Agriculture Outlook

Rich Pottorff

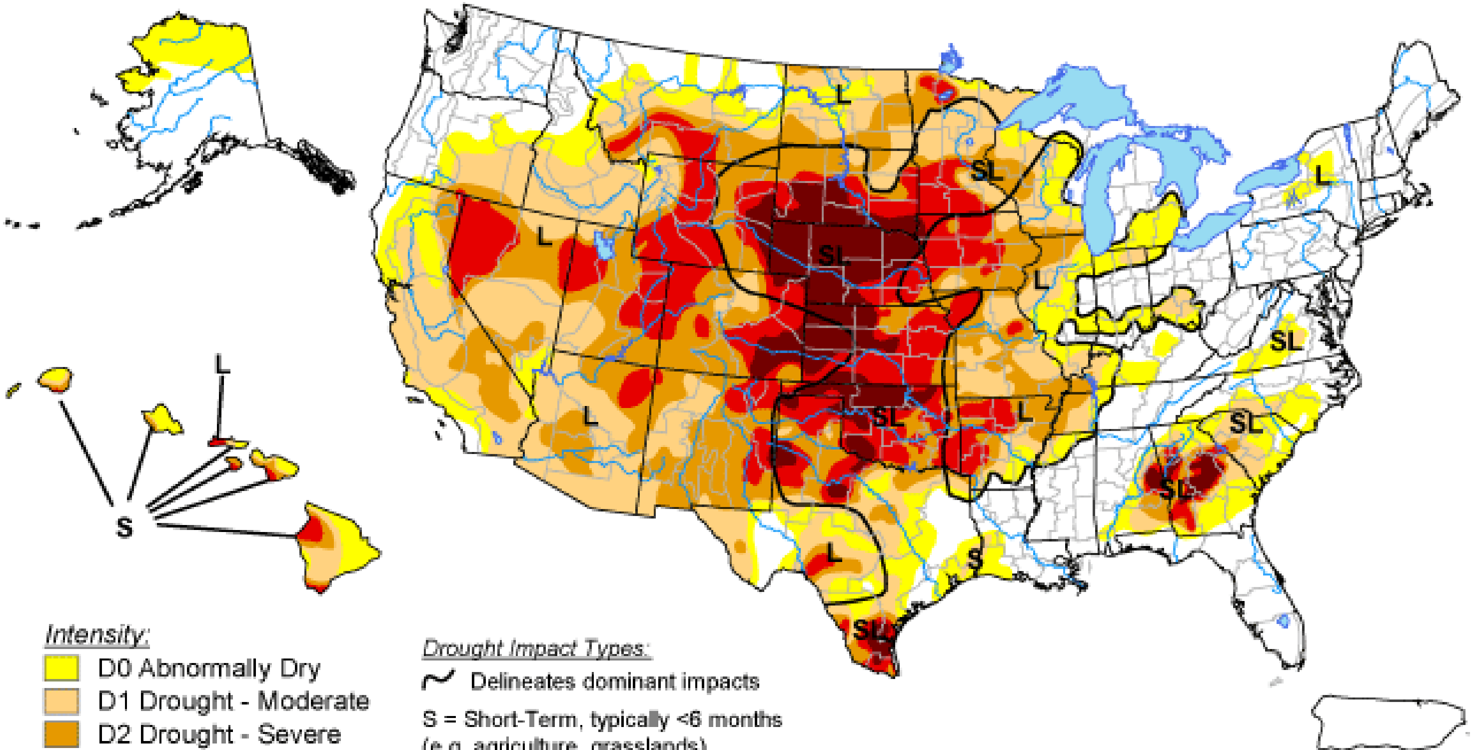
Doane Advisory Services

General Outline

- An overview of U.S. crop markets
  - Corn, soybeans, wheat & cotton
- Some factors shaping the outlook
- World Ag Situation
- Conclusions

U.S. Drought Monitor

November 6, 2012
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)

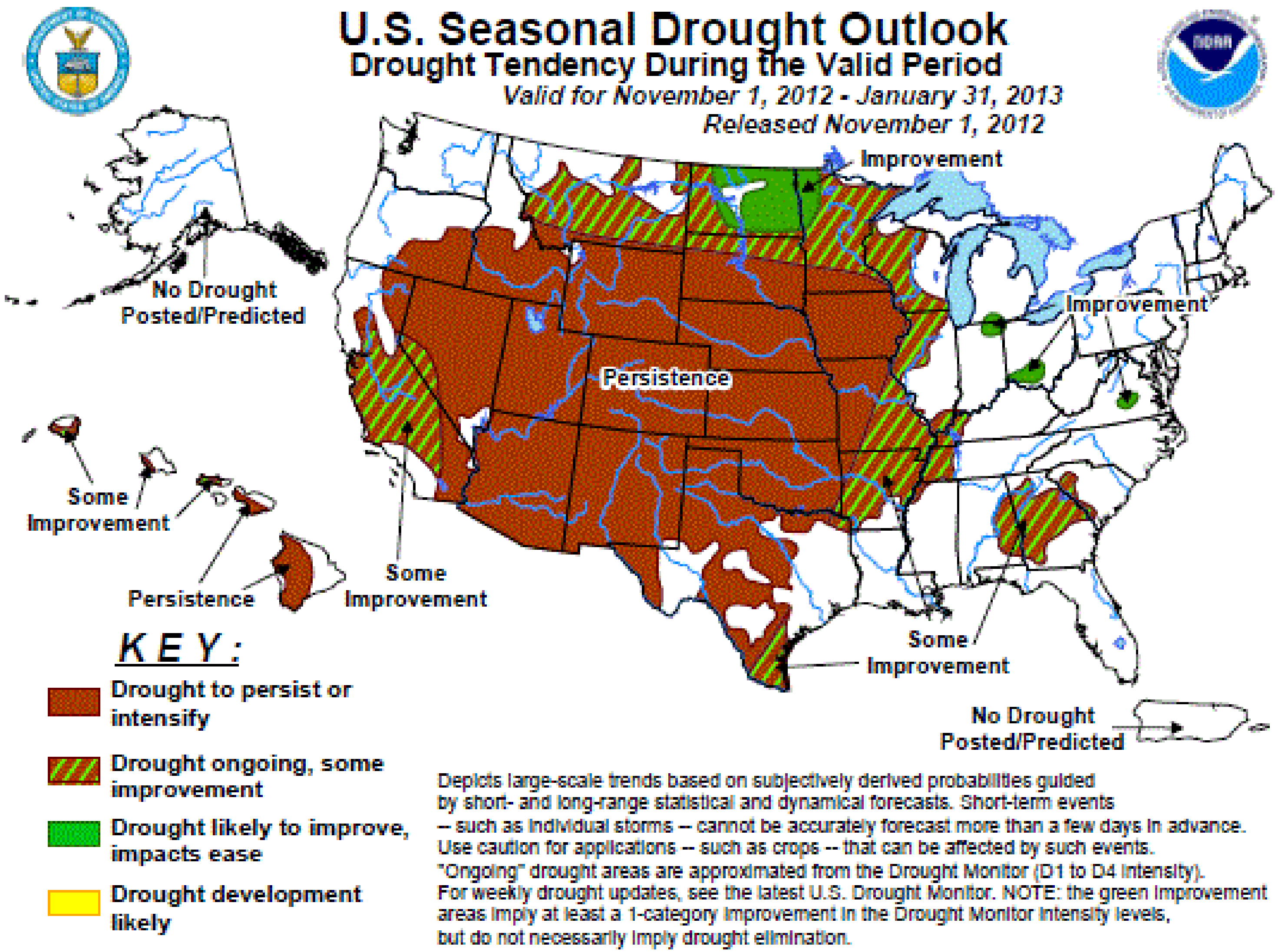
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu/

USDA   National Drought Mitigation Center

Released Thursday, November 8, 2012

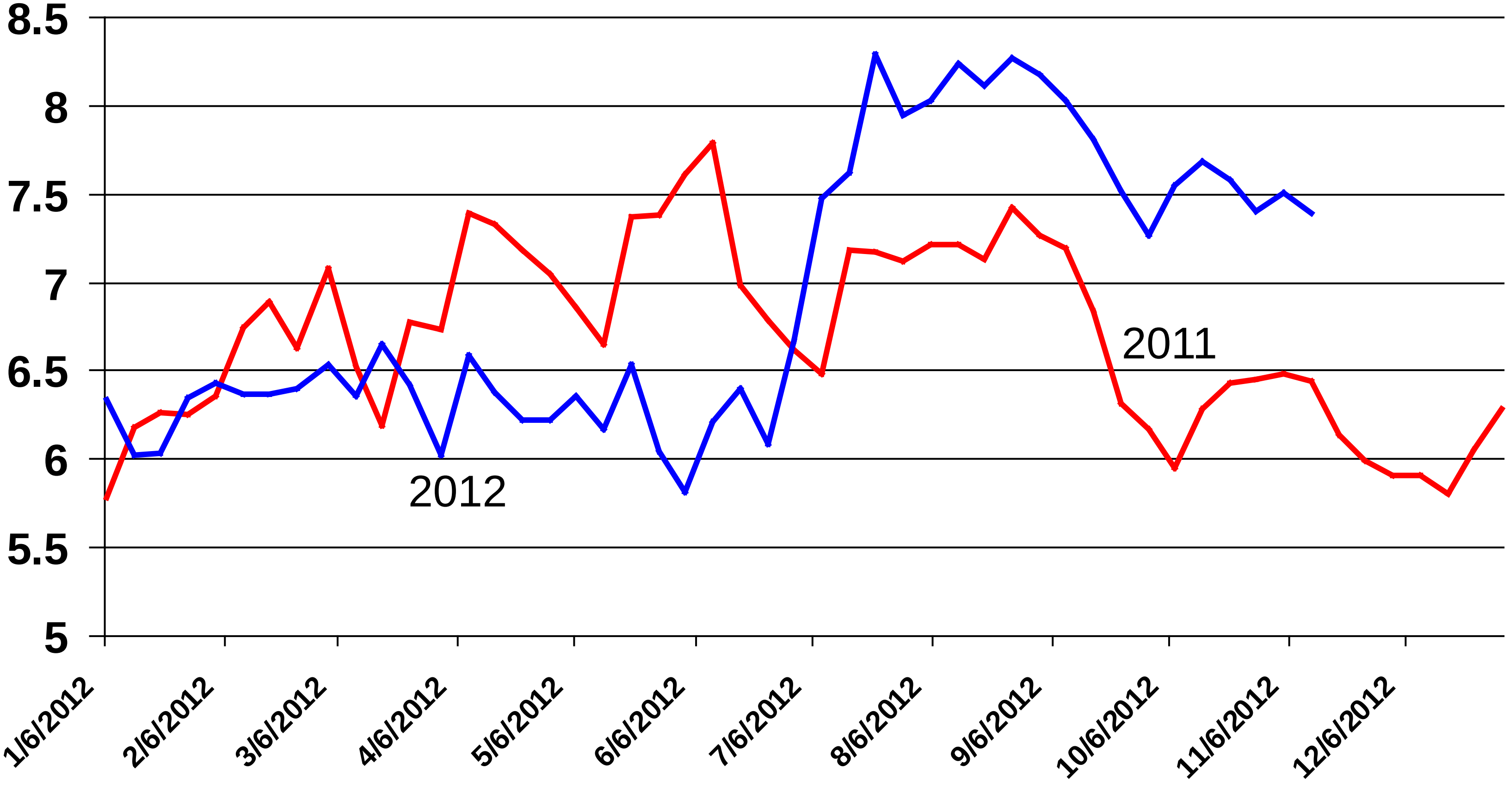
Author: David Miskus, NOAA/NWS/NCEP/CPC


U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for November 1, 2012 - January 31, 2013
Released November 1, 2012
Improvement
No Drought
Posted/Predicted
Improvement
Persistence
Some
Improvement
Persistence
Some
Improvement
Some
Improvement
No Drought
Posted/Predicted
KEY:
Drought to persist or intensify
Drought ongoing, some improvement
Drought likely to improve, impacts ease
Drought development likely
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

