2012 Crop Year Impacts and Future Agricultural Outlook

18 February
Fluid Fertilizer Forum

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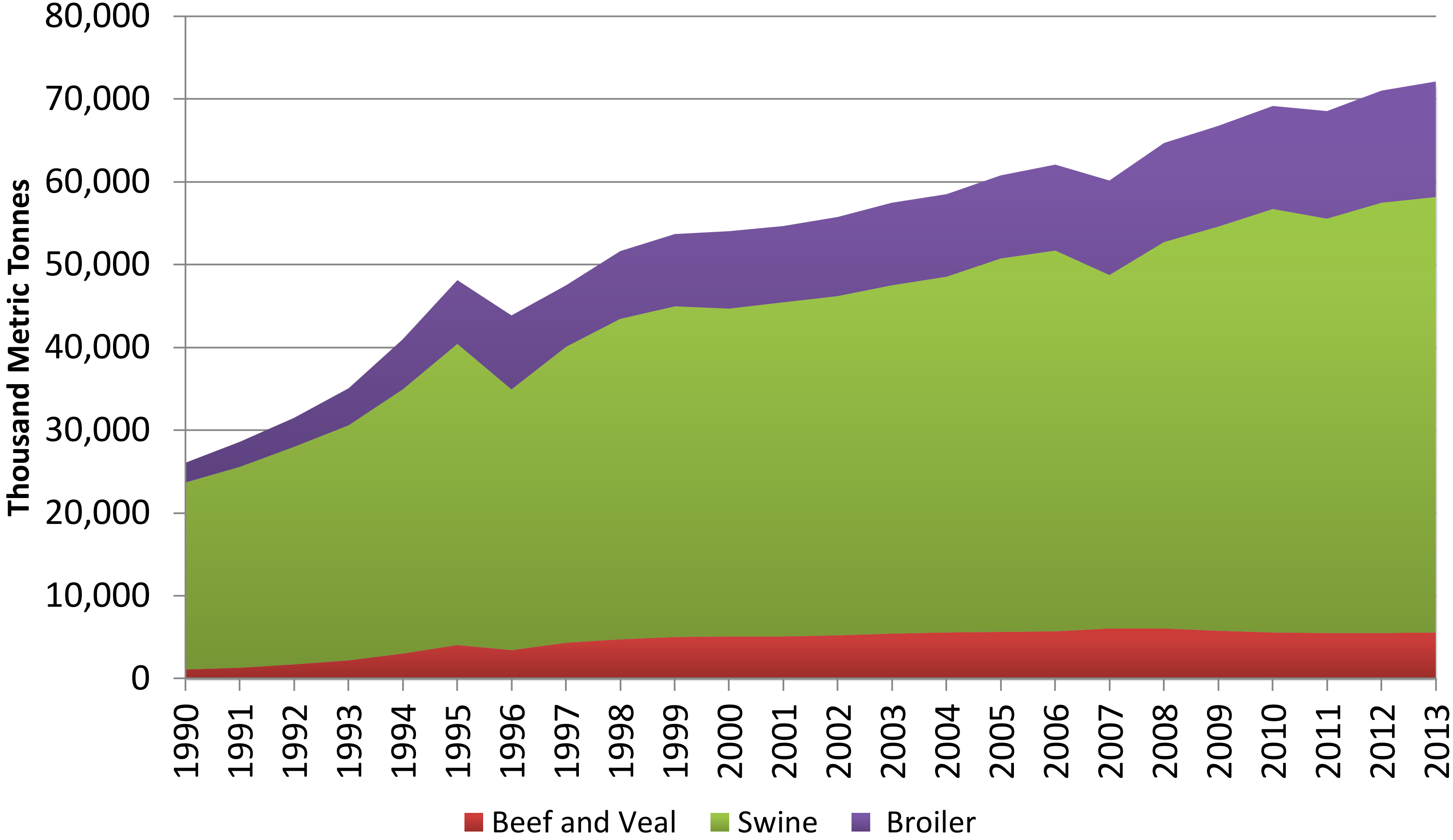
Where Have We Been, Where are We Going?

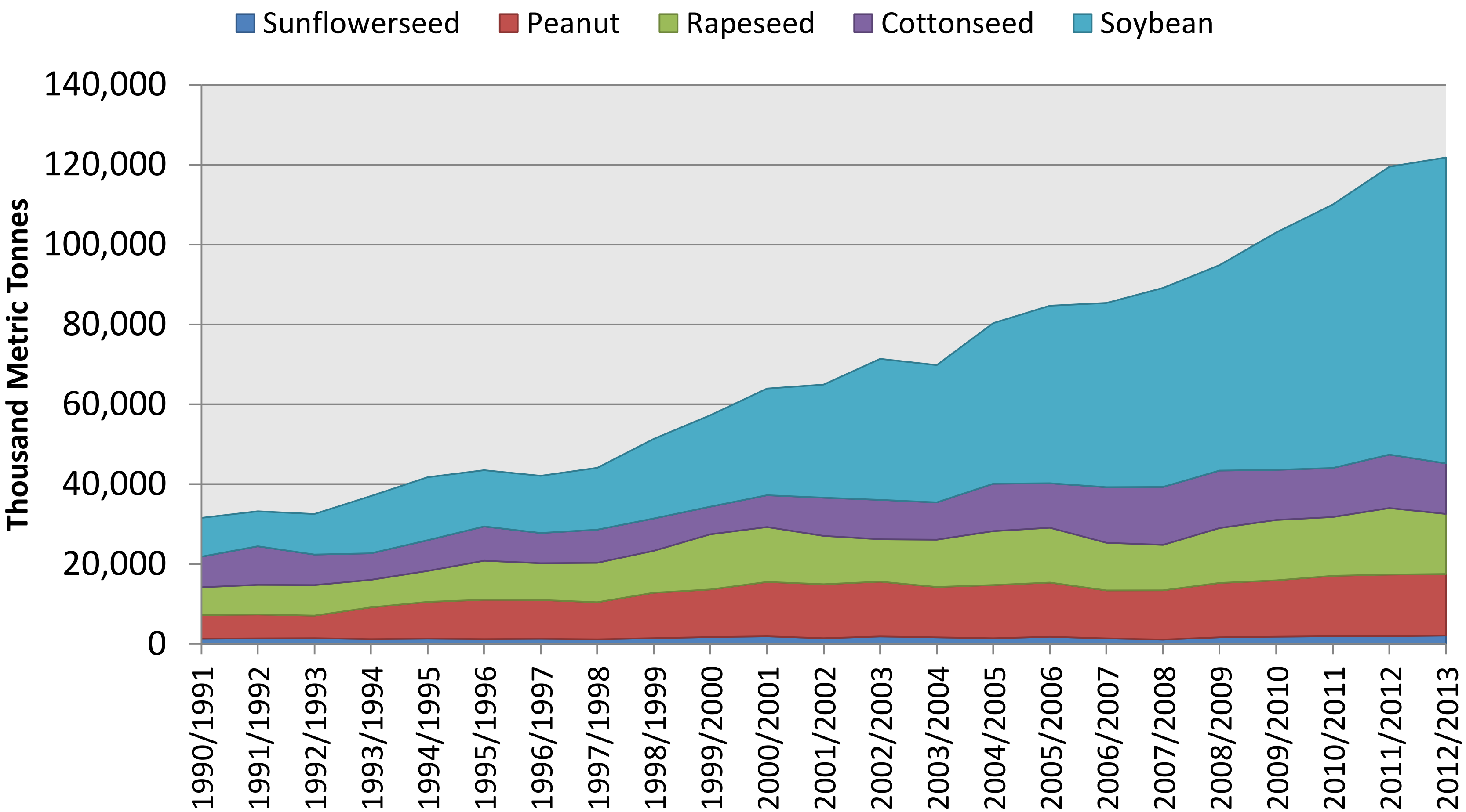
- 1990-2012: Strong Global Demand For Grains
- 2010-2012: Poor US Yields
- 2008-2012: Growing Global Grain Acreage
- 2008-2012: High Prices
- 2013: Short Term Outlook for Prices & Yields
- 2013-2020: Long Term Outlook for Production & Prices
- 2013-2020: Outlook for US Ag

