

Agricultural Commodity Outlook

Gerald A. Bange
Chairperson

World Agricultural Outlook Board
Office of the Chief Economist
U.S. Department of Agriculture

Presented to

TD Newcrest Total Commodity Conference

Toronto, Canada

June 4, 2008

Price Volatility Factors

- **Strong Demand Worldwide for Agricultural Commodities**
- **Record High Petroleum Prices**
- **Increased Production of Renewable Fuels**
- **Tight Grain and Soybean Stocks**
- **World Wheat Consumption has exceeded Production in 7 of the last 8 years**
- **Restrictions on World Exports of Grains – especially Rice**
- **U.S. Cotton Area and Production sharply lower**
- **Rising Input Costs**
- **Weak U.S. Dollar**

Price Volatility Factors

(continued)

- **Strong Demand Worldwide for Agricultural Commodities**
 - **Income growth in developing countries – India, China, etc.**
 - **Japan and other Asian markets active buyers despite high prices**
 - **Weak U.S. dollar**
- **Rising Petroleum Prices and Increased Production of Renewable Fuels**
 - **Corn for Ethanol in the United States**
 - **Oilseeds for biodiesel in the European Union**

Price Volatility Factors

(continued)

- **Tight Grain and Soybean Stocks**
 - **U.S wheat stocks at 60-year low**
 - **World wheat stocks at 30-year low**
 - **Corn stocks likely to decline sharply in 2008/09**
 - **U.S. soybean acres down sharply in 2007/08, stocks reduced from record beginning levels as use exceeds production by 400+ million bushels**
 - **South American soybean acres increased only modestly in 2007/08**
 - **China imports of soybeans forecast record high**

Price Volatility Factors

(continued)

- **World Wheat Consumption has exceeded Production in 7 of the last 8 years**
 - Yields below trend in major exporting countries for the past 2 years
 - Australia recorded 2 back-to-back crop failures – lost more than one full year's output
 - E.U. crops below par
 - U.S. yields below trend
 - Canadian crops below average

Price Volatility Factors

(continued)

- **Restrictions on World Exports**
 - **Ukraine, Russia, and Kazakhstan curtailed grain exports**
 - **Argentina shut-off export registrations on corn and wheat and raised taxes on soybean exports**
 - **Vietnam, India, Egypt, Cambodia, and China have imposed various restraints on rice exports**
 - **Thai exporters are having difficulty securing rice supplies to meet contracts**
 - **Australian rice exportable supplies down sharply due to drought**

Price Volatility Factors

(continued)

- **U.S. Cotton Area and Production Sharply Lower in 2007/08 and 2008/09**
 - Cotton acres lost to competing crops, especially soybeans and corn
 - Increased dependence on exports
 - U.S. export forecast reduced as season progressed due to diminished China purchases/increased competition from India
 - Area forecast to decline again - projected net returns expected to favor grains and oilseeds in 2008/09
 - Competitor production has been growing – notably in India
 - China - excellent crops
 - Australia - crop reduced by drought
 - Pakistan - crop reduced by insect infestation

Price Volatility Factors

(continued)

- **Rising Input Costs**
 - **Fuel prices up sharply**
 - **Fertilizer prices at record highs**
 - **Strong global demand with higher incomes, improved cultural practices and more cultivated area amid rising prices for agricultural commodities**
 - **U.S. dependency on fertilizer imports is growing**
 - **domestic production accounts for less than half of nitrogen needs**
 - **Feed prices rising**

World Wheat Production

Country or Region	2007/08 estimate	2008/09 forecast	Change from 2007/08
	<i>Million Tons</i>		<i>Percent</i>
World	606.4	656.0	8.2
United States	56.2	65.1	15.7
Argentina	15.5	15.0	-3.2
Canada	20.1	25.0	24.7
Australia	13.1	24.0	83.2
EU-27	119.5	140.0	17.2
Russia	49.4	52.0	5.3
Ukraine	13.9	20.0	43.9
China	106.0	109.0	2.8
India	75.8	76.8	1.3

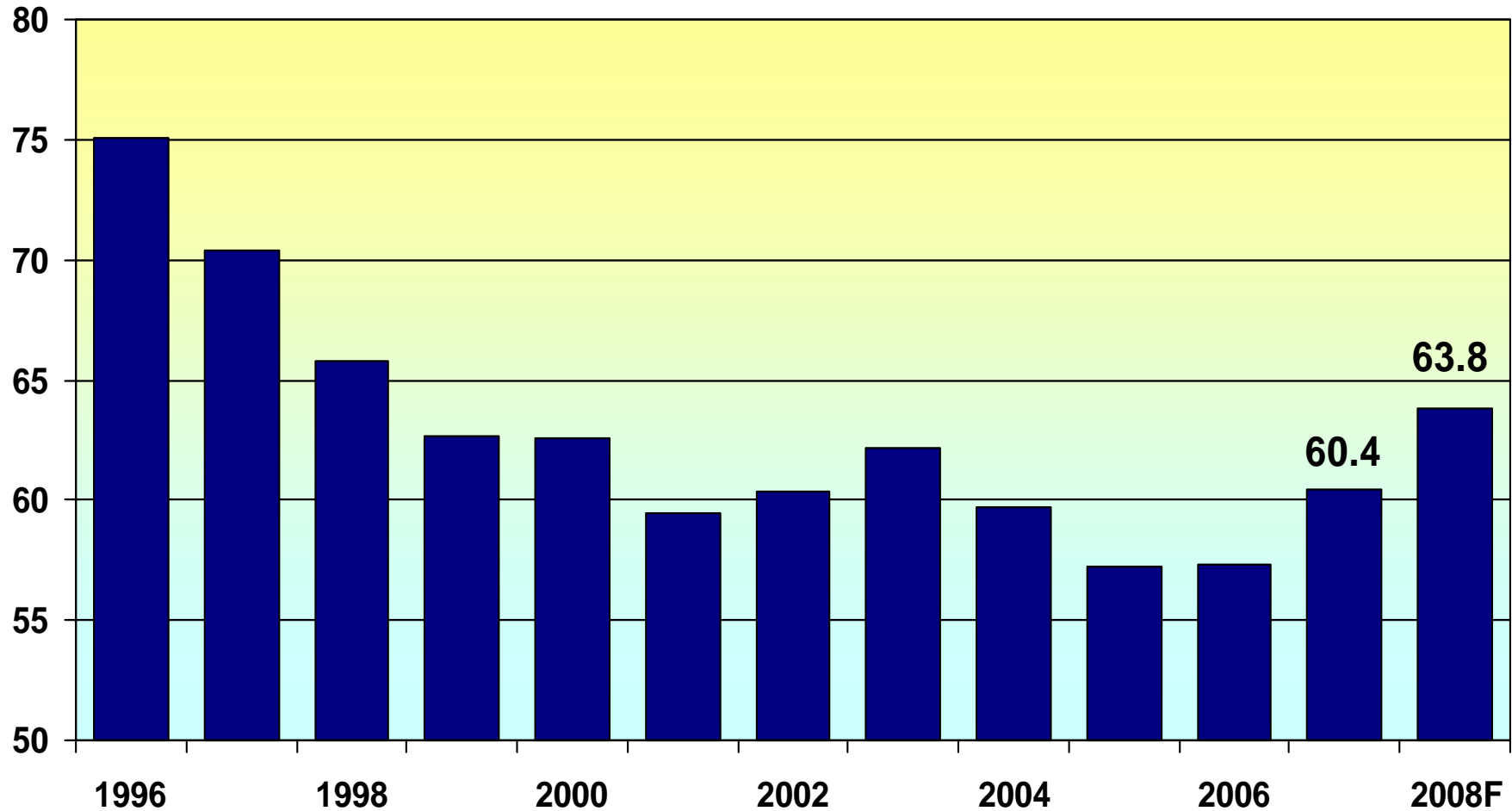
U.S. Wheat Supply and Demand

	2007/08 estimate	2008/09 forecast	Change from 2007/08
			<i>Percent</i>
Planted area (million acres)	60.4	63.8	5.6
Harvested area (million acres)	51.0	56.3	10.3
Yield (bushels per acre)	40.5	42.5	4.9
	<i>Million bushels</i>		
Beginning stocks	456	239	-47.5
Production	2,067	2,392	15.7
Imports	95	100	5.3
Total supply	2,618	2,732	4.3
Food use	950	960	1.1
Seed	88	84	-5.0
Feed and residual	60	230	283.3
Domestic use	1,098	1,274	16.0
Exports	1,280	975	-23.8
Total use	2,378	2,249	-5.4
Ending stocks	239	483	101.5
	<i>Percent</i>		
Stocks to use ratio	10.1	21.5	
	<i>Dollars per bushel</i>		
Average market price	6.55	6.60/8.10	12.2

U.S. Wheat Planted Area

Mil. acres

...wheat acres up 3.4 million for 2008



Note: 2008 planted area based on March 31, 2008, *Prospective Plantings*.

World Rice Production

Country or Region	2007/08 estimate	2008/09 forecast	Change from 2007/08
	<i>Million Tons</i>		<i>Percent</i>
World	427.1	432.0	1.2
China	129.5	130.9	1.1
India	95.7	96.0	0.3
Vietnam	23.5	23.6	0.1
Thailand	18.5	18.8	1.6
Brazil	8.1	8.5	4.6
Japan	7.9	7.9	-0.4
United States	6.3	6.3	-0.2
Pakistan	5.5	5.6	1.8

U.S. Rice Supply and Demand

Rough Equivalent of Rough and Milled Rice

	2007/08 estimate	2008/09 forecast	Change from 2007/08
			<i>Percent</i>
Planted area (million acres)	2.76	2.77	0.3
Harvested area (million acres)	2.75	2.76	0.3
Yield (pounds per acre)	7,185	7,145	-0.6
	<i>Million cwt</i>		
Beginning stocks	39.3	21.6	-45.0
Production	197.5	197.0	-0.2
Imports	21.5	22.5	4.7
Total supply	258.3	241.1	-6.6
Domestic use	124.7	126.0	1.1
Exports	112.0	98.0	-12.5
Total use	236.7	224.0	-5.3
Ending stocks	21.6	17.1	-20.8
	<i>Percent</i>		
Stocks/use	9.1	7.6	
	<i>Dollars/cwt</i>		
Average market price	12.85/13.15	18.50/19.50	46.2

