

Agricultural Commodity Outlook

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World Agricultural Outlook Board

Office of the Chief Economist

U.S. Department of Agriculture

to

The National Academies

Committee on 21st Century Systems Agriculture

Kansas City, Missouri

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<http://www.usda.gov/oce/speeches/index.htm>

Special Note

- U.S. Supply and Demand Projections for 2008/09 and Beyond in this Presentation are from USDA's 2008 Outlook Forum and from **USDA Agricultural Projections to 2017**
 - Provisions of the Energy Independence and Security Act of 2007 are not Fully Reflected in USDA's projections to 2017
 - Key Upcoming USDA Reports:
 - NASS ***Prospective Plantings*** Report -- March 31, 2008
 - ***World Agricultural Supply and Demand Estimates*** Report -- May 9, 2008
 - NASS ***Acreage*** Report -- June 30, 2008
-



New Energy Act Bullish for Commodity Prices...

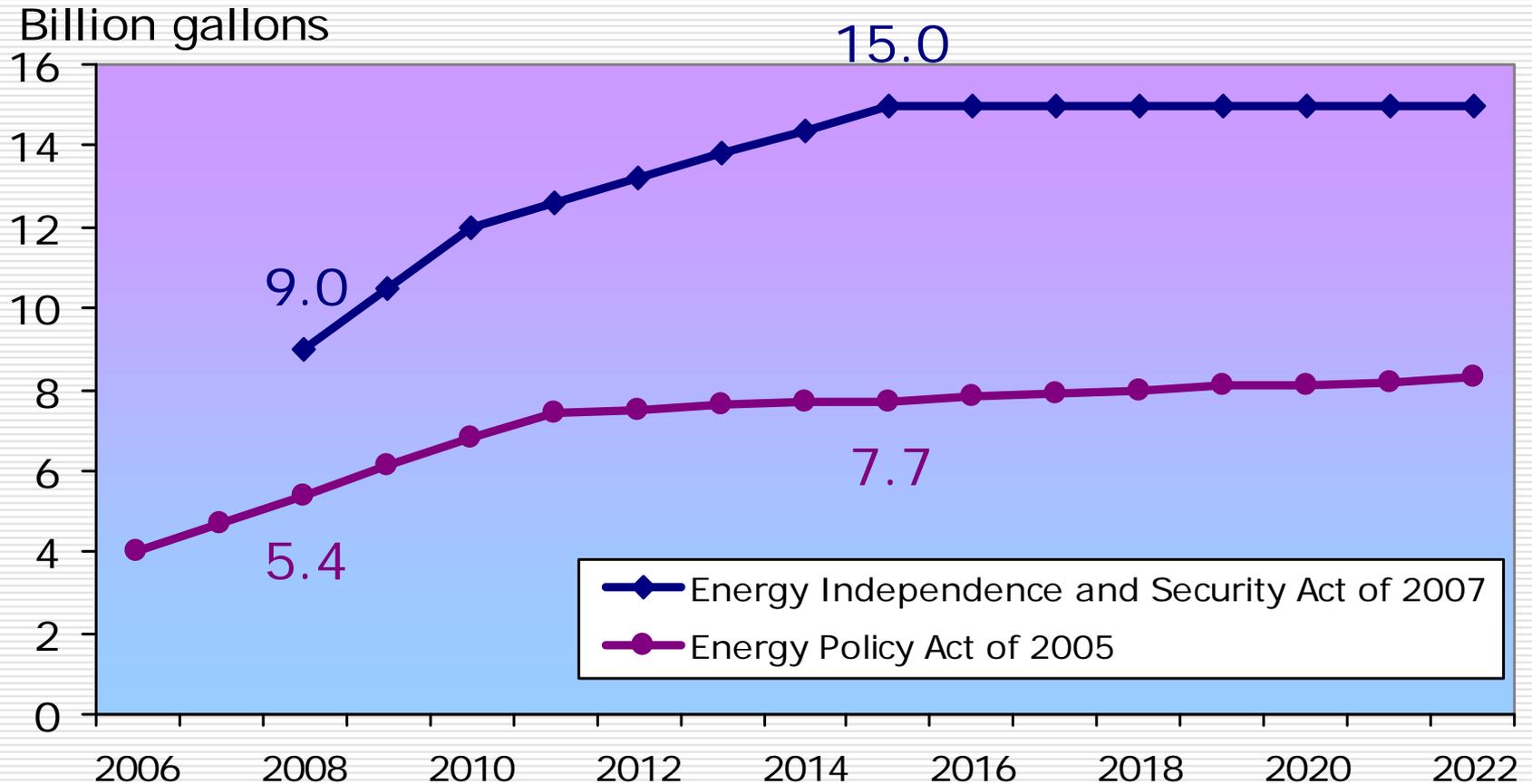
The 2007 Energy Act—

- 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 In comparison, the 2005 Energy Act had an RFS standard of 5.4 billion gals by 2008, rising to 7.5 billion by 2012.

Renewable Fuel Standards (RFS)

Corn starch based ethanol, 2006 through 2022



Note: RFS levels under the Energy Policy Act of 2005 are projected for 2013 and beyond based on the act's provisions and growth in motor gasoline consumption for transportation projected by the Energy Information Administration in *Annual Energy Outlook 2008*.