1990-2012: STRONG GLOBAL DEMAND FOR GRAINS

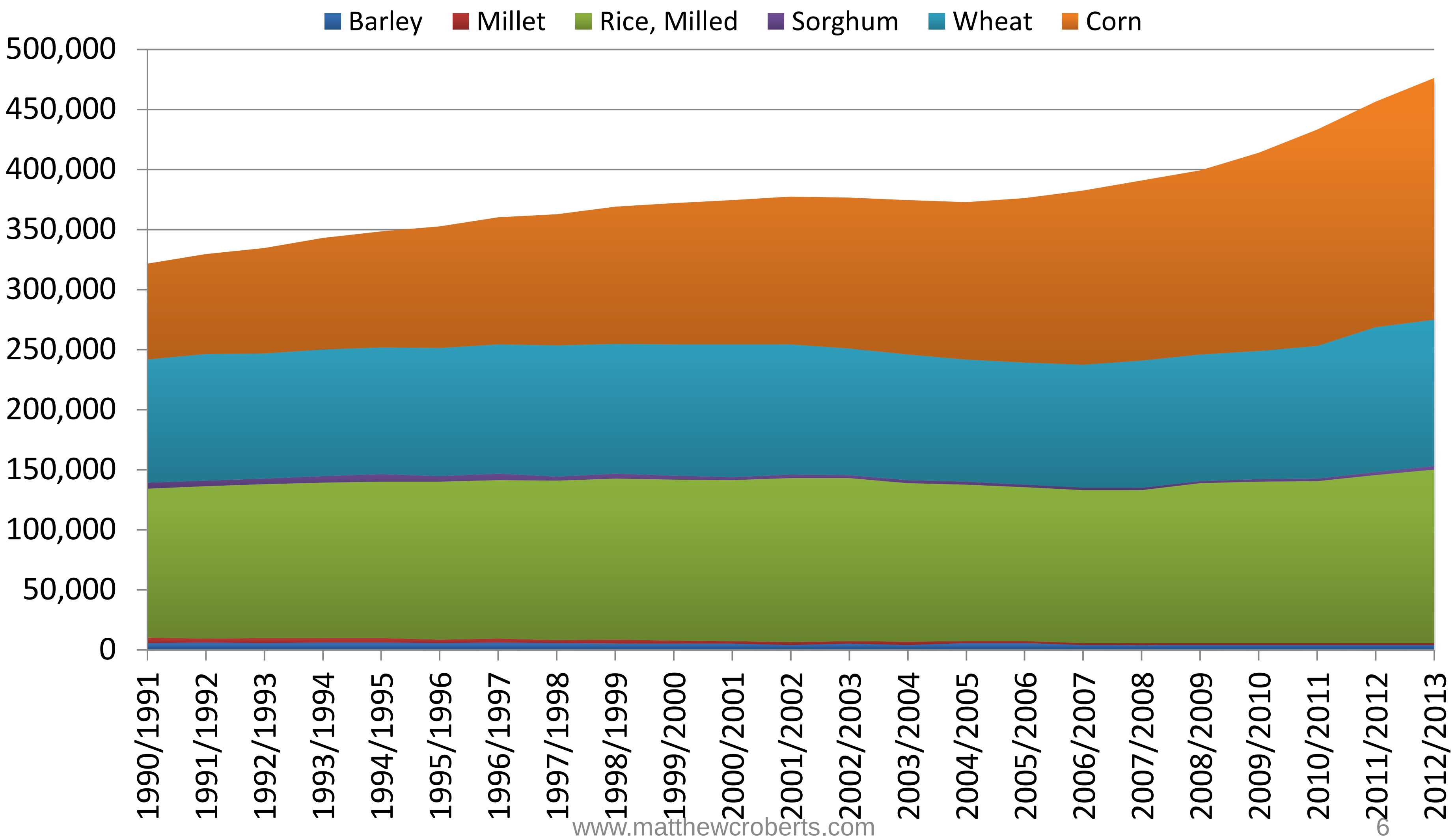
Chinese Meat Consumption 90-13



Chinese Oilseed Consumption Growing by 9.8%/yr since 1990



Chinese Grain Consumption Climbing by 4%/year since 2006.



The real currency of agriculture is land.

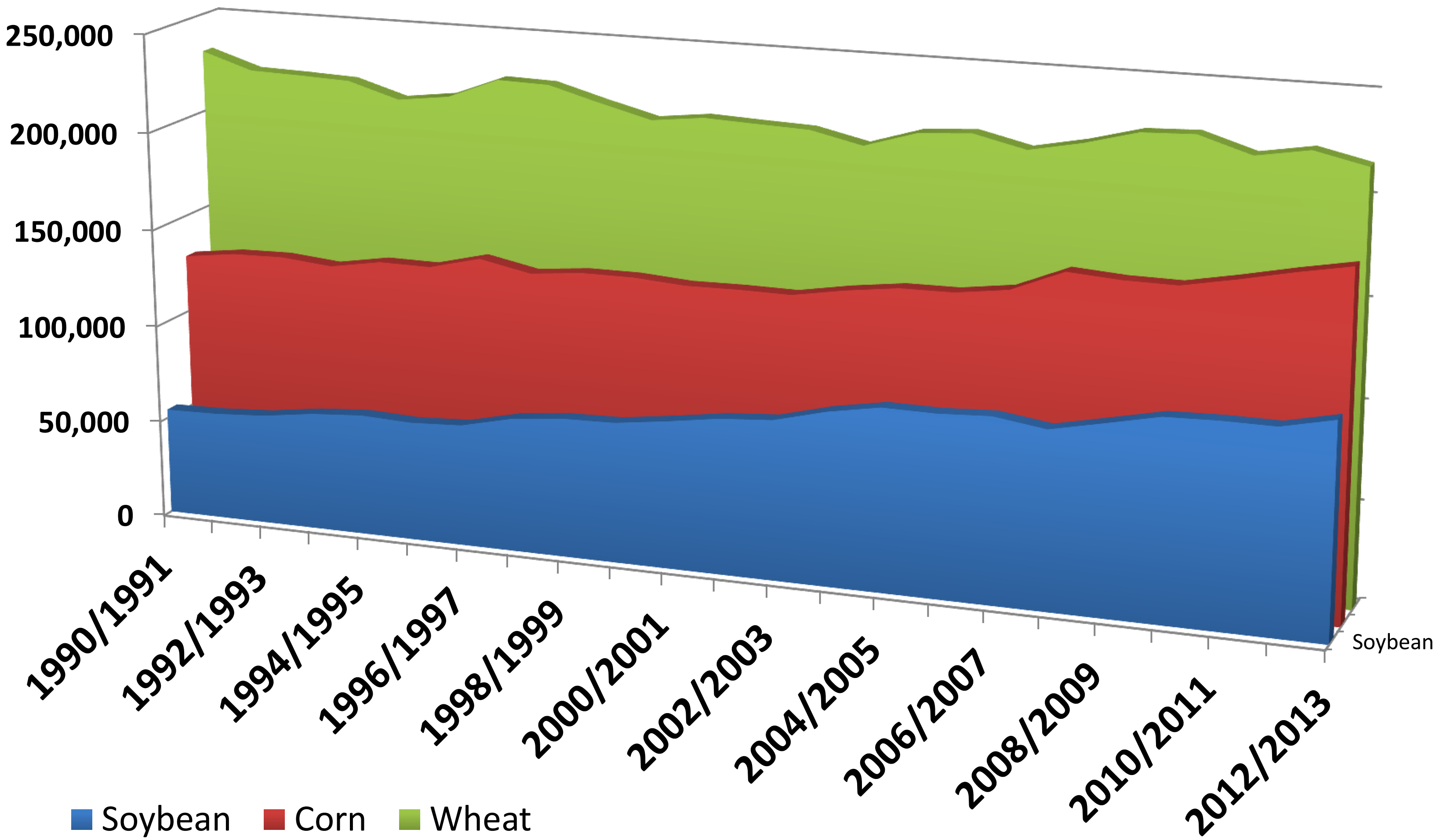
- **Chinese soybean imports in 2011 are about 1.9bn bushels, or 45m acres.**
  - **In 2001, about 600m bu, or 15m acres.**
- **US Ethanol usage is 5bn bu, net of DGS is about 3.4bn bu, or 22m acres**
  - **In 2002, about 500m bu, or 2m acres.**
- **Plus Chinese feed grains, Indian demand, etc.,**

The real currency of agriculture is land.

- **Global Soybean Production Has Increased by 90mmt since 2001:**
  - **That is 3.3bn bushels—more than US annual production!**
- **Global Corn Production Has Increased by 280mmt (11bn bushels!) since 2001.**
- **Global Wheat Production Has Increased by 110mmt (4.3bn bushels!) since 2001.**

1990-2012: GLOBAL GRAIN ACREAGE

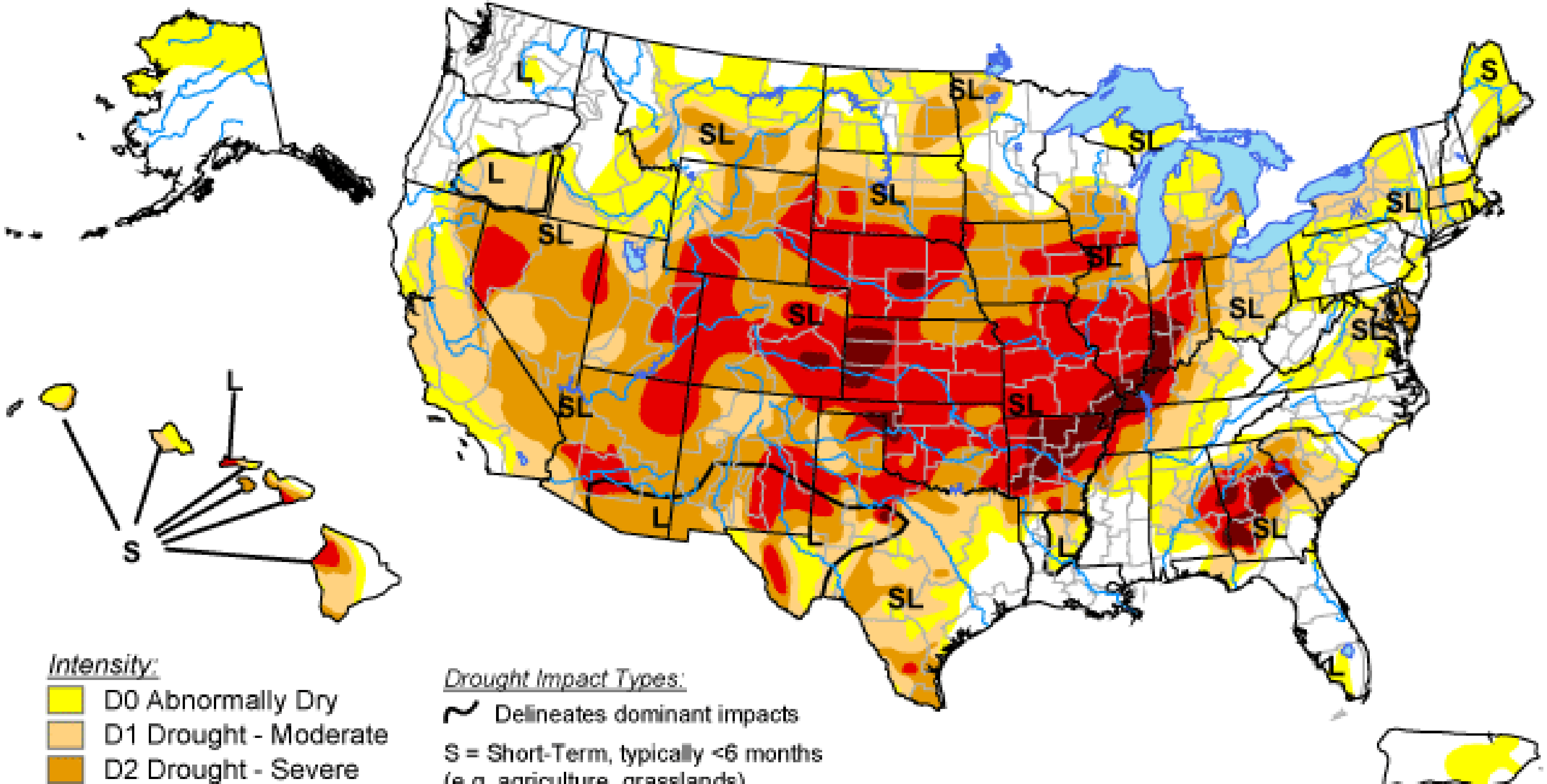
Global Soy & Corn Area Harvested Continues to Increase