2007 Energy Act

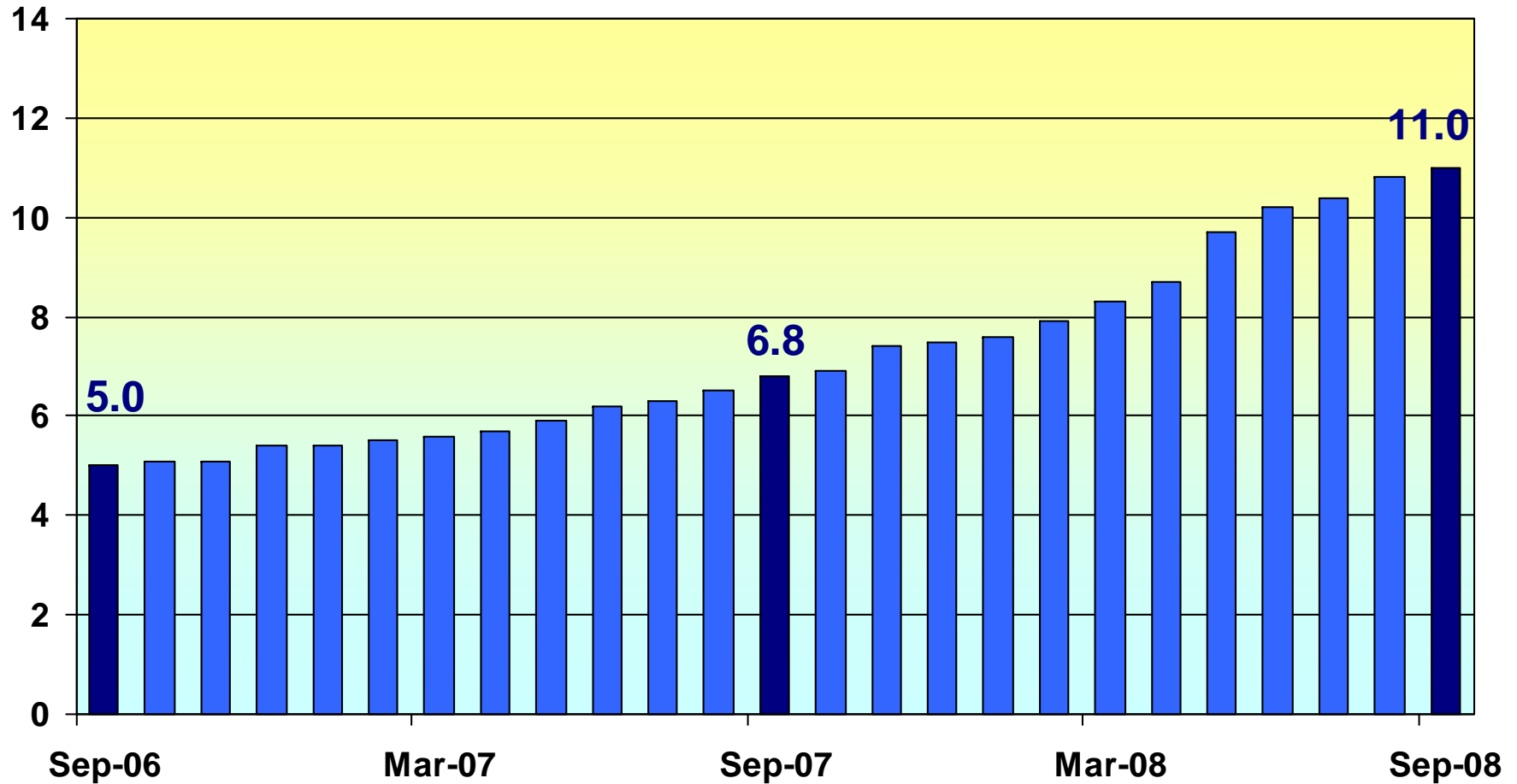
- Mandates very ambitious renewable fuel standard (RFS), starting at 9.0 billion gals in 2008 and increasing to 36 billion gals by 2022.¹
- 15 billion gallons of the RFS will be corn-based ethanol starting in 2015.
- By 2016, all of the RFS increase must be met with cellulosic ethanol or other non-corn starch biofuels.

¹ The 2005 Energy Act mandated 5.4 billion gals by 2008, rising to 7.5 billion by 2012.

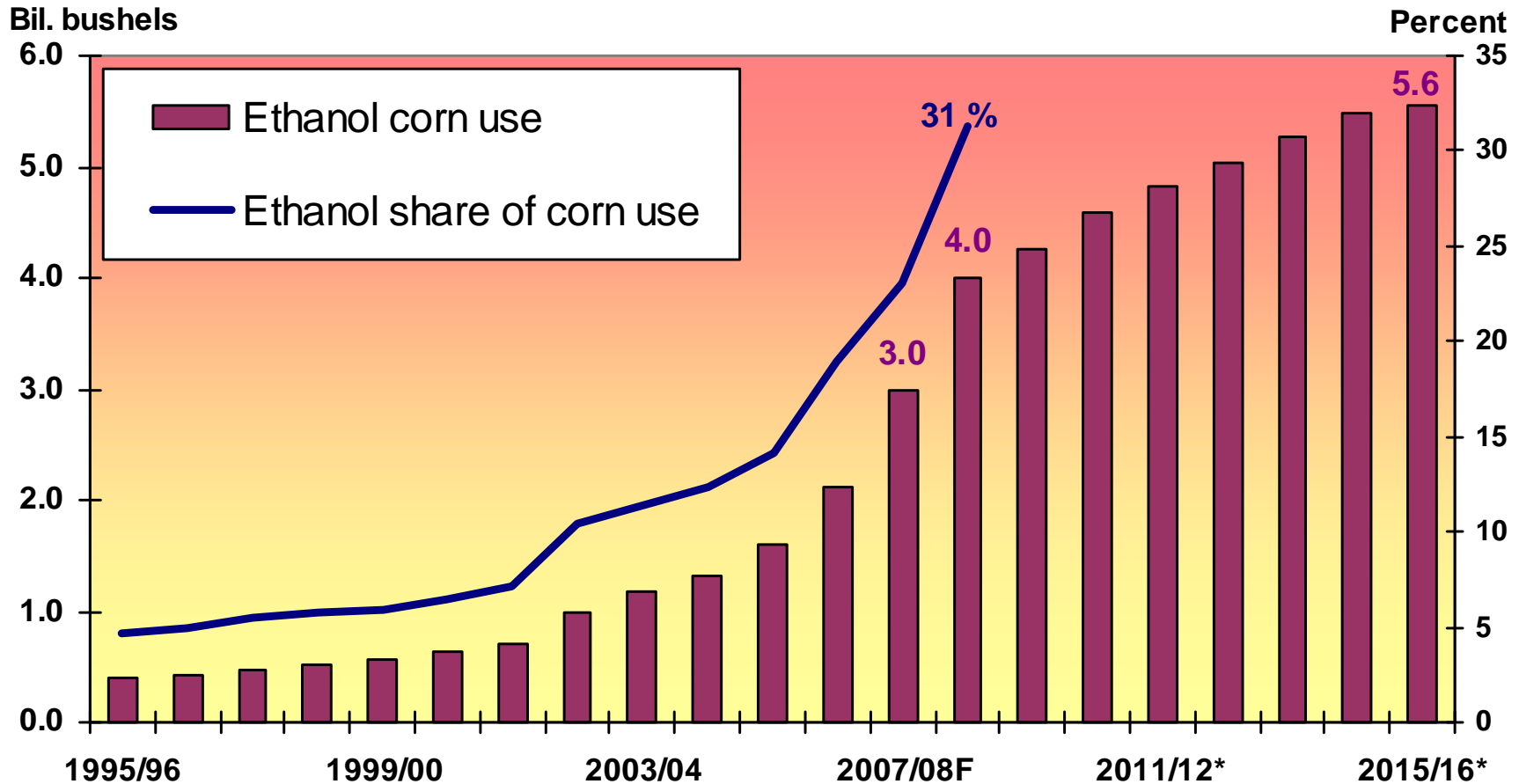
U.S. Ethanol Production Capacity

Annual Capacity by Month

Bil. Gallons

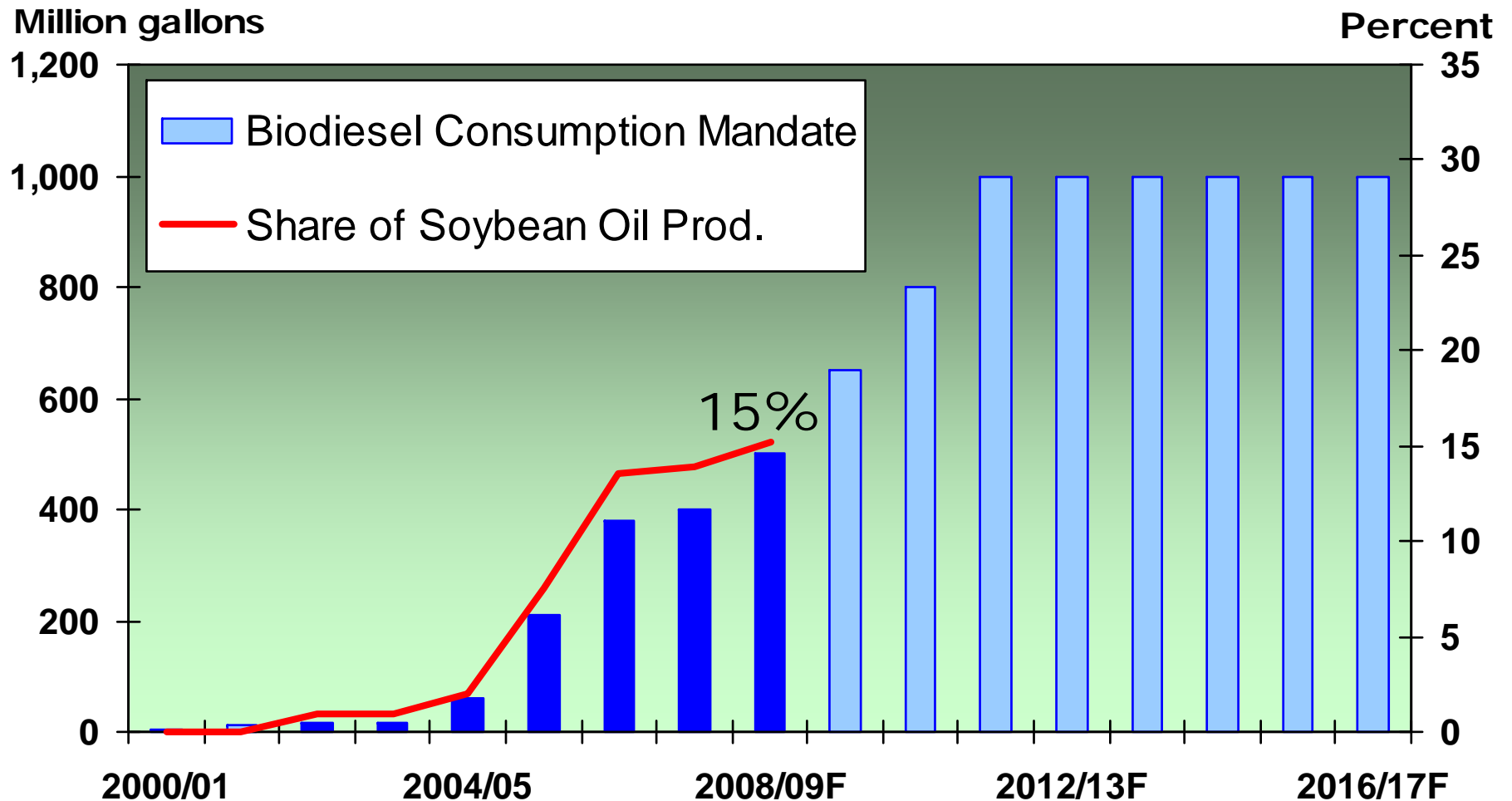


U.S. Corn Used for Ethanol



Note: 2007/08 and 2008/09 projections from the May 9, 2008, *World Agricultural Supply and Demand Estimates*. *Projections for 2009/10 and beyond based on RFS mandates for corn starch based ethanol under the Energy Independence and Security Act of 2007.

U.S. Biodiesel Mandate (2007 Energy Act)



Note: 2007/08 and 2008/09 projections from the May 9, 2008, *World Agricultural Supply and Demand Estimates*. *Projections for 2009/10 and beyond based on RFS mandates under the Energy Independence and Security Act of 2007.