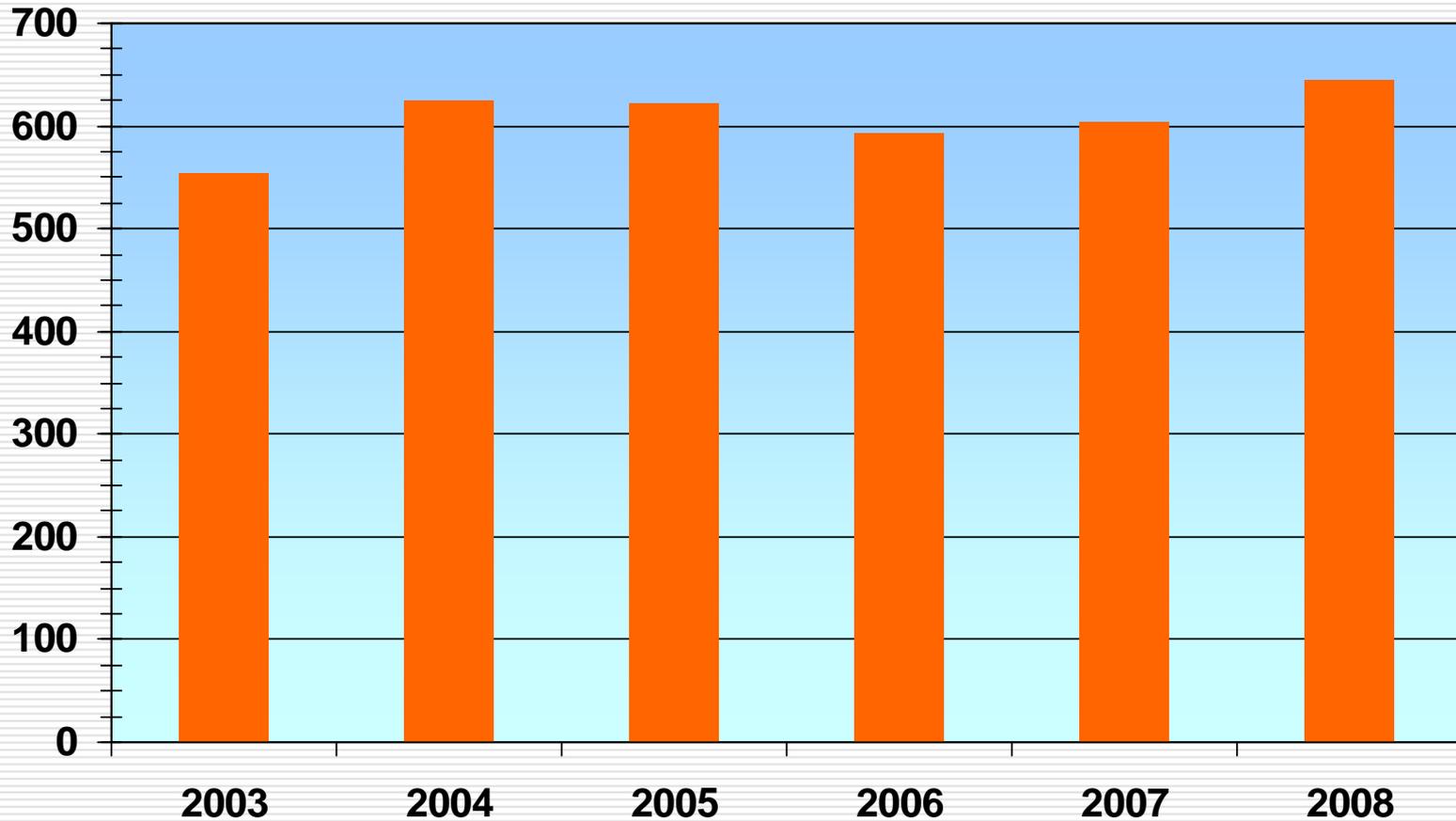
U.S. Wheat Supply and Demand

	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2007/08 <i>Percent</i>
Planted area (million acres)	57.3	60.4	64.0	5.9
Harvested area (million acres)	46.8	51.0	54.4	6.6
Yield (bushels per acre)	38.7	40.5	42.8	5.7
	<i>Million bushels</i>			
Beginning stocks	571	456	272	-40.4
Production	1,812	2,067	2,330	12.7
Imports	122	90	100	11.1
Total supply	2,505	2,613	2,702	3.4
Food, seed, and industrial use	1,015	1,036	1,039	0.3
Feed and residual	125	110	175	59.1
Domestic use	1,140	1,146	1,214	5.9
Exports	909	1,225	950	-22.4
Total use	2,049	2,371	2,164	-8.7
Ending stocks	456	242	538	122.4
	<i>Percent</i>			
Stocks to use ratio	22.3	10.2	24.9	
	<i>Dollars per bushel</i>			
Average market price	4.26	6.65	7.00	5.3



Potentially record global wheat production could lessen demand for U.S. exports

Million metric tons



U.S. Corn Supply and Demand

	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2007/08 <i>Percent</i>
Planted area (million acres)	78.3	93.6	90.0	-3.8
Harvested area (million acres)	70.6	86.5	82.7	-4.4
Yield (bushels per acre)	149.1	151.1	154.9	2.5
	<i>Million bushels</i>			
Beginning stocks	1,967	1,304	1,438	10.3
Production	10,535	13,074	12,810	-2.0
Total supply	12,514	14,393	14,263	-0.9
Feed and residual	5,598	5,950	5,400	-9.2
Food, seed, and industrial	3,488	4,555	5,470	20.1
Ethanol	2,117	3,200	4,100	28.1
Domestic use	9,086	10,505	10,870	3.5
Exports	2,125	2,450	2,150	-12.2
Total use	11,210	12,955	13,020	0.5
Ending stocks	1,304	1,438	1,243	-13.5
	<i>Percent</i>			
Stocks/use	11.6	11.1	9.5	
	<i>Dollars per bushel</i>			
Average market price	3.04	4.00	4.60	3.0

U.S. Soybean Supply and Demand

	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2007/08 <i>Percent</i>
Planted area (million acres)	75.5	63.6	71.0	11.6
Harvested area (million acres)	74.6	62.8	70.1	11.6
Yield (bushels per acre)	42.7	41.2	42.1	2.3
	<i>Million bushels</i>			
Beginning stocks	449	574	160	-72.1
Production	3,188	2,585	2,950	14.1
Imports	9.0	6.0	6.0	0.0
Total Supply	3,647	3,165	3,116	-1.5
Crush	1,806	1,835	1,860	1.4
Seed and Residual	148	165	177	7.1
Domestic use	1,955	2,000	2,037	1.8
Exports	1,118	1,025	910	-11.2
Total Use	3,073	3,025	2,947	-2.6
Ending stocks	574	140	169	20.9
	<i>Percent</i>			
Stocks/use ratio	18.7	4.6	5.7	
	<i>Dollars per bushel</i>			
Average market price	6.43	10.40	11.50	10.6