2010-2012: WEAK US YIELDS

U.S. Drought Monitor

July 31, 2012
Valid 7 a.m. EDT



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.

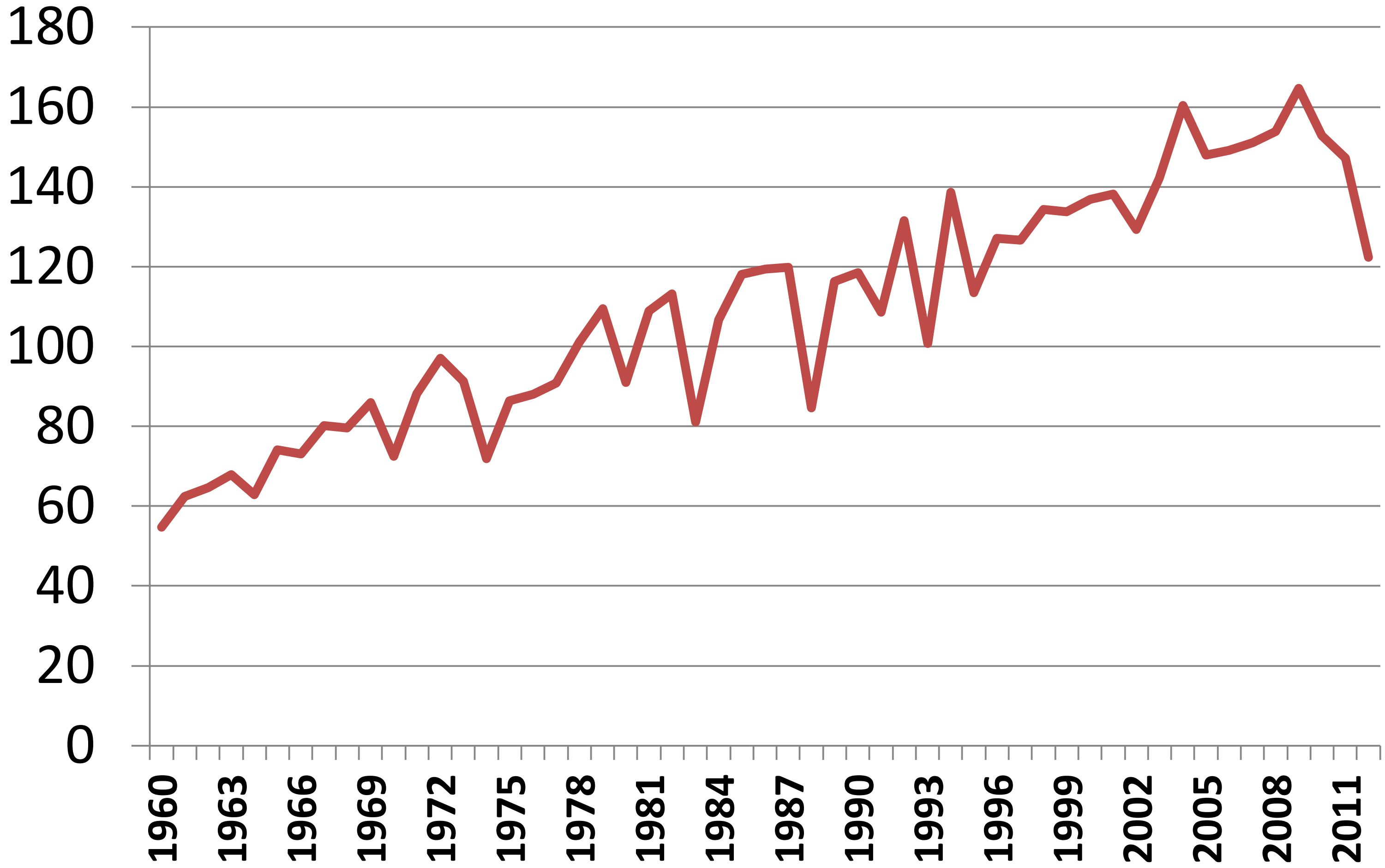
USDA
National Drought Mitigation Center

Released Thursday, August 2, 2012

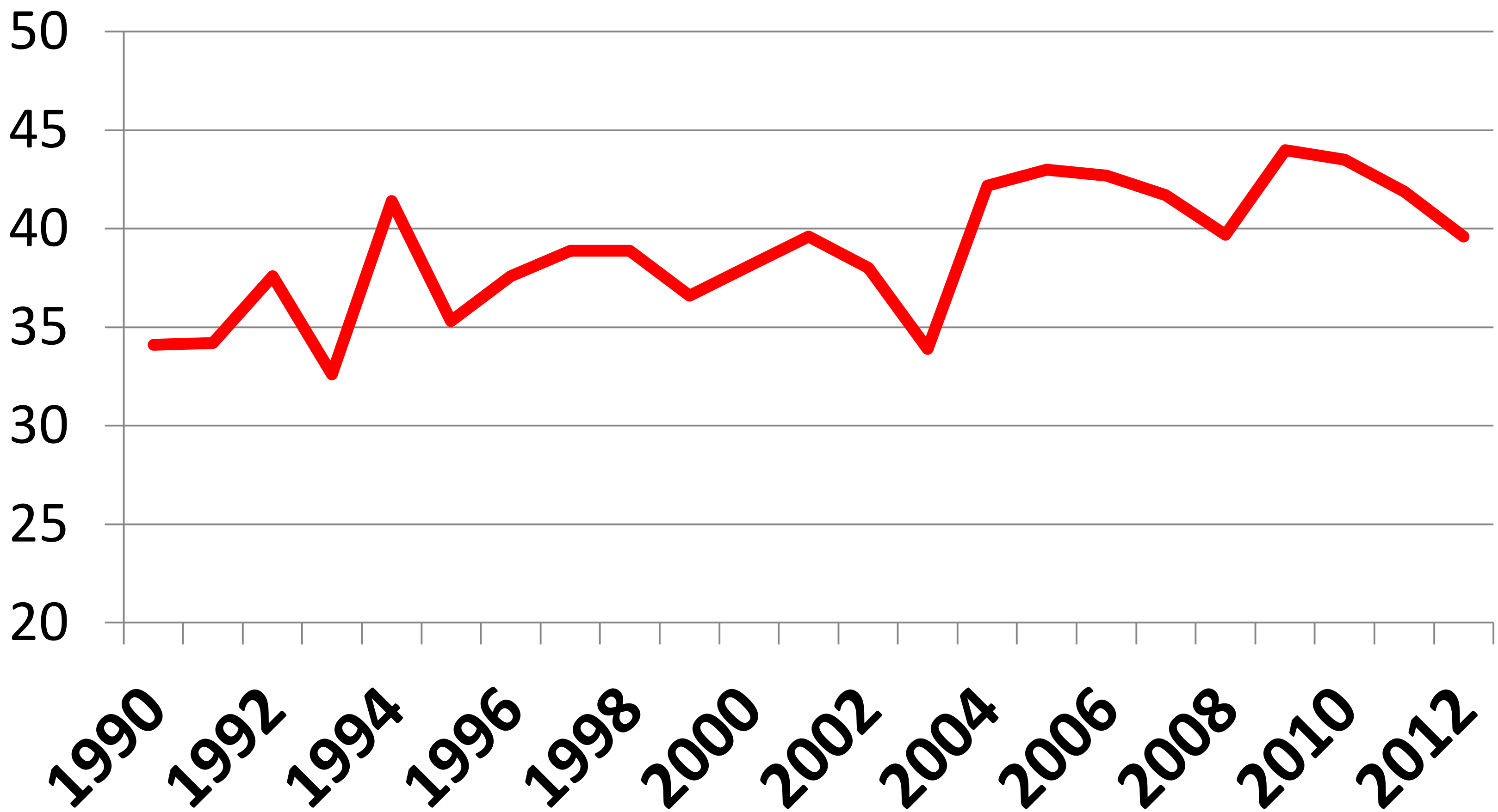
Author: Mark Svoboda, National Drought Mitigation Center

