.0
+1.4 %
1982
1985
1988
1991
1994
1997
2000
2003
2006
2009
2012
C-N-38
07/20/12
Livestock Marketing Information Center
Data Source: USDA-NASS


HEIFERS HELD AS BEEF
COW REPLACEMENTS
July 1, U.S.
Mil. Head
7
6
5
4
3
0 %
1982
1985
1988
1991
1994
1997
2000
2003
2006
2009
2012
C-N-37
07/20/12
Livestock Marketing Information Center
Data Source: USDA-NASS


JANUARY 1 BEEF COW INVENTORY
U.S., Annual
Mil. Head
40
38
36
34
32
30
28
1982
1985
1988
1991
1994
1997
2000
2003
2006
2009
2012
2015
C-N-02
01/29/12
Analysis by Derrell Peel
Data Source: USDA-NASS

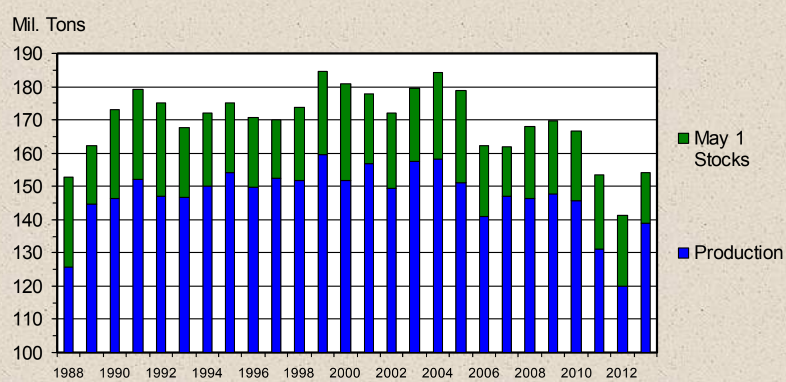

BEEF PRODUCTION
vs. CATTLE INVENTORY
Inventory on January 1, U.S.
Mil. Head
Bil. Pounds
120
115
110
105
100
95
90
28
27
26
25
24
23
22
Commercial Beef Production
Total Cattle Inventory
1987
1990
1993
1996
1999
2002
2005
2008
2011
2014
M-S-23
08/10/12
Livestock Marketing Information Center
Data Source: USDA-AMS, Compiled & Analysis by LMIC


U.S. Drought Monitor
January 29, 2013
Valid 7 a.m. EST
Intensity:
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
L = Long-Term, typically >6 months (e.g. hydrology, ecology)
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.
http://droughtmonitor.unl.edu/
USDA
Released Thursday, January 31, 2013
Author: Mark Svoboda, National Drought Mitigation Center



U S ALL HAY SUPPLY

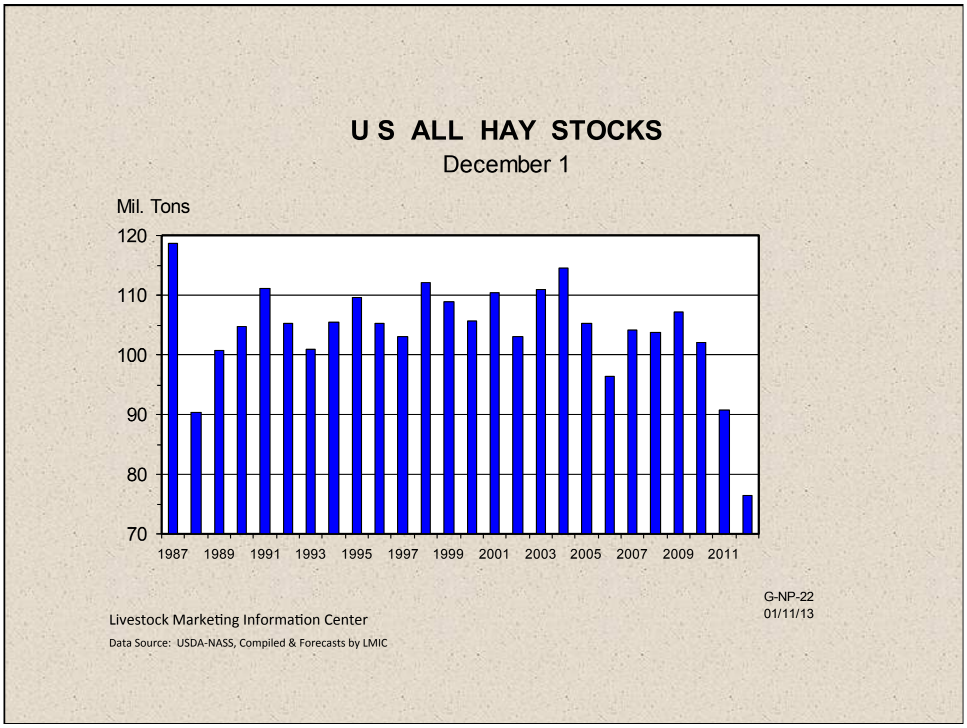
Crop Year

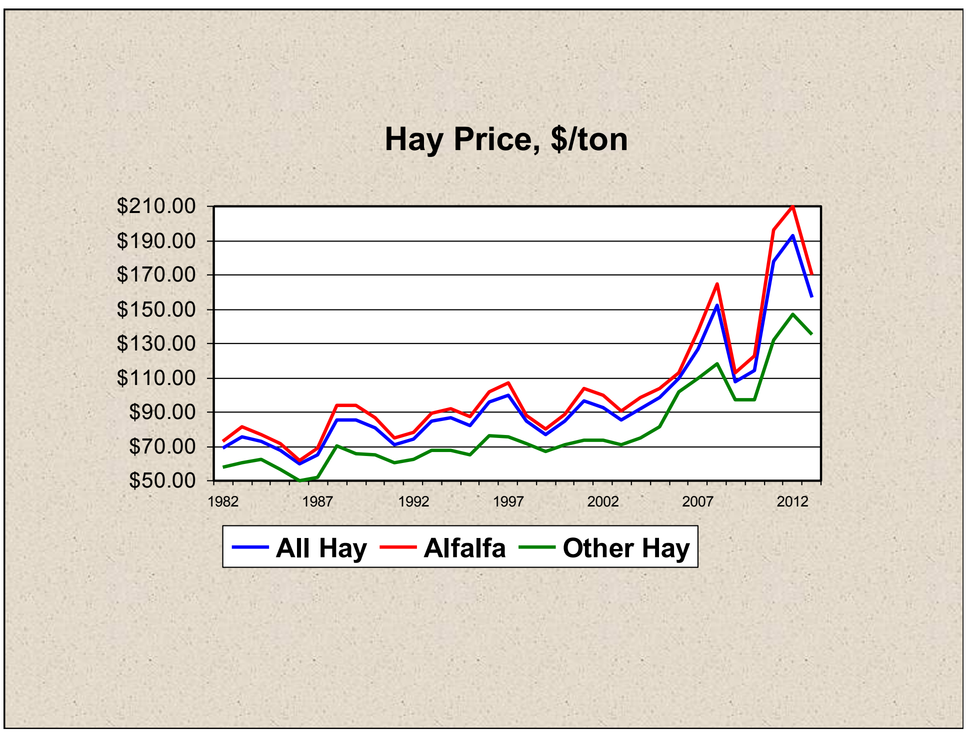


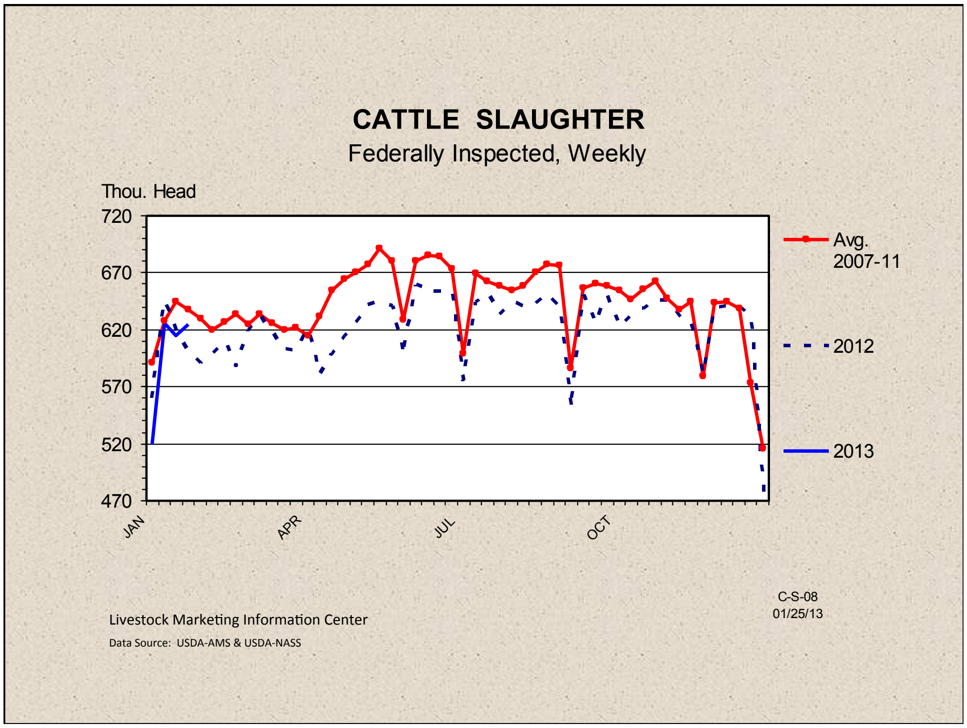
G-NP-19
01/11/13

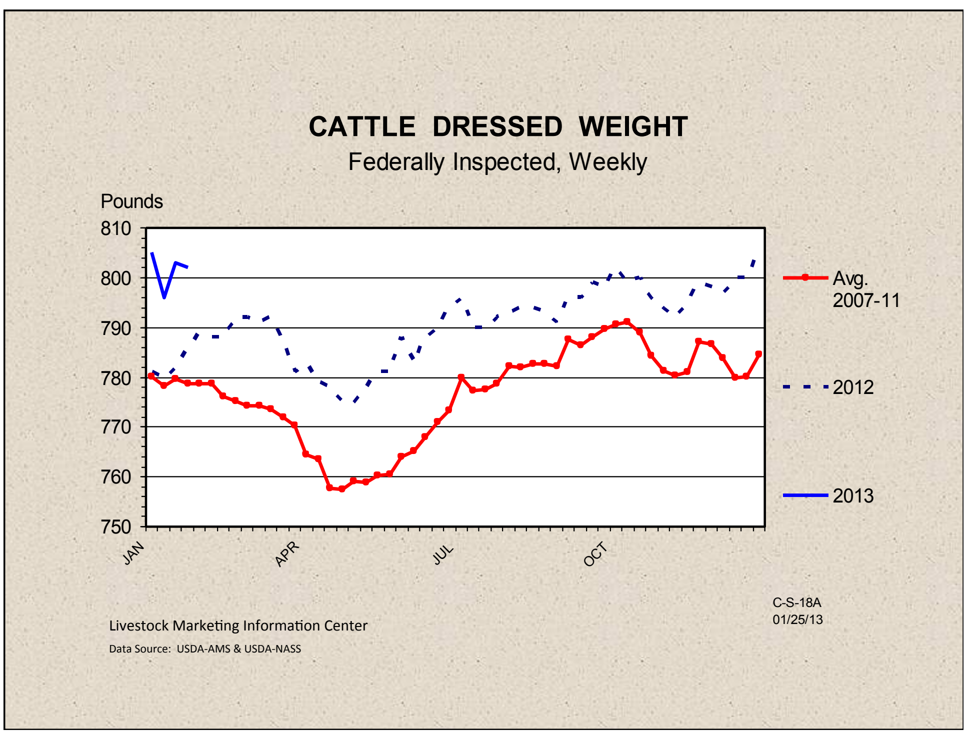
Livestock Marketing Information Center

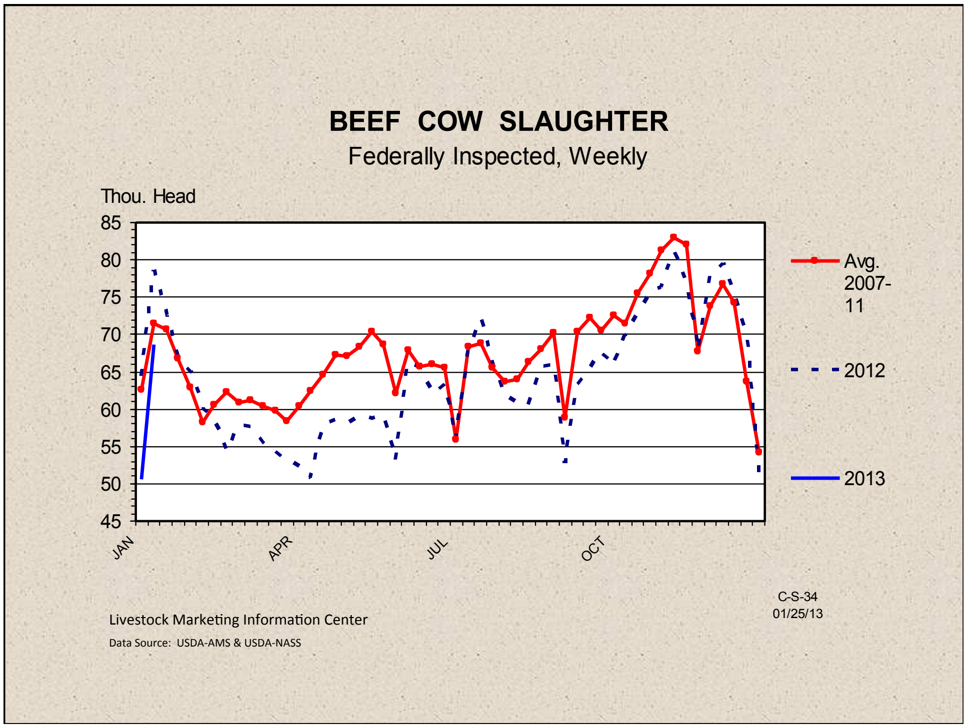
Data Source: USDA-NASS, Compiled & Forecasts by LMIC