Rice Supply and Demand

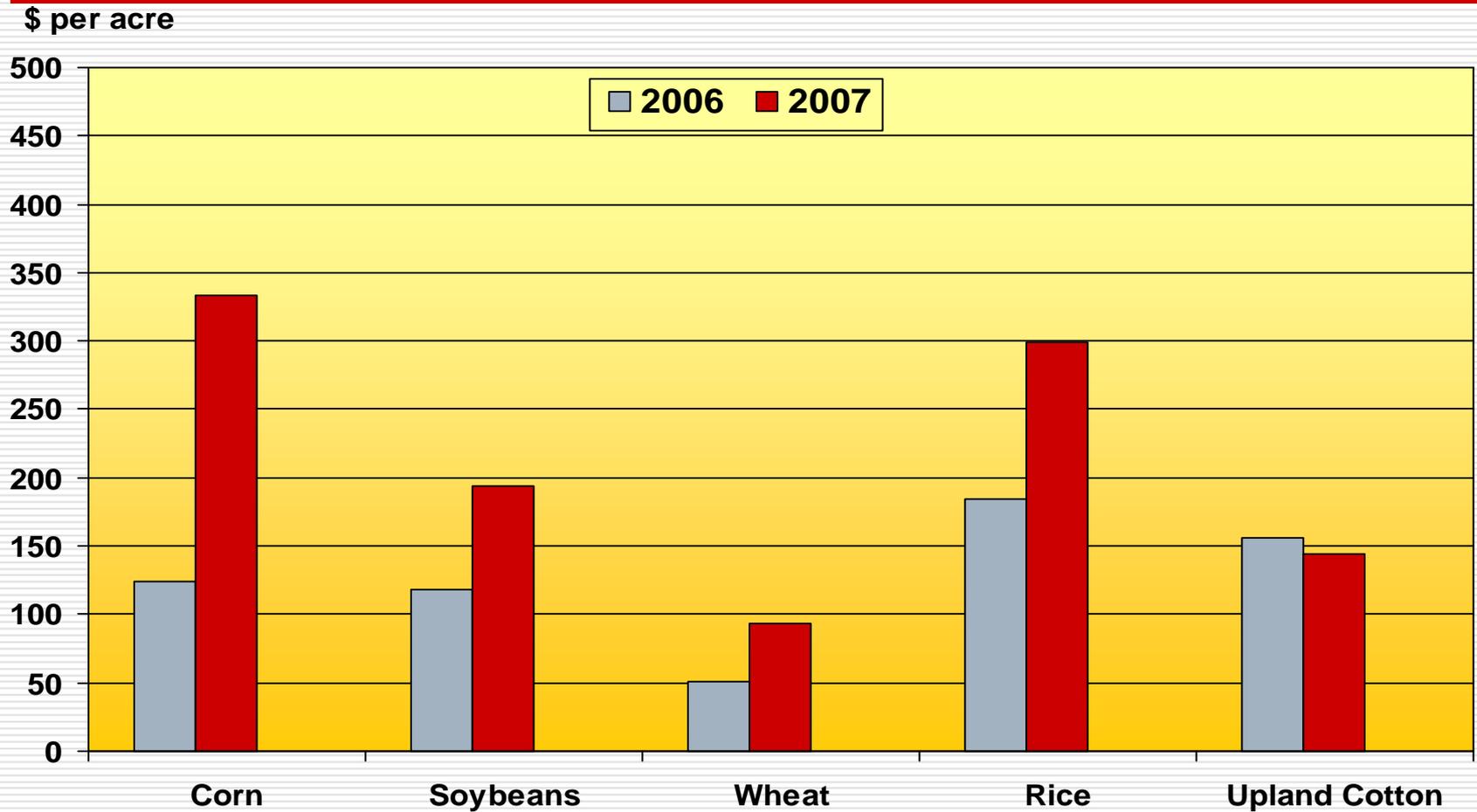
	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2008/09 <i>Percent</i>
Planted area (million acres)	2.84	2.76	2.70	-2.2
Harvested area (million acres)	2.82	2.75	2.69	-2.1
Yield (pounds per acre)	6,868	7,185	7,108	-1.1
	<i>Million hundredweight</i>			
Beginning stocks	43.0	39.3	22.6	-42.5
Production	193.7	197.5	191.0	-3.3
Imports	20.6	21.5	22.5	4.7
Total supply	257.3	258.3	236.1	-8.6
Domestic use	126.6	124.7	126.0	1.1
Exports	91.4	112.0	88.0	-21.4
Total use	218.0	236.7	214.0	-9.6
Ending stocks	39.3	21.6	22.1	2.2
	<i>Percent</i>			
Stocks/use	18.0	9.1	10.3	
	<i>Dollars/hundredweight</i>			
Average market price	9.96	12.00	11.80	-1.7