http://droughtmonitor.unl.edu/

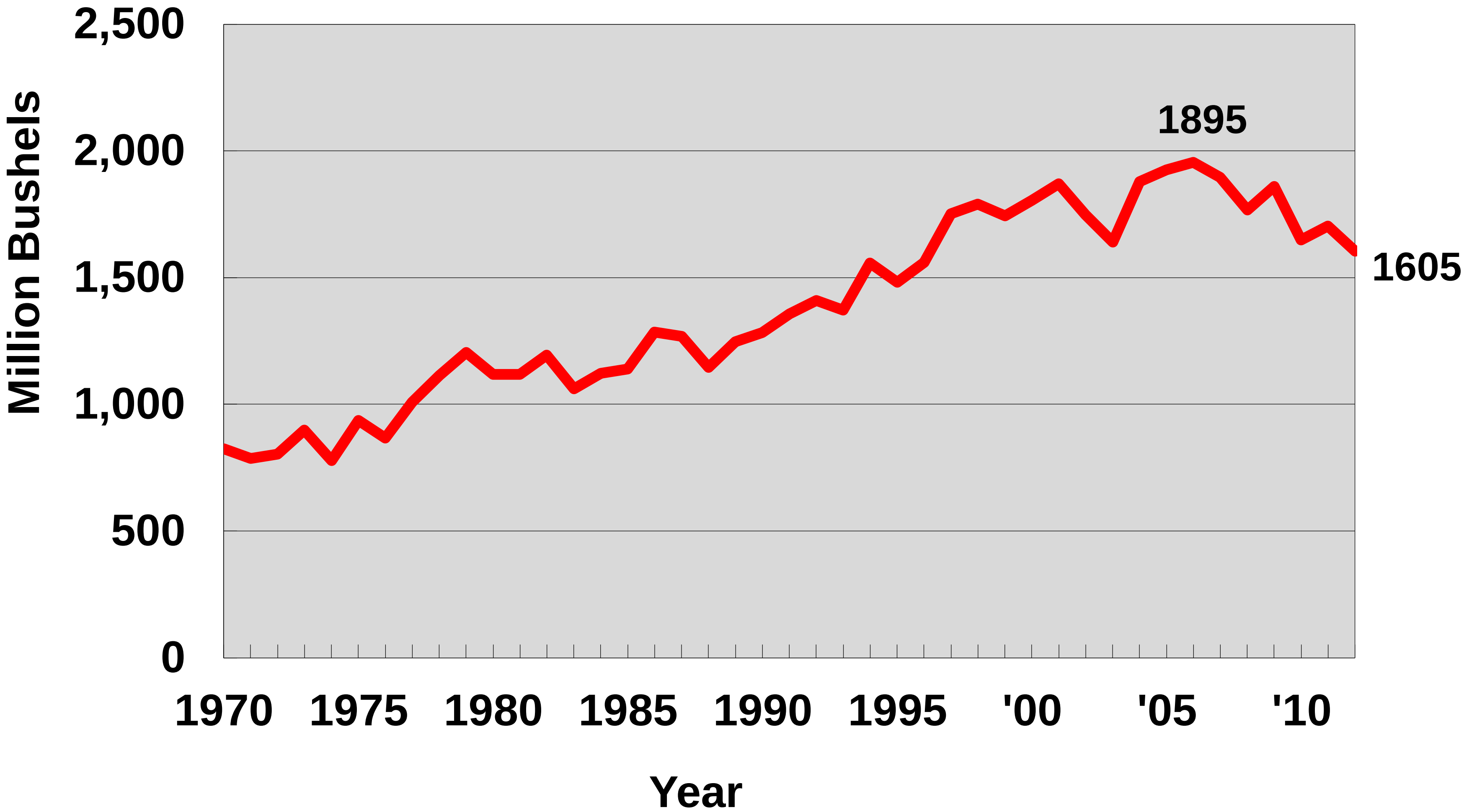
2012 Was 3rd Consecutive Year of Poor Corn Yields



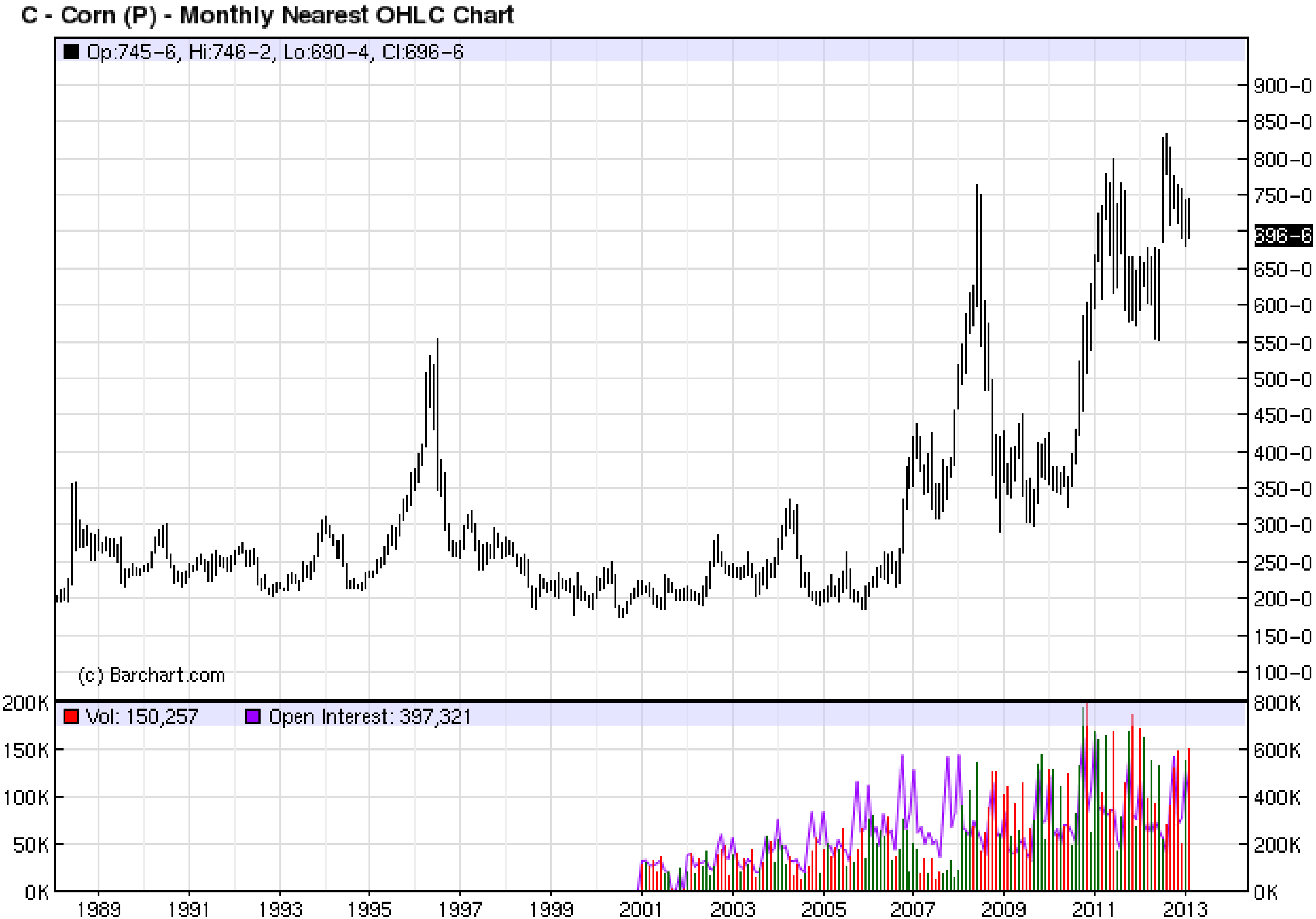
Soybeans Have Also Had 3 Disappointing Years of Yields



Domestic Soybean Demand Declining?