Area Planted, 5 major crops

USDA forecasts for 2008/09

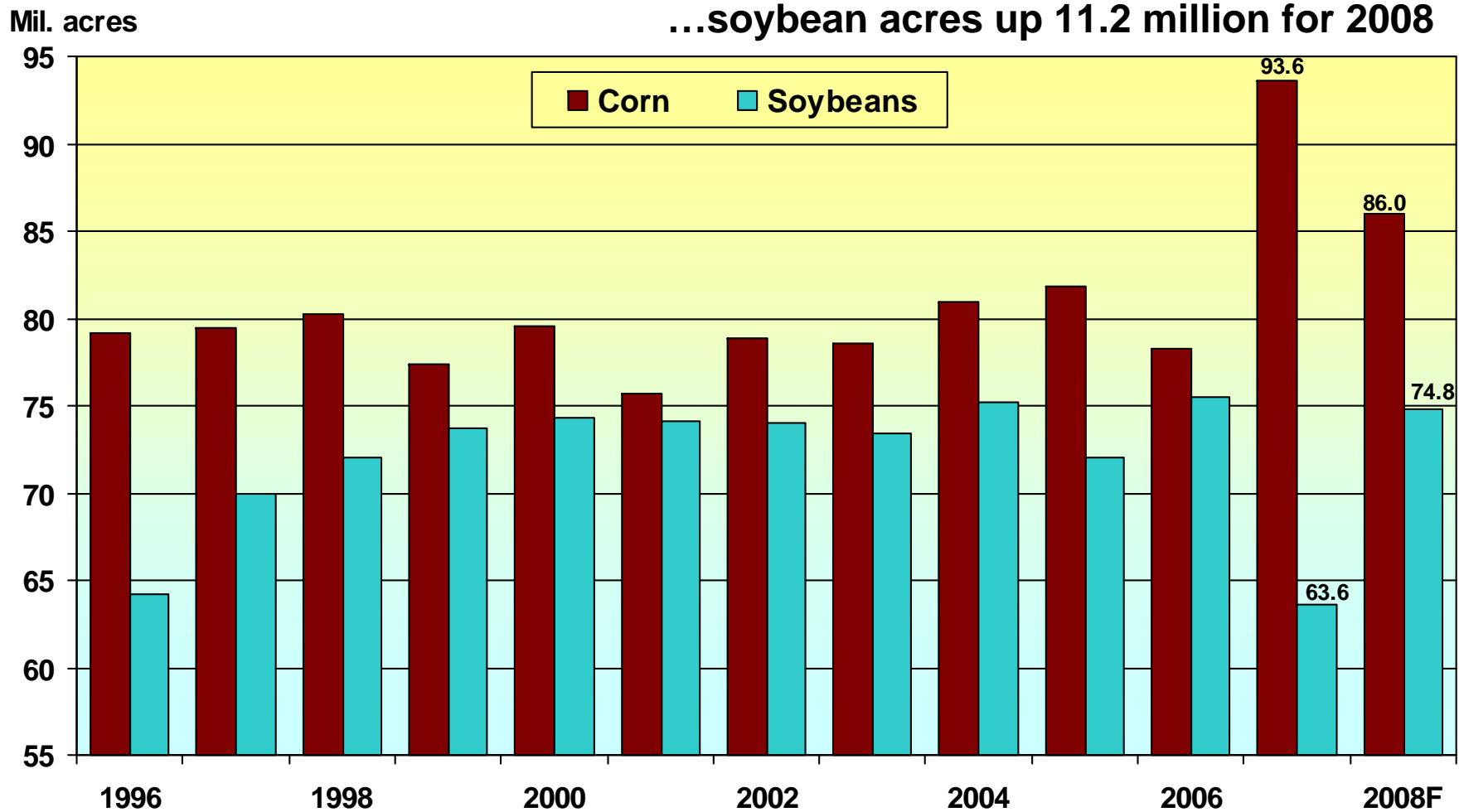
	2007/08 actual	Initial 2008/09 forecast 1/	March 2008/09 forecast 2/	June 2008/09 forecast 3/
Million acres				
Corn	93.6	90.0	86.0	
Soybeans	63.6	71.0	74.8	
Wheat	60.4	64.0	63.8	
All Cotton	10.8	9.5	9.4	
Rice	2.8	2.7	2.8	
5-crop total	231.2	237.2	236.8	

1/ February 22, 2008, Agricultural Outlook Forum.

2/ March 31, 2008, *Prospective Plantings*, from the National Agricultural Statistics Service.

3/ June 30, 2008, *Acreage*, from the National Agricultural Statistics Service.

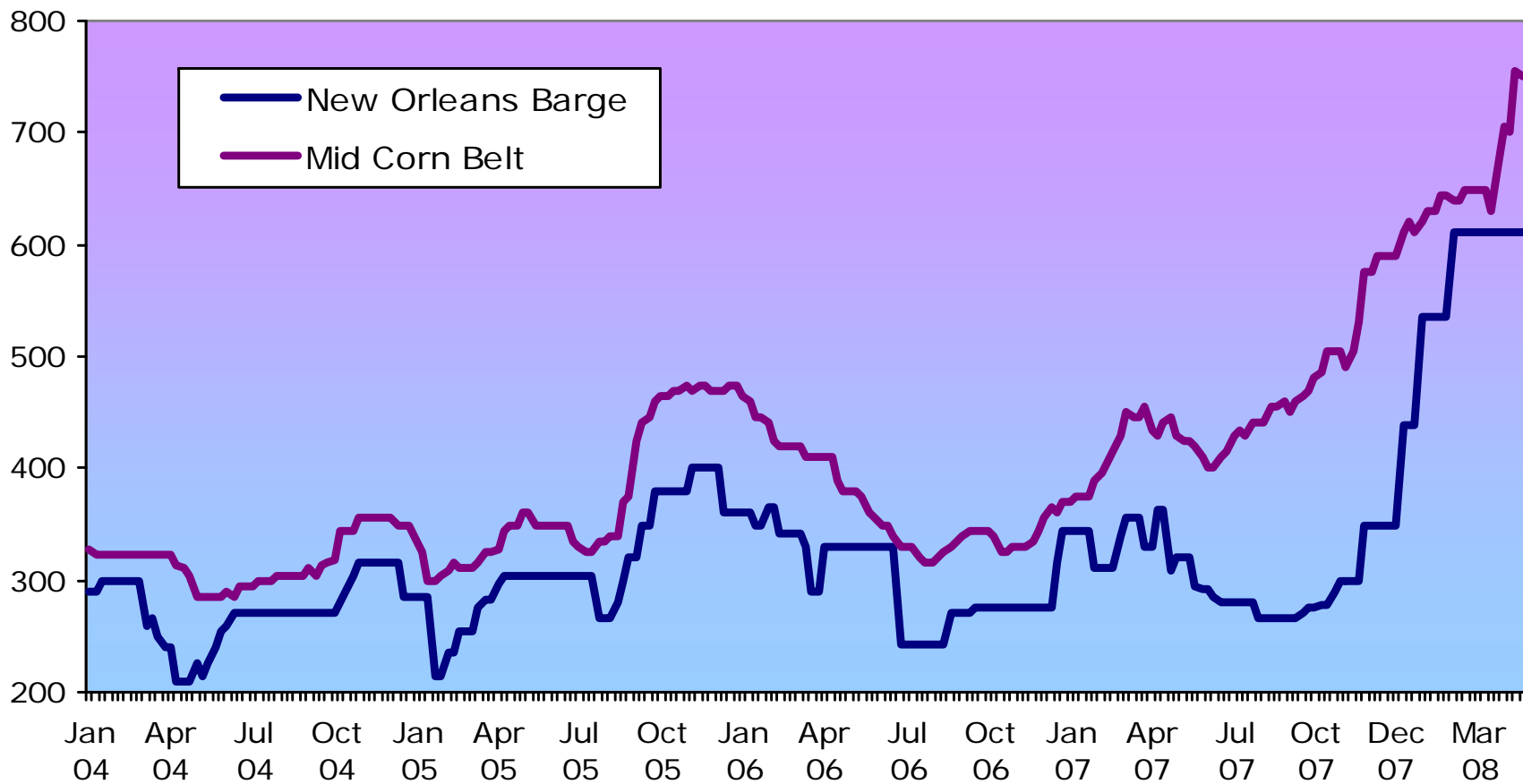
U.S. Corn & Soybean Planted Area



Note: 2008 planted area based on March 31, 2008, *Prospective Plantings*.