Let’s Look at the Corn Sector

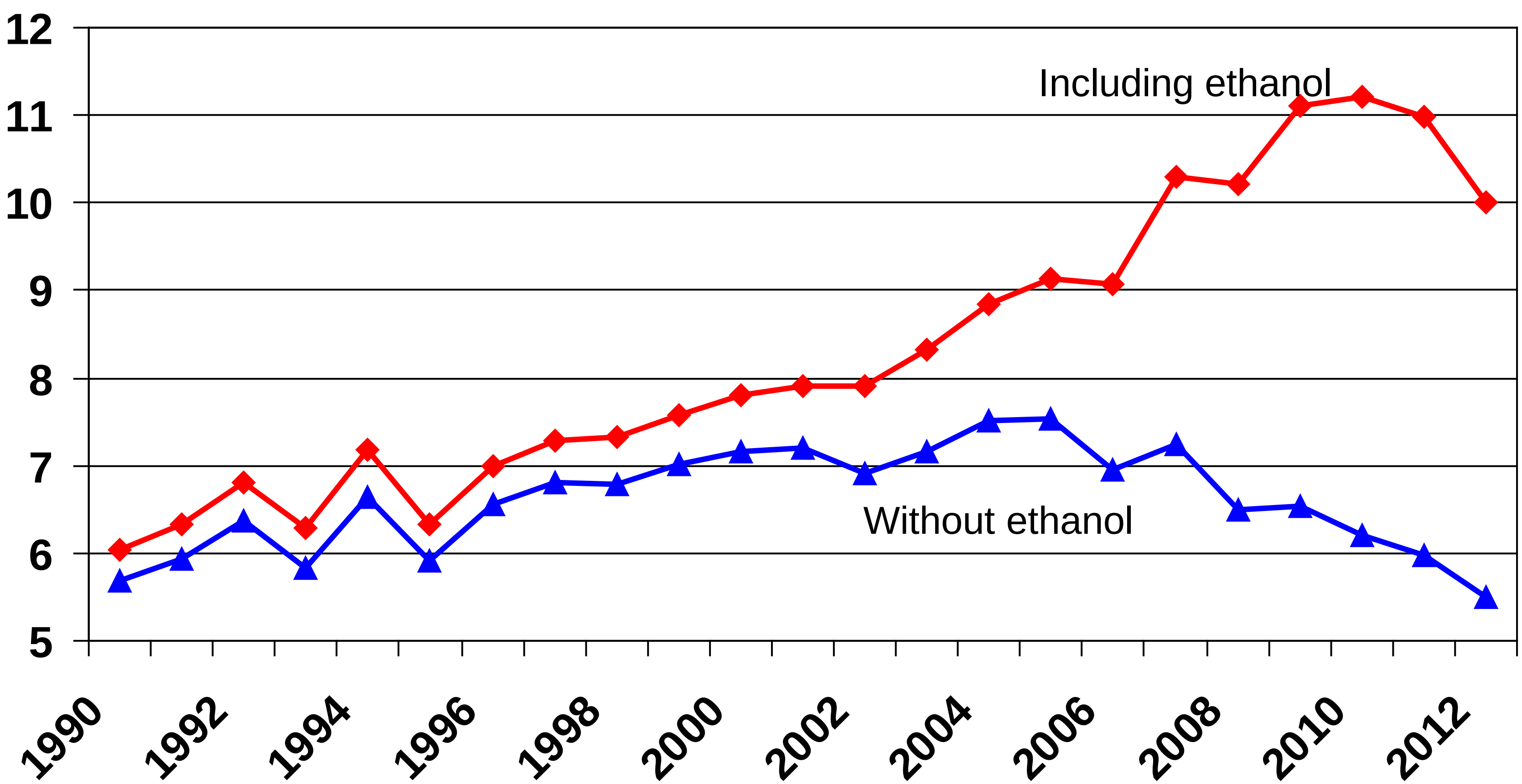
Corn Price

dollars per bushel

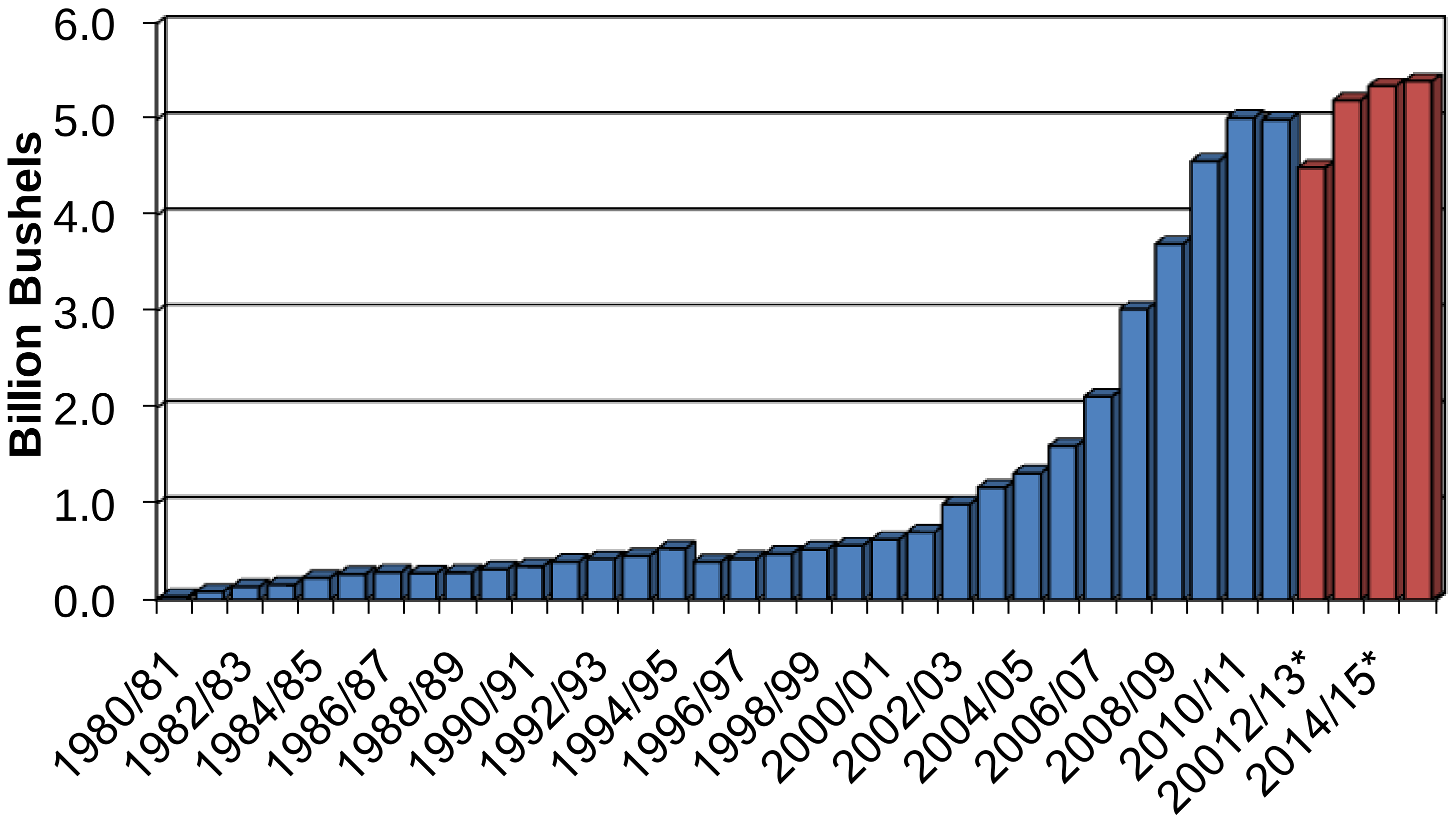


Domestic Corn Use

Billion Bushels



Corn Used for Ethanol Production



Ethanol Demand Factors

- Mandate is for 13.8 billion gallons for 2013
  - Rises to 15 billion gallons in 2015
- Gasoline consumption in 2011=134 billion gallons
  - We are close to the “blend wall”
- Clean Air Act requires the use of an oxygenate
  - About 5.5 billion gallons of ethanol
- Refiners/blenders use ethanol to boost octane
- Shifting from ethanol use would be expensive

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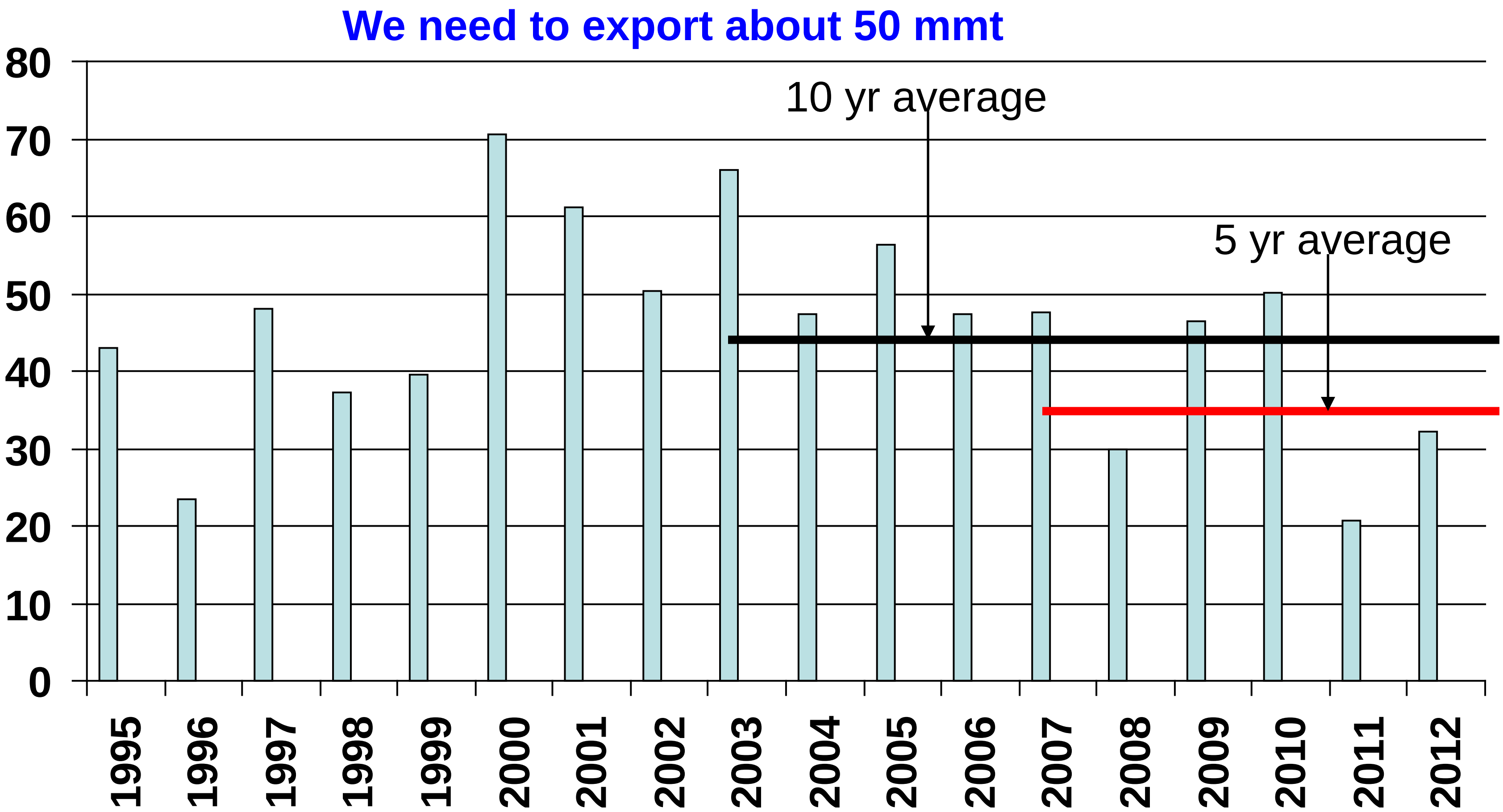
Foreign Corn Deficit (prod-cons)