2008-2012: HIGH PRICES


C - Corn (P) - Monthly Nearest OHLC Chart
Op:745-6, Hi:746-2, Lo:690-4, Cl:696-6
900-0
850-0
800-0
750-0
696-6
650-0
600-0
550-0
500-0
450-0
400-0
350-0
300-0
250-0
200-0
150-0
100-0
(c) Barchart.com
Vol: 150,257
Open Interest: 397,321
200K
150K
100K
50K
0K
800K
600K
400K
200K
0K
1989
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1993
1995
1997
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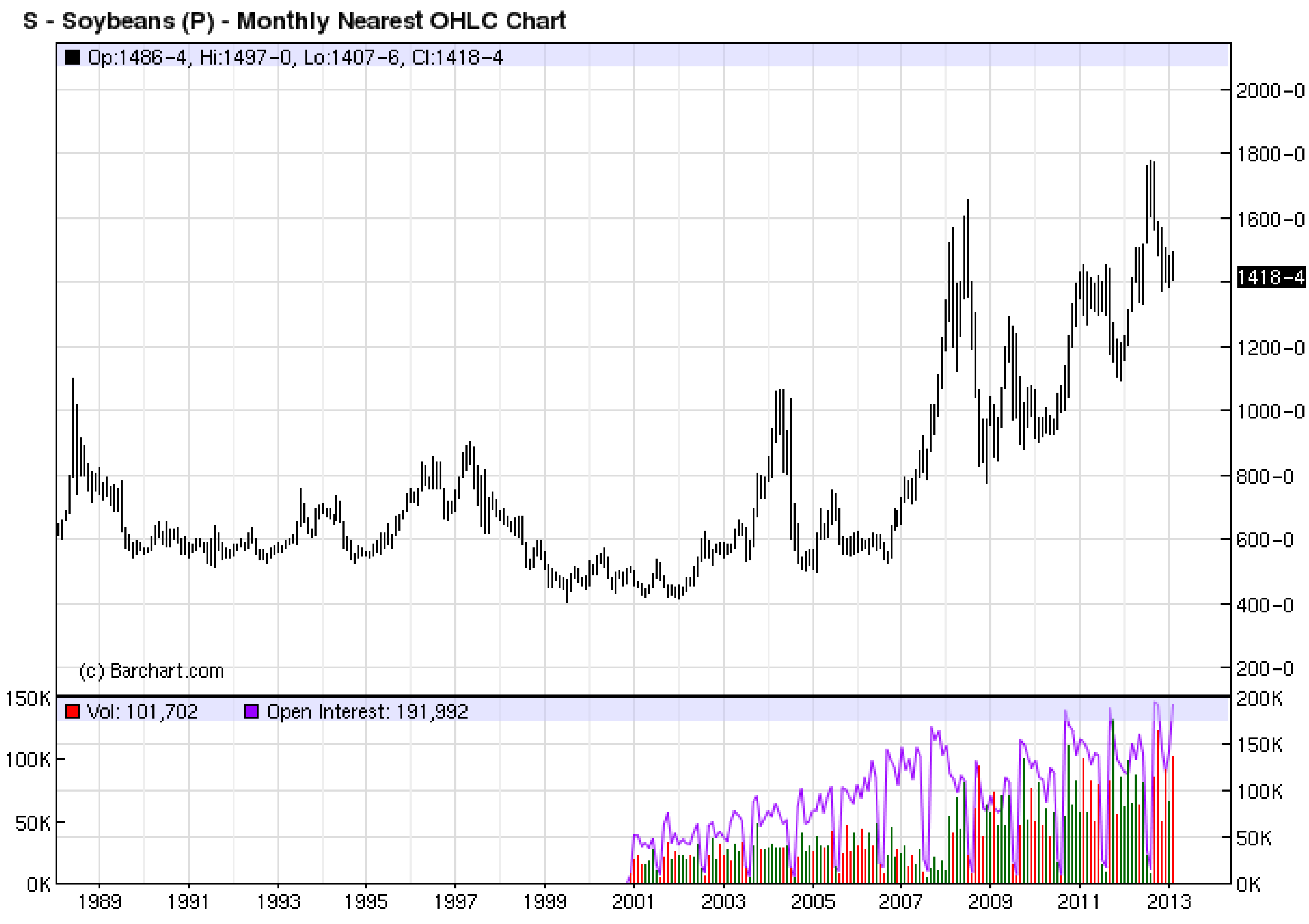
2001
2003
2005
2007
2009
2011
2013


S - Soybeans (P) - Monthly Nearest OHLC Chart
Op:1486-4, Hi:1497-0, Lo:1407-6, Cl:1418-4
2000-0
1800-0
1600-0
1418-4
1200-0
1000-0
800-0
600-0
400-0
200-0
(c) Barchart.com
Vol: 101,702
Open Interest: 191,992
150K
100K
50K
0K
200K
150K
100K
50K
0K
1989
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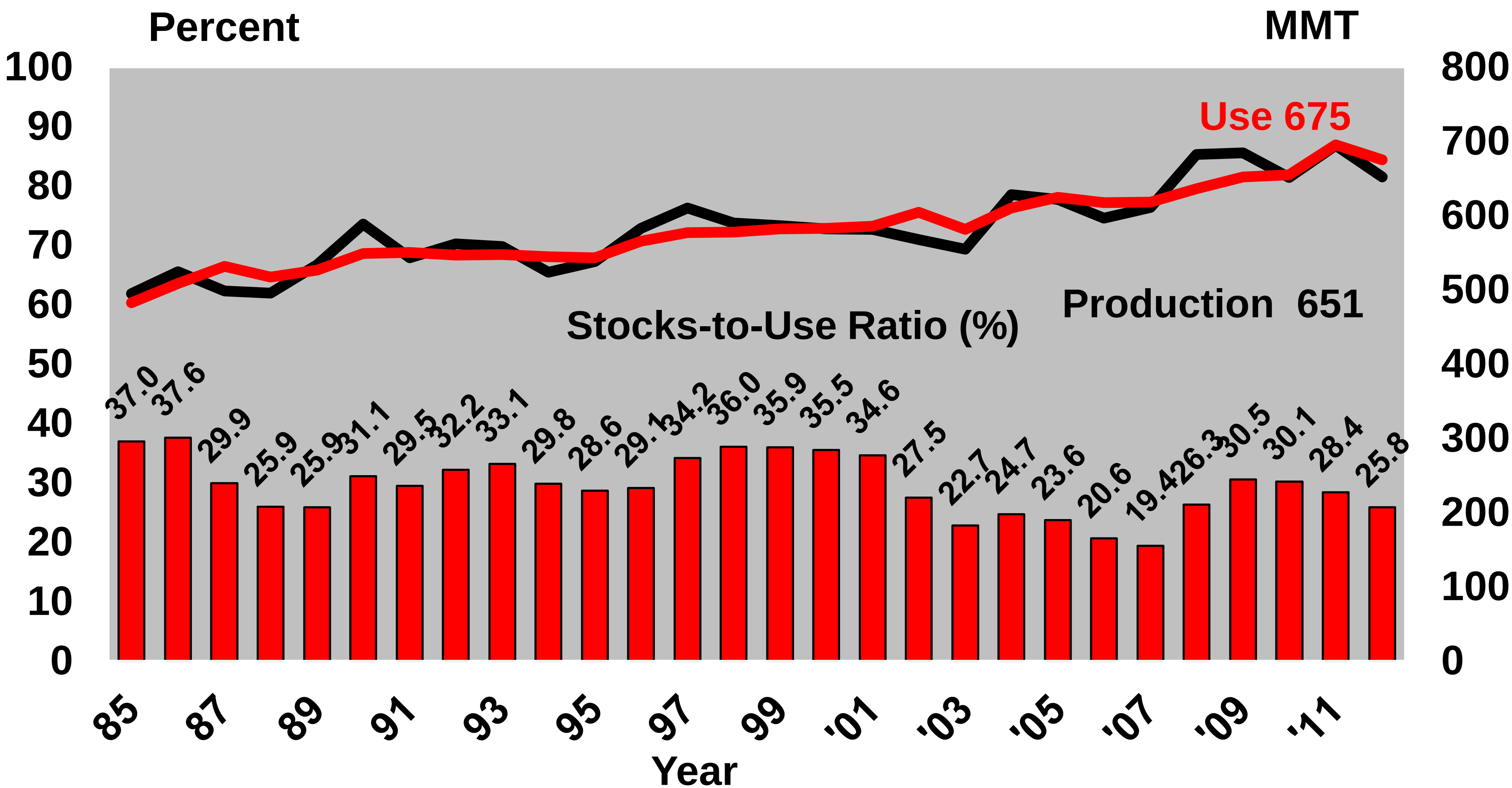
2011
2013