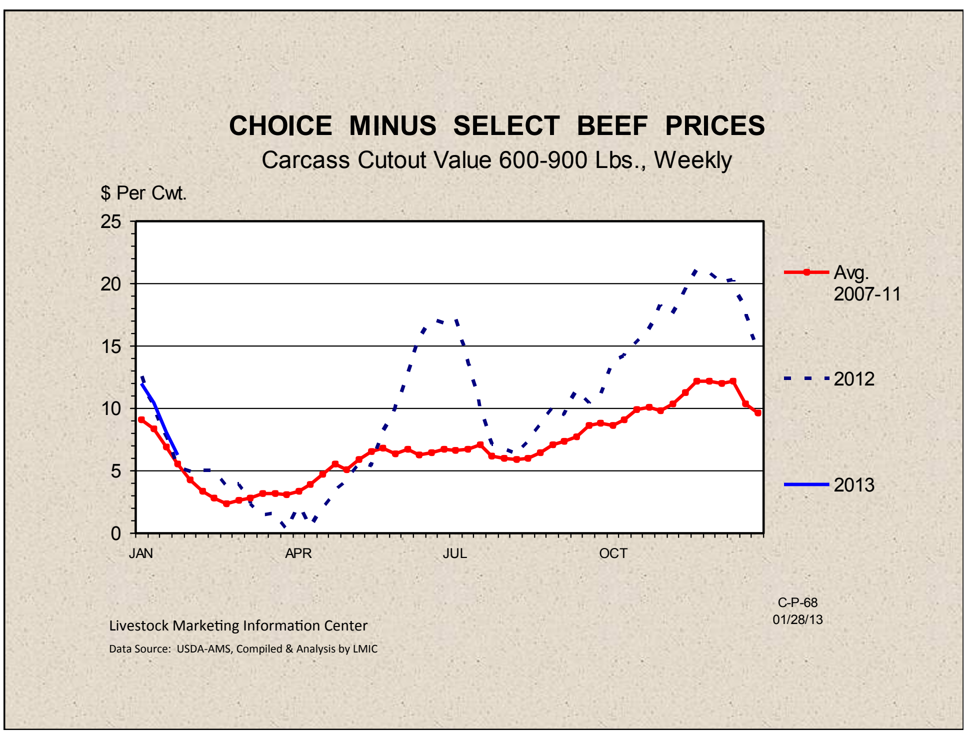

U S ALL HAY STOCKS
December 1
Mil. Tons
120
110
100
90
80
70
1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011
G-NP-22
01/11/13
Livestock Marketing Information Center
Data Source: USDA-NASS, Compiled & Forecasts by LMIC

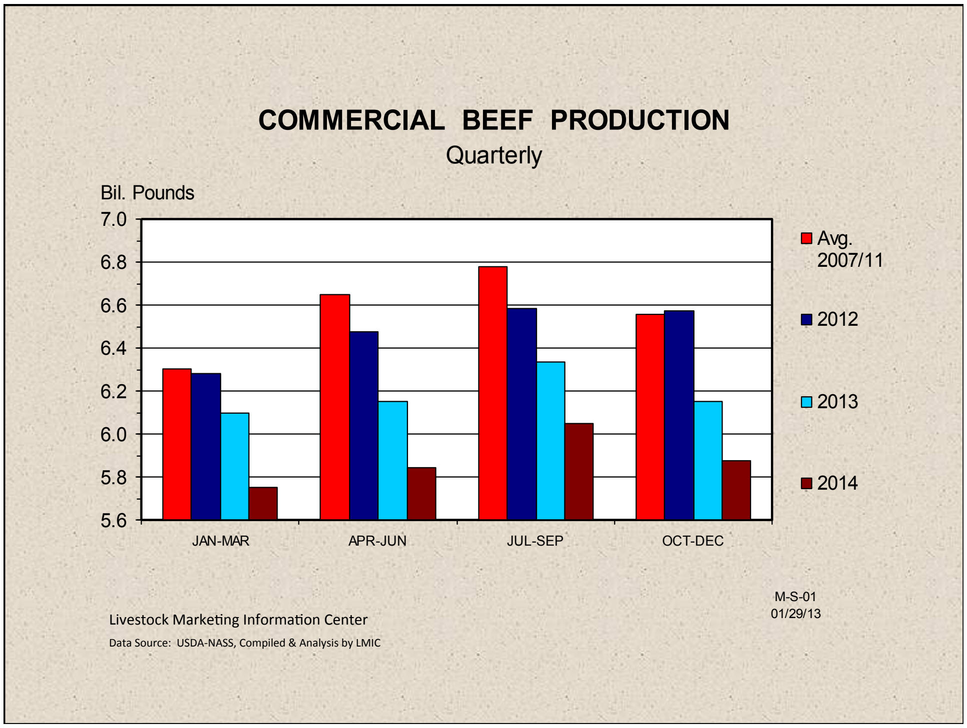

Hay Price, $/ton
$210.00
$190.00
$170.00
$150.00
$130.00
$110.00
$90.00
$70.00
$50.00
1982 1987 1992 1997 2002 2007 2012
All Hay
Alfalfa
Other Hay

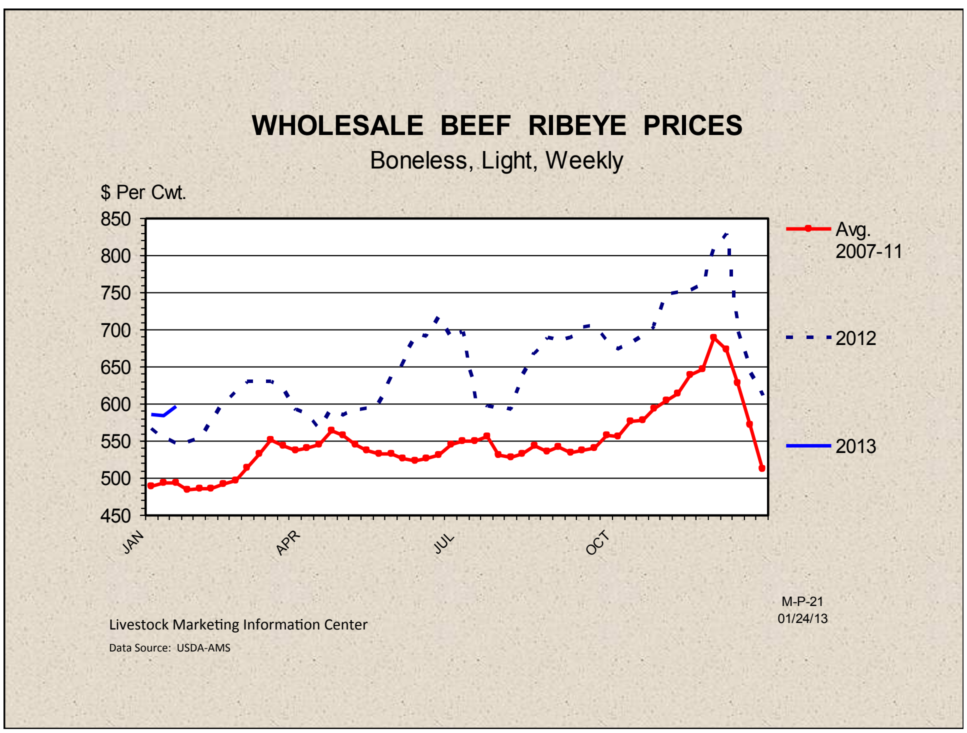

CATTLE SLAUGHTER
Federally Inspected, Weekly
Thou. Head
720
670
620
570
520
470
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-S-08
01/25/13
Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS

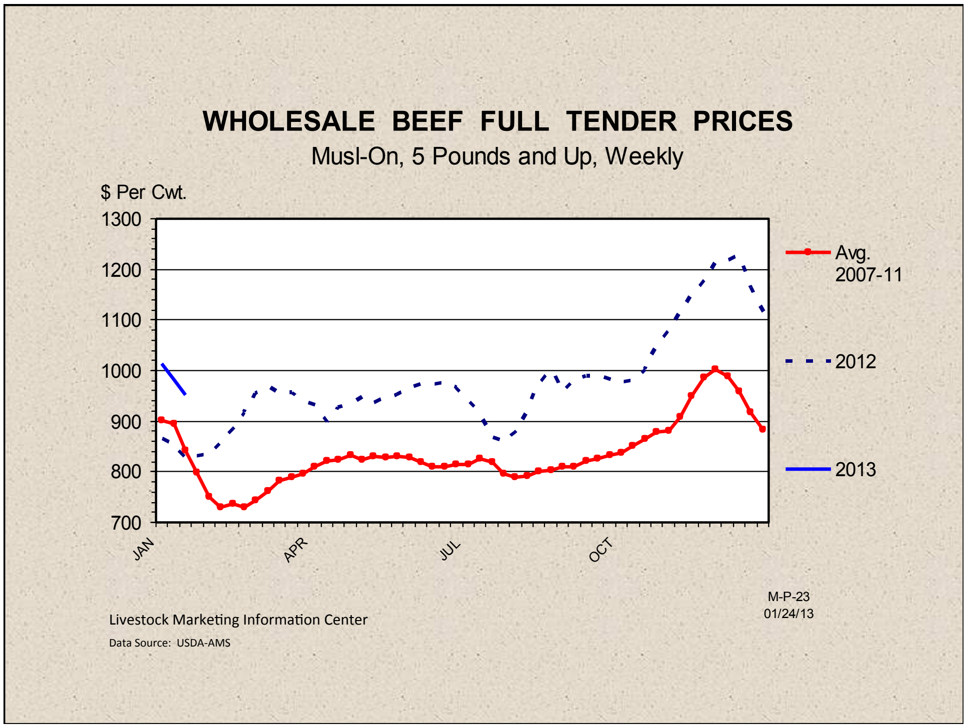

CATTLE DRESSED WEIGHT
Federally Inspected, Weekly
Pounds
810
800
790
780
770
760
750
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-S-18A
01/25/13
Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS

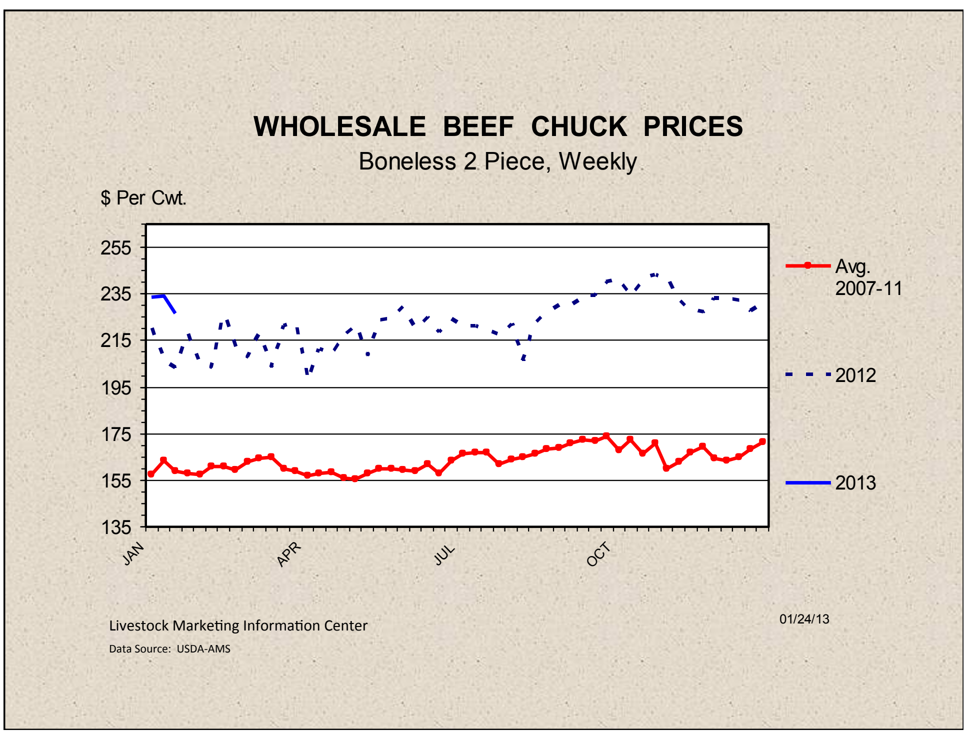

BEEF COW SLAUGHTER
Federally Inspected, Weekly
Thou. Head
85
80
75
70
65
60
55
50
45
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-S-34
01/25/13
Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS

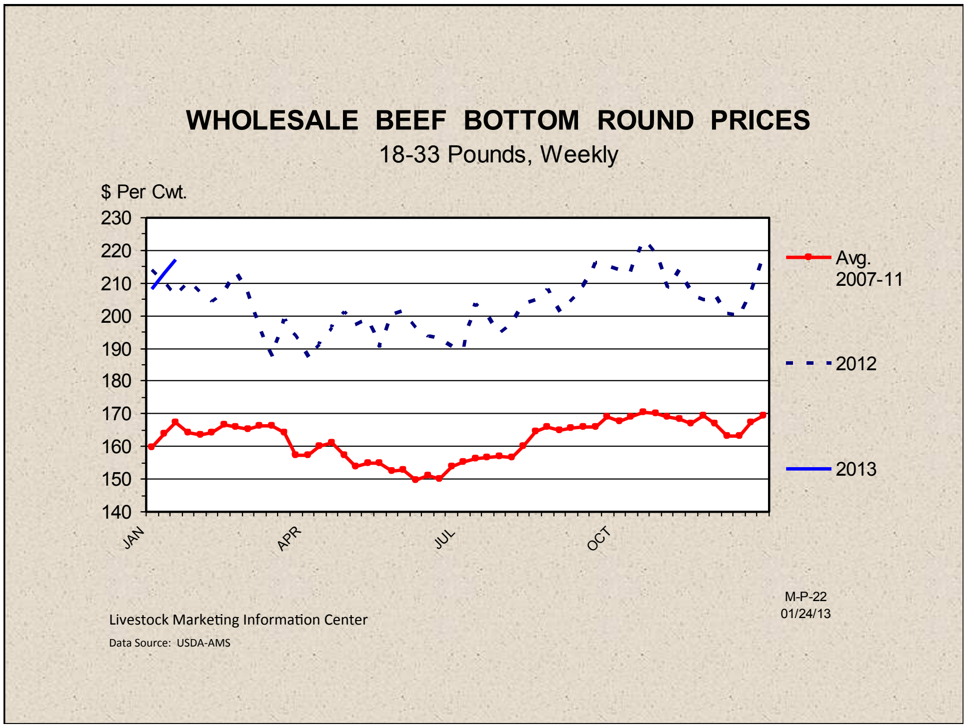

CHOICE MINUS SELECT BEEF PRICES
Carcass Cutout Value 600-900 Lbs., Weekly
$ Per Cwt.
25
20
15
10
5
0
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
C-P-68
01/28/13
Livestock Marketing Information Center
Data Source: USDA-AMS, Compiled & Analysis by LMIC

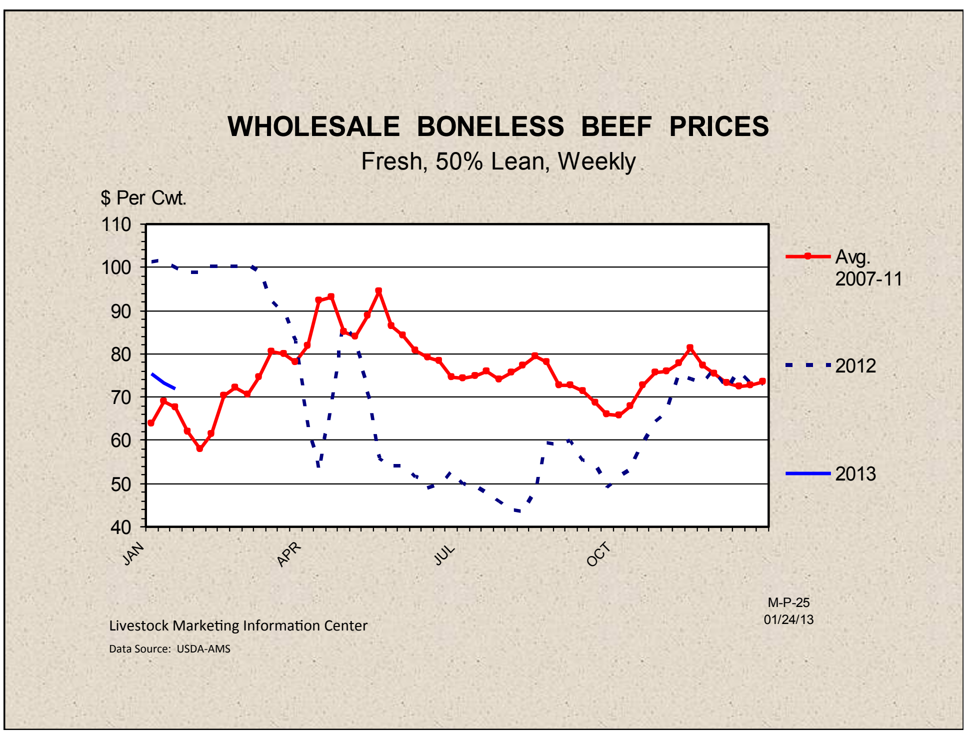

COMMERCIAL BEEF PRODUCTION
Quarterly
Bil. Pounds
7.0
6.8
6.6
6.4
6.2
6.0
5.8
5.6
JAN-MAR
APR-JUN
JUL-SEP
OCT-DEC
Avg. 2007/11
2012
2013
2014
M-S-01
01/29/13
Livestock Marketing Information Center
Data Source: USDA-NASS, Compiled & Analysis by LMIC

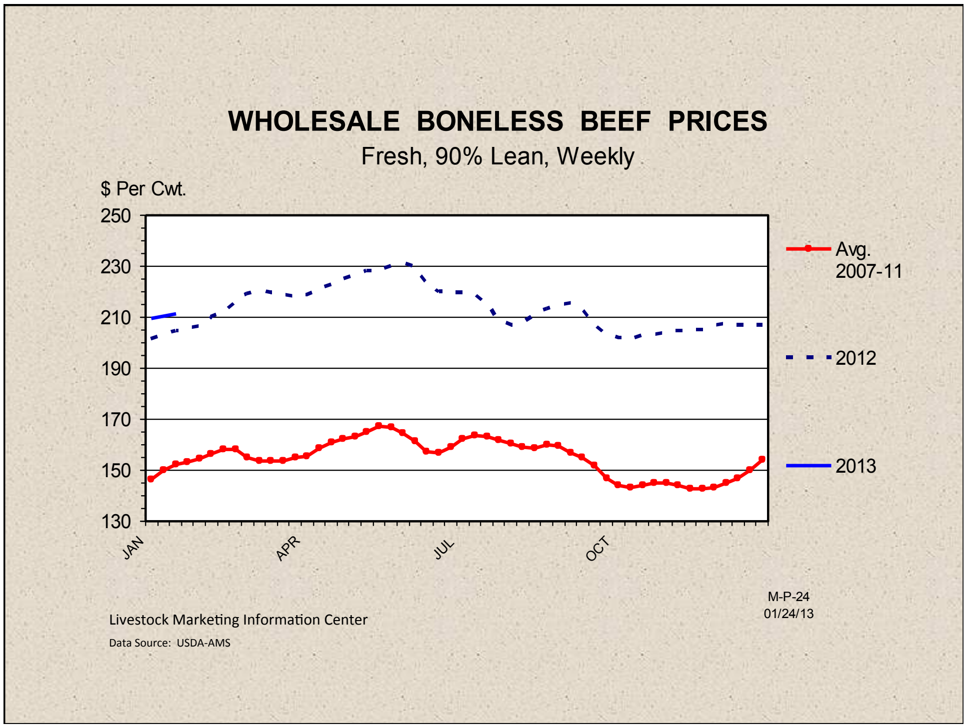

WHOLESALE BEEF RIBEYE PRICES
Boneless, Light, Weekly
$ Per Cwt.
850
800
750
700
650
600
550
500
450
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
M-P-21
01/24/13
Livestock Marketing Information Center
Data Source: USDA-AMS

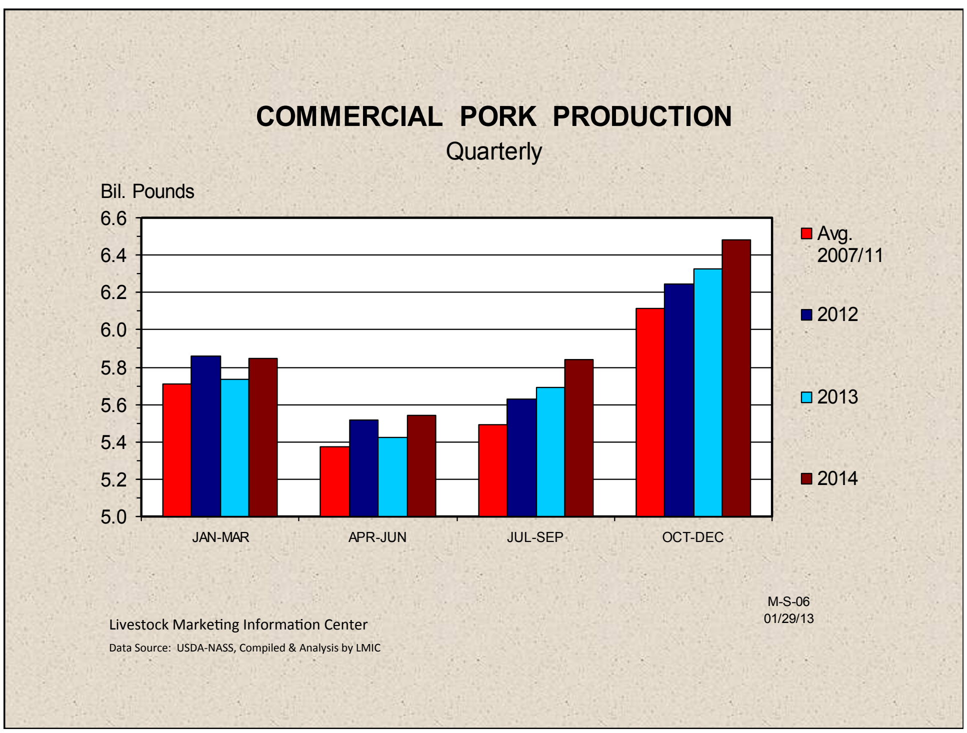

WHOLESALE BEEF FULL TENDER PRICES
Musl-On, 5 Pounds and Up, Weekly
$ Per Cwt.
1300
1200
1100
1000
900
800
700
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
M-P-23
01/24/13
Livestock Marketing Information Center
Data Source: USDA-AMS