U.S. Cotton Supply and Demand

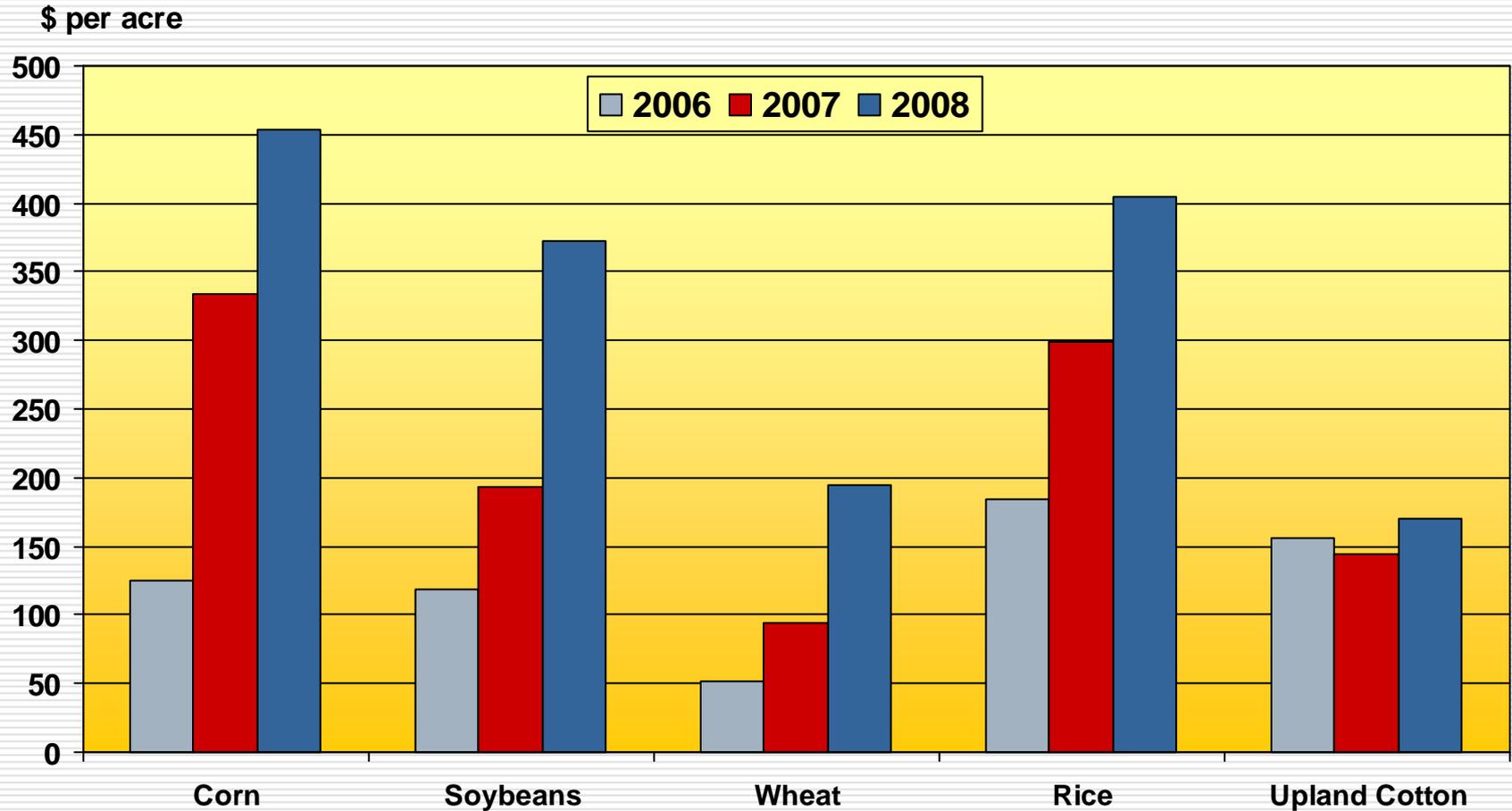
	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2008/09 <i>Percent</i>
Planted area (million acres)	15.3	10.8	9.5	-12.3
Harvested area (million acres)	12.7	10.5	8.6	-18.0
Yield (pounds per acre)	814.0	871.0	835.0	-4.1
		<i>Million bales</i>		
Beginning stocks	6.1	9.5	8.2	-13.5
Imports	0.0	0.0	0.0	0.0
Production	21.6	19.0	15.0	-21.2
Total supply	27.7	28.5	23.2	-18.6
Mill use	4.9	4.6	4.5	-2.2
Exports	13.0	14.5	15.0	3.4
Total use	18.0	19.1	19.5	2.1
Unaccounted	0.2	0.0	0.0	
Ending stocks	9.5	9.4	3.7	-60.5
		<i>Percent</i>		
Stocks to use ratio	52.8	49.2	19.1	
		<i>Cents per pound</i>		
Average market price	46.50	55.10*		

*Ave. price for Aug. 2007 through Jan. 2008

Net Returns Outlook for the Major Field Crops Spring 2006 and 2007



Net Returns Outlook for the Major Field Crops Spring 2006, 2007, and 2008





Major Crop and CRP Acreage

(USDA Outlook Forum – Feb. 2008)

	2007/08	2008/09	Change
	Million acres		
Corn	93.6	90.0	-3.6
Soybeans	63.6	71.0	+7.4
Wheat	60.4	64.0	+3.6
All Cotton	10.8	9.5	-1.3
Rice	2.76	2.70	-0.1
5-crop total	231.2	237.2	+6.0
CRP acres	36.8	34.8	-2.0