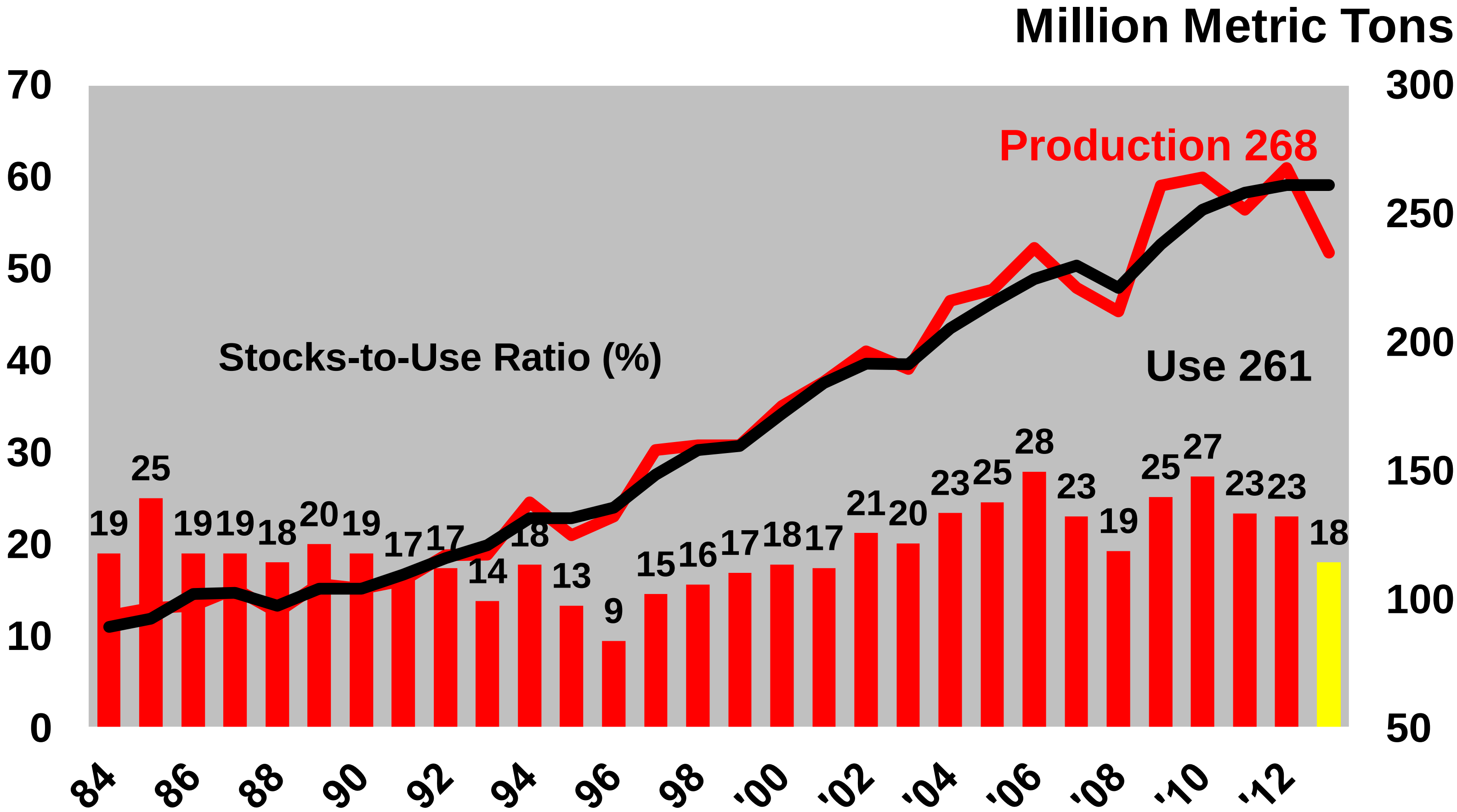
2013: SHORT TERM OUTLOOK

World Wheat Supplies Far Better Situation than ’07/08

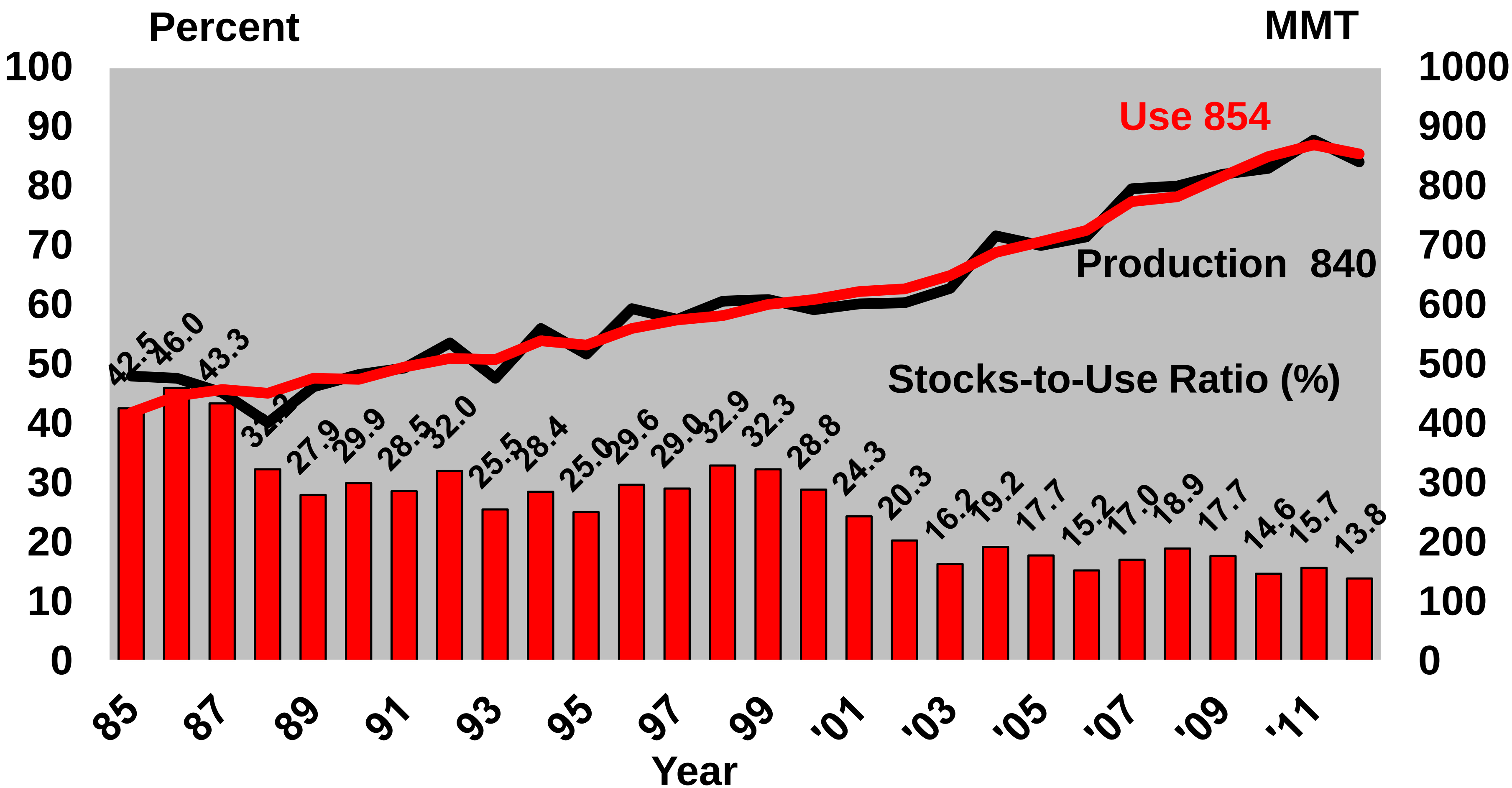


Source: WOAB, USDA

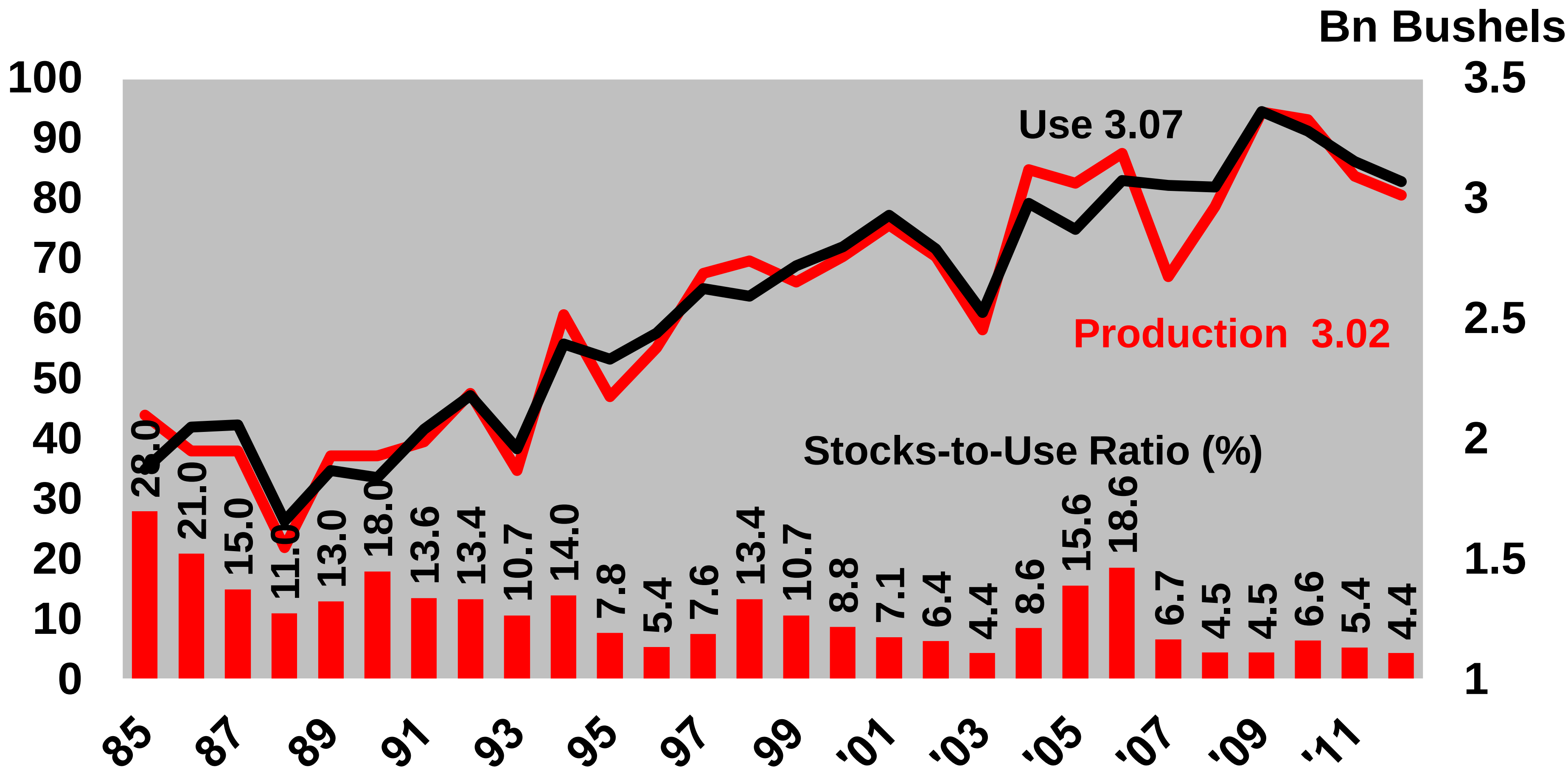
Global Soybean Inventories are VERY tight.