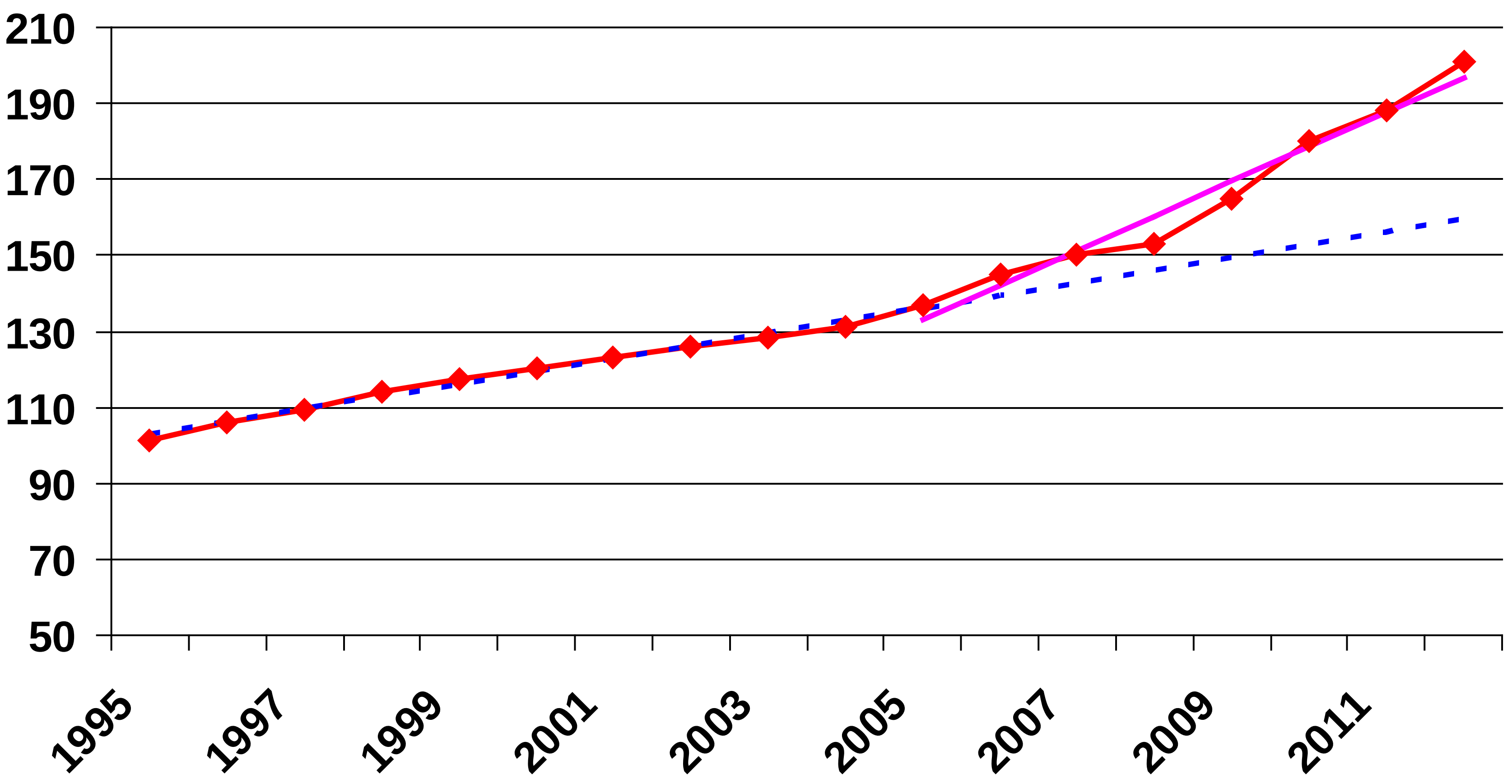
million tonnes



The 10 yr avg is 1.75 billion bushels the 5-yr 1.42 billion

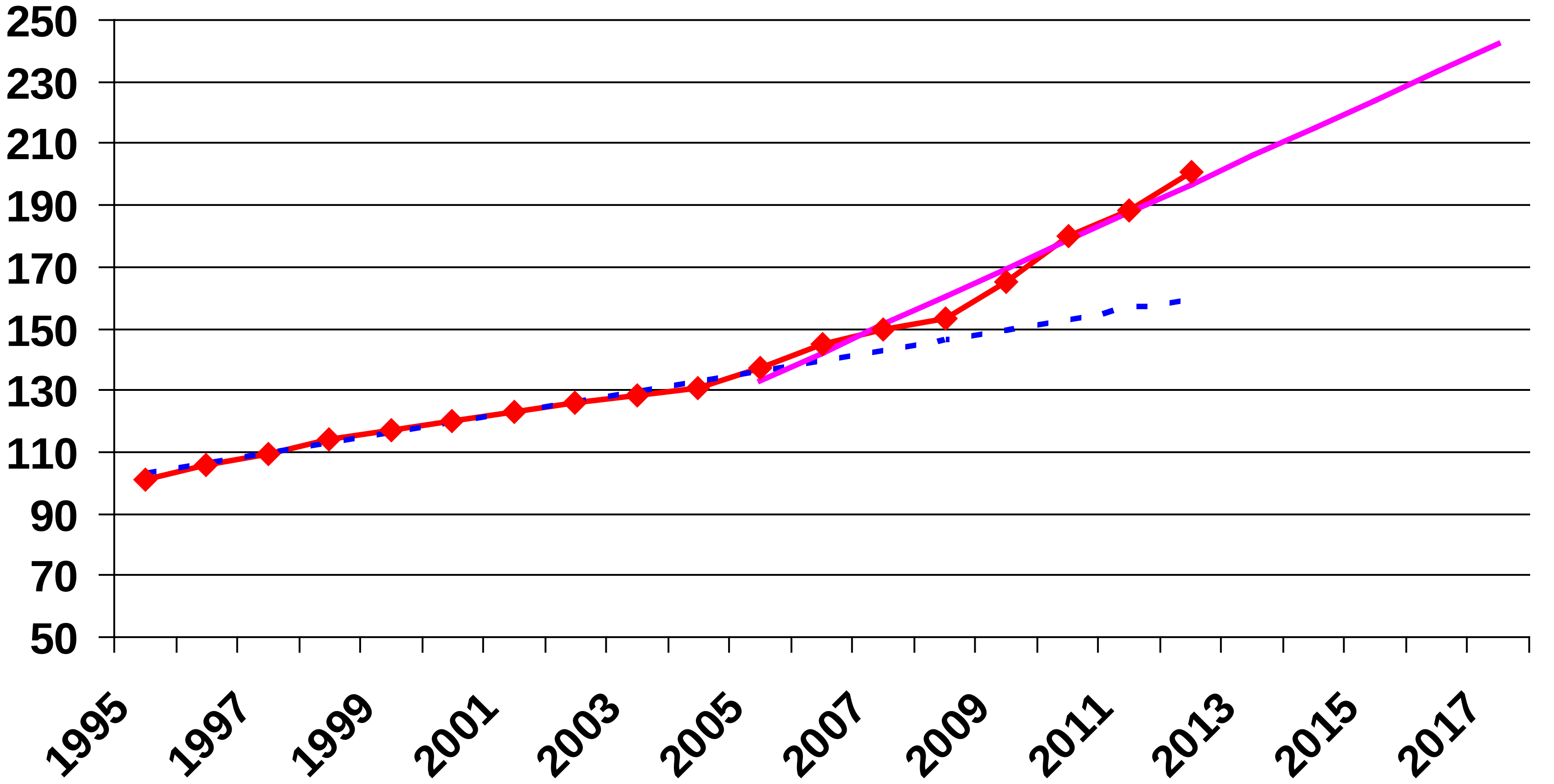
Corn Demand in China

million tonnes



Corn Demand in China

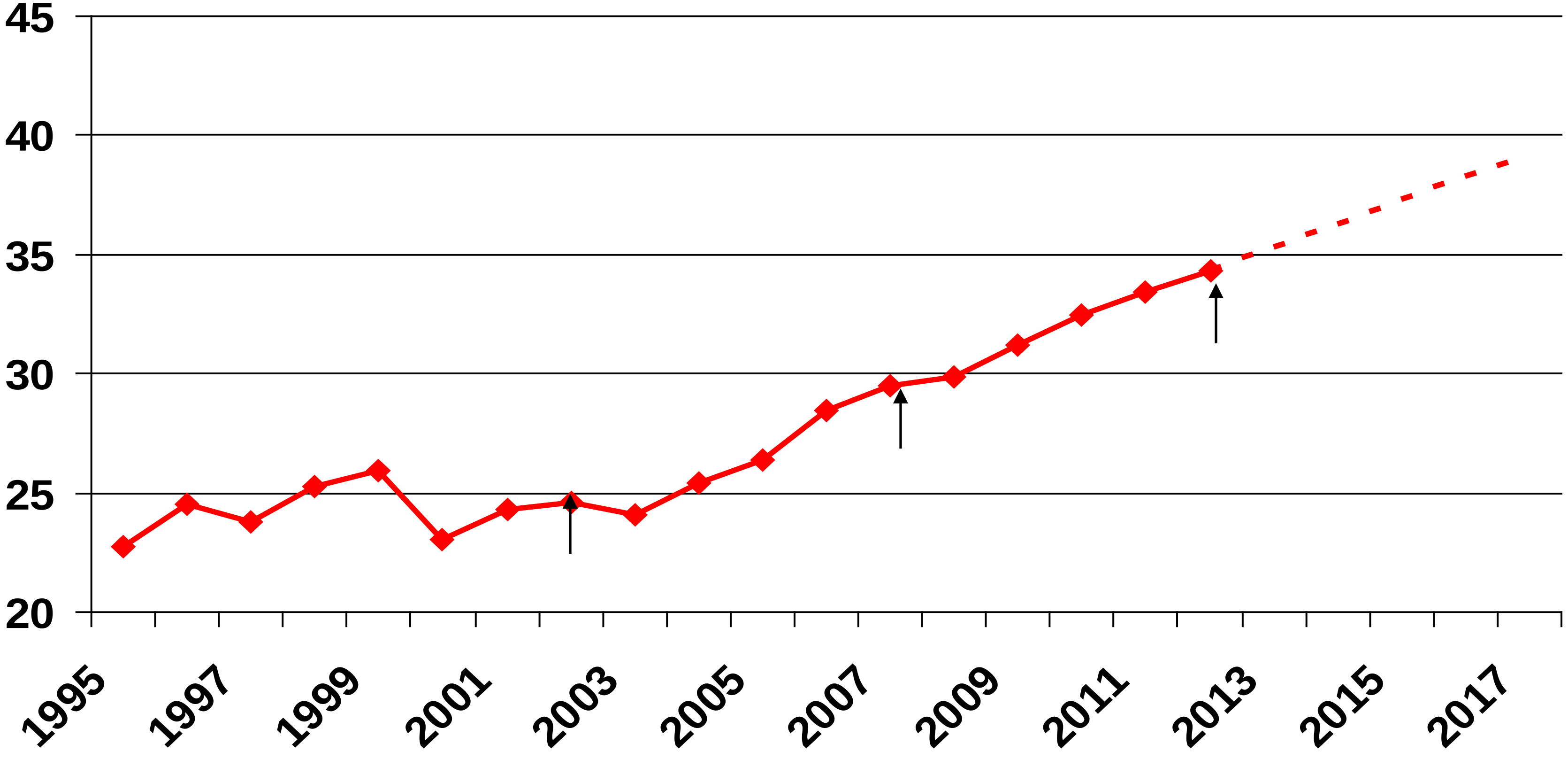
million tonnes



Demand is rising at nearly 5% per year
Yields are rising at ~1.5% per year

Corn Area in China

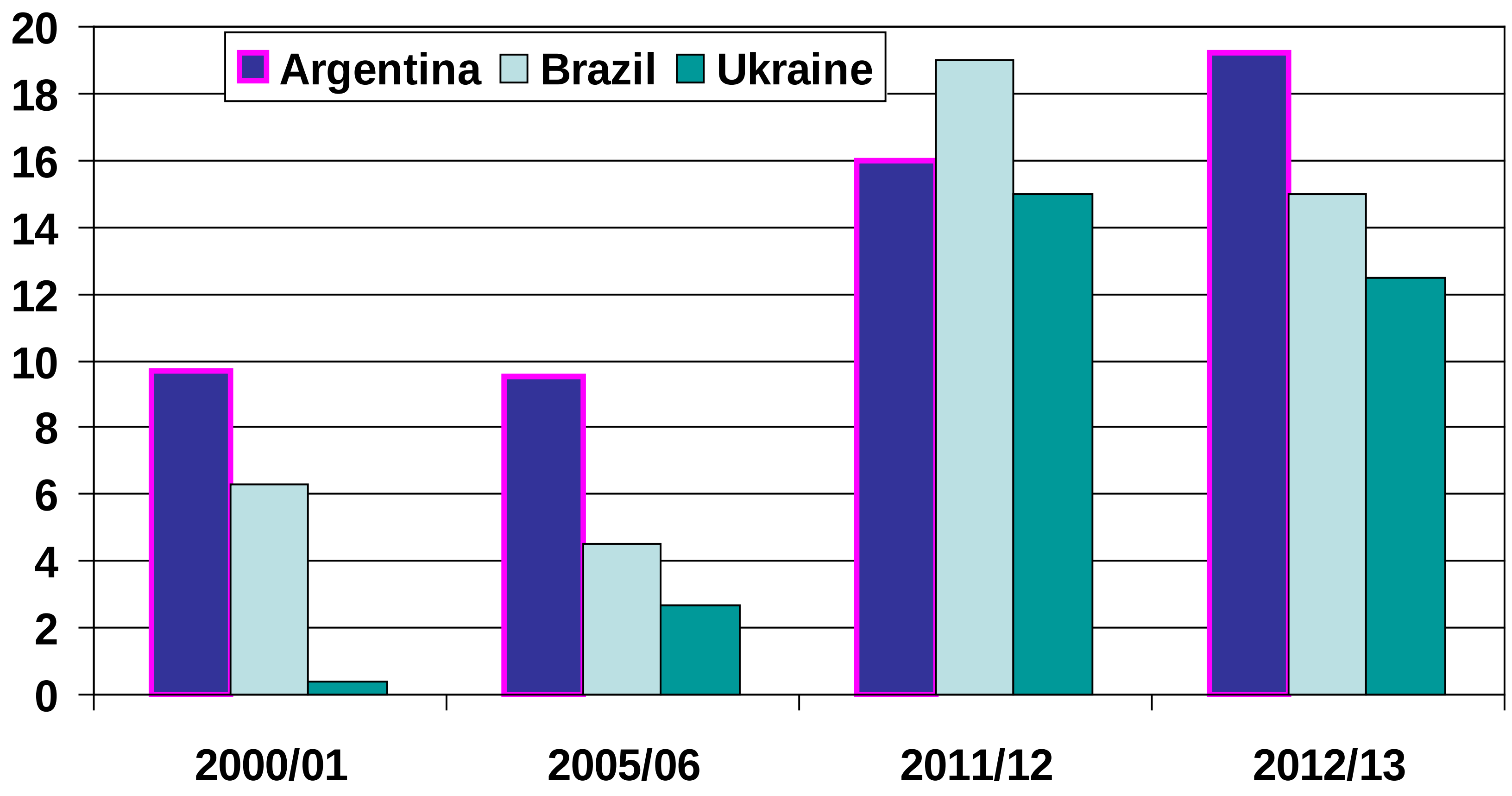
million tonnes



We added 4.8 mha over the last 5 years – can we add 3.9 mha in the next 5?
If area holds steady – China has a 30 mmt deficit by 2017/18.