Area Planted, 5 major crops

USDA forecasts and actual for 2007/08

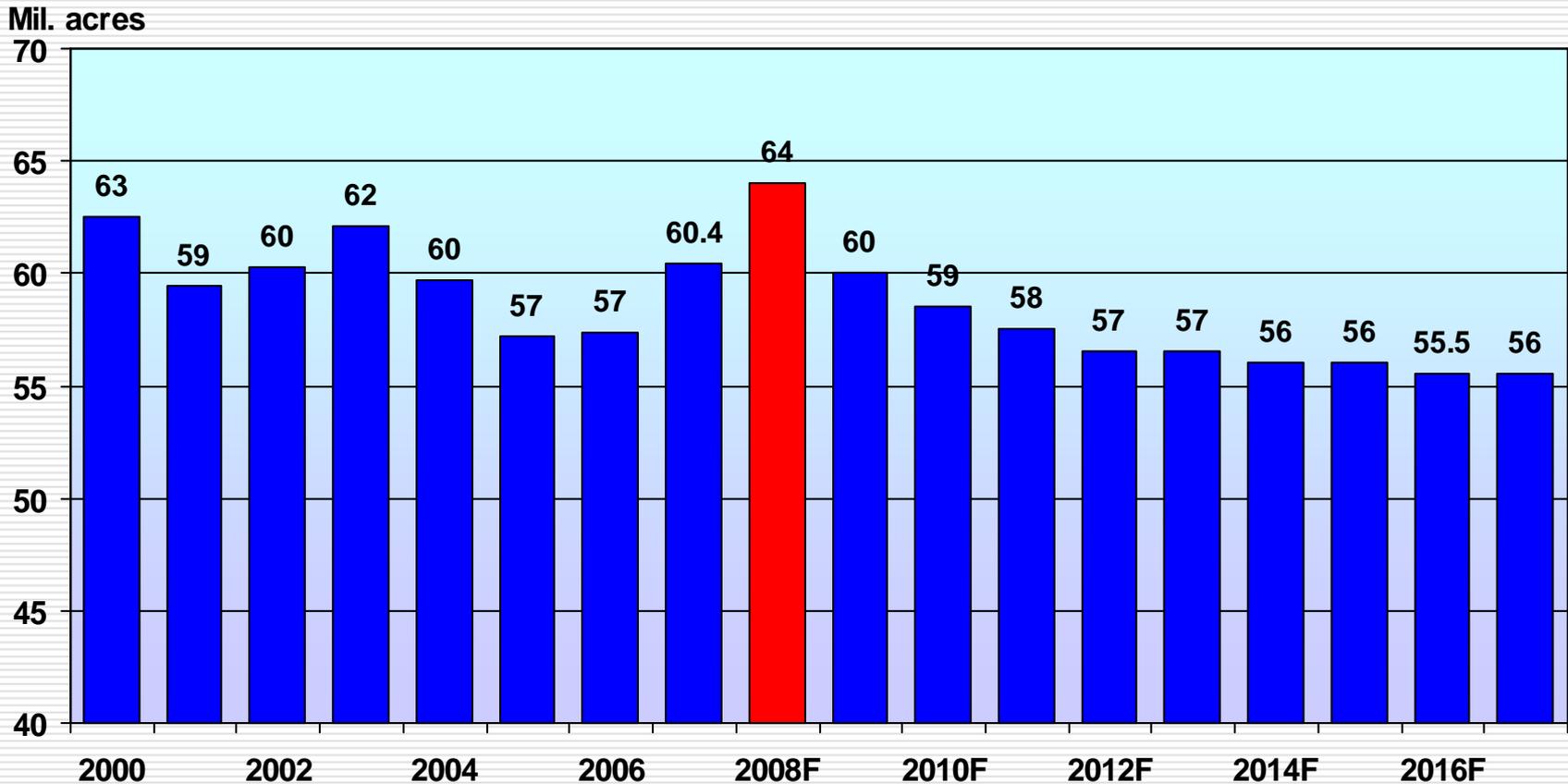
	Initial 2007/08 forecast 1/	March 2007/08 forecast 2/	June 2007/08 forecast 3/	Actual 2007/08 acreage
Million acres				
Corn	87.0	90.5	92.9	93.6
Soybeans	70.5	67.1	64.1	63.6
Wheat	60.0	60.3	60.5	60.4
All Cotton	13.0	12.1	11.1	10.8
Rice	2.9	2.6	2.7	2.8
5-crop total	233.4	232.6	231.3	231.2

1/ March 2, 2007 Agricultural Outlook Forum.

2/ March 30, 2007 *Prospective Plantings* , from the National Agricultural Statistics Service.

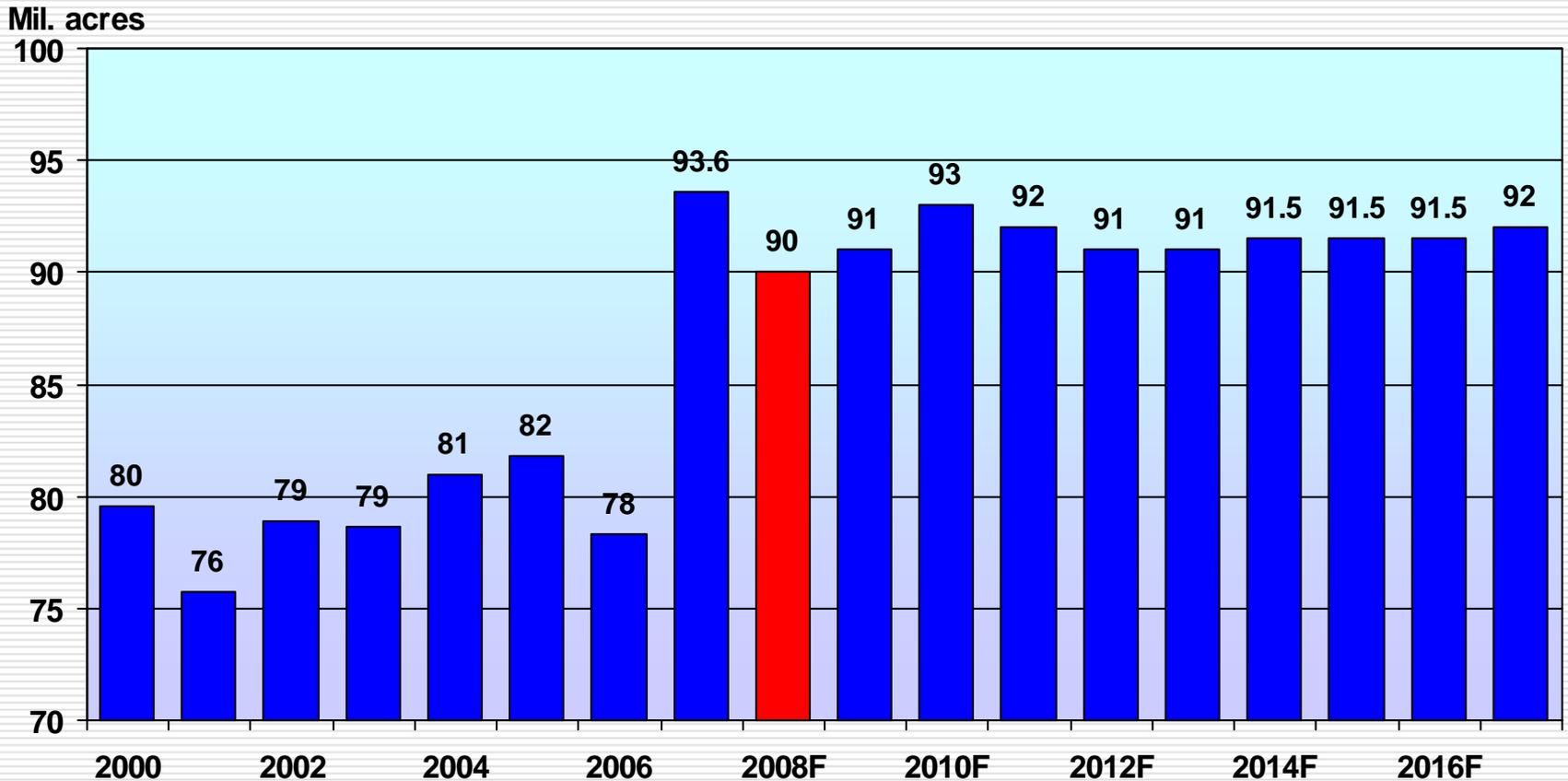
3/ June 29, 2007 *Acreage* , from the National Agricultural Statistics Service.