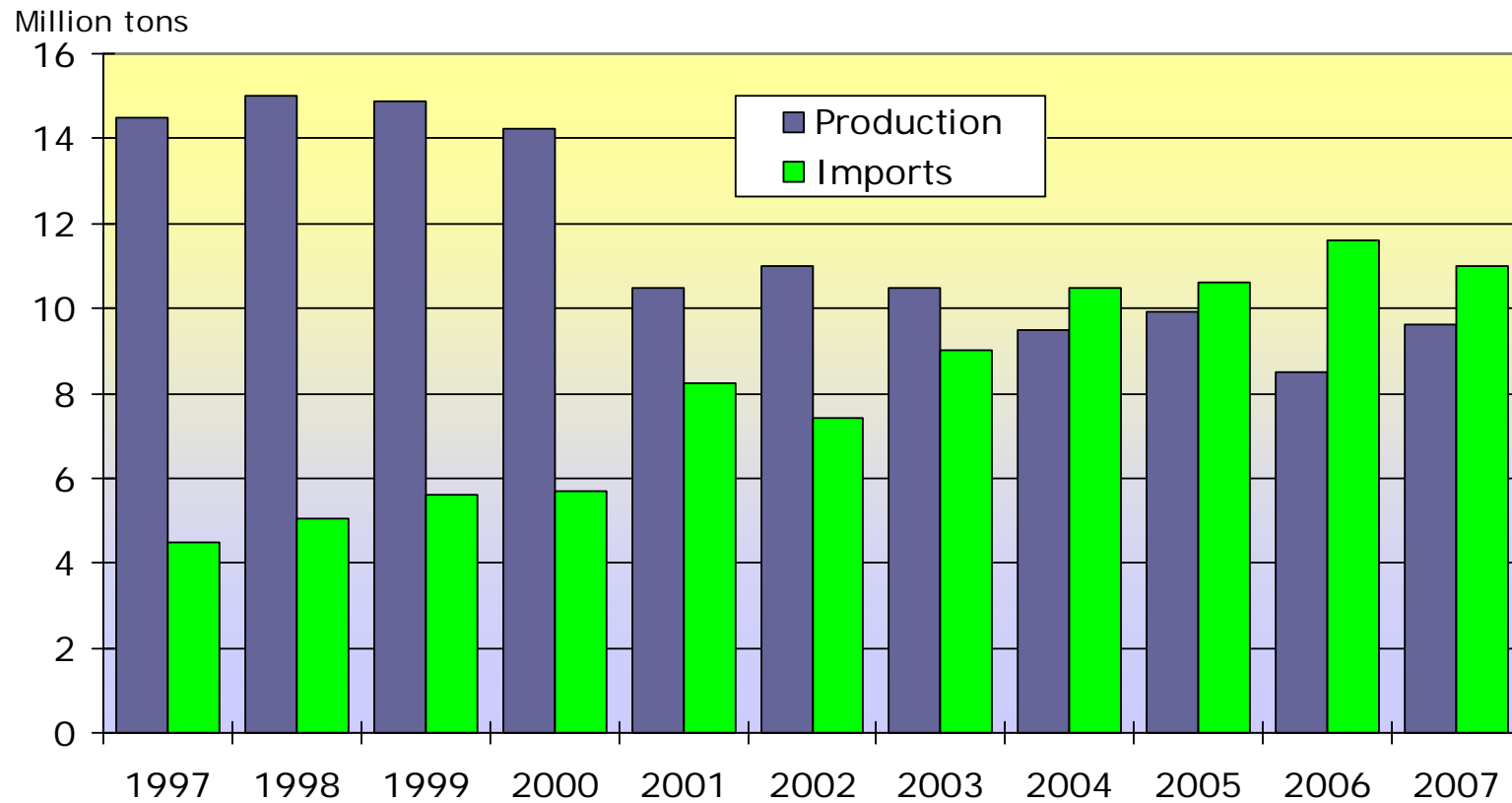
U.S. Ammonia Prices, weekly

\$ per short ton



Source: Green Markets Fertilizer Market Intelligence Weekly

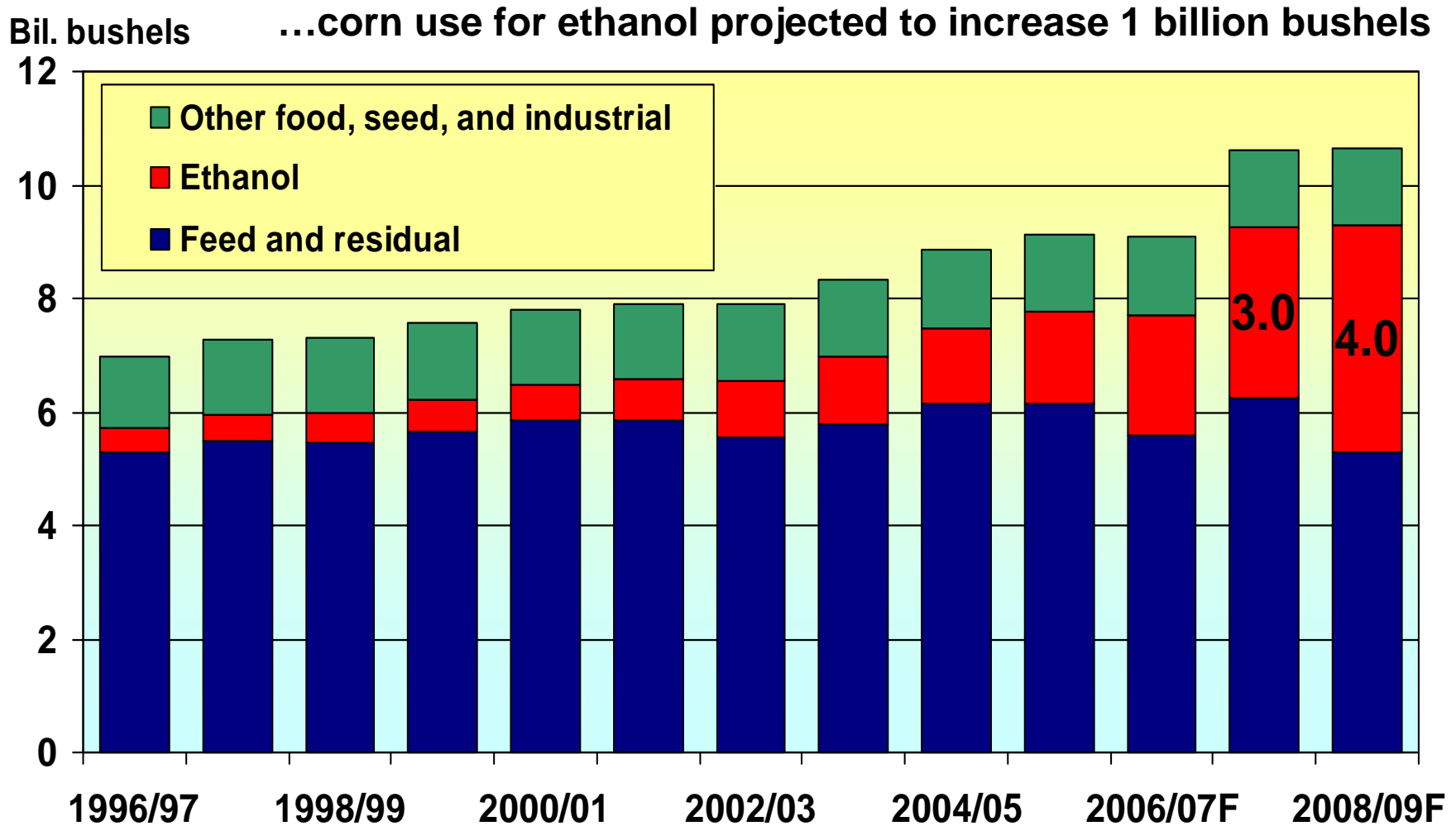
U.S. Nitrogen Production and Imports



U.S. Corn Supply and Demand

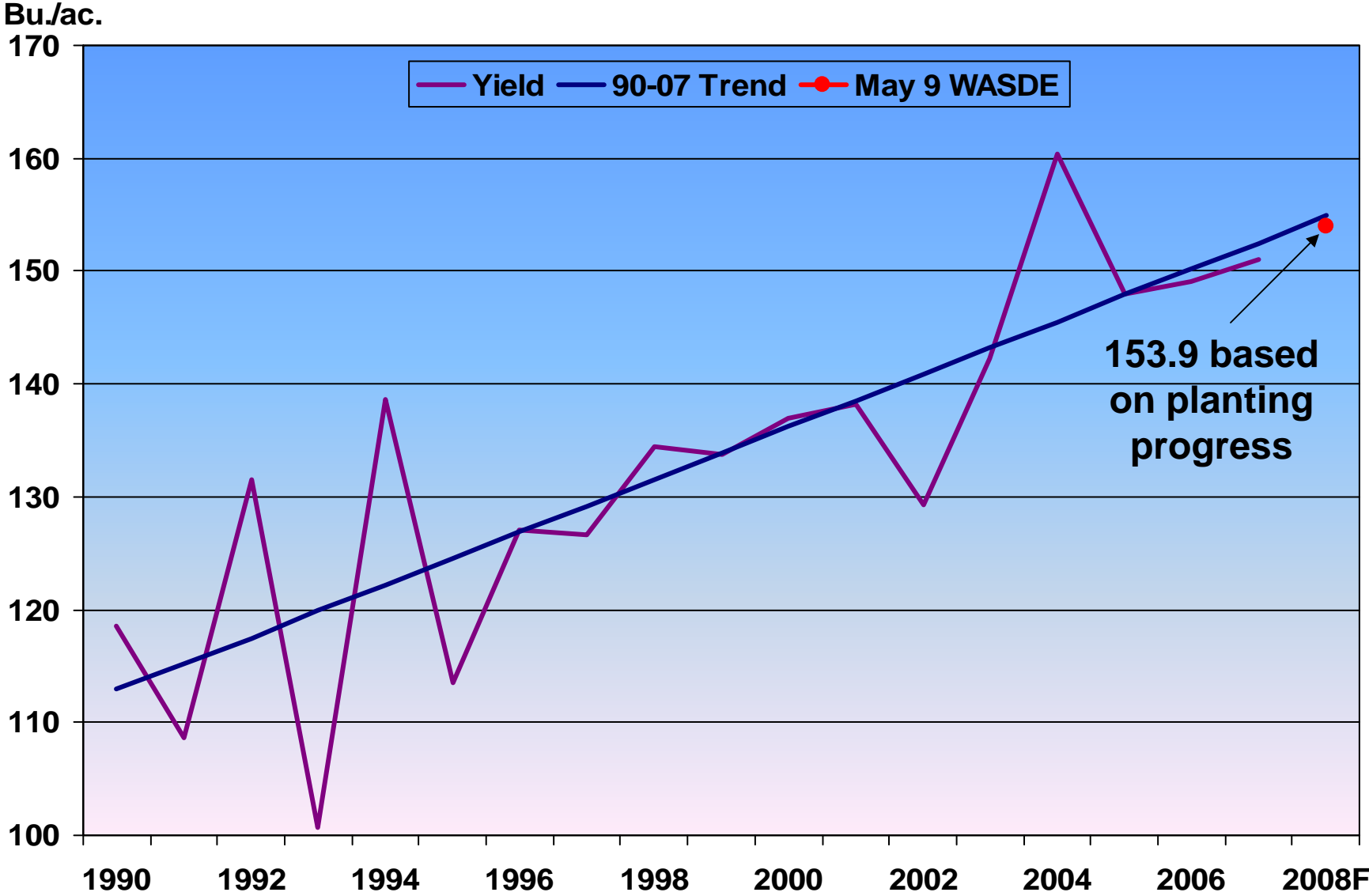
	2007/08 estimate	2008/09 forecast	Change from 2007/08
			<i>Percent</i>
Planted area (million acres)	93.6	86.0	-8.1
Harvested area (million acres)	86.5	78.8	-8.9
Yield (bushels per acre)	151.1	153.9	1.9
	<i>Million bushels</i>		
Beginning stocks	1,304	1,383	6.1
Production	13,074	12,125	-7.3
Total supply	14,393	13,523	-6.0
Feed and residual	6,150	5,300	-13.8
Food, seed, and industrial	4,360	5,360	22.9
Ethanol	3,000	4,000	33.3
Domestic use	10,510	10,660	1.4
Exports	2,500	2,100	-16.0
Total use	13,010	12,760	-1.9
Ending stocks	1,383	763	-44.8
	<i>Percent</i>		
Stocks/use	10.6	6.0	
	<i>Dollars/bushel</i>		
Average market price	4.10/4.40	5.00/6.00	29.4

U.S. Corn Domestic Use



Note: 2007/08 and 2008/09 projections from the May 9, 2008, *World Agricultural Supply and Demand Estimates*.

U.S. Corn Trend Yields



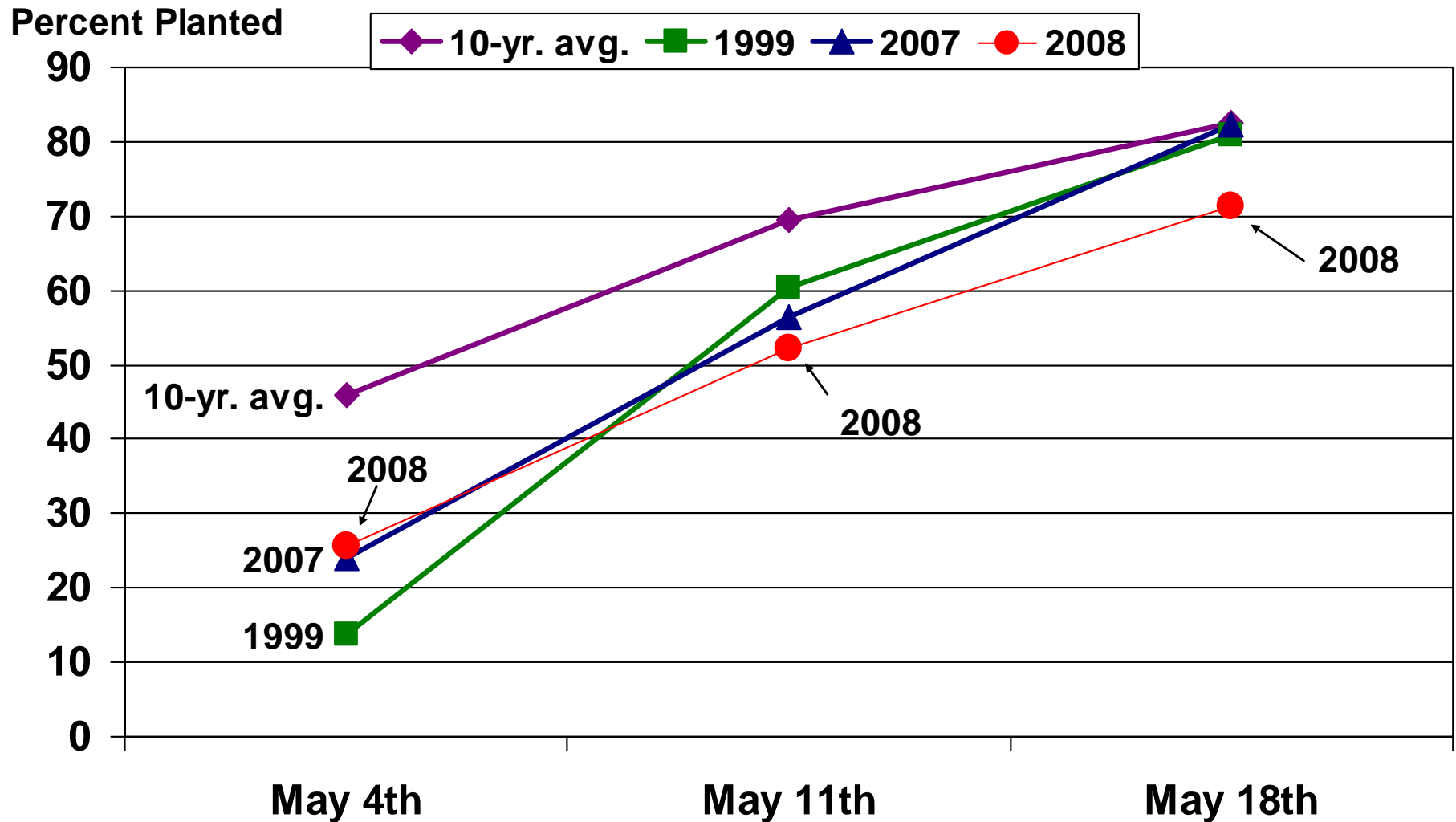
USDA Planting Progress Corn Yield Model

- Based on yields in 5-state region
 - IL, IN, IA, MO, and OH (45% area / 52% production, 5-yr.avg.)
 - Highly correlated with U.S. national average yield
 - Mid-May planting progress (May 18, 2008)
 - Assumes average July rainfall and temperatures
 - Weighted by intended acreage
- Projected U.S. yield based on mid-May progress
 - 153.9 bu./ac. assumes 5-state May 18 progress of 82%
 - 10-yr. avg. 5-state mid-May progress 82.6%
 - 2007 5-state May 14 progress was 82.3%

Note: Model estimated based on planting progress closest to May 15th each year.