Corn Surplus

million tonnes



Corn: U.S. Balance Sheet – Sep/Aug Crop Year (million bushels)

	2011/12	2012/13	2013/14	2014/15	
Supply					
Planted Acres	91.9	96.9	96.5	93.0	
Production	12358	10725	14500	14158	
Exports	1543	1200	1800	2100	
Total Disappearance	12526	11175	13410	13980	
Ending Stocks	988	637	1752	1945	
On-Farm Corn Price ($/bu)	6.22	7.65	4.75	4.30	

Crop Budgets for 2013

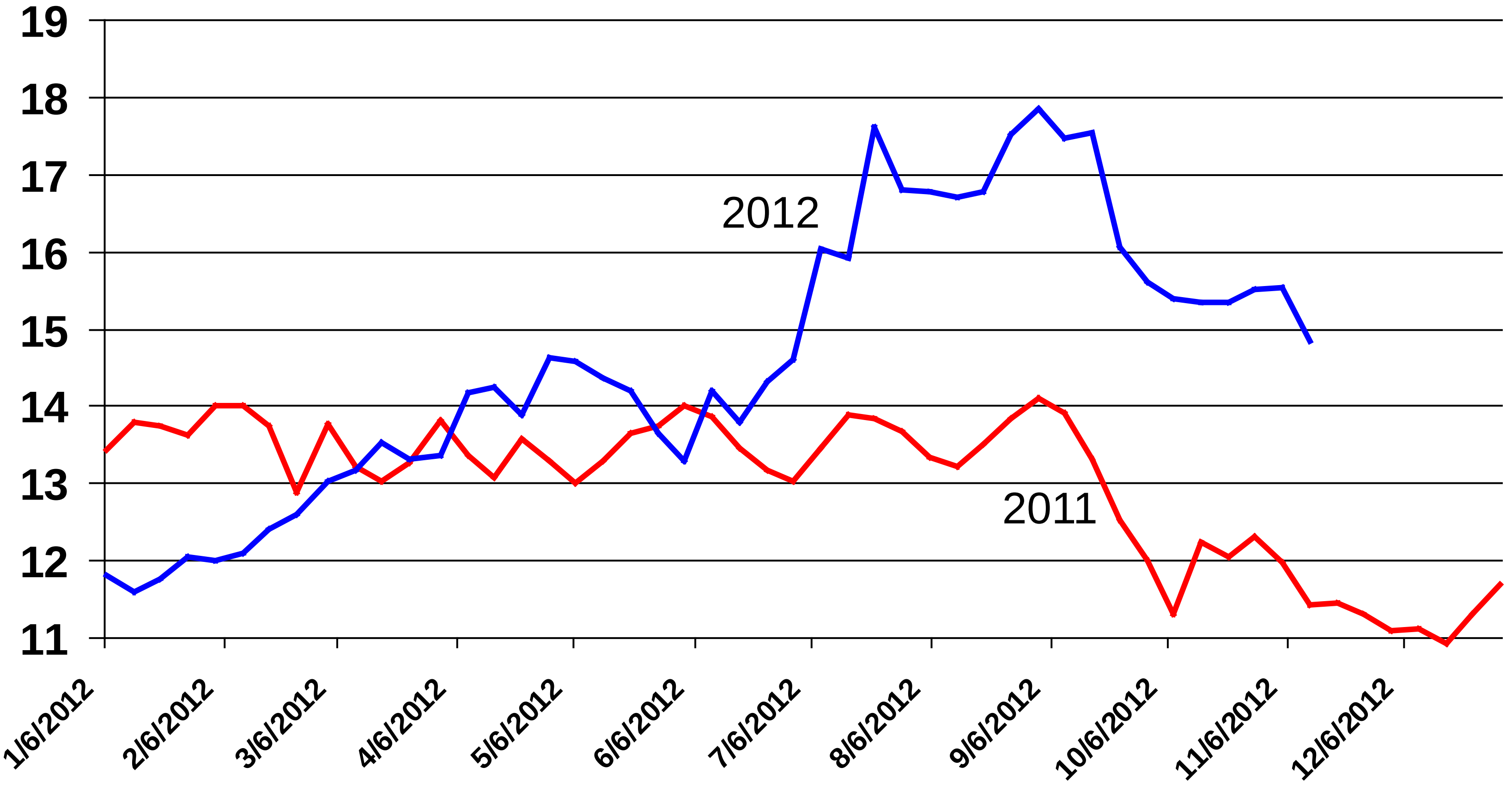
dollars per acre

	Corn	Soybeans	Wheat
Revenue	946	591	404
Operating Costs	369	146	125
Net Returns	577	445	279

Let’s Look at the Soybean Sector

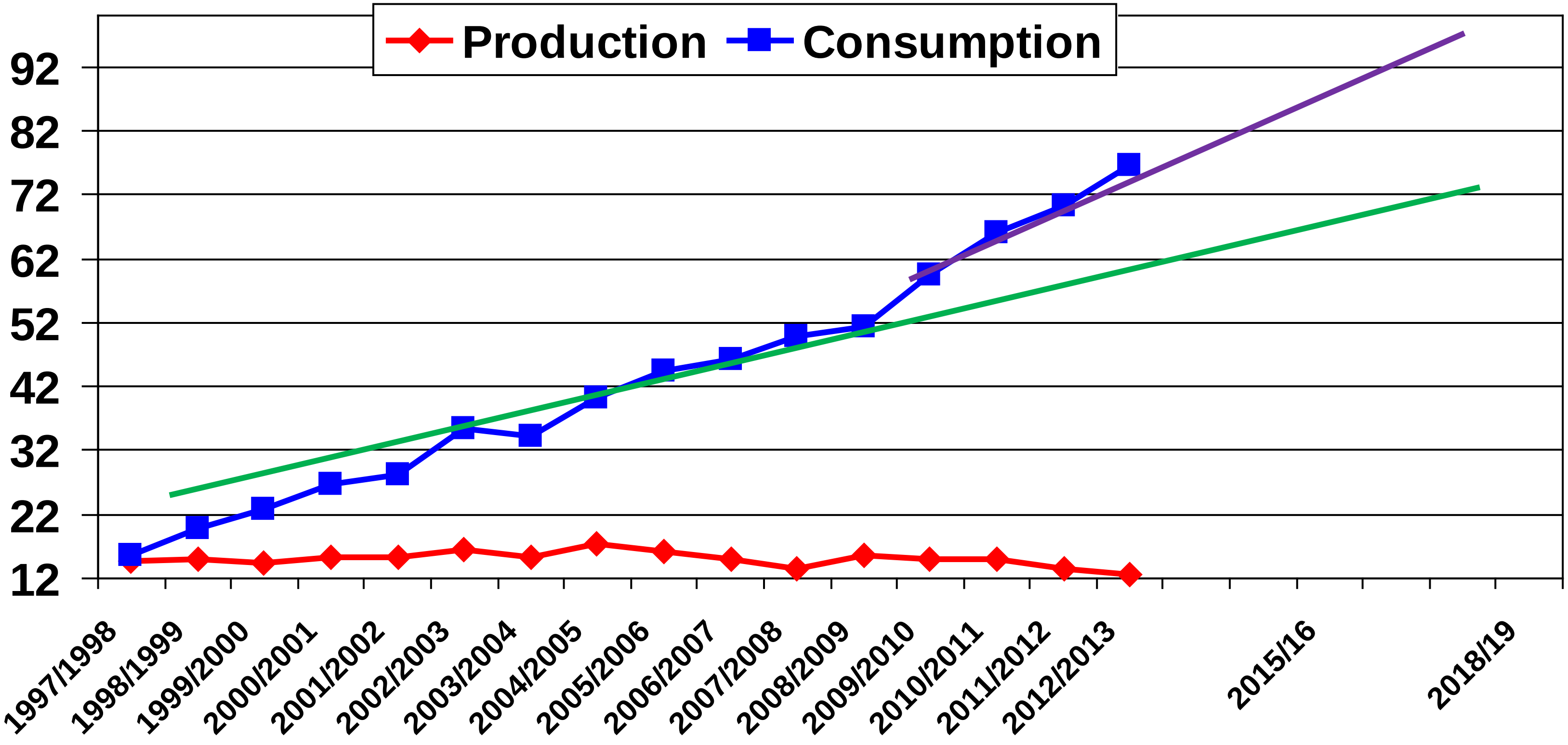
Soybean Price

dollars per bushel



China’s Soybean Balance

million tonnes

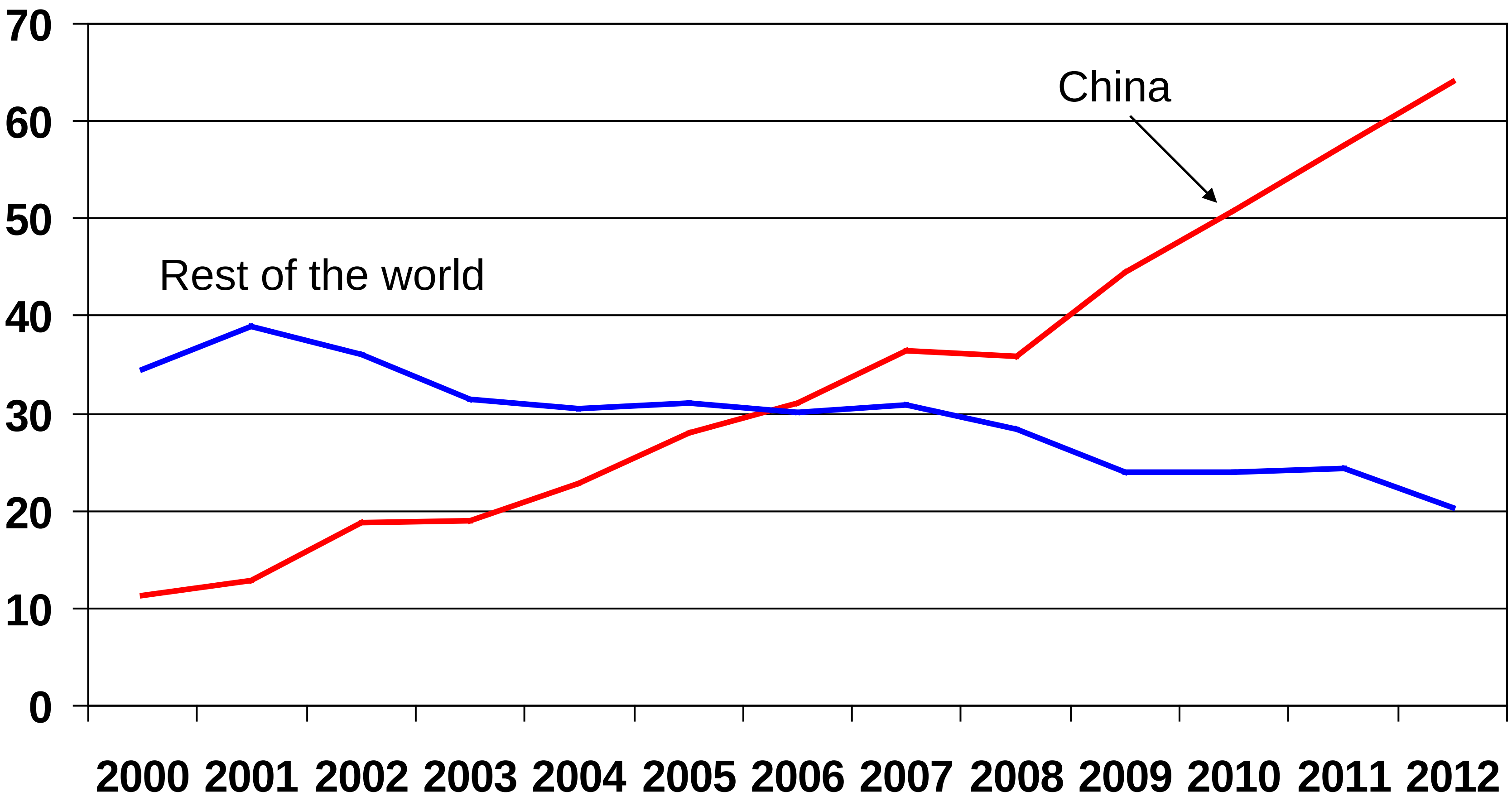


Deficit in 2018/19 is about 86 mmt compared to 62 million this year

We need to add about 4 million acres per year – just for China

Soybean Deficit

million tonnes



Rest of the world excludes Argentina, Brazil, and the U.S.

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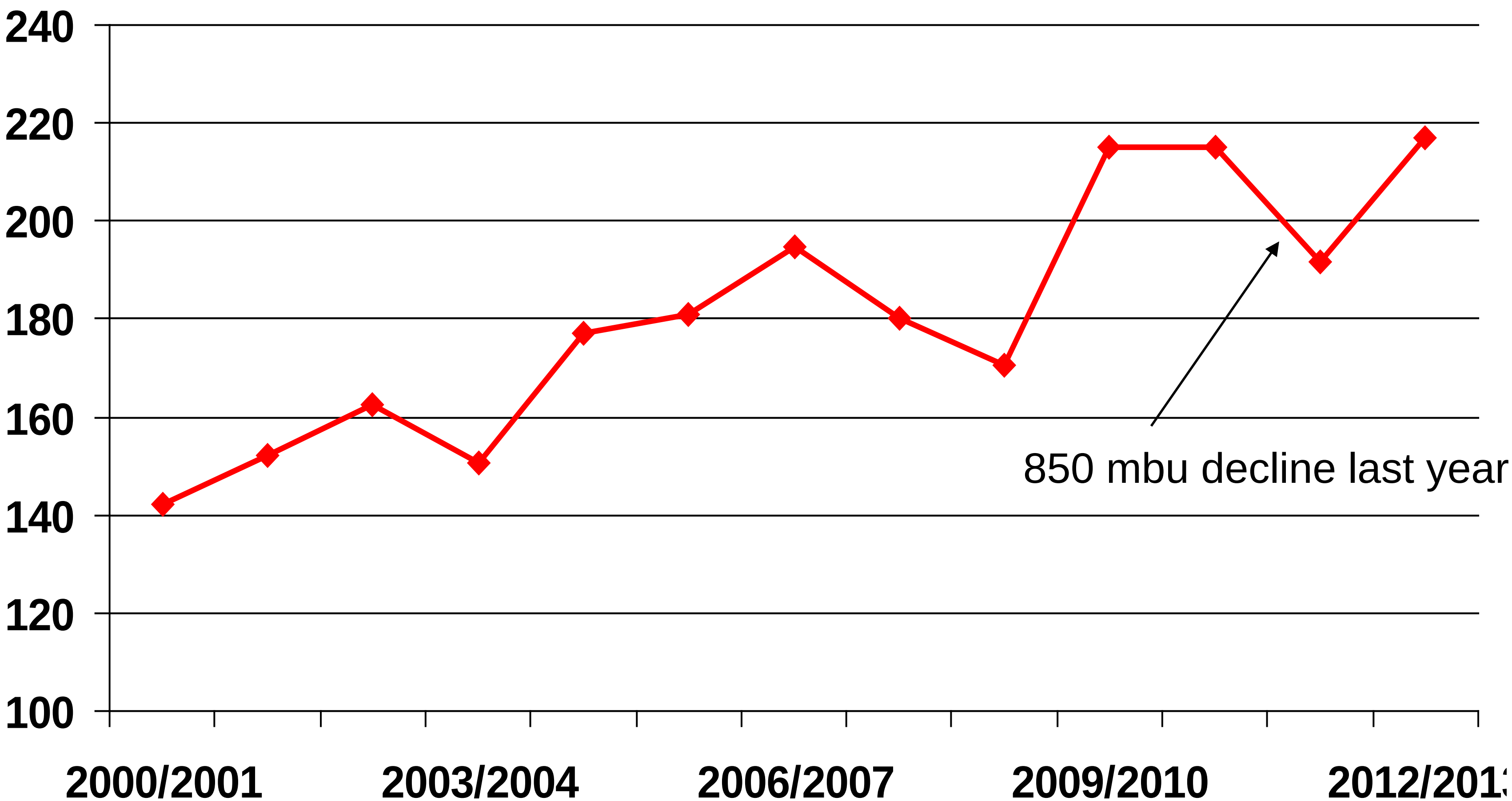
Soybeans: U.S. Balance Sheet – Sep/Aug Crop Year (billion bushels)