U.S. Wheat Planted Area Trend



Note: 2008 planted area forecast from USDA's *Grains & Oilseeds Outlook*, Agricultural Outlook Forum, Washington, D.C., February 22, 2008. Projections for 2009-2017 are from *USDA Agricultural Projections to 2017*, February 2008.

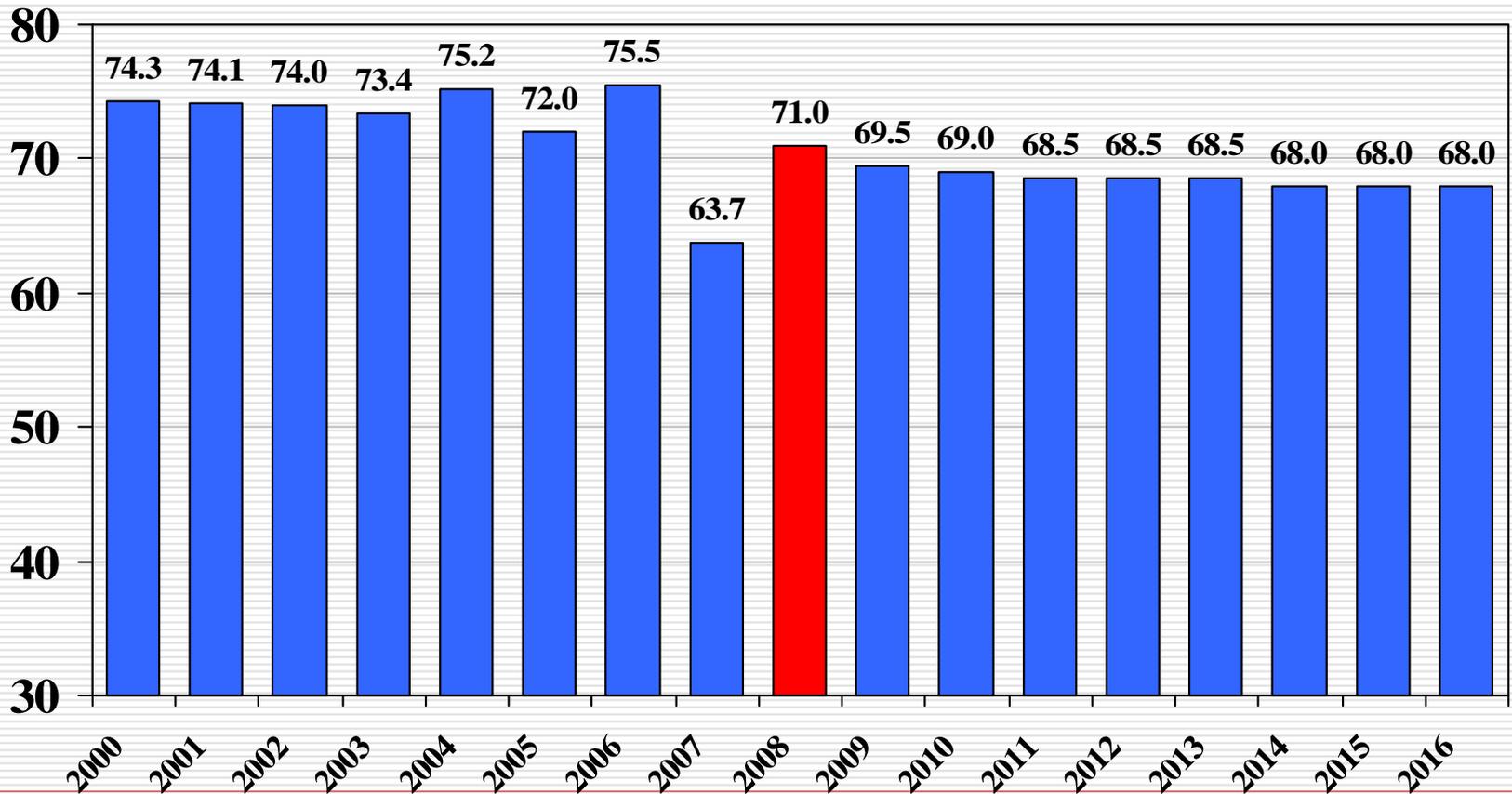
U.S. Corn Planted Area Trend



Note: 2008 planted area forecast from USDA's *Grains & Oilseeds Outlook*, Agricultural Outlook Forum, Washington, D.C., February 22, 2008. Projections for 2009-2017 are from *USDA Agricultural Projections to 2017*, February 2008.