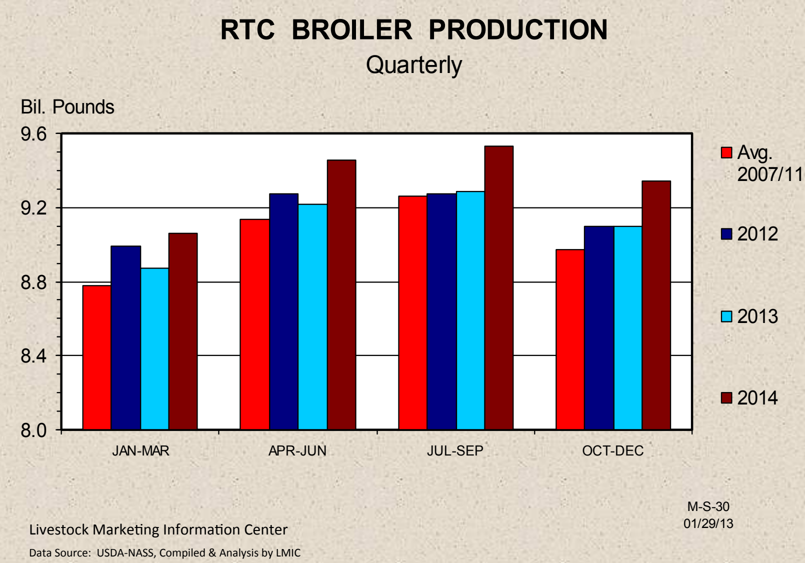

WHOLESALE BEEF CHUCK PRICES
Boneless 2 Piece, Weekly
$ Per Cwt.
255
235
215
195
175
155
135
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
01/24/13
Livestock Marketing Information Center
Data Source: USDA-AMS


WHOLESALE BEEF BOTTOM ROUND PRICES
18-33 Pounds, Weekly
$ Per Cwt.
230
220
210
200
190
180
170
160
150
140
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
M-P-22
01/24/13
Livestock Marketing Information Center
Data Source: USDA-AMS


WHOLESALE BONELESS BEEF PRICES
Fresh, 50% Lean, Weekly
$ Per Cwt.
110
100
90
80
70
60
50
40
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
M-P-25
01/24/13
Livestock Marketing Information Center
Data Source: USDA-AMS


WHOLESALE BONELESS BEEF PRICES
Fresh, 90% Lean, Weekly
$ Per Cwt.
250
230
210
190
170
150
130
JAN
APR
JUL
OCT
Avg. 2007-11
2012
2013
M-P-24
01/24/13
Livestock Marketing Information Center
Data Source: USDA-AMS


COMMERCIAL PORK PRODUCTION
Quarterly
Bil. Pounds
6.6
6.4
6.2
6.0
5.8
5.6
5.4
5.2
5.0
JAN-MAR
APR-JUN
JUL-SEP
OCT-DEC
Avg. 2007/11
2012
2013
2014
M-S-06
01/29/13
Livestock Marketing Information Center
Data Source: USDA-NASS, Compiled & Analysis by LMIC

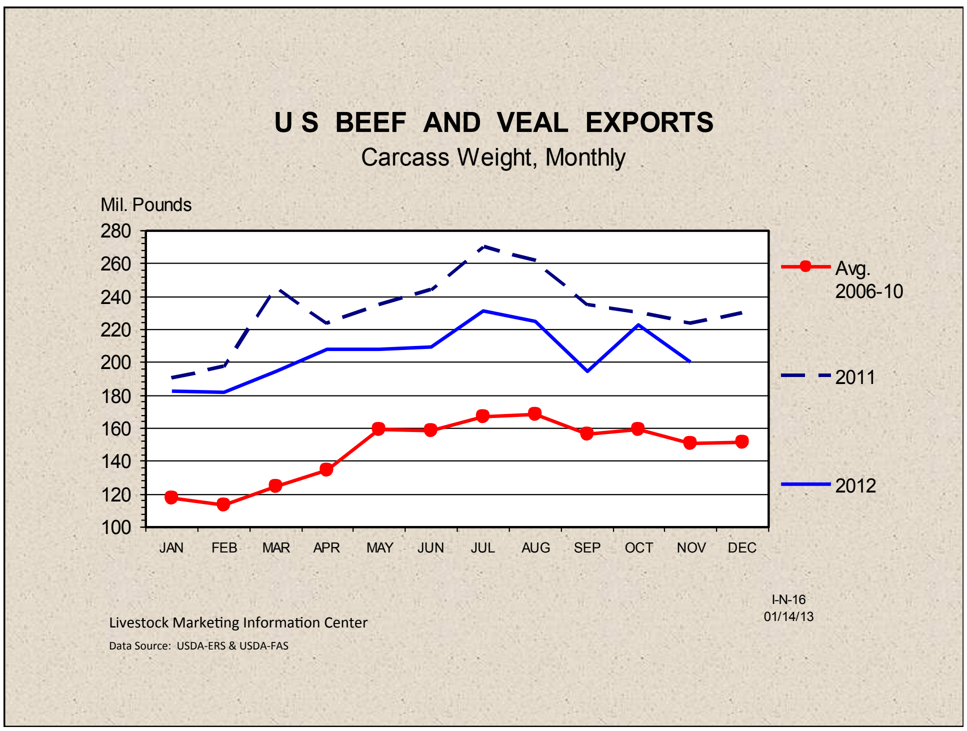


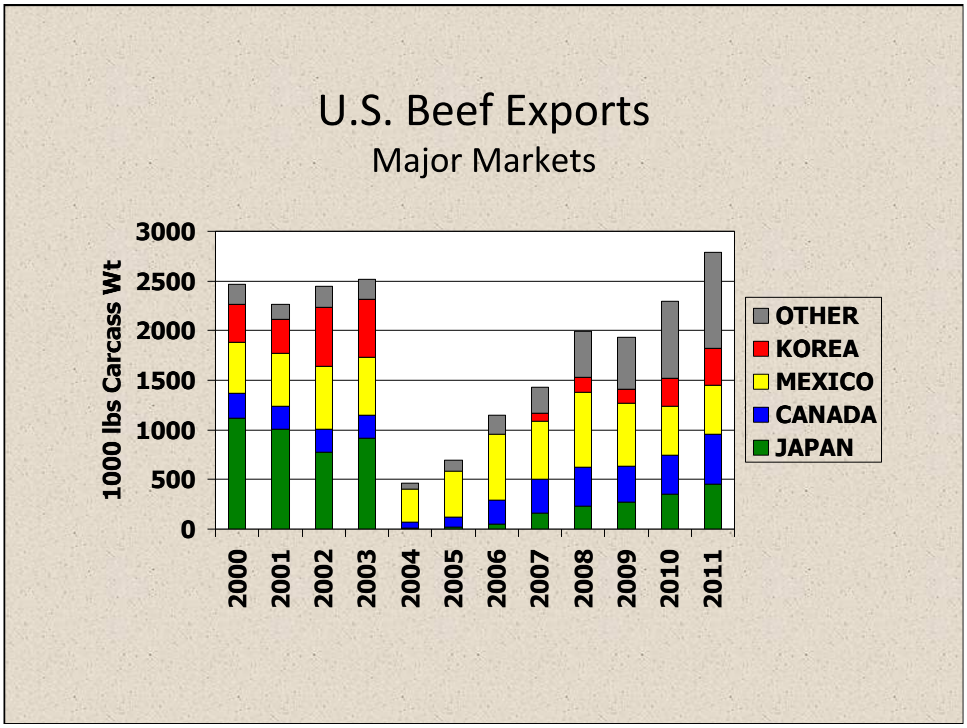
Total Meat Supplies Down in 2013

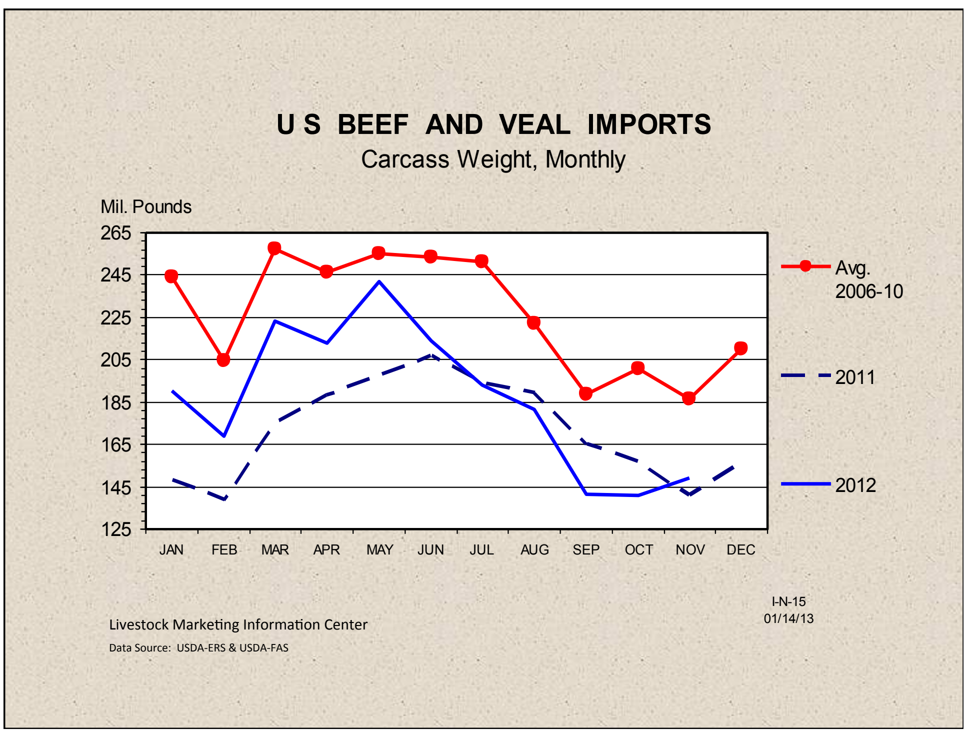
	2011	2012	2013
• Beef	↓0.4%	↓1.1%	↓4.5%
• Pork	↑1.4%	↑ 2.2%	↓0.3%
• Broilers	↑0.8%	↓0.7%	0.0%
• Total Meat	↑0.7%	0.0%	↓1.9%