	2011/12	2012/13	2013/14	**2014/15**
Supply				
Planted Acres	75.0	77.2	78.0	77.5
Production	3.09	2.97	3.35	3.38
Total Disappearance	3.16	3.01	3.28	3.36
Ending Stocks	0.17	0.15	0.24	0.28
On-Farm Soybean Price ($/bu)	12.50	14.75	12.00	12.00

Soybean Production (BZ, AR, US)

million tonnes



Crop Budgets for 2013

dollars per acre

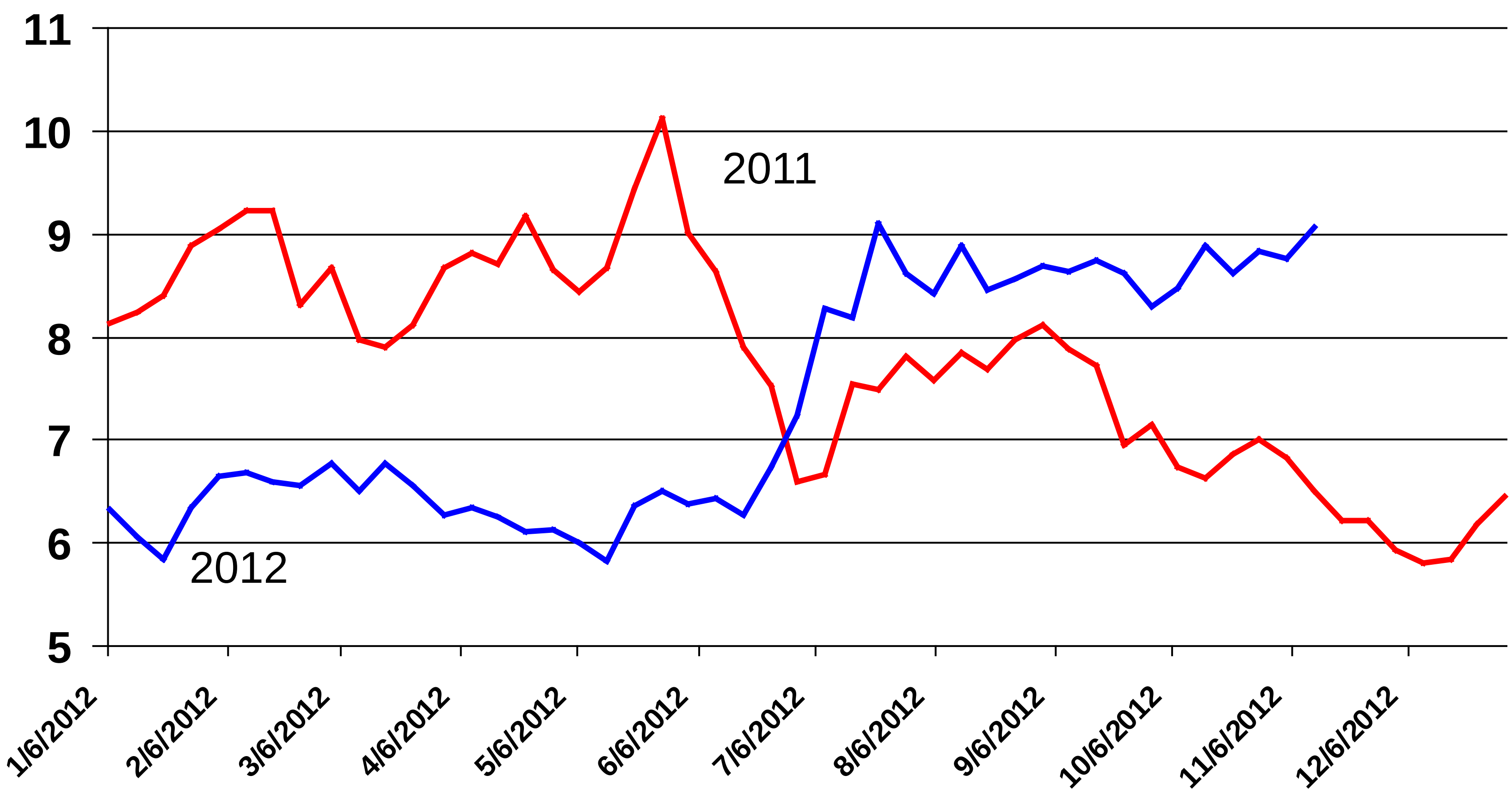
Northern Plains Region

	Soybeans	Wheat
Revenue	434	396
Operating Costs	126	118
Net Returns	308	278

Let’s Look at the Wheat Sector

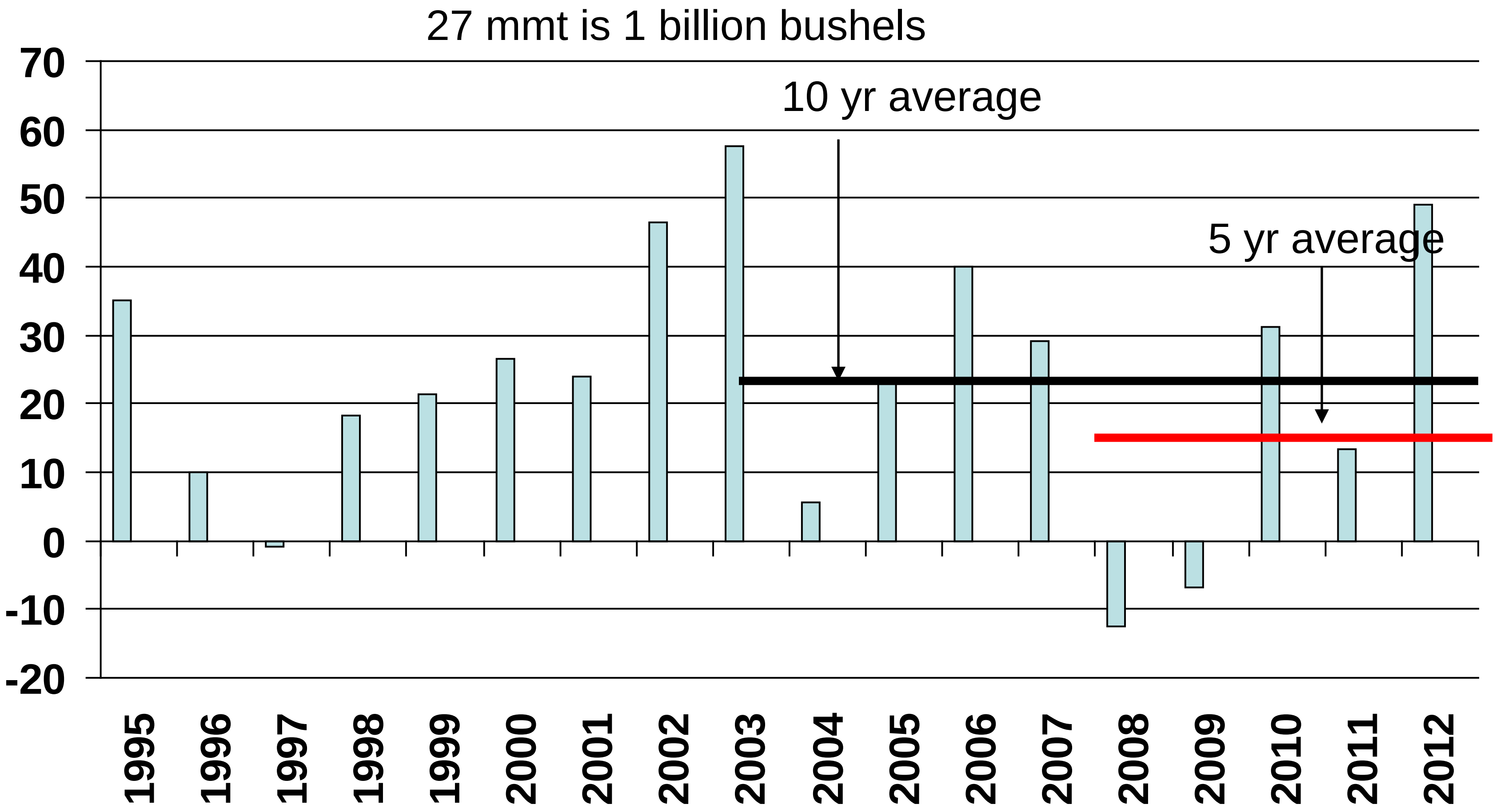
Kansas City Wheat Price

dollars per bushel



Foreign Wheat Deficit (prod-cons)

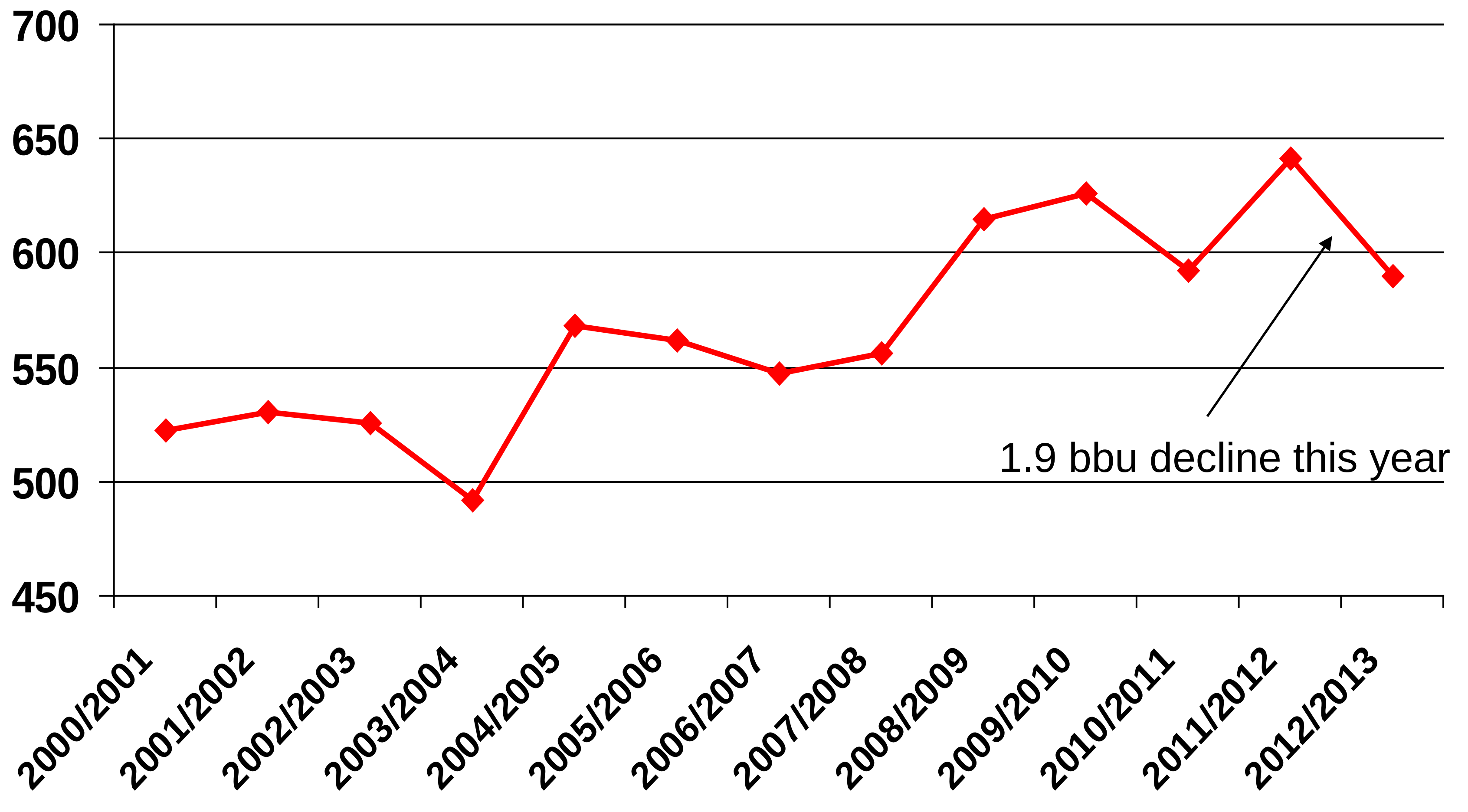
million tonnes



The 10 yr avg is 0.865 billion bushels the 5-yr 0.586 billion

Foreign Wheat Production

million tonnes



Wheat Sector Outlook

billion bushels

	2012/13	2013/14	
Planted Acres (mil)	55.7	58.9	57.8
Production	2.27	2.31	2.25
Exports	1.10	1.15	1.05
Total Use	2.45	2.38	2.27
Ending Stocks	0.69	0.74	0.82
Price ($/bushel)	7.81	7.30	6.57