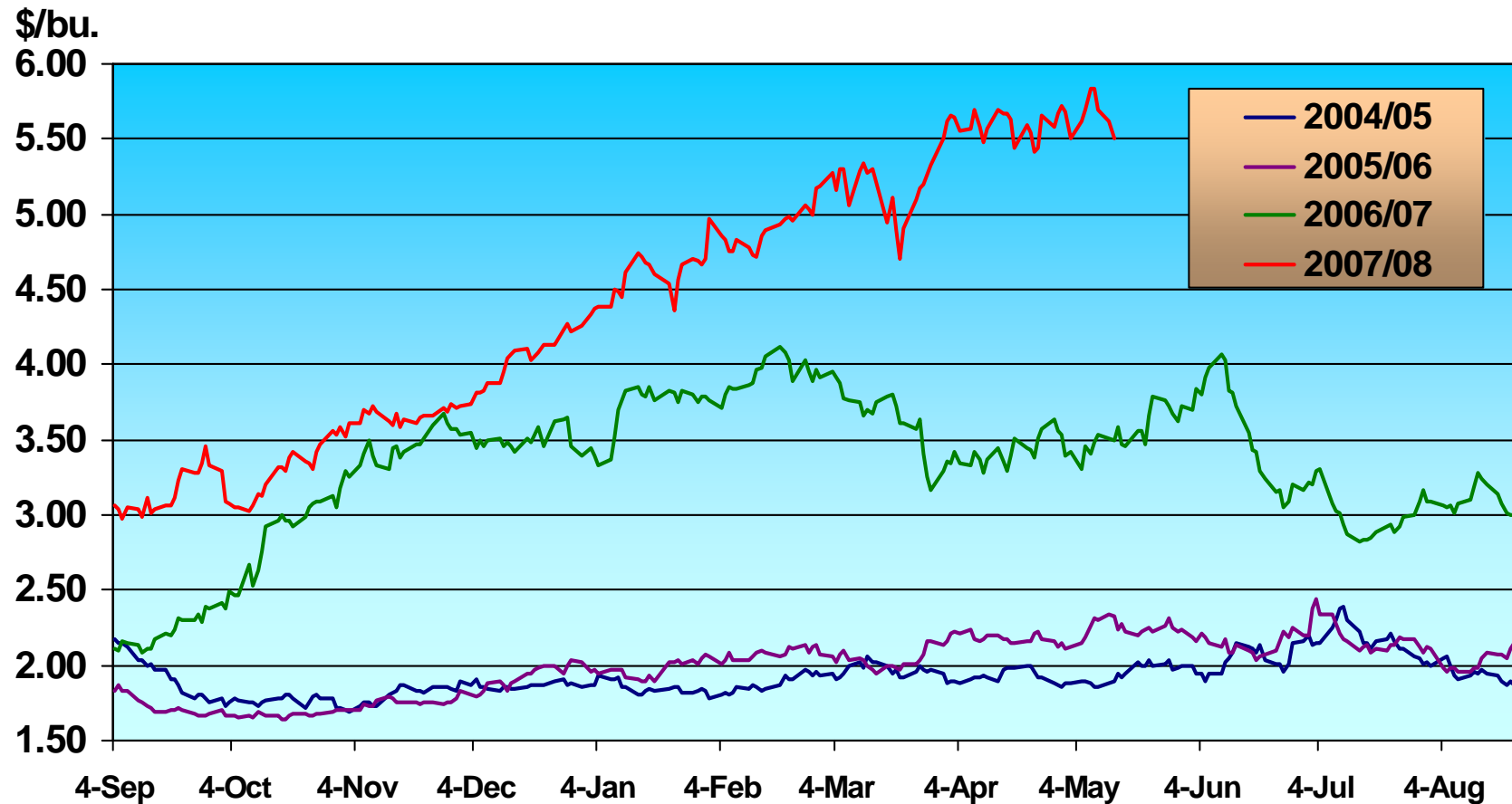
5-State Corn Planting Progress (IL, IN, IA, MO, OH)

Comparable weeks for May 2008



Daily Cash Market Corn Prices

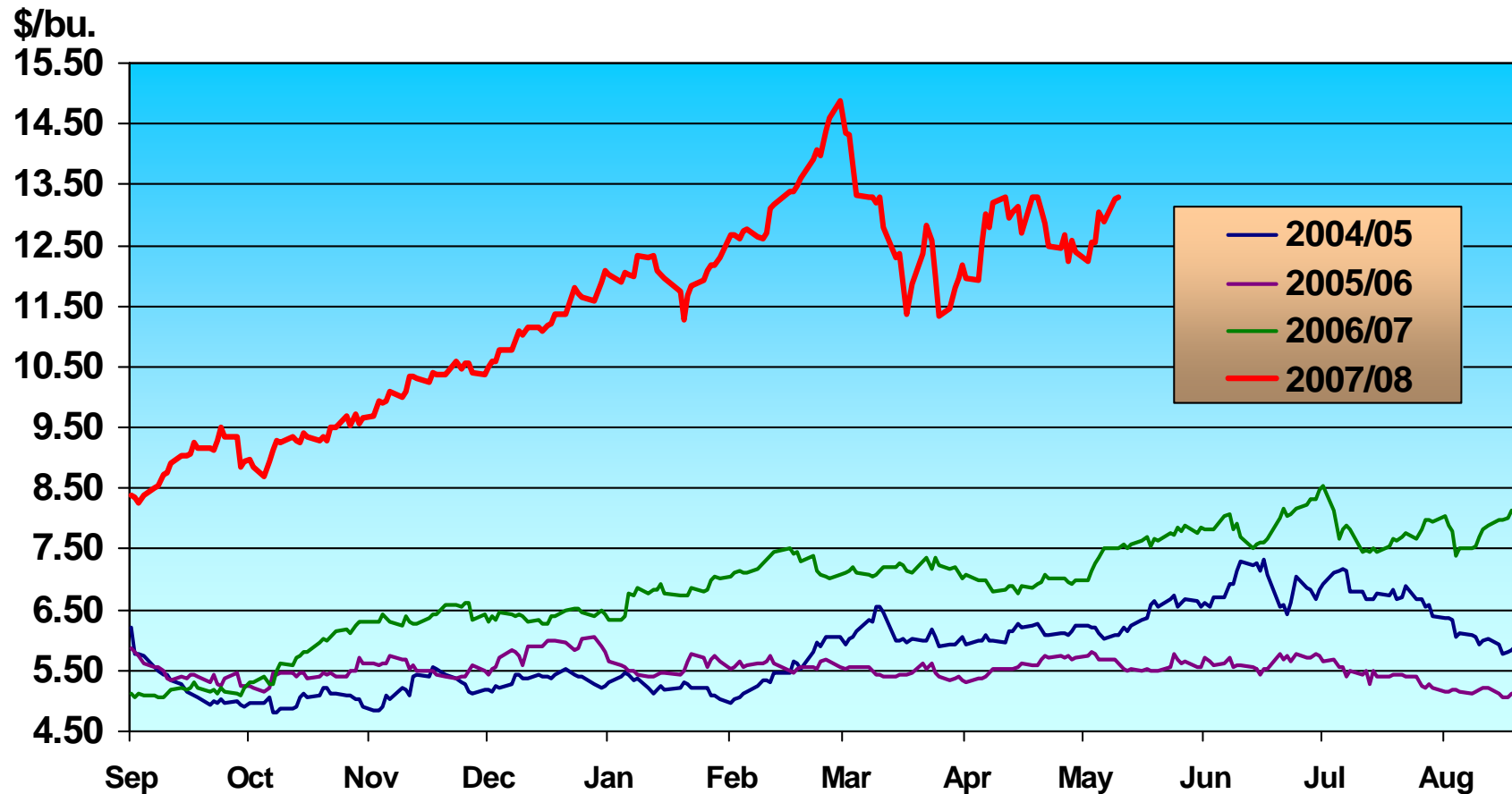
2004/05 through 2007/08 to date



Note: Central Illinois cash bids.

Daily Cash Market Soybean Prices

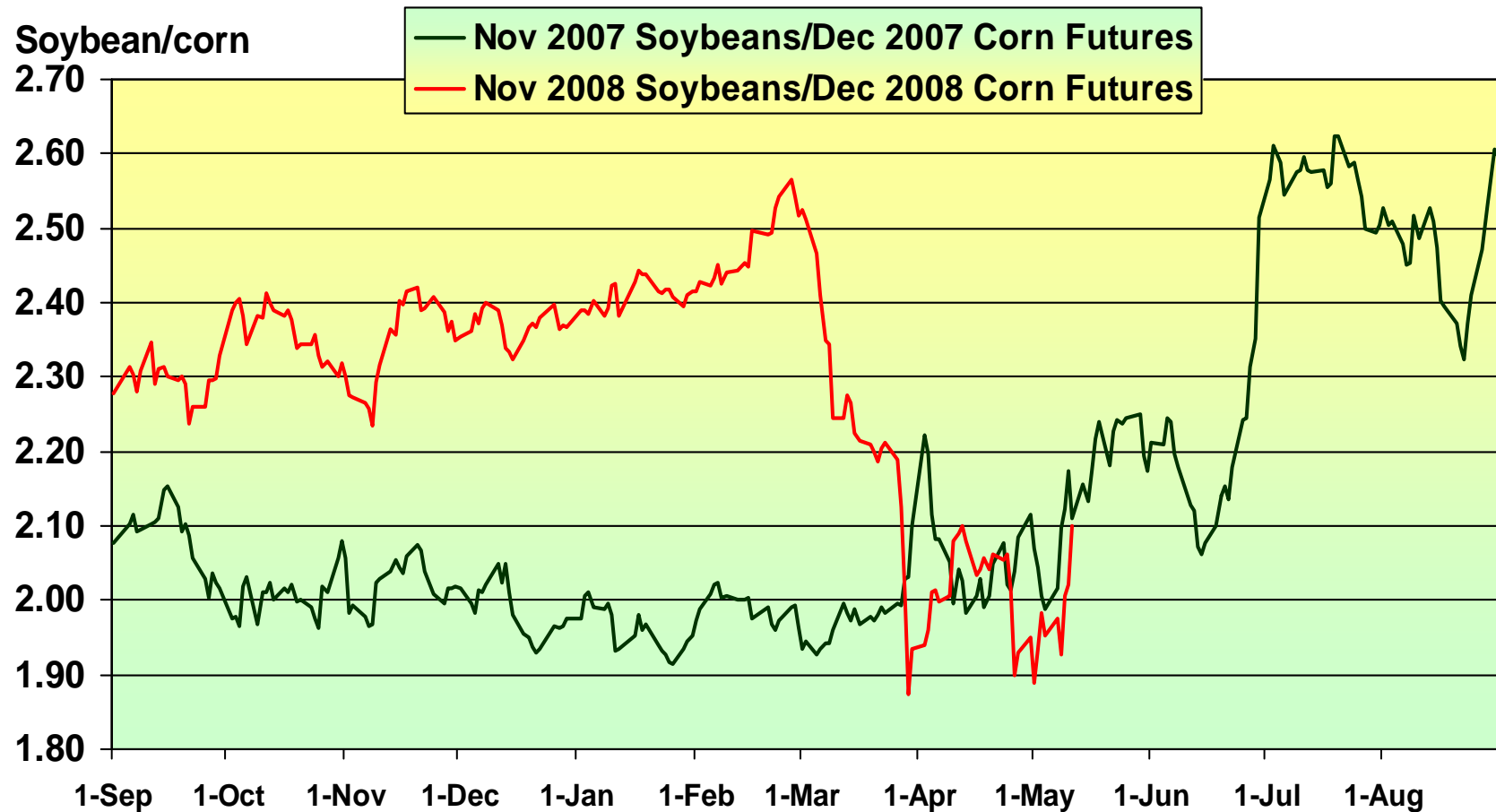
2004/05 through 2007/08 to date



Note: Central Illinois cash bids.