U.S. Soybean Planted Area Trend

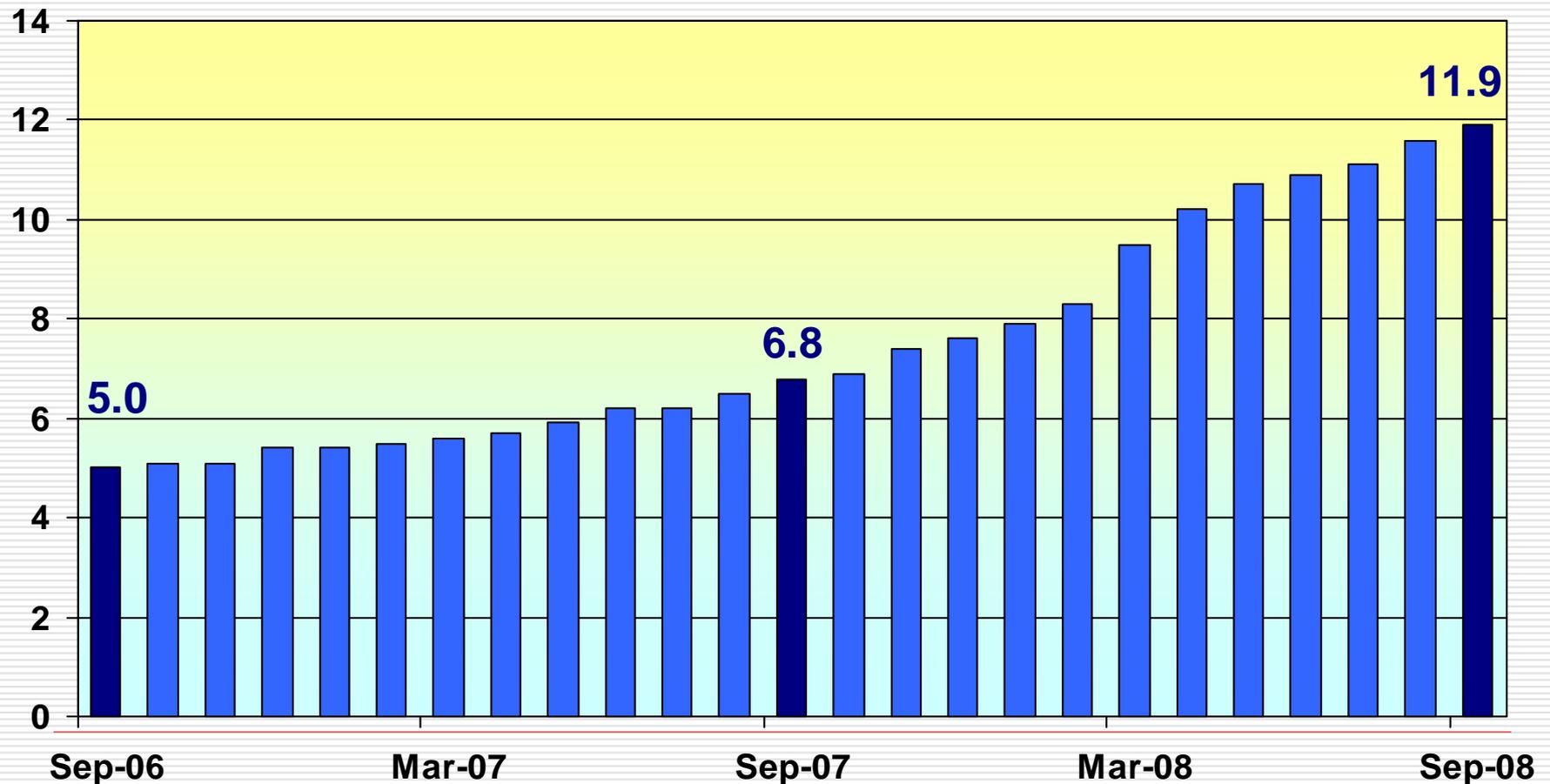
Million Acres



U.S. Ethanol Production Capacity

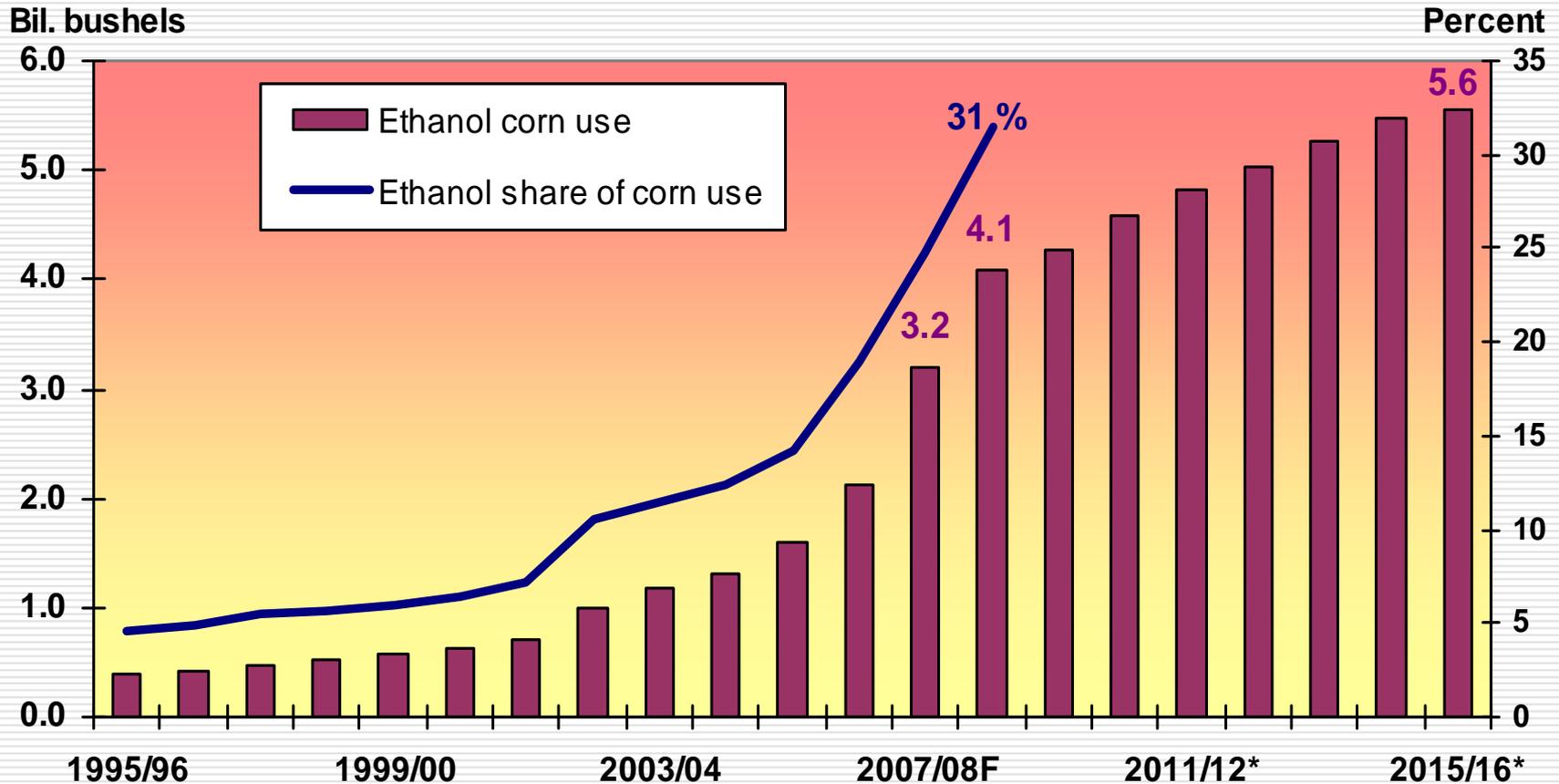
Annual Capacity by Month

Bil. Gallons



U.S. Corn Used for Ethanol

1995/96 through 2015/16*



Note: 2007/08 is projected based on the *World Agricultural Supply and Demand Estimates*, February 8, 2008. 