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Land with Expiring CRP Contracts

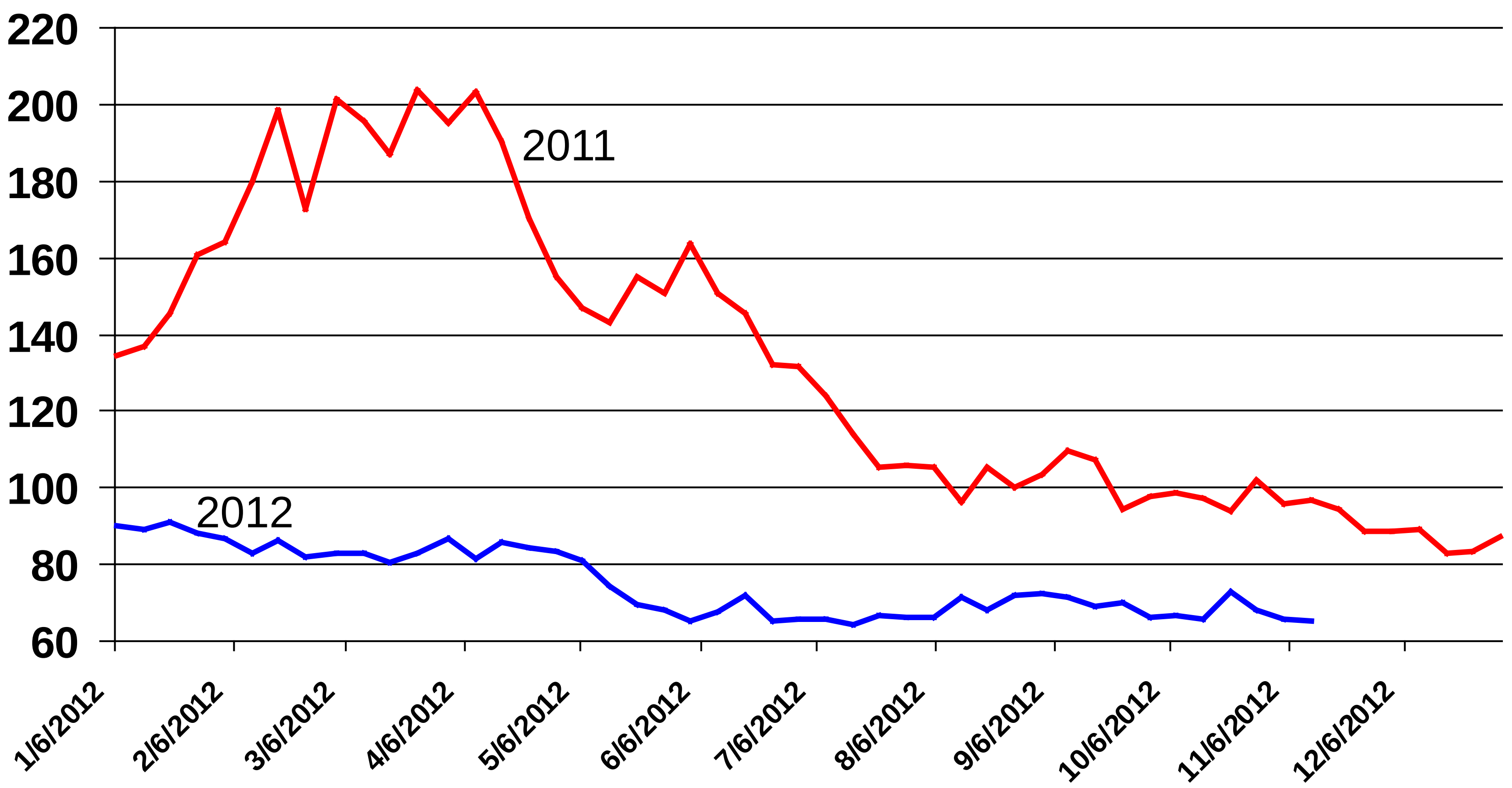
thousand acres

	2012	Chg 12-13	2013
Total U.S.	6,537	-2,660	3,324
North Dakota	840	-649	259
Texas	828	-61	362
Montana	695	-437	366
Colorado	573	-90	233
Kansas	518	-142	214
Missouri	377	-146	184
Minnesota	292	-193	130
Washington	275	-51	254
Iowa	232	-25	185
All others	1,907	-866	1,137

Let’s Look at the Cotton Sector

Cotton Price

cents per pound



Cotton Sector Outlook

million bales

	2012/13	2013/14	2014/15
Planted Acres (mil)	12.36	10.90	11.50
Production	17.45	16.10	17.09
Domestic Use	3.40	3.70	3.70
Exports	11.60	13.00	13.20
Total Use	15.00	16.72	16.90
Ending Stocks	5.80	5.20	5.40
Price (cents/lb)	66.0	70.0	70.0

Crop Acreage

million acres

	2012	2013	2014
Corn	96.9	96.5	93.0
Soybeans	77.2	78.0	77.5
Wheat	55.7	58.9	57.8
Cotton	12.4	10.9	11.5

A Few Other Factors of Note

Farm Policy Outlook

- Current farm bill covers the 2012 crops
  - But Congress needs to pass a new bill this year or early in 2013
- Next farm bill will be less generous
  - Proposed cuts range from $23 billion(Senate) to $35 billion (House) over 10 years
  - Direct payments will end
  - CRP cap will be lowered to 25 million acres
  - But shallow loss program augments crop insurance

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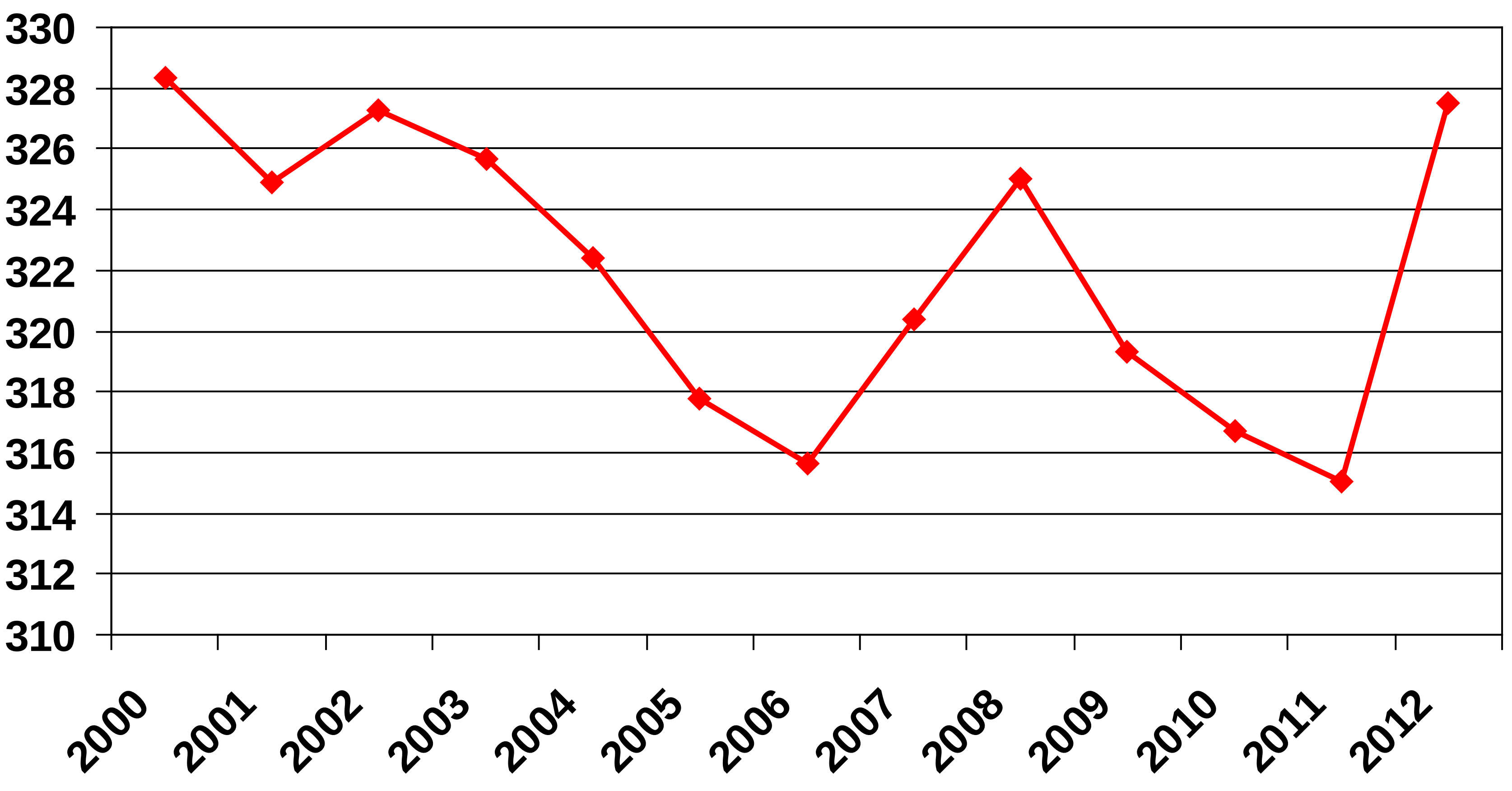
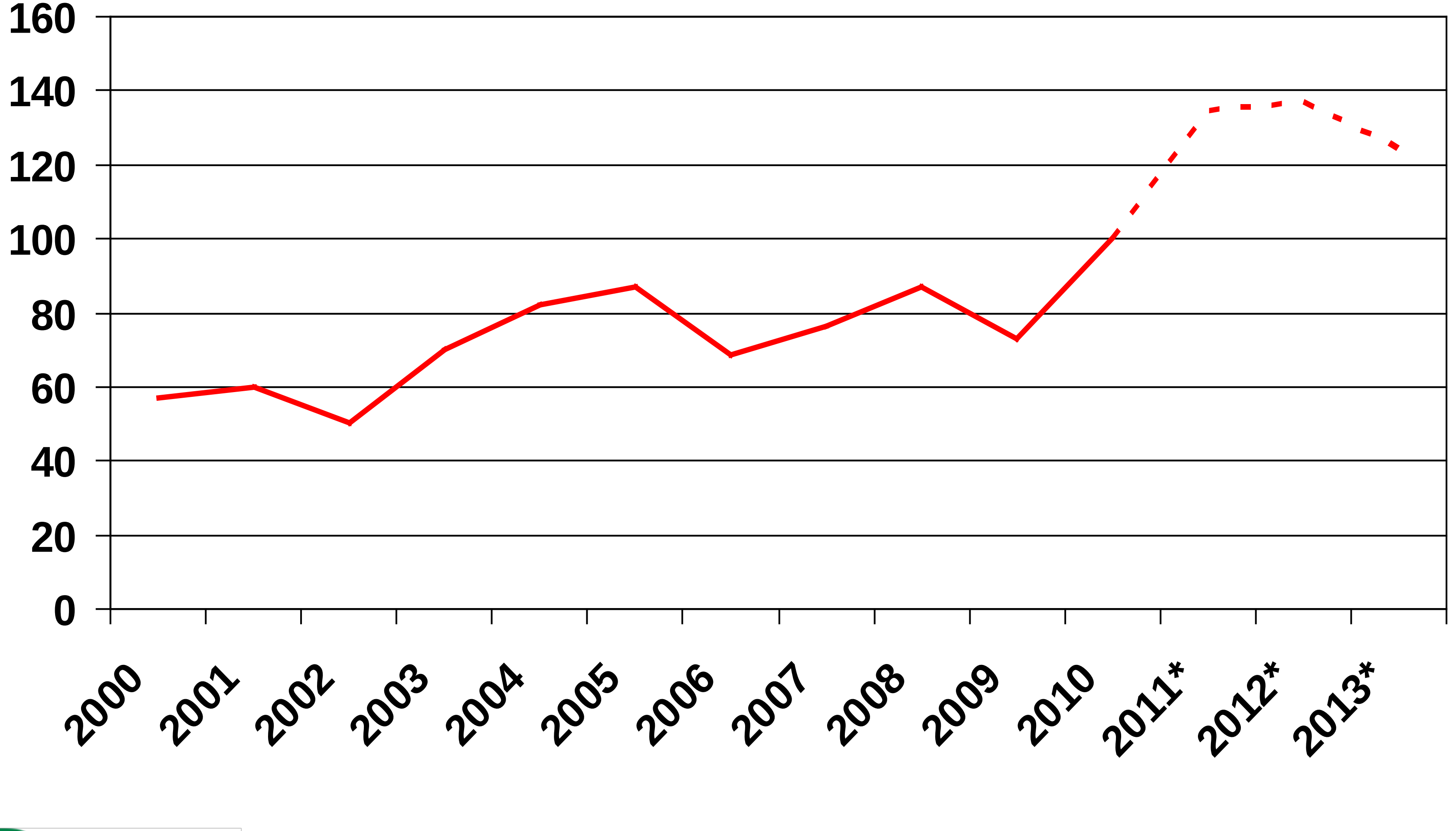
Principal Crop Acreage