New-crop Soybean/Corn Price Ratios

2007-crop and 2008-crop through May 13, 2008

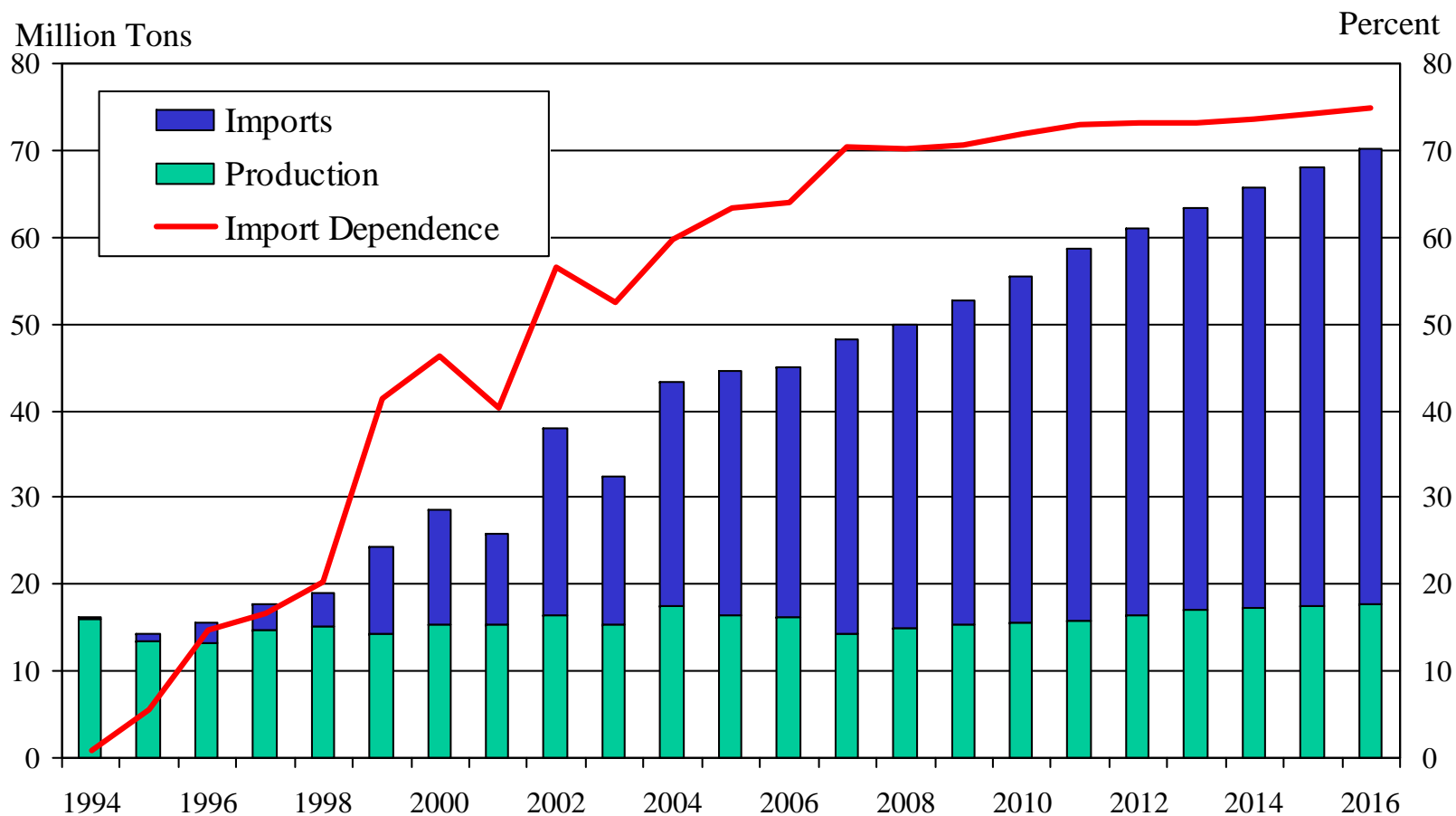


Note: Chicago Board of Trade daily settlement prices.

U.S. Soybean Supply and Demand

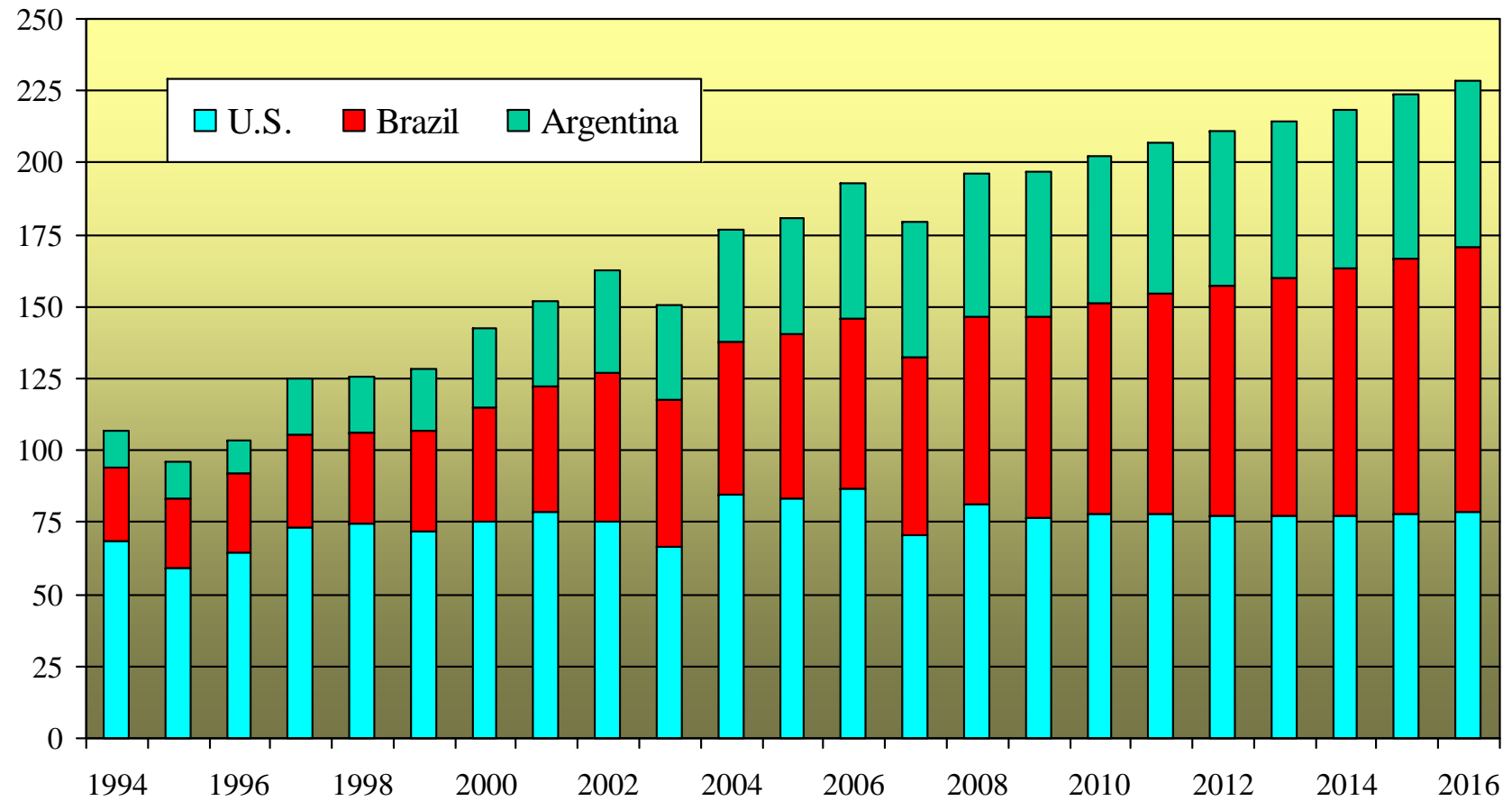
	2007/08 estimate	2008/09 forecast	Change from 2007/08
			<i>Percent</i>
Planted area (million acres)	63.6	74.8	17.5
Harvested area (million acres)	62.8	73.8	17.5
Yield (bushels per acre)	41.2	42.1	2.2
			<i>Million bushels</i>
Beginning stocks	574	145	-74.7
Production	2,585	3,105	20.1
Imports	10	8	-20.0
Total Supply	3,169	3,258	2.8
Crush	1,840	1,850	0.5
Seed and Residual	94	173	83.6
Domestic use	1,934	2,023	4.6
Exports	1,090	1,050	-3.7
Total Use	3,024	3,073	1.6
Ending stocks	145	185	27.9
			<i>Percent</i>
Stocks/use ratio	4.8	6.0	
			<i>Dollars/bushel</i>
Average market price	10.00	10.50/12.00	12.5

China Soybean Import Dependence Expected to Increase in the Next 10 Years



Soybean Production Trends

Million Tons



U.S. Soybean Oil Supply and Demand

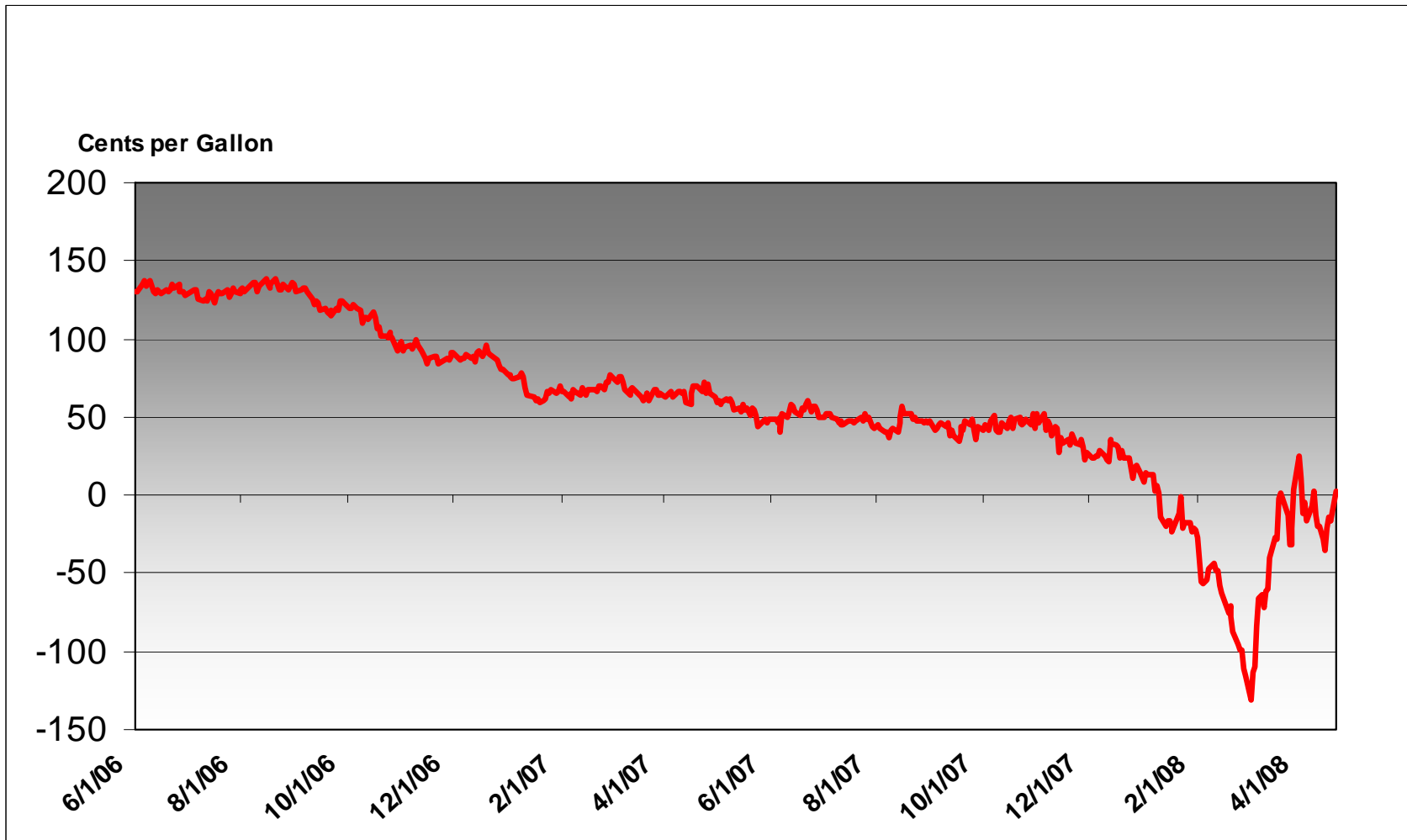
	2007/08 estimate	2008/09 forecast	Change from 2007/08
	<i>Million pounds</i>		<i>Percent</i>
Beginning stocks	2,904	2,792	-3.9
Production	21,250	21,090	-0.8
Imports	37	47	26.7
Total supply	24,192	23,929	-1.1
Domestic use	18,550	18,600	0.3
Methyl ester	2,950	3,200	8.5
Exports	2,850	2,650	-7.0
Total use	21,400	21,250	-0.7
Ending stocks	2,792	2,679	-4.0
	<i>Cents per pound</i>		
Average market price	52.00	50.00/54.00	0.0