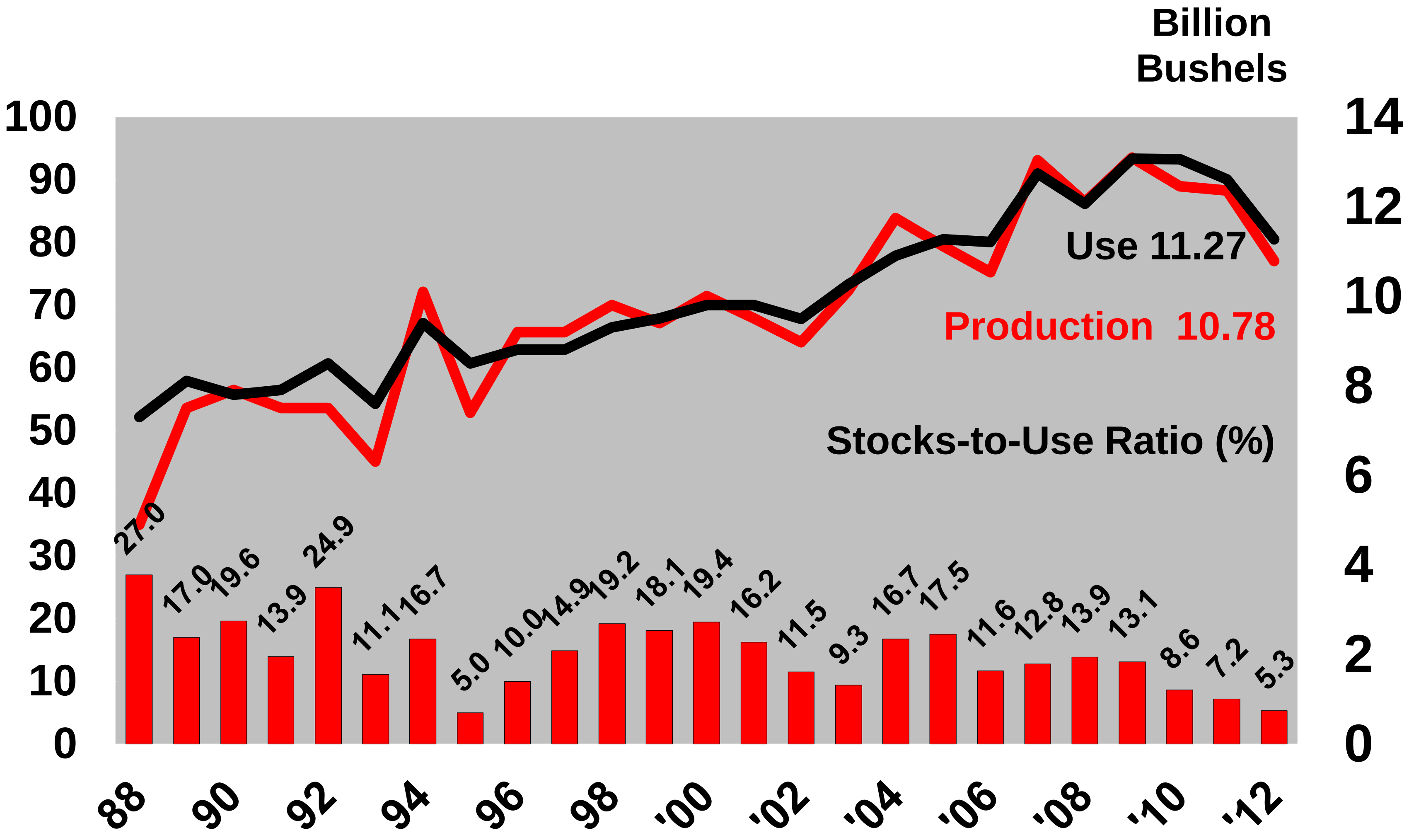
Global Corn Inventories Very Low



Very tight soybean inventories are the new normal.

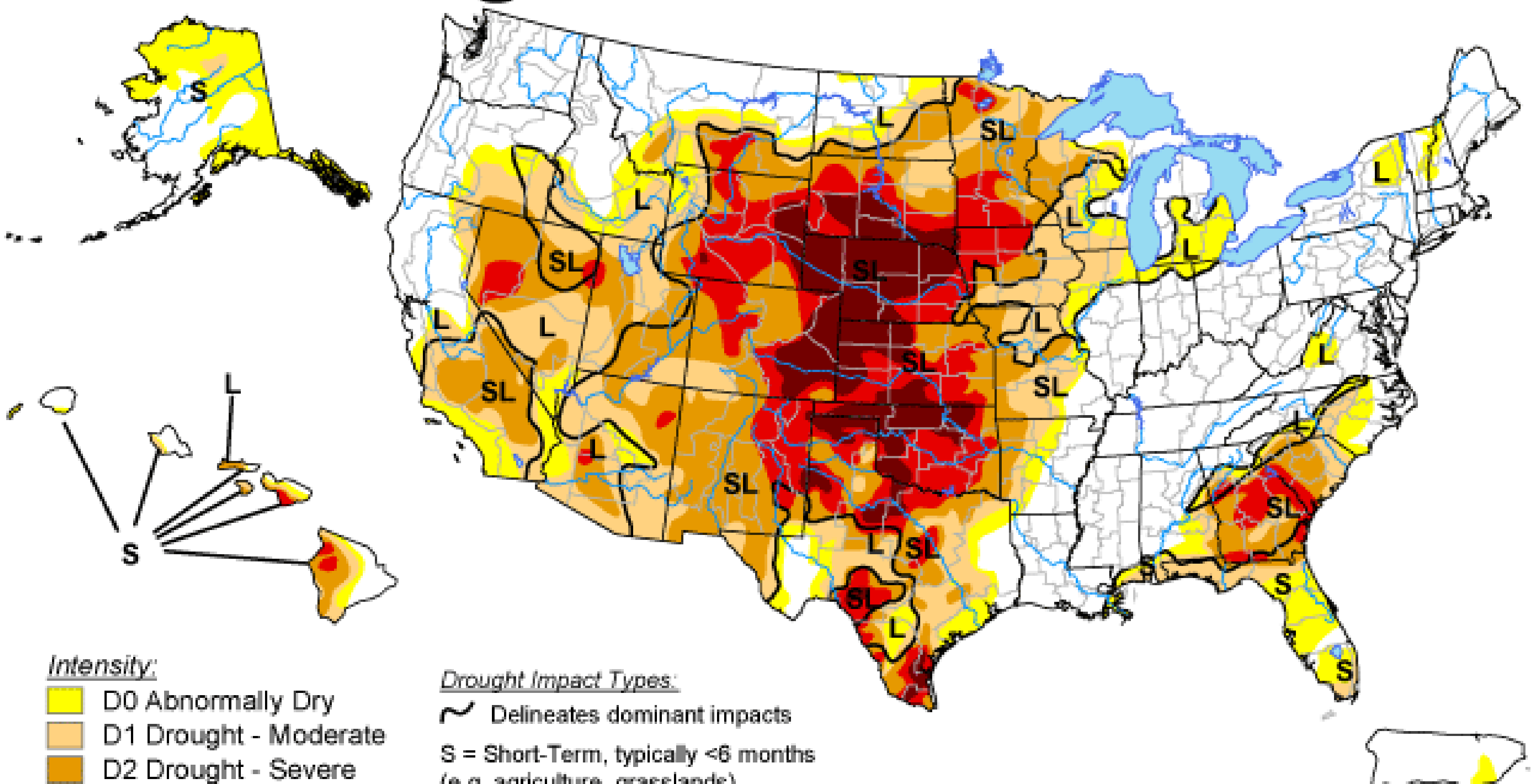


Corn Inventories are Incredibly Tight.