million acres



Net Cash Farm Income

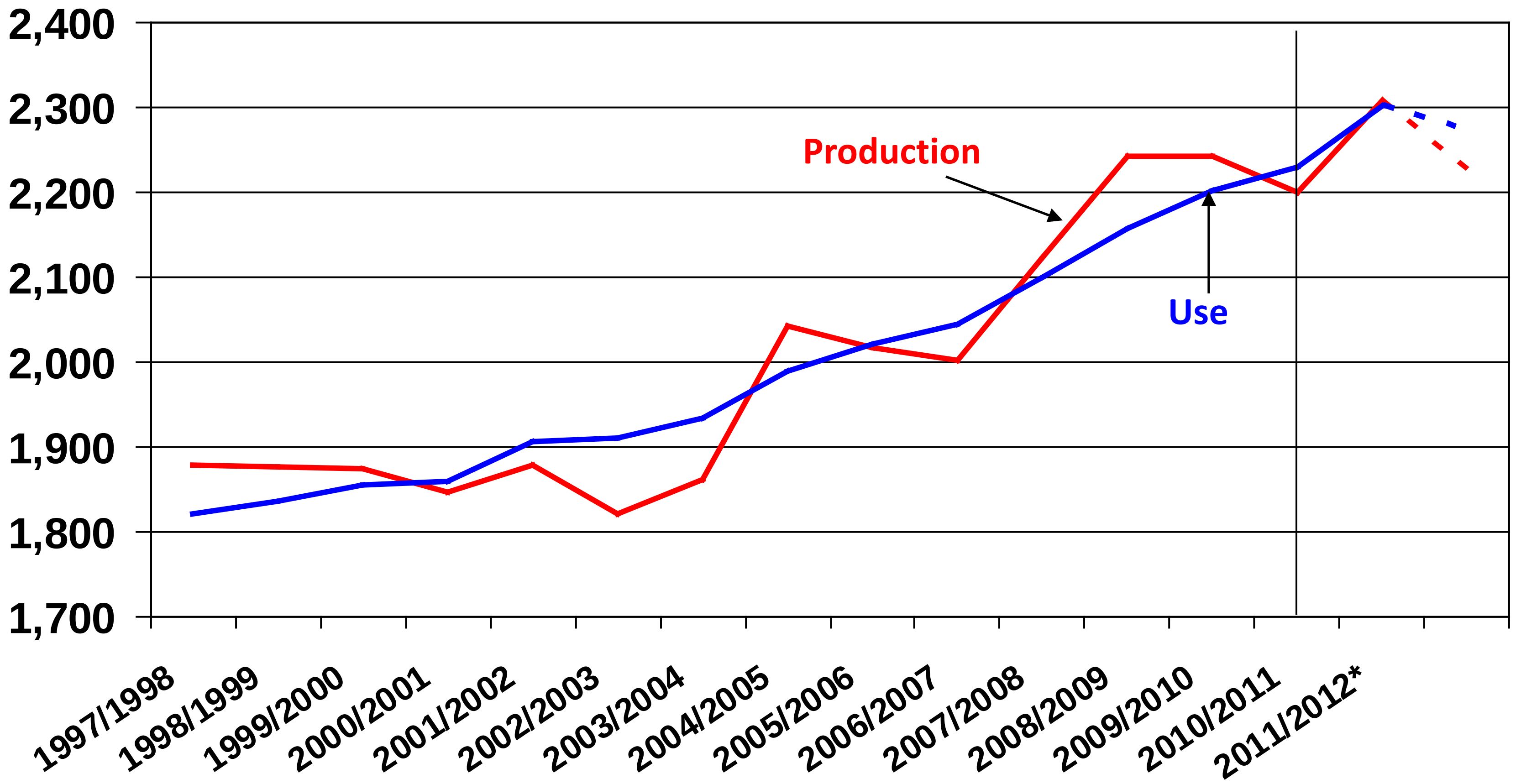
billion dollars



A Few Comments on World Agriculture

World Grain Production and Use

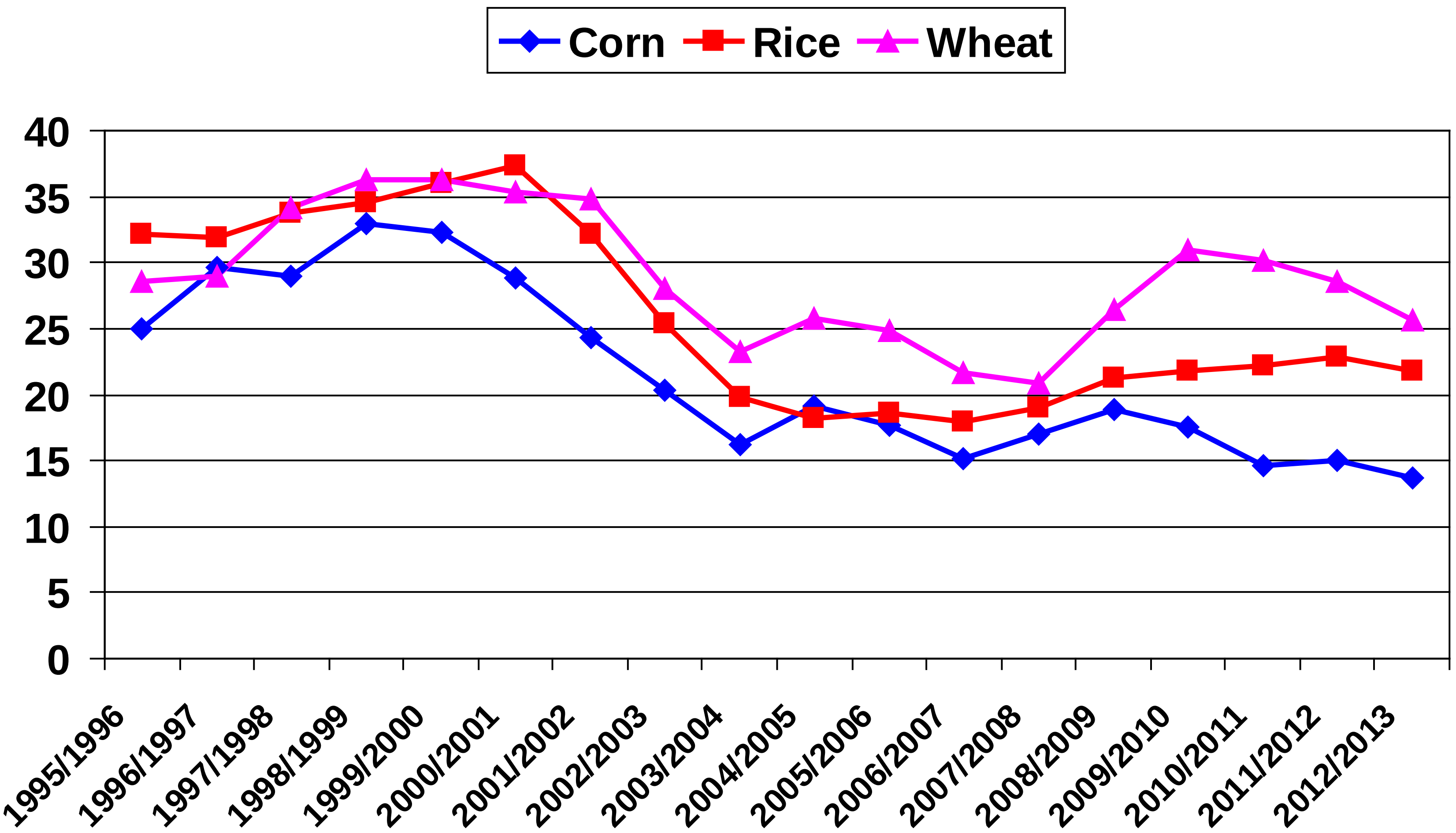
million tonnes



Last 3 years = deficit of 70 million tonnes
46 million in 2012/13

World Stock-to-Use Ratios

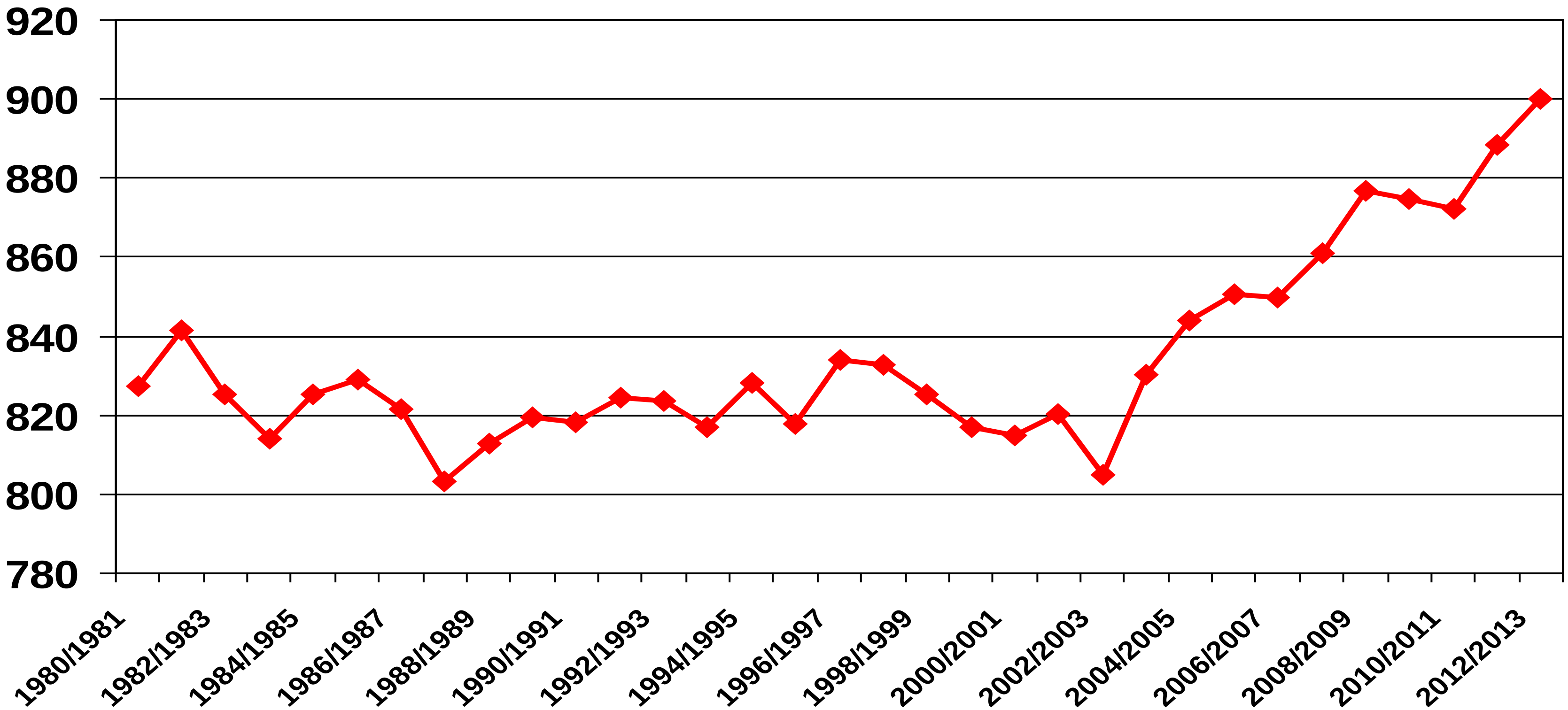
percent



Are We Running Out of Cropland?

World Major Crop Area

million hectares



Where World Area is Increasing

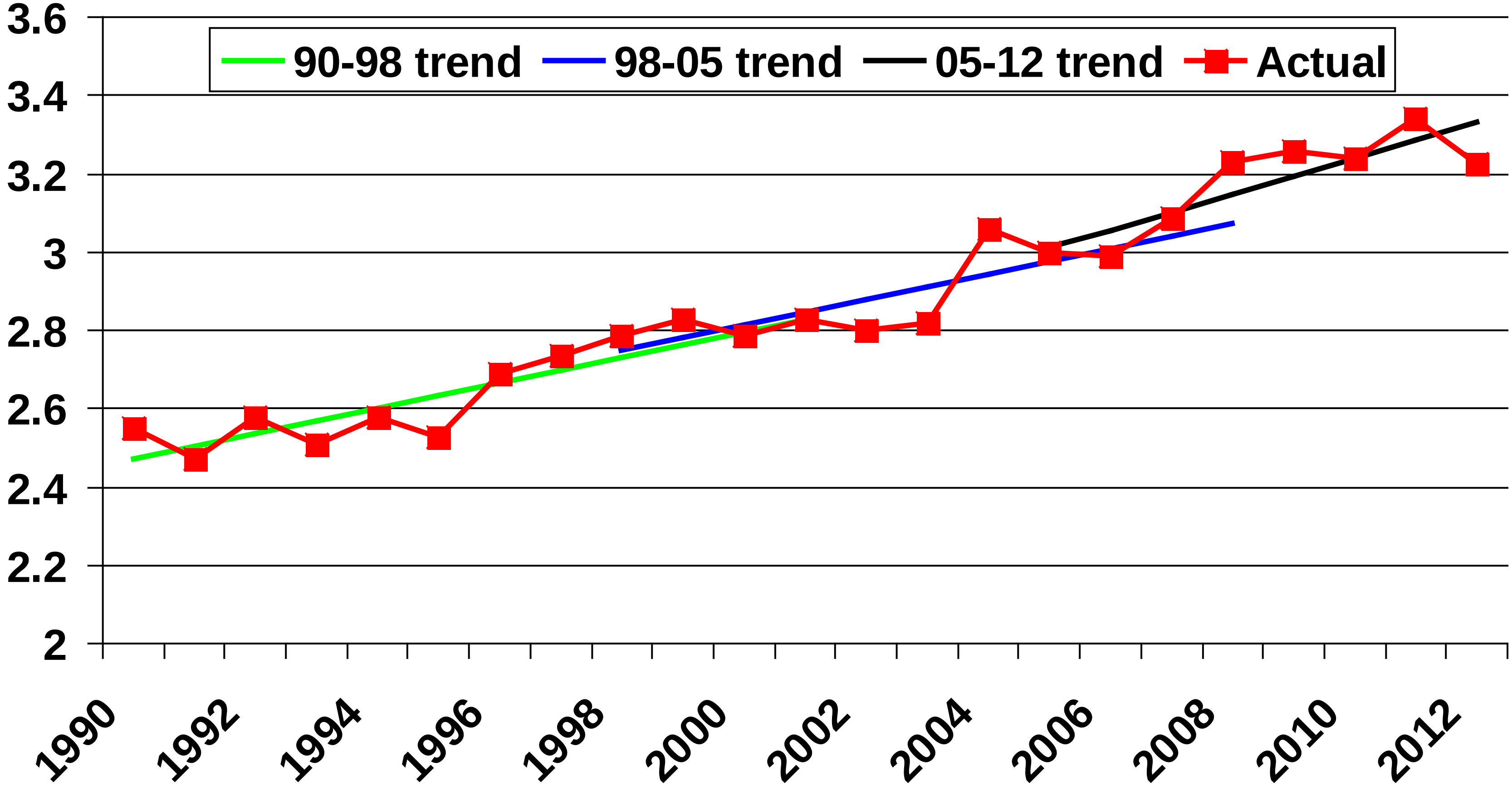
million hectares

	2000	2010	2012	Chg 00-12	Million acres
Brazil	33.4	45.5	50.2	16.8	41.5
Argentina	23.7	31.7	33.0	9.3	23.0
Ukraine	14.3	21.2	22.0	7.7	19.0
China	108.8	114.5	115.5	6.7	16.6
India	118.8	122.1	123.2	4.3	10.6
Kazakhstan	12.5	17.4	16.7	4.2	10.4
Iran	7.4	9.7	9.7	2.3	5.7
Tanzania	3.4	5.1	5.6	2.2	5.4
Paraguay	2.3	4.4	4.4	2.1	5.2

Is Yield Growth Slowing Down?