Soybean Oil Futures Prices



Note: Chicago Board of Trade daily settlement prices.

U.S. Domestic Biodiesel Production Margin



U.S. Soybean Meal Supply and Demand

	2007/08 estimate	2008/09 forecast	Change from 2007/08
	<i>Thousand short tons</i>		<i>Percent</i>
Beginning stocks	351	300	-14.5
Production	43,834	43,985	0.3
Imports	165	165	0.0
Total supply	44,350	44,450	0.2
Domestic	35,100	35,350	0.7
Exports	8,950	8,800	-1.7
Total use	44,050	44,150	0.2
Ending stocks	300	300	0.0
	<i>Dollars/short ton</i>		
Average market price	315.00	280.00/340.00	-1.6

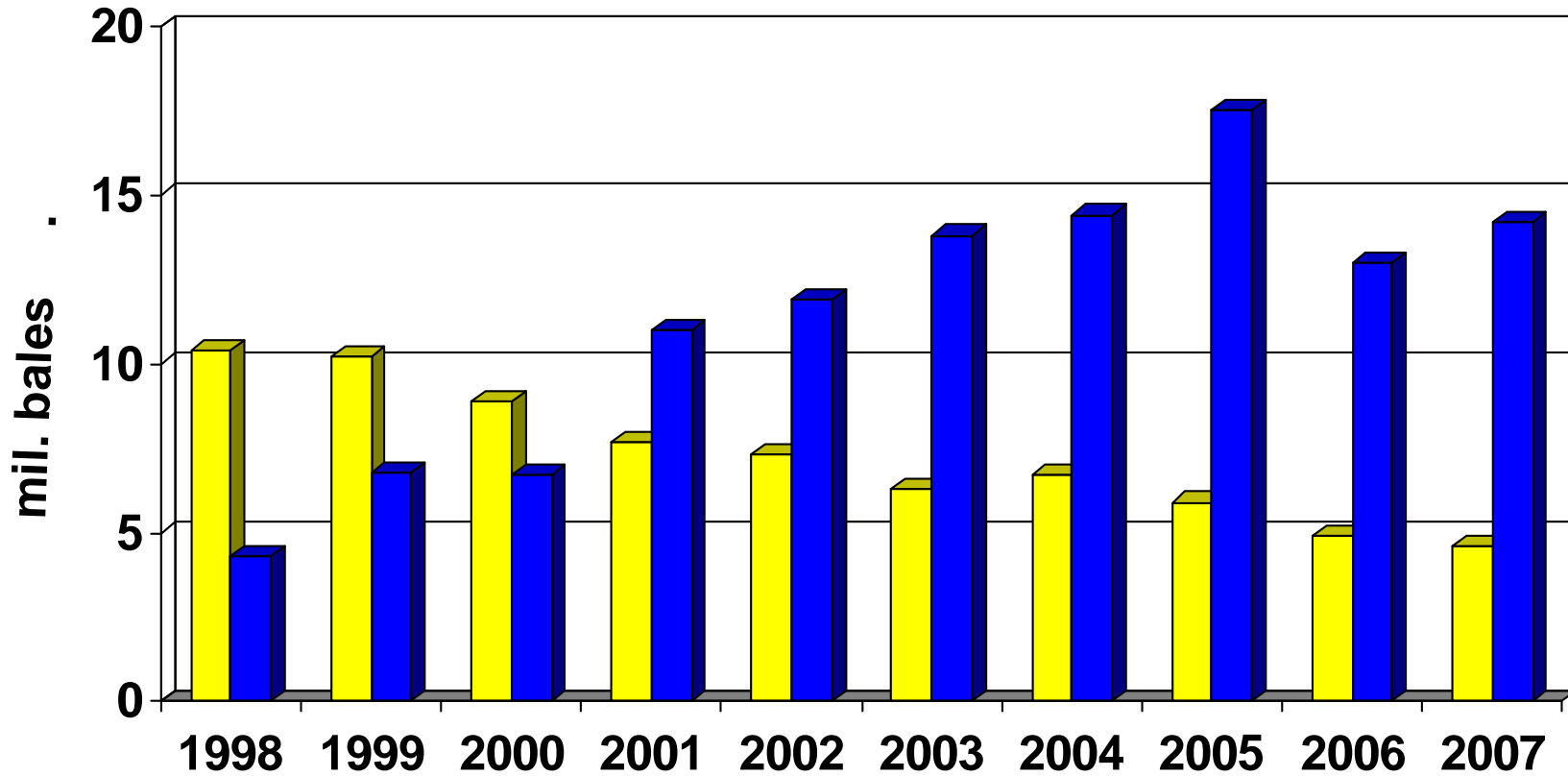
U.S. Cotton Supply and Demand

	2007/08 estimate	2008/09 forecast	Change from 2007/08
			<i>Percent</i>
Planted area (million acres)	10.83	9.39	-13.3
Harvested area (million acres)	10.49	8.39	-20.0
Yield (pounds per acre)	879	830	-5.6
			<i>Million bales</i>
Beginning stocks	9.48	9.90	4.4
Imports	0.02	0.02	0.0
Production	19.21	14.50	-24.5
Total supply	28.70	24.42	-14.9
Mill use	4.60	4.30	-6.5
Exports	14.20	14.50	2.1
Total use	18.80	18.80	0.0
Unaccounted	0.00	0.02	
Ending stocks	9.90	5.60	-43.4
			<i>Percent</i>
Stocks/use	52.7	29.8	
			<i>Cents per pound</i>
Average market price	56.40*	**	

*Average price for August 2007-March 2008. **USDA is prohibited by law from publishing cotton price projections.

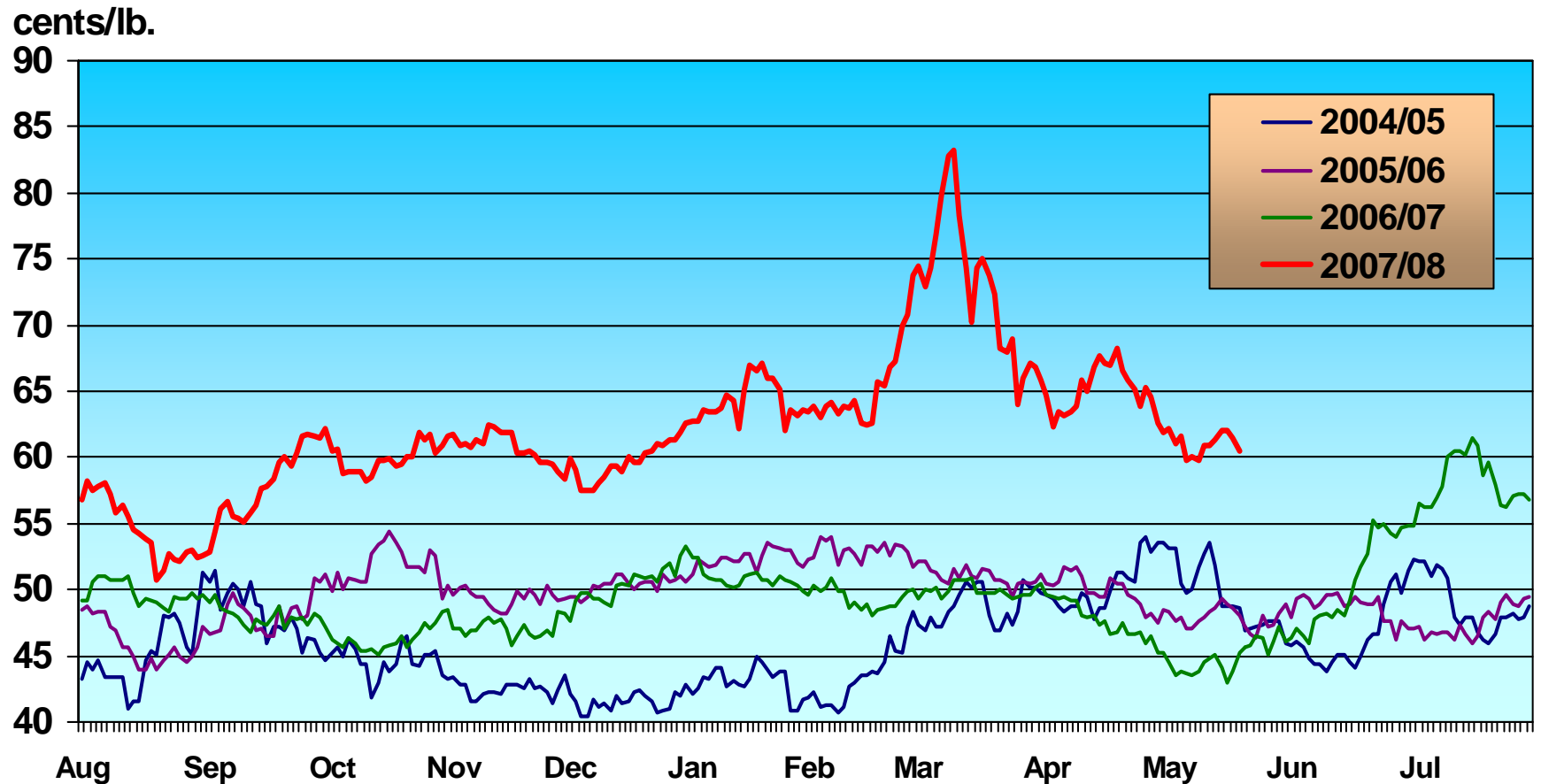
U.S. Cotton Domestic Mill Use and Exports by Marketing Year