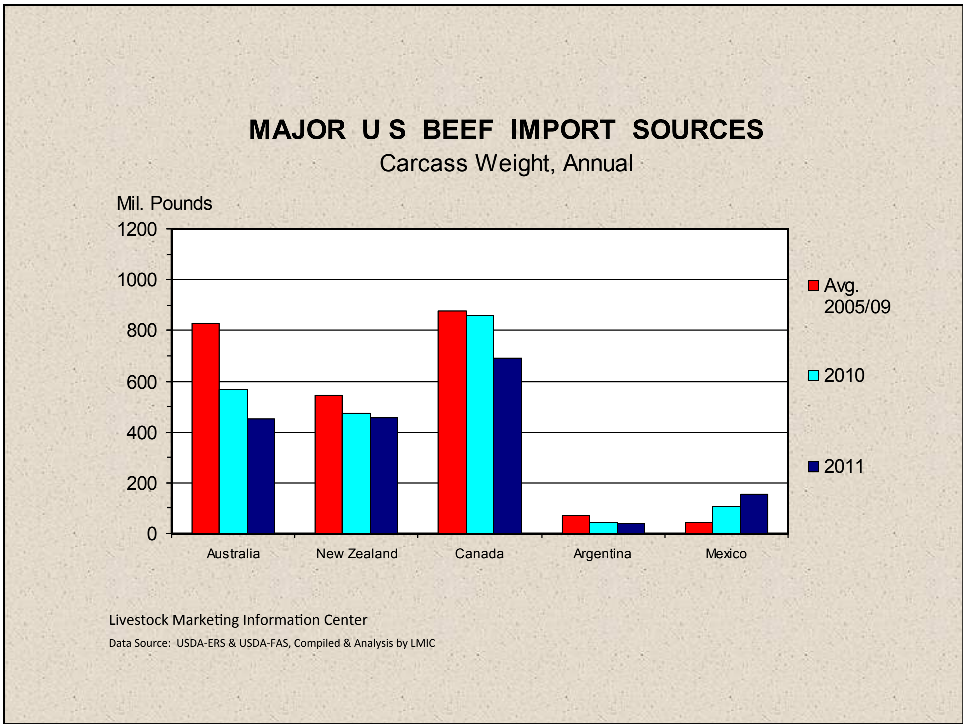
2013 Cattle Market Environment

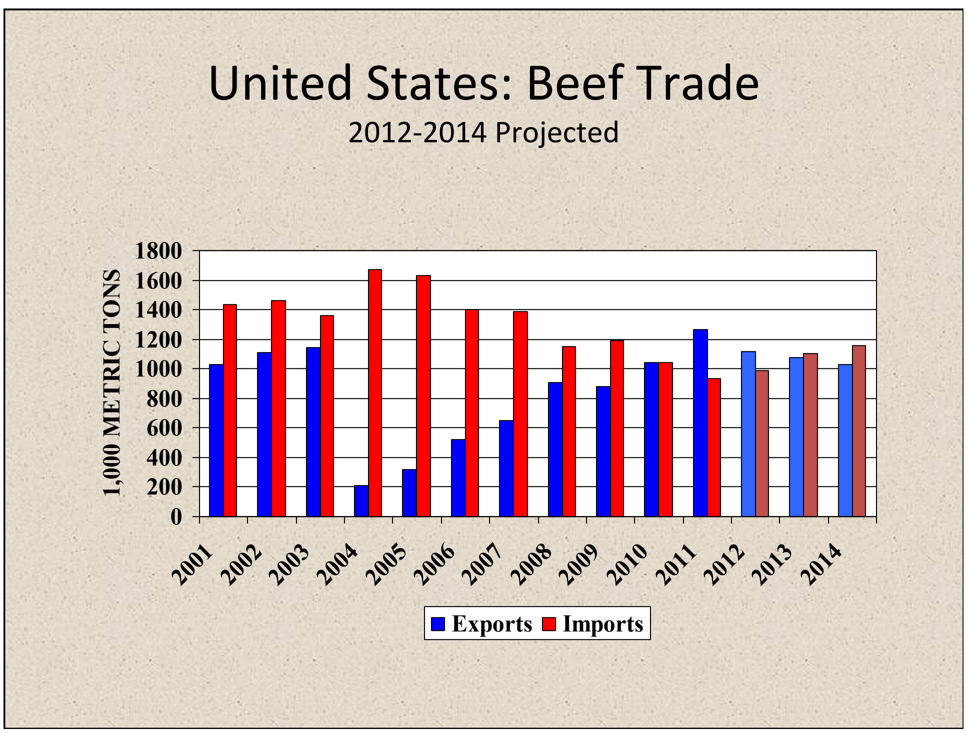
- Continued drought?
  - More liquidation
- …Or normal weather
  - More heifer retention
- Tighter cattle supplies…into 2014
- Beef demand is the key unknown
  - tied to general economy

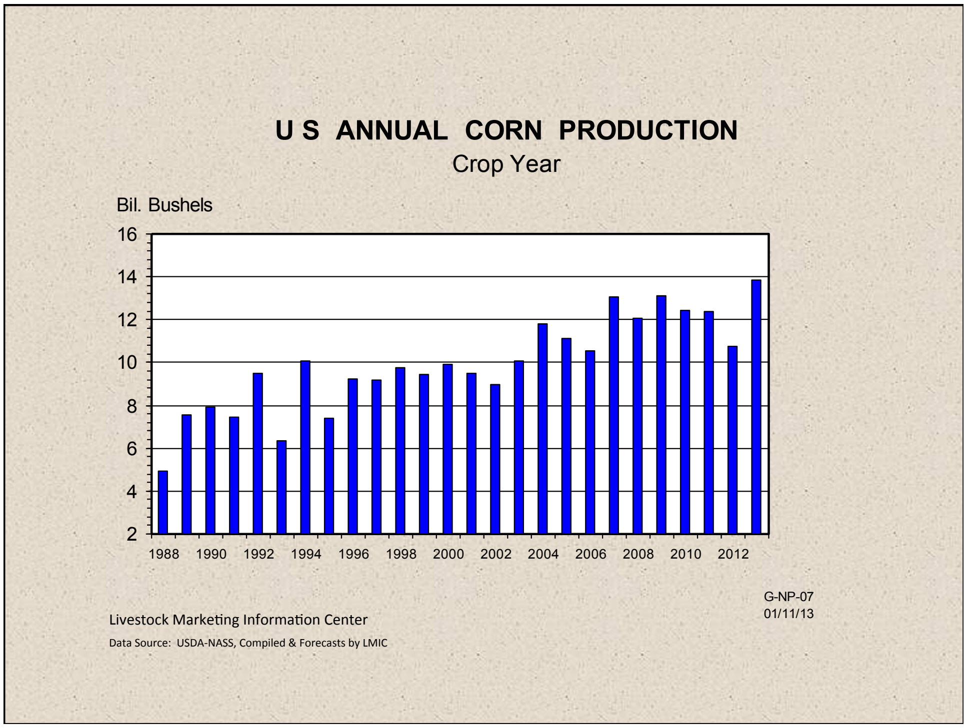


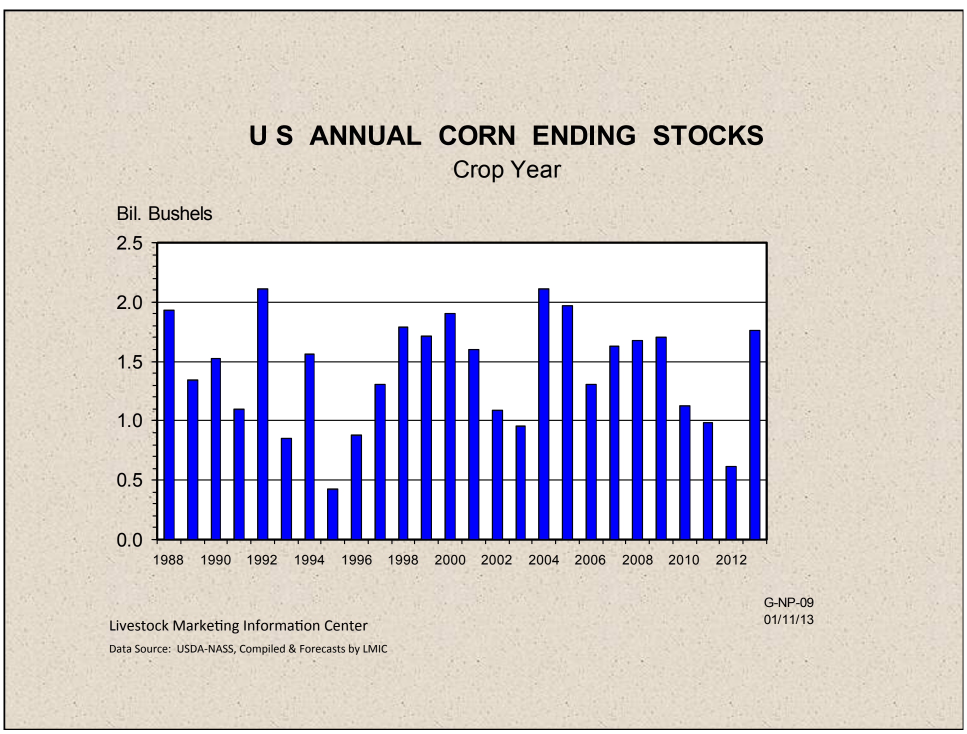

U.S. Beef Exports
Major Markets
1000 lbs Carcass Wt
3000
2500
2000
1500
1000
500
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
OTHER
KOREA
MEXICO
CANADA
JAPAN

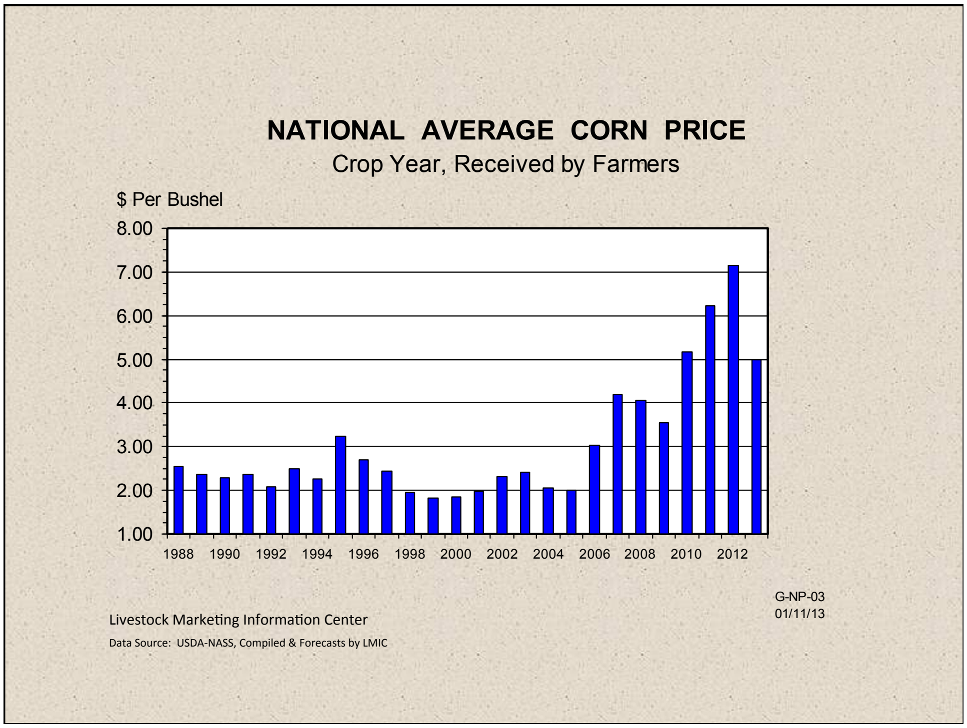

U S BEEF AND VEAL IMPORTS
Carcass Weight, Monthly
Mil. Pounds
265
245
225
205
185
165
145
125
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Avg. 2006-10
2011
2012
I-N-15
01/14/13
Livestock Marketing Information Center
Data Source: USDA-ERS & USDA-FAS

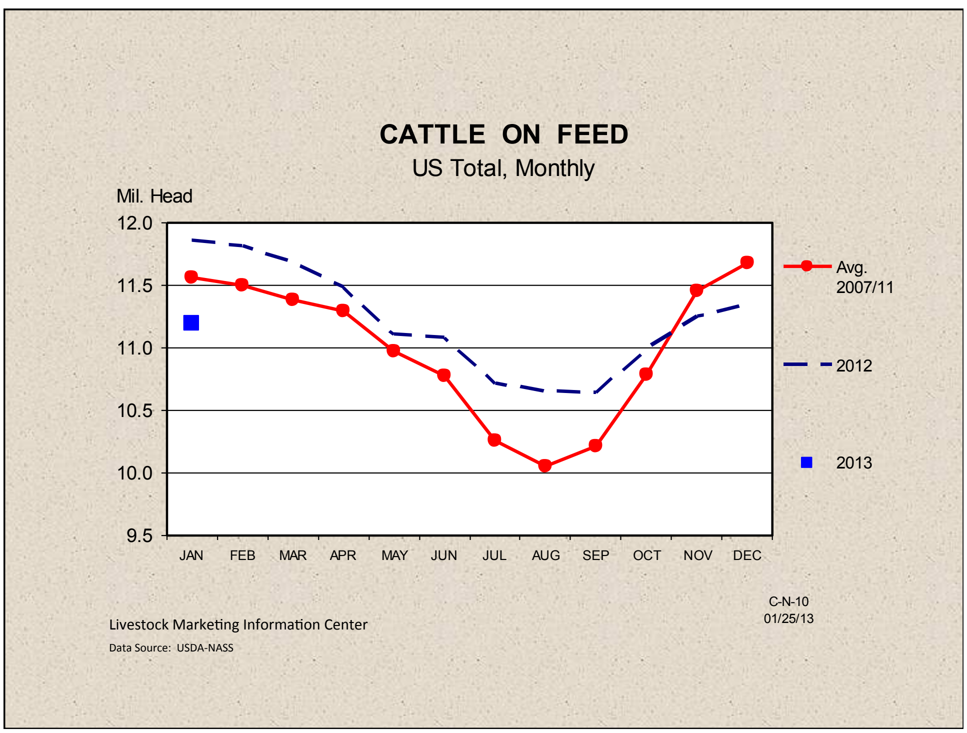

MAJOR U S BEEF IMPORT SOURCES
Carcass Weight, Annual
Mil. Pounds
1200
1000
800
600
400
200
0
Australia
New Zealand
Canada
Argentina
Mexico
Avg. 2005/09
2010
2011
Livestock Marketing Information Center
Data Source: USDA-ERS & USDA-FAS, Compiled & Analysis by LMIC