World grain Yields

tonnes per hectare



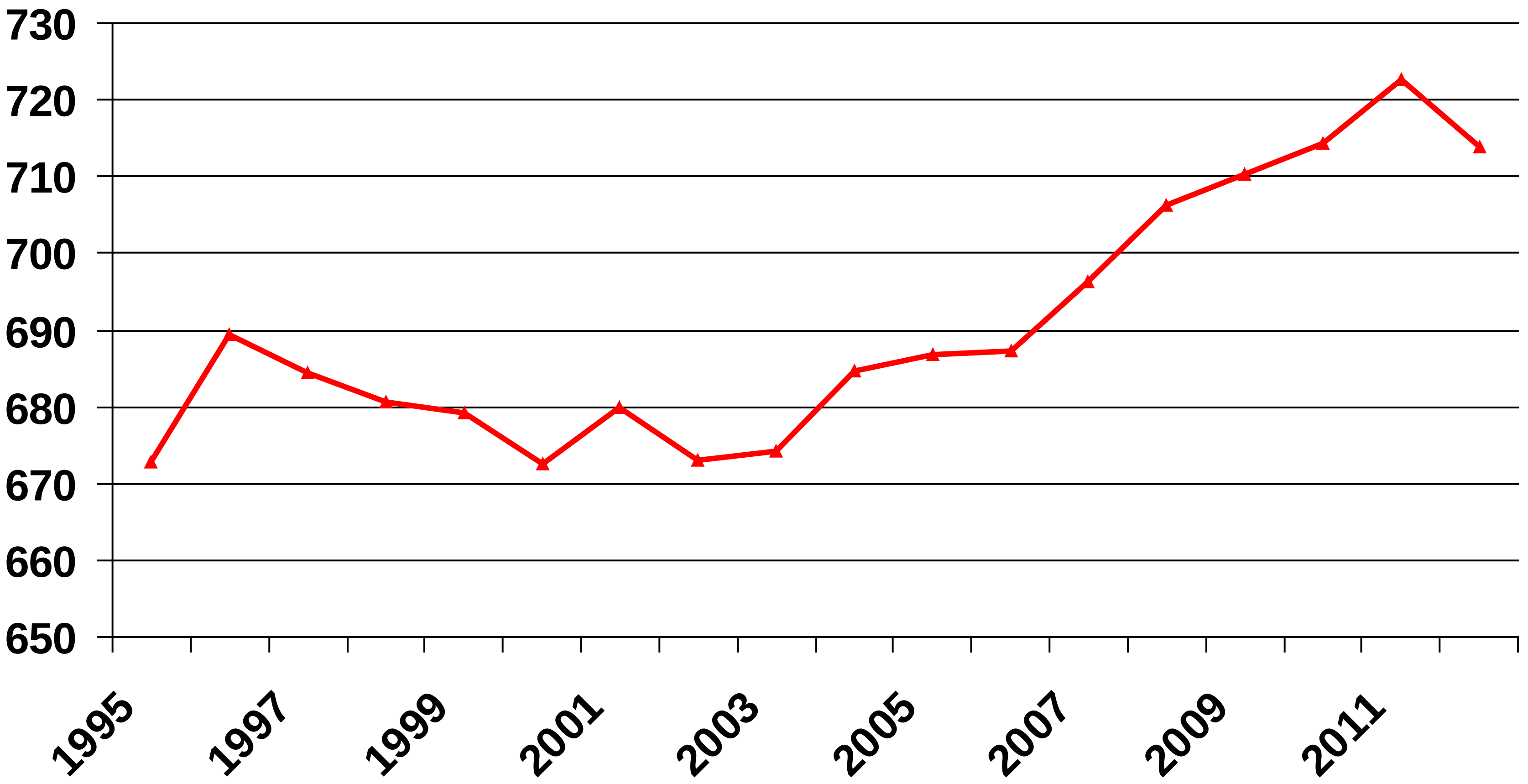
Yield rising at 1.3% per year

Population rising at 1.12% per year

What About the Demand Side?

Per Capita Grain Consumption

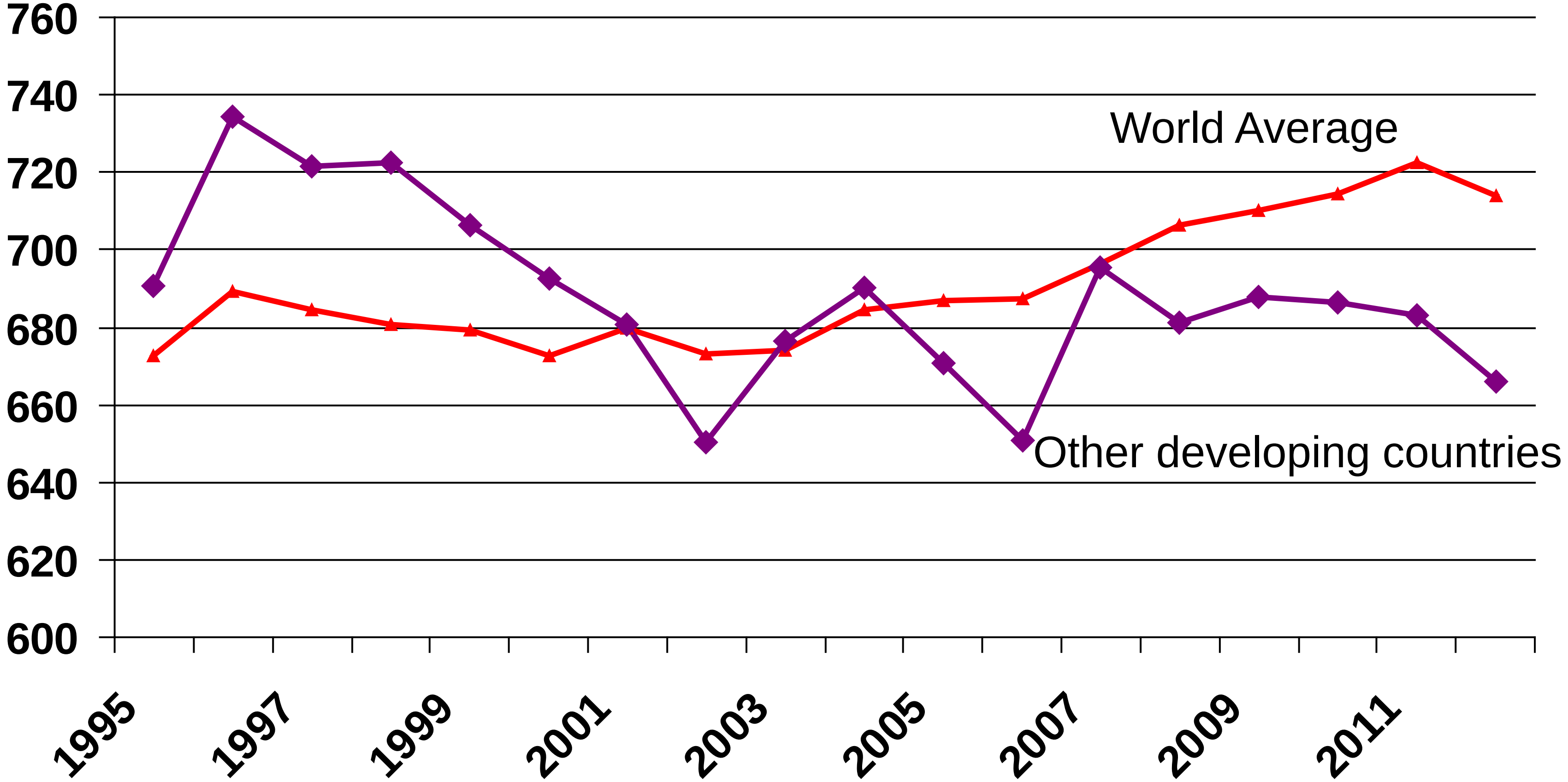
pounds



Per capita consumption is up about 6% since the early 2000s
Remember growth in the U.S. ethanol production was a big deal

Per Capita Grain Consumption

pounds



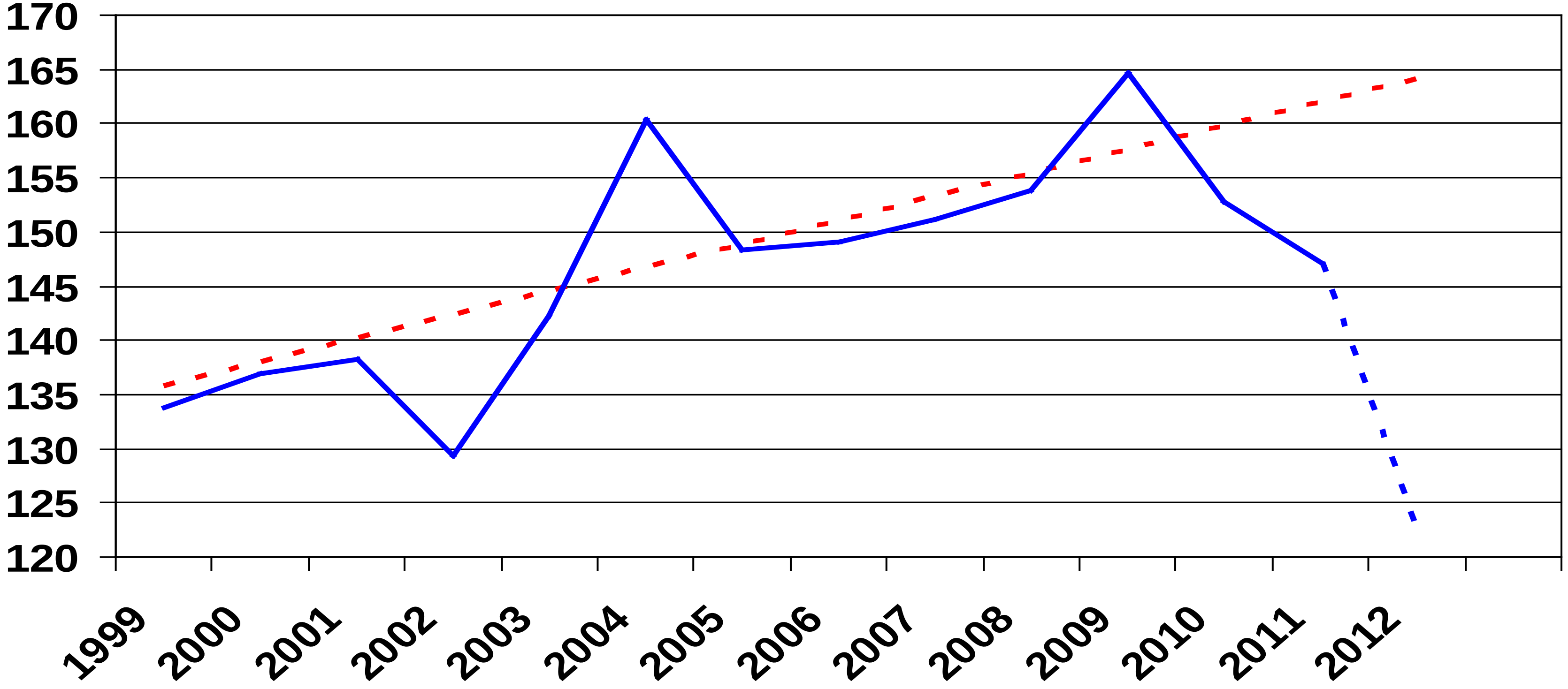
Per capita consumption is up about 6% since the early 2000s
Take out China and Developed countries and it is declining

Conclusions

- We need a new source of demand growth for corn
  - China may be it (or not)
- Crop prices are good and 2013 acreage will be high
  - Fertilizer demand should also be good
- Rebound in South American crops is needed for soybeans
- The future of the farm bill remains uncertain

U.S. Corn Yield

Bushels per acre



Let me leave you with the most critical – but unanswered question –

Have underlying weather patterns changed?

Questions??