U.S. Drought Monitor

February 12, 2013
Valid 7 a.m. EST



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http://droughtmonitor.unl.edu/

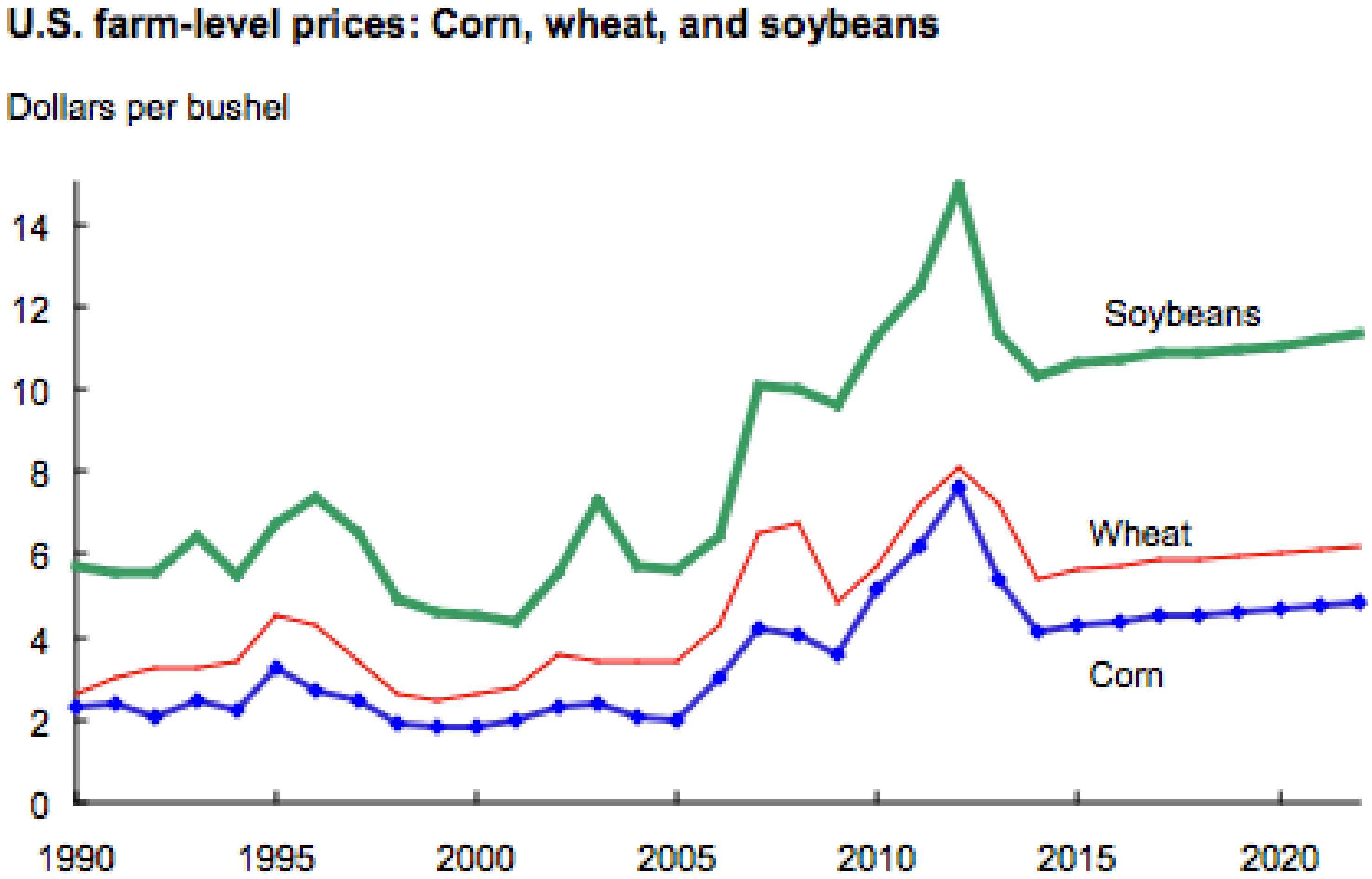
Released Thursday, February 14, 2013
Author: Michael Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

CORN	2010/11	2011/12	2012/13 Proj. Jan	2012/13 Proj. Feb	13/14 MCR Proj
			Million Acres		
Area Planted	88.2	91.9	97.2	97.2	97
Area Harvested	81.4	84	87.4	87.4	90
			Bushels		
Yield per Harvested Acre	152.8	147.2	123.4	123.4	160
			Million Bushels		
Beginning Stocks	1708	1128	989	989	632
Production	12447	12358	10780	10780	14400
Imports	28	29	100	100	25
Supply, Total	14182	13515	11869	11869	15057
Feed and Residual	4795	4547	4450	4450	5000
Food, Seed & Industrial 2/	6426	6437	5867	5887	6450
Ethanol & by-products 3/	5019	5011	4500	4500	5050
Domestic, Total	11221	10984	10317	10337	11450
Exports	1834	1543	950	900	1950
Use, Total	13055	12527	11267	11137	13400
Ending Stocks	1128	989	602	632	1657
CCC Inventory	0	0	0	0	
Free Stocks	1128	989	602	632	
Outstanding Loans	48	41	50	50	
Avg. Farm Price ($/bu) 4/	5.18	6.22	6.80 – 8.00	6.75 – 7.65	5.00

SOYBEANS	2010/11	2011/12 Est.	2012/13 Proj. Jan	2012/13 Proj. Feb	2013/14 MCR
			Million Acres		
Area Planted	77.4	75	77.2	77.2	78.2
Area Harvested	76.6	73.8	76.1	76.1	77
			Bushels		
Yield per Harvested Acre	43.5	41.9	39.6	39.6	43
			Million Bushels		
Beginning Stocks	151	215	169	169	125
Production	3329	3094	3015	3015	3311
Imports	14	16	20	20	15
Supply, Total	3495	3325	3204	3204	3451
Crushings	1648	1703	1605	1615	1650
Exports	1501	1362	1345	1345	1500
Seed	87	90	89	89	90
Residual	43	1	30	30	30
Use, Total	3280	3155	3070	3080	3270
Ending Stocks	215	169	135	125	181
Avg. Farm Price ($/bu) 2/	11.3	12.5	13.50 – 15.00	13.55 – 15.05	11.45

LONG TERM OUTLOOK

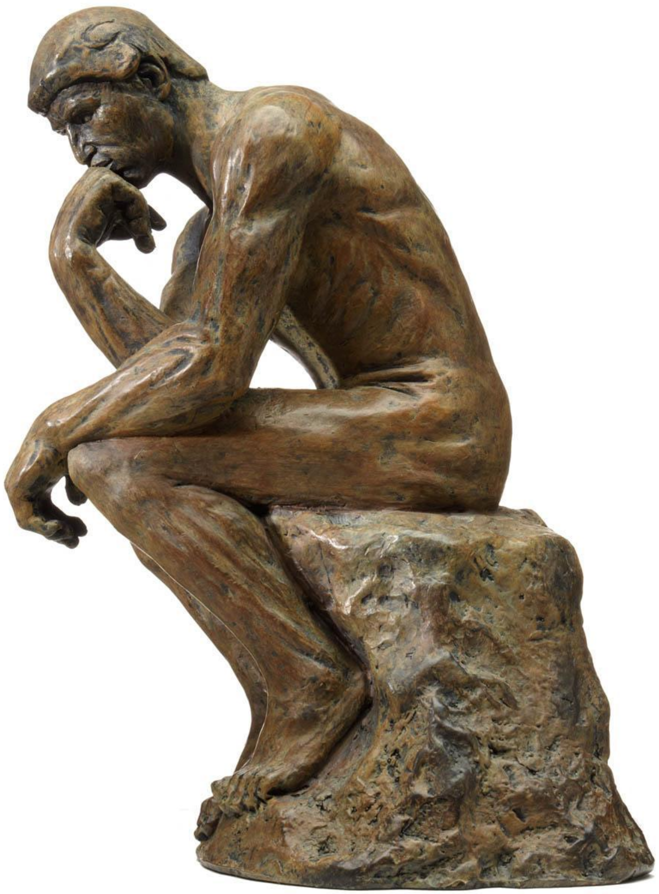
Last Week, USDA Released Their 10 Year Baseline



What if we have 2 years of 160+/42+ Yields?

- $4.00 corn and $10 soybeans.
- What does this do to:
  - Land Prices?
  - Plantings?
  - Solvency?

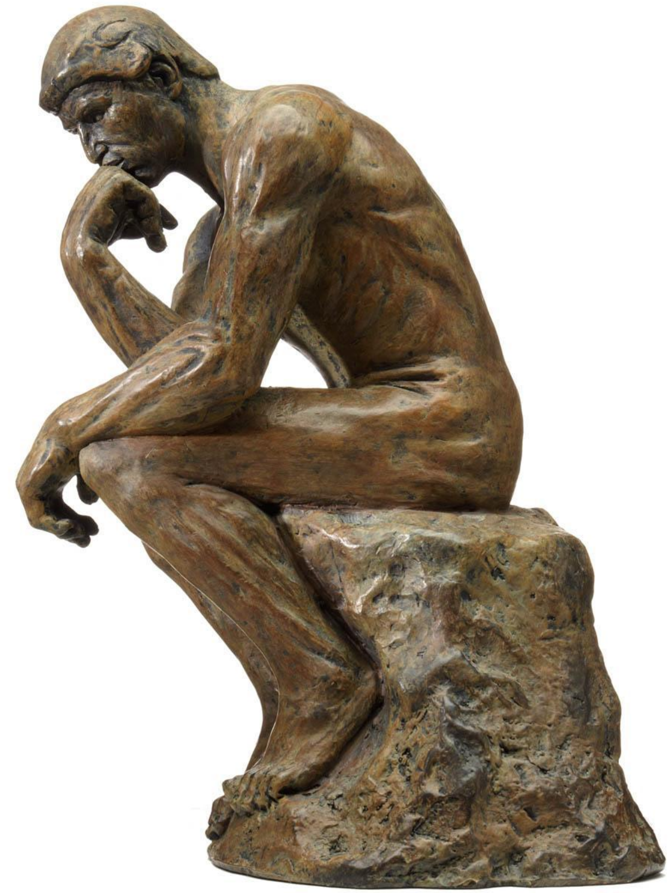
What can producers do?



- Build capital:
  - Current assets should be at least one years’ land payment above working capital needs.
  - 1.5 years if you want to keep it in stocks and bonds.
  - (Near) Cash is the only way to ultimately manage risk.

What can retailers do?

- Monitor Credit Risk:
  - Clients, especially those with large, rented, landbases, are very vulnerable.
  - Other Firms may not manage as well: watch them, too.
- How will you approach clients when corn is $4?




What could possibly go wrong?

What are the unknown unknowns?

Questions?

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