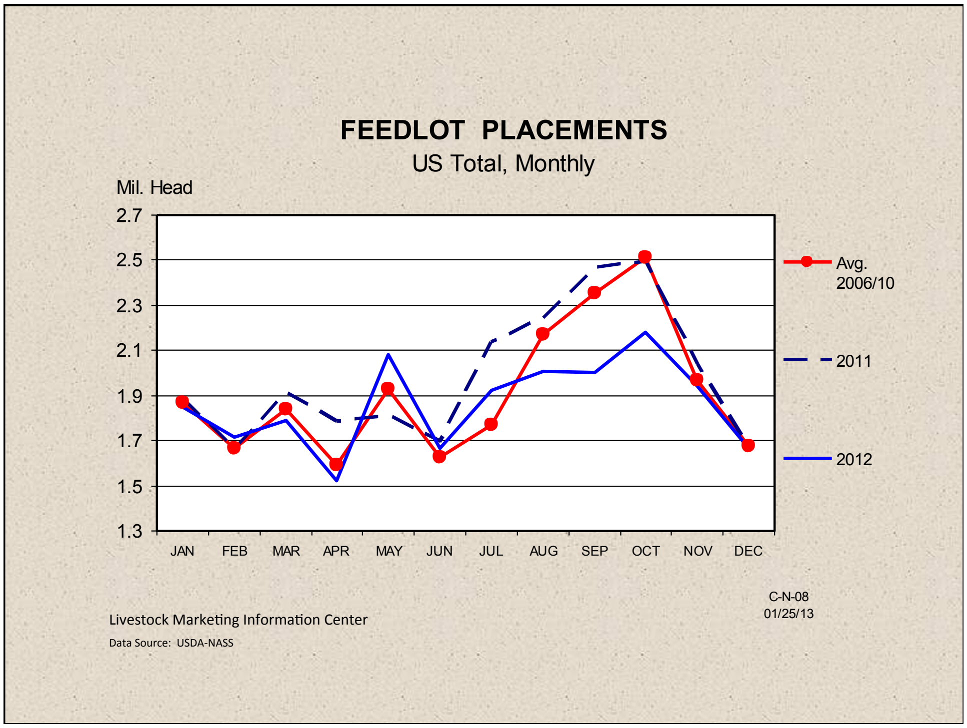

United States: Beef Trade
2012-2014 Projected
1,000 METRIC TONS
1800
1600
1400
1200
1000
800
600
400
200
0
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Exports
Imports

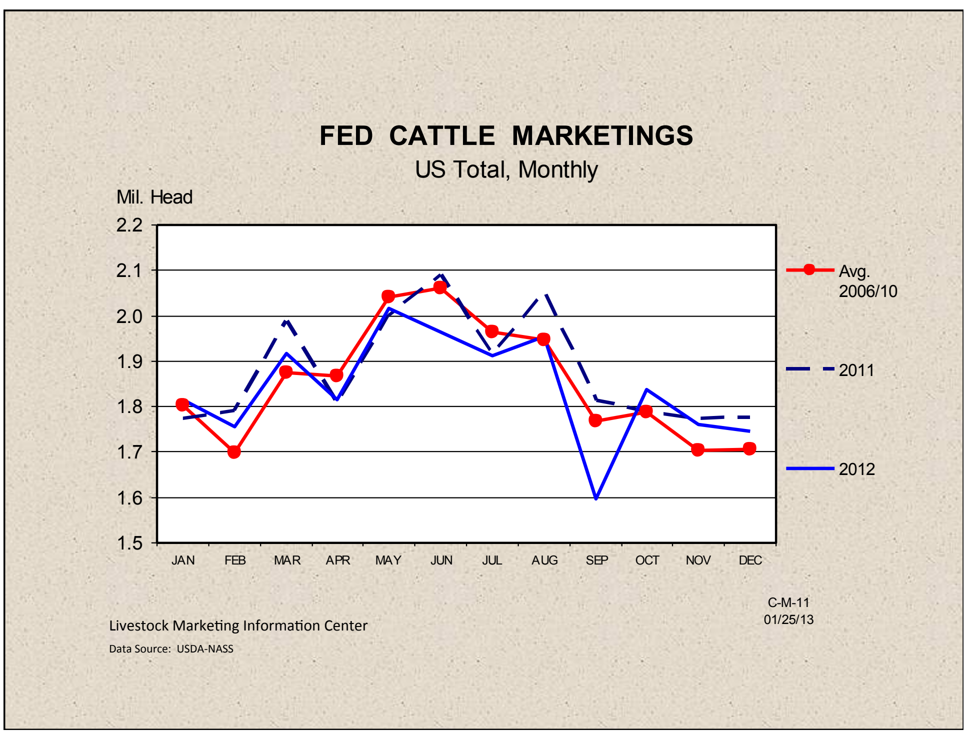

U S ANNUAL CORN PRODUCTION
Crop Year
Bil. Bushels
16
14
12
10
8
6
4
2
1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012
G-NP-07
01/11/13
Livestock Marketing Information Center
Data Source: USDA-NASS, Compiled & Forecasts by LMIC

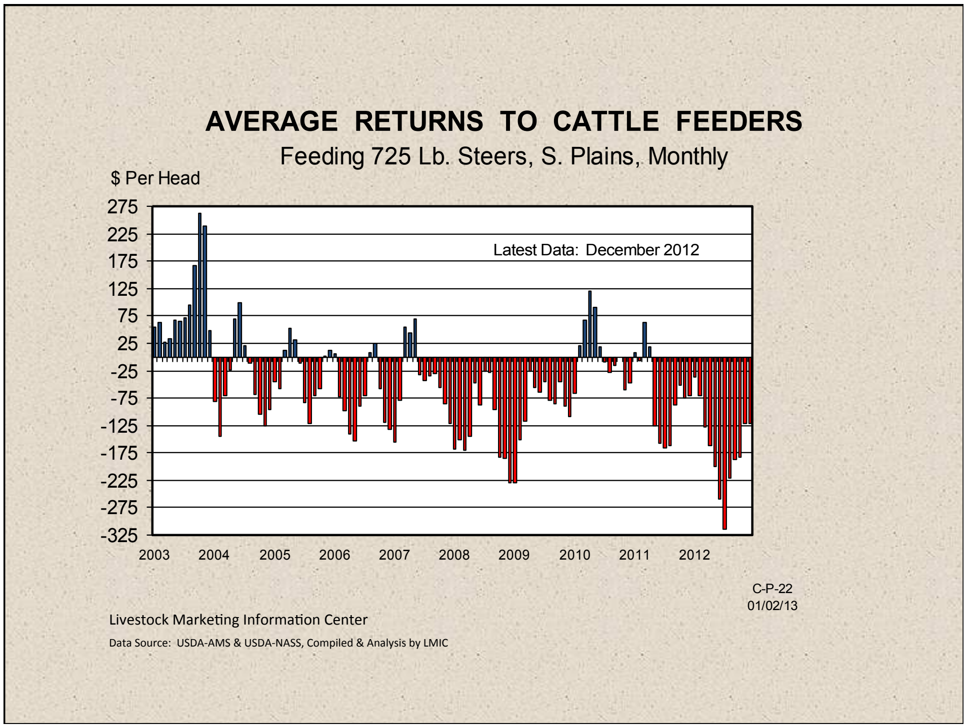

U S ANNUAL CORN ENDING STOCKS
Crop Year
Bil. Bushels
2.5
2.0
1.5
1.0
0.5
0.0
1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012
G-NP-09
01/11/13
Livestock Marketing Information Center
Data Source: USDA-NASS, Compiled & Forecasts by LMIC

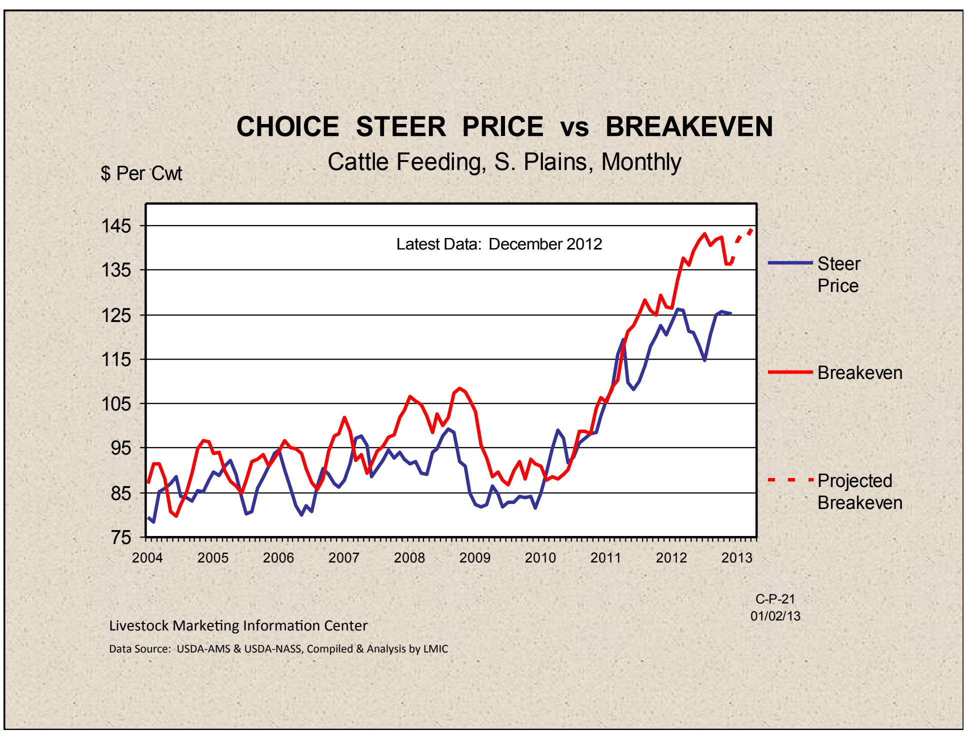

NATIONAL AVERAGE CORN PRICE
Crop Year, Received by Farmers
$ Per Bushel
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
G-NP-03
01/11/13
Livestock Marketing Information Center
Data Source: USDA-NASS, Compiled & Forecasts by LMIC


CATTLE ON FEED
US Total, Monthly
Mil. Head
12.0
11.5
11.0
10.5
10.0
9.5
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Avg. 2007/11
2012
2013
C-N-10
01/25/13
Livestock Marketing Information Center
Data Source: USDA-NASS


FEEDLOT PLACEMENTS
US Total, Monthly
Mil. Head
2.7
2.5
2.3
2.1
1.9
1.7
1.5
1.3
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Avg. 2006/10
2011
2012
C-N-08
01/25/13
Livestock Marketing Information Center
Data Source: USDA-NASS


FED CATTLE MARKETINGS
US Total, Monthly
Mil. Head
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Avg. 2006/10
2011
2012
C-M-11
01/25/13
Livestock Marketing Information Center
Data Source: USDA-NASS


AVERAGE RETURNS TO CATTLE FEEDERS
Feeding 725 Lb. Steers, S. Plains, Monthly
$ Per Head
275
225
175
125
75
25
-25
-75
-125
-175
-225
-275
-325
Latest Data: December 2012
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
C-P-22
01/02/13
Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC


CHOICE STEER PRICE vs BREAKEVEN
Cattle Feeding, S. Plains, Monthly
$ Per Cwt
145
135
125
115
105
95
85
75
Latest Data: December 2012
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Steer Price
Breakeven
Projected Breakeven
C-P-21
01/02/13
Livestock Marketing Information Center
Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC

2013 Cattle Market Expectations

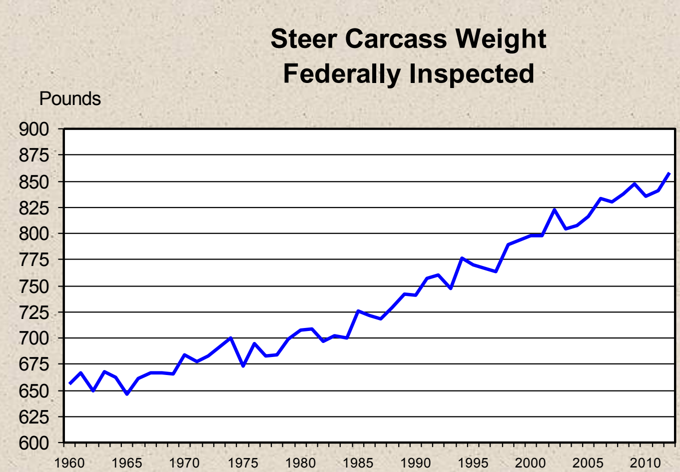
- Cattle and beef prices pushed higher by limited supplies
  - Beef production down by 4.5-5.0%
- Beef demand will limit price increases
- Question is "How much higher?"
- Moderation in feed prices
- Higher cow and heifer prices (if no drought)
  - Breeding cow and heifer demand