■ Domestic mill use ■ Exports



Daily Cash Market Cotton Prices

2004/05 through 2007/08 to date

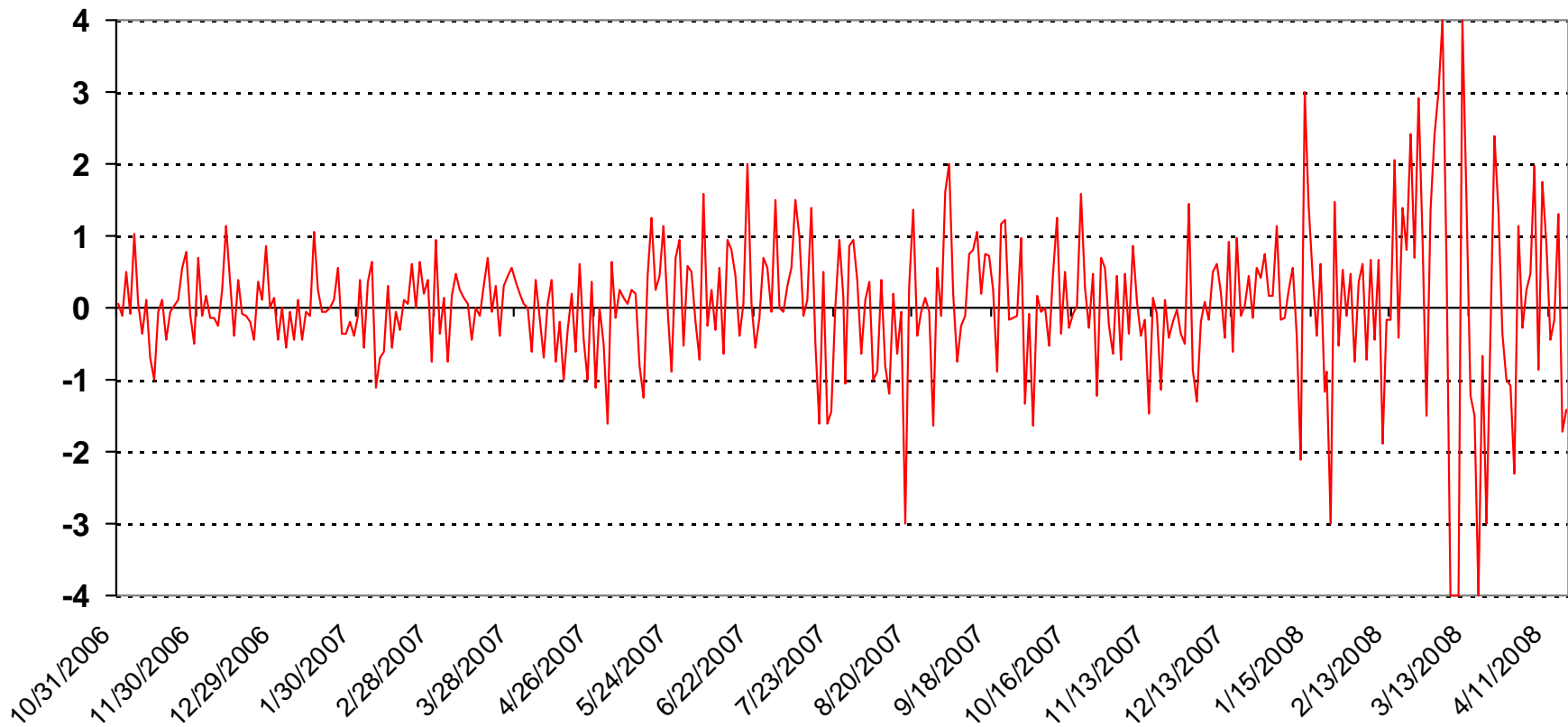


Note: Memphis 1 1/16.

July 2008 Cotton Futures – Daily Changes

Volatility Increasing

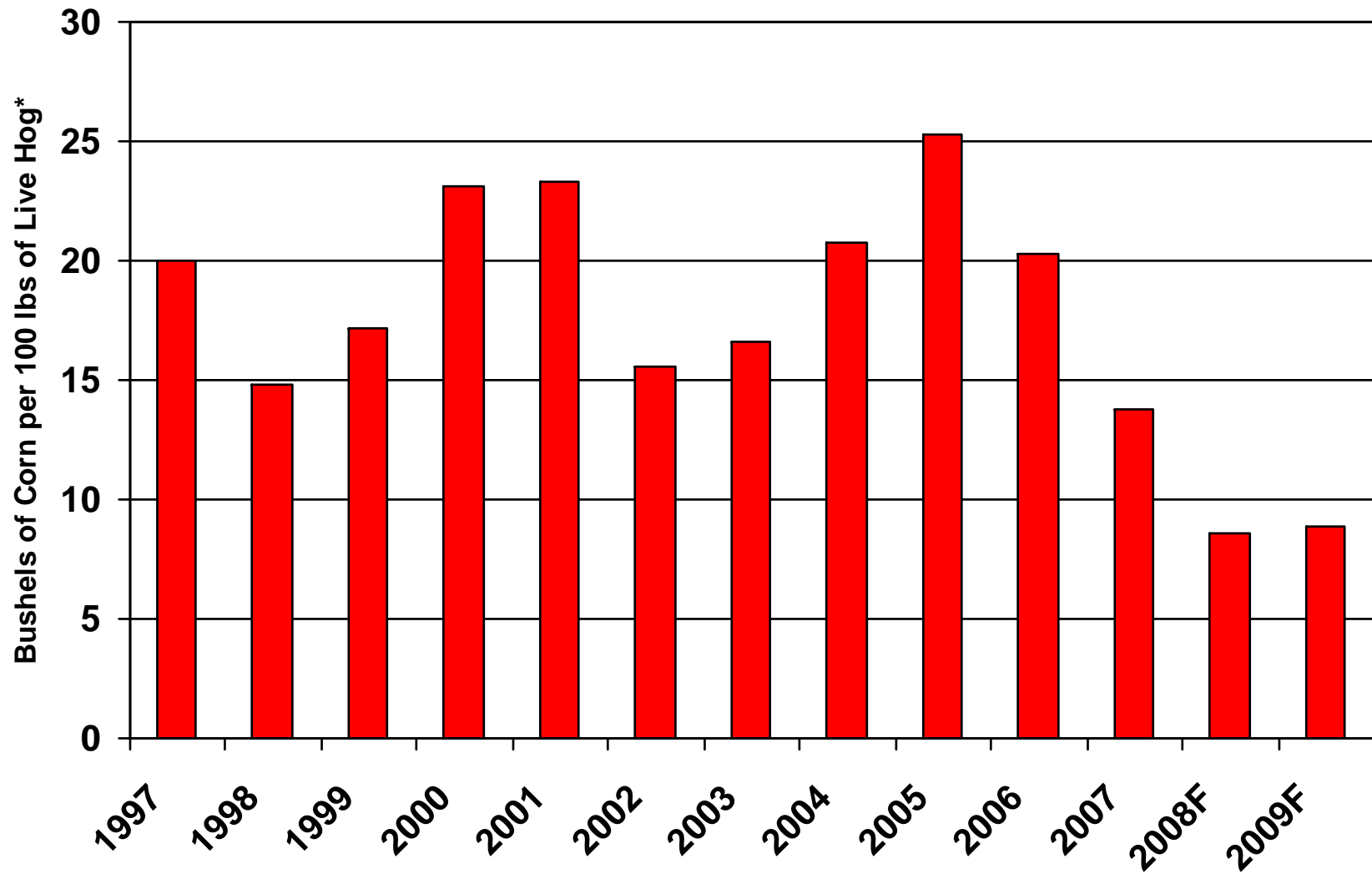
Cents per pound



U.S. Meat Production and Prices

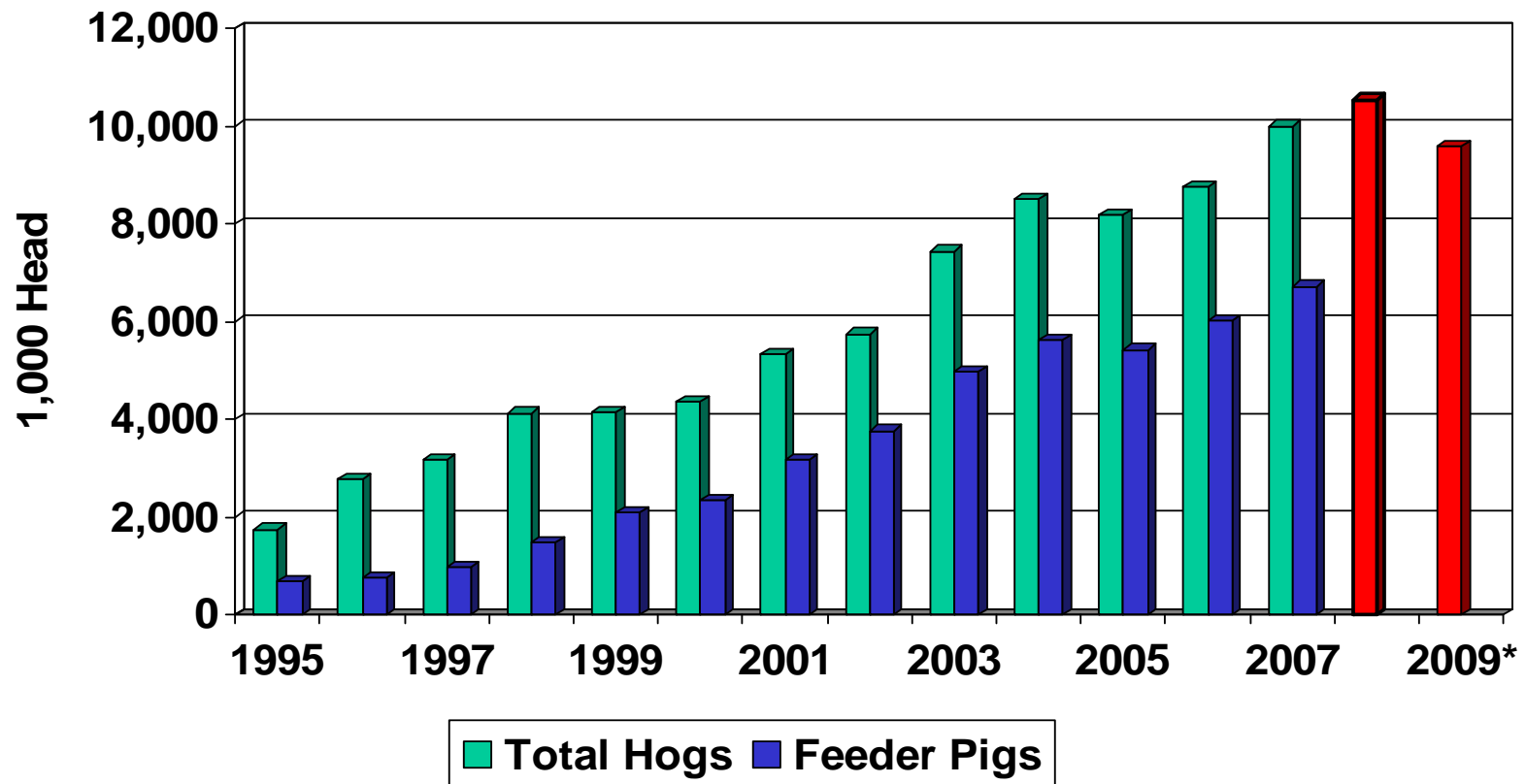
	2008 forecast	2009 forecast	Change from 2008
Production	<i>Billion pounds</i>		<i>Percent</i>
Beef	26.71	26.39	-1.2
Pork	23.48	22.93	-2.4
Broilers	36.86	37.15	0.8
Turkey	6.18	6.14	-0.6
Total meat	94.09	93.45	-0.7
Prices	<i>Dollars/cwt</i>		
Steers	91.15	91.25	0.1
Hogs	43.66	47.75	9.4
	<i>Cents/lb</i>		
Broilers	80.5	83.0	3.1
Turkey	87.9	85.8	-2.4

Hog-Corn Price Ratio



*Based on NASS Prices Received

U.S. Hog Imports



*Forecast

U.S. Meat Exports

Million Pounds

	2008 forecast	2009 forecast	Change from 2008
	<i>Exports</i>		<i>Percent</i>
Beef	1,645	1,870	13.7
Pork	4,310	3,985	-7.5
Broilers	6,000	6,100	1.7
Turkey	605	635	5.0
Mature Chickens	150	150	0.0
Total Meat	12,719	12,752	0.0
	<i>Imports</i>		
Beef	2,815	3,010	6.9

End