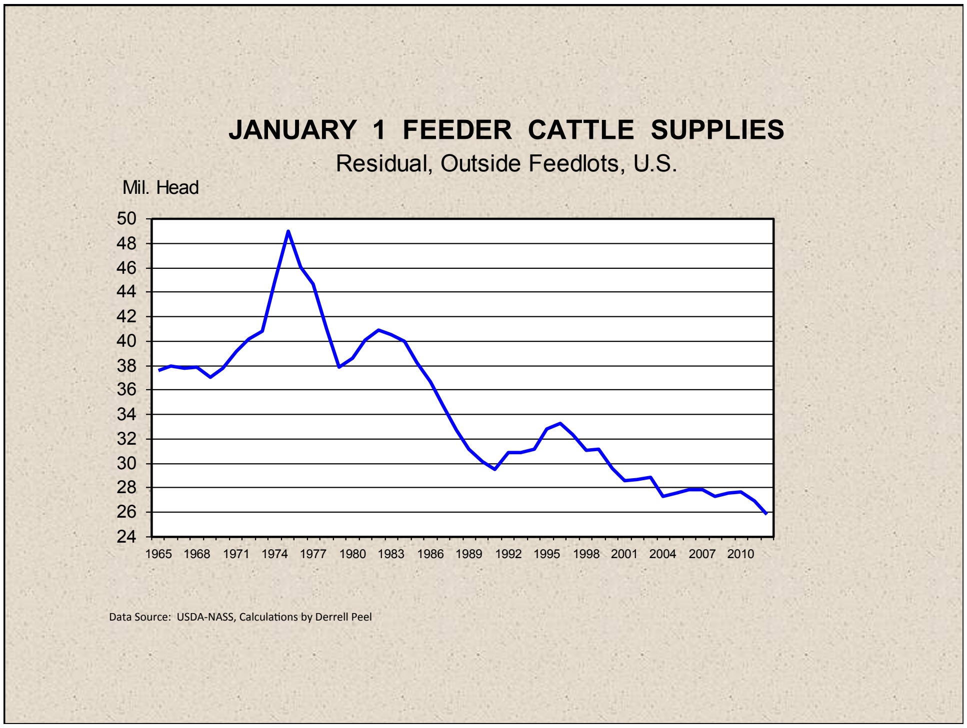
Agricultural Challenges

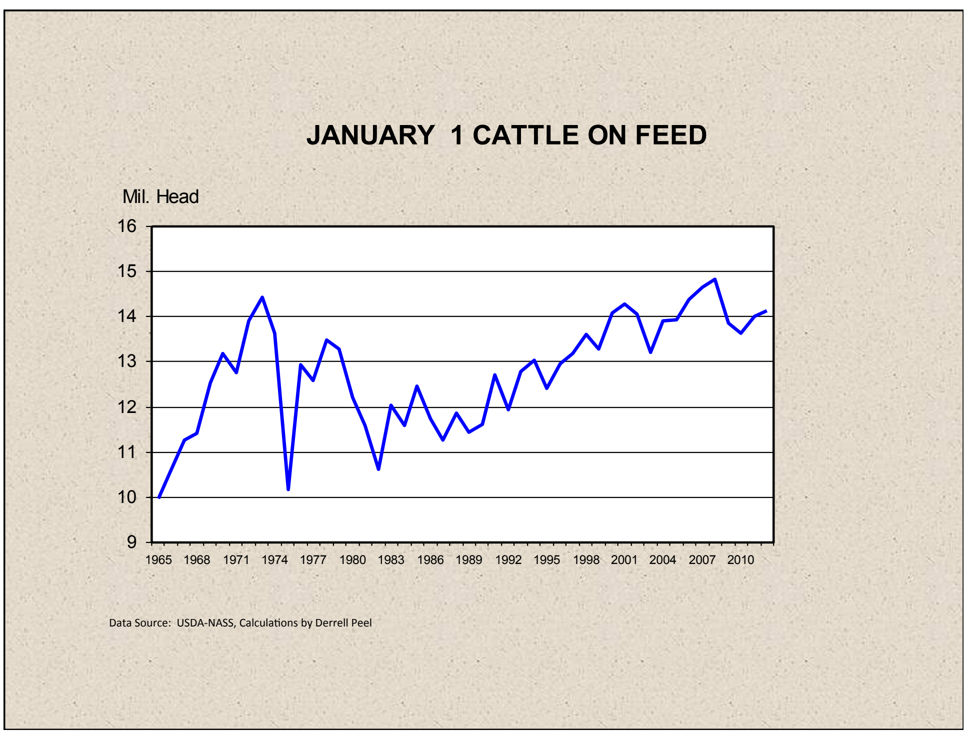
- Agriculture is being asked to do more of everything…
  - Biofuels
  - Global food demand
- …with more restrictions and challenges
  - Environmental limitations
  - Anti-science/anti-commercial mentality
  - Social agendas that threaten agriculture
- Resource pressures in agriculture
  - More competition among crops for acres
  - More competition from crops for forage and hay production
- High and volatile input prices

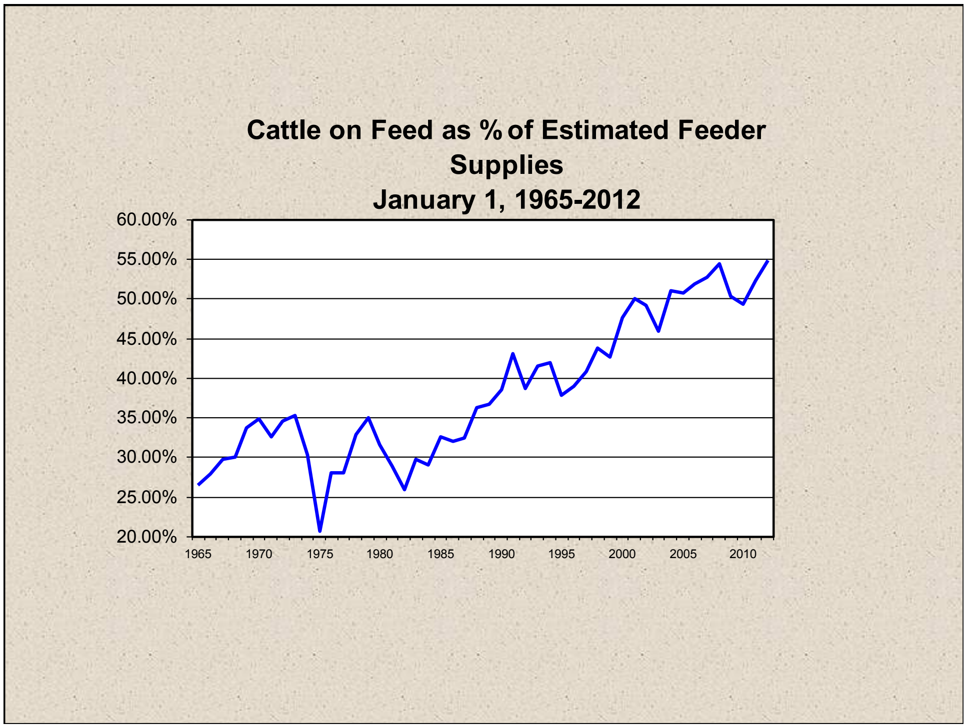
Cattle Industry Evolution 1960s-2006

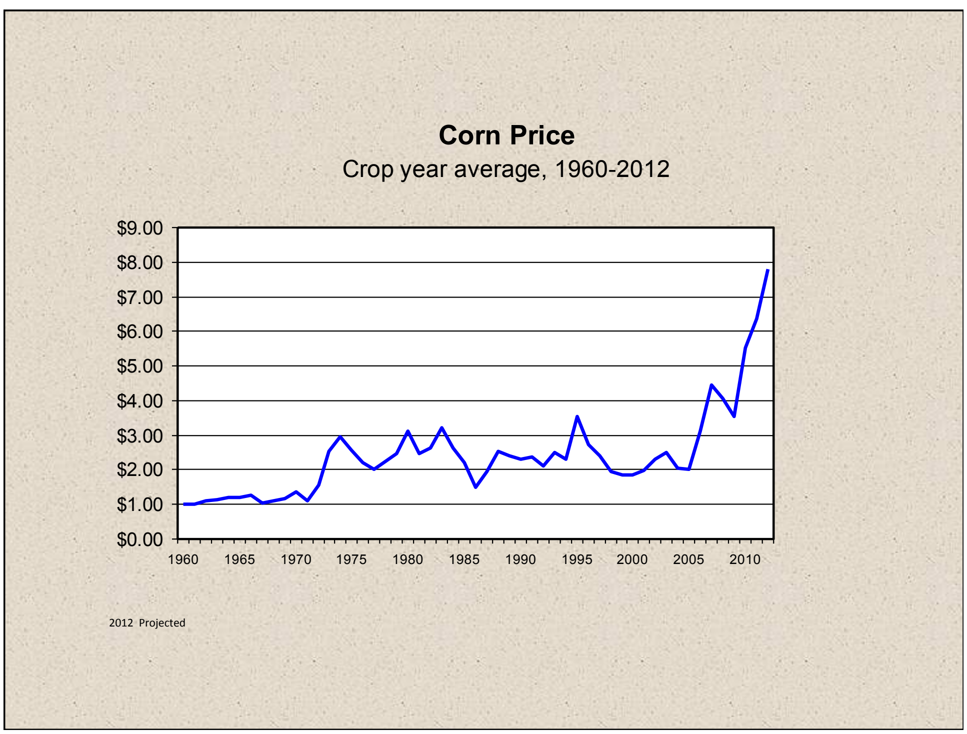
- Built on cheap energy and cheap grain
- Increasingly grain intensive
- Limited stocker role (more calves in feedlots)
- Influence on production systems
  - Animal genetics (carcass weights)
  - Type and use of technology
- Industry infrastructure (location and capacity)
  - Cattle feeding
  - Meat packing




JANUARY 1 FEEDER CATTLE SUPPLIES
Residual, Outside Feedlots, U.S.
Mil. Head
50
48
46
44
42
40
38
36
34
32
30
28
26
24
1965 1968 1971 1974 1977 1980 1983 1986 1989 1992 1995 1998 2001 2004 2007 2010
Data Source: USDA-NASS, Calculations by Derrell Peel


JANUARY 1 CATTLE ON FEED
Mil. Head
16
15
14
13
12
11
10
9
1965 1968 1971 1974 1977 1980 1983 1986 1989 1992 1995 1998 2001 2004 2007 2010
Data Source: USDA-NASS, Calculations by Derrell Peel


Cattle on Feed as % of Estimated Feeder Supplies
January 1, 1965-2012
60.00%
55.00%
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010

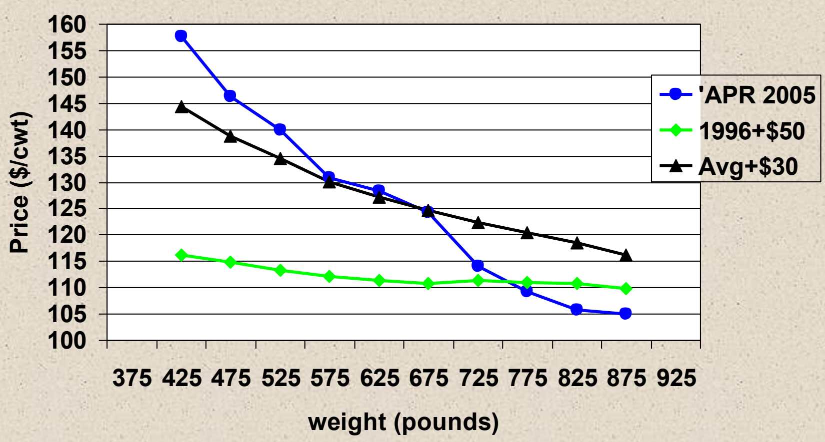

Corn Price
Crop year average, 1960-2012
$9.00
$8.00
$7.00
$6.00
$5.00
$4.00
$3.00
$2.00
$1.00
$0.00
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2012 Projected

It is often said:

"The Beef Industry Can Survive High Corn Prices Better Than the Pork and Poultry Industries"

- True statement?
- What are the implications for the beef industry?

Price-Weight Relationship
Medium/Large No. 1 Steers



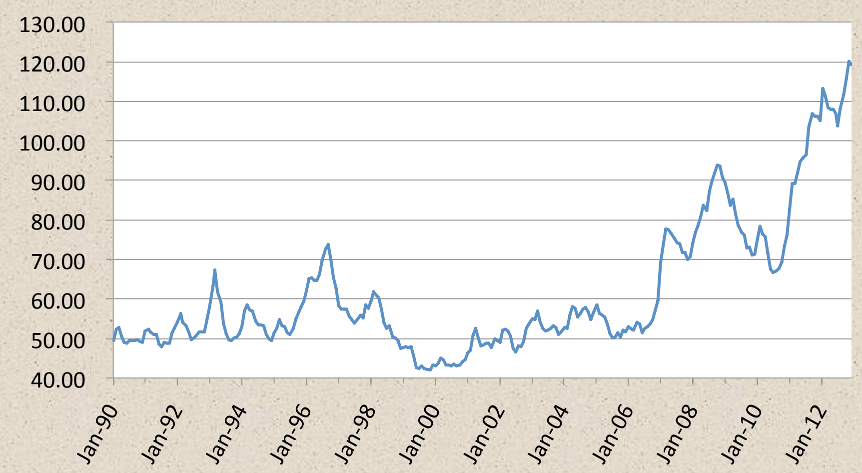
Stocker Value of Gain,

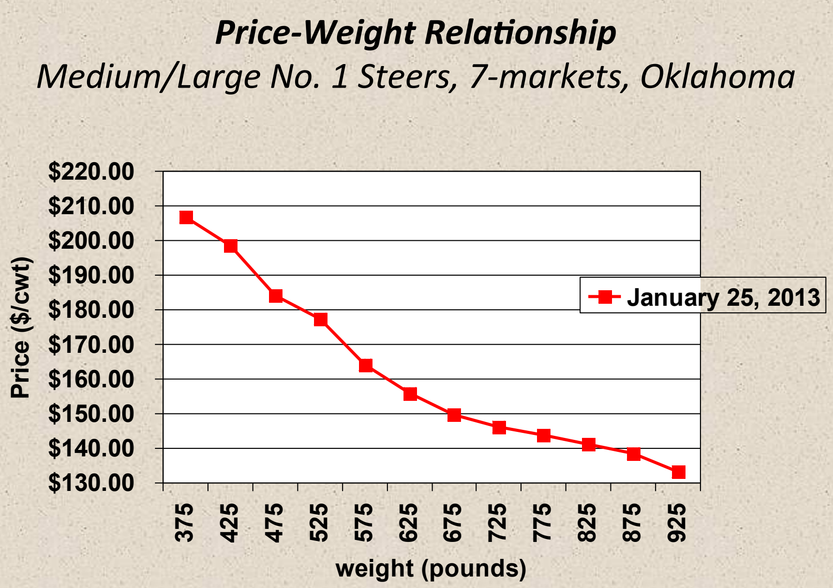
Average Weekly, 1992-2006

		Weeks									
Weight Gain	Beg. Weight	12	15	16	17	18	19	20	22	23	24
200 lbs	ADG>>	2.38		1.79		1.58		1.43			
	475	0.559		0.568		0.572		0.576			
	525	0.571		0.581		0.586		0.587			
	575	0.583		0.593		0.596		0.598			
	625	0.579		0.590		0.592		0.592			
250 lbs	ADG>>		2.38		2.10		1.88			1.55	
	475		0.571		0.575		0.577			0.579	
	525		0.573		0.578		0.579			0.581	
	575		0.582		0.587		0.587			0.588	
300 lbs	ADG>>					2.38		2.14	1.95		1.55
	475					0.571		0.573	0.574		0.575
	525					0.573		0.575	0.575		0.576

Feedlot Cost of Gain

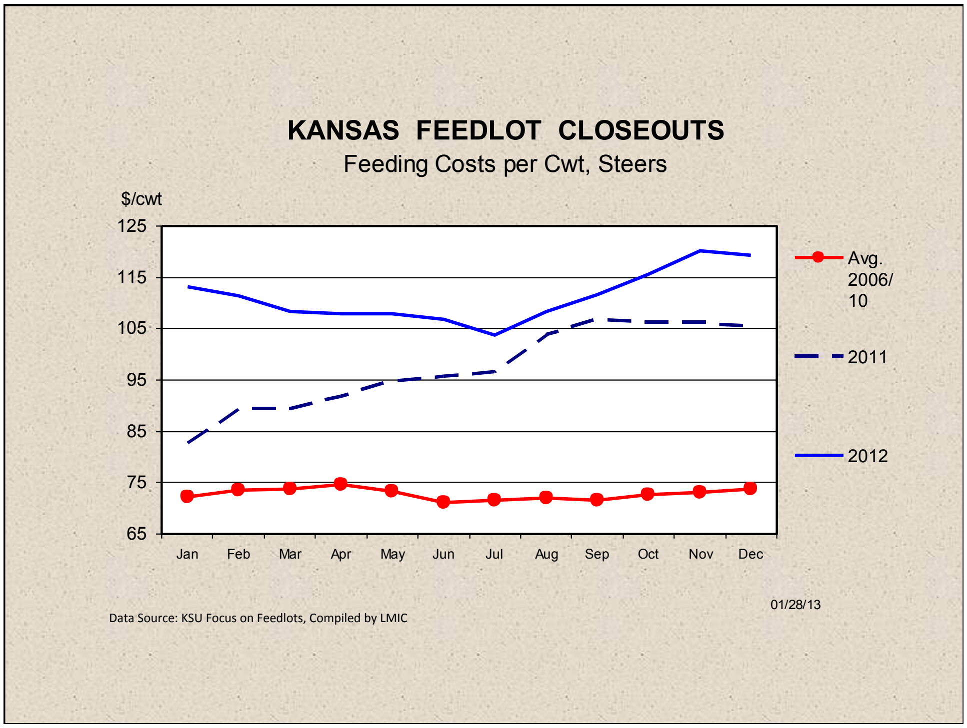
Kansas, $/cwt.





Steer Price, Total Value and Value of Gain
January 25, 2013, 7 Markets, Oklahoma

Weight (lbs)	Average Price ($/cwt.)	Total Value ($/hd)	VOG 400 lb. Beg. Weight ($/lb.)	VOG 450 lb. Beg. Weight ($/lb	VOG 500 lb. Beg. Weight ($/lb.)	VOG 550 lb. Beg. Weight ($/lb.)	VOG 600 lb. Beg. Weight ($/lb.)	VOG 650 lb. Beg. Weight ($/lb.)
400	$203.34	$813						
450	$191.21	$860	$0.94					
500	$180.57	$903	$0.89	$0.85				
550	$170.33	$937	$0.82	$0.76	$0.68			
600	$158.40	$950	$0.69	$0.60	$0.48	$0.27		
650	$151.77	$986	$0.69	$0.63	$0.56	$0.50	$0.72	
700	$147.84	$1,035	$0.74	$0.70	$0.66	$0.65	$0.84	$0.97
750	$145.17	$1,089	$0.79	$0.76	$0.74	$0.76	$0.92	$1.02
800	$142.62	$1,141	$0.82	$0.80	$0.79	$0.82	$0.95	$1.03
850	$139.72	$1,188	$0.83	$0.82	$0.81	$0.84	$0.95	$1.01
900	$136.87	$1,232	$0.84	$0.83	$0.82	$0.84	$0.94	$0.98



Corn Price and Estimated Feedlot Cost of Gain

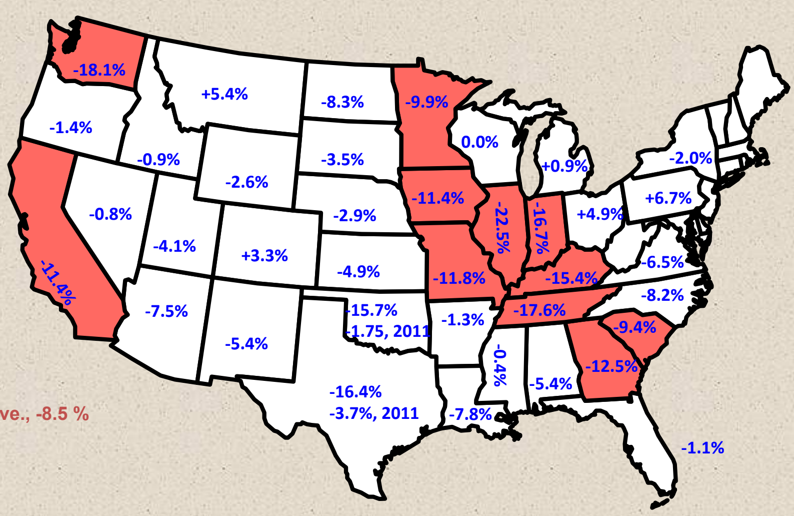
Based on Kansas Feedlot Data

Corn Price $/Bu	Estimated Feedlot Cost of Gain $/cwt.
5.00	87.1
5.50	92.5
6.00	97.8
6.25	100.3
6.50	102.9
6.75	105.4
7.00	107.8
7.25	110.3
7.50	112.7
7.75	115.0
8.00	117.4
8.25	119.7
8.50	122.0

Permanently Higher Grain Prices is a Game Changer for the Beef Industry

- Change from grain intensive to forage intensive to maintain competitiveness
  - Must emphasize ruminant advantages
  - Enhanced role for stocker production
- Influence on production systems
  - Animal genetics (change animal size?)
  - Type and use of technology?
  - Better forage management
  - New forages?
  - New forage systems?
- Industry infrastructure (location and capacity)
  - Different feeding industry?
  - Regional shifts in cattle feeding, cow-calf and stocker production

Change in Beef Cow Inventory, January 1, 2007-2012



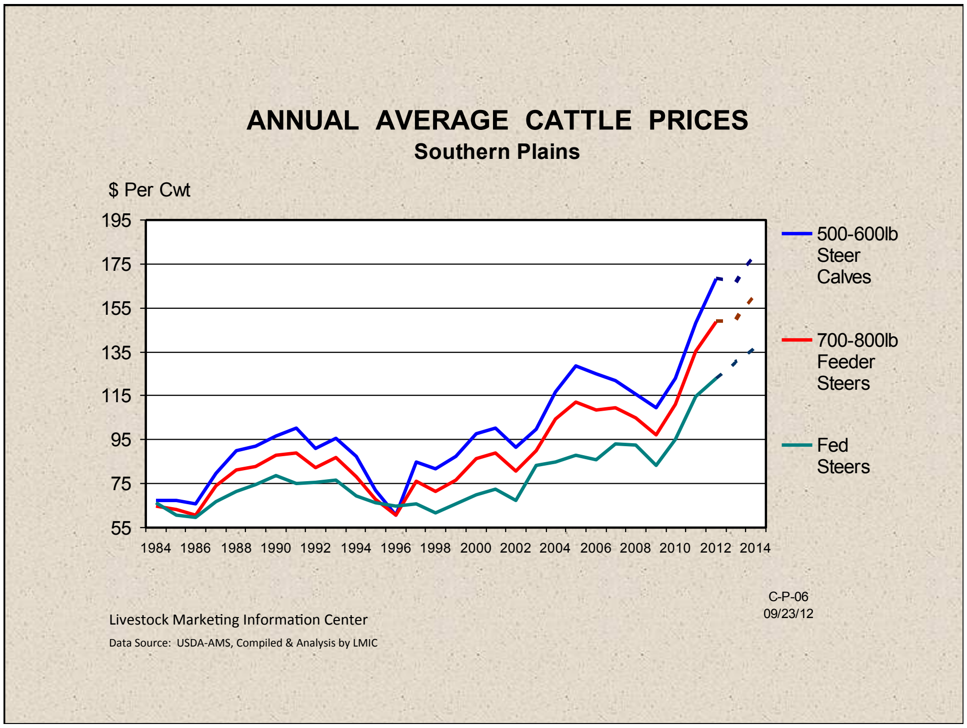
U.S. Ave., -8.5 %

Future Forage Use in the U.S.

1) Use more forage
2) Use forage more efficiently
3) Manage forage more efficiently
4) Use different forages
5) Use forages differently

The Industry Faces New Questions

- For the last 4-5 decades:
  - "How can we get cattle to use more grain?"
- For the coming decades:
  - "How can we produce high quality beef using the least amount of grain?"
  - Expanded forage role



Cattle Sector Implications

- Cow-calf
  - Good profit potential; cost management key
  - Rebuilding strategy and costs
  - Producer transition
- Stocker
  - Good value of gain
- Feedlots and packers will continue to struggle
  - Loss of capacity likely
- Production challenges bigger than marketing challenges

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From OSU Animal Science and Agricultural Economics

Send Email to

derrell.peel@okstate.edu

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EXTENSION

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