2008/09 is projected based on USDA's *Grains & Oilseeds Outlook*, Agricultural Outlook Forum, Washington, D.C., February 22, 2008. *Projection for 2009/10 based on RFS mandates for corn starch based ethanol under the Energy Independence and Security Act of 2007.

Daily Cash Market Corn Prices

2004/05 through 2007/08 to date

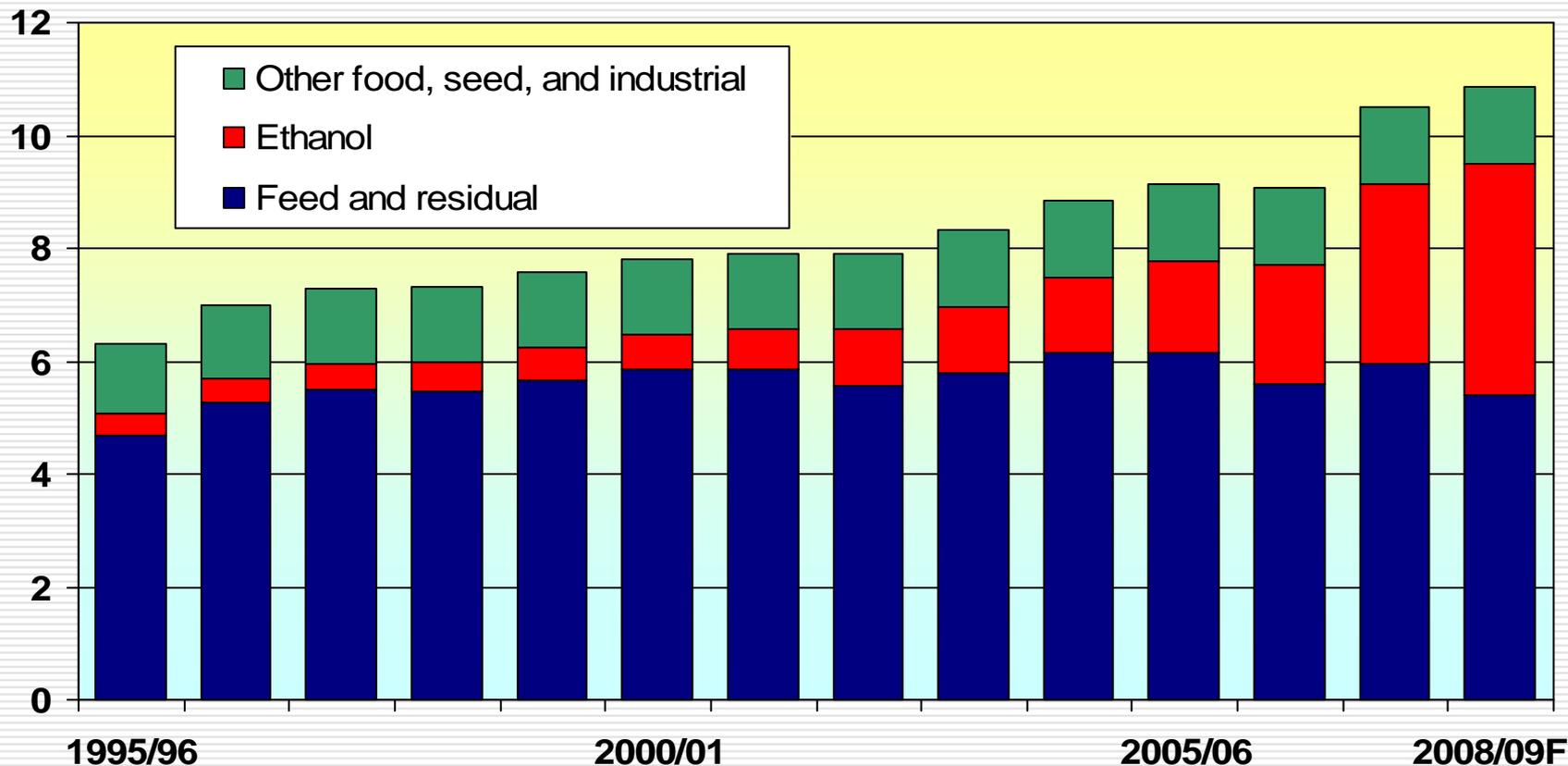


Note: Central Illinois cash bids.

U.S. Domestic Corn Use

1995/96 through 2008/09F

Bil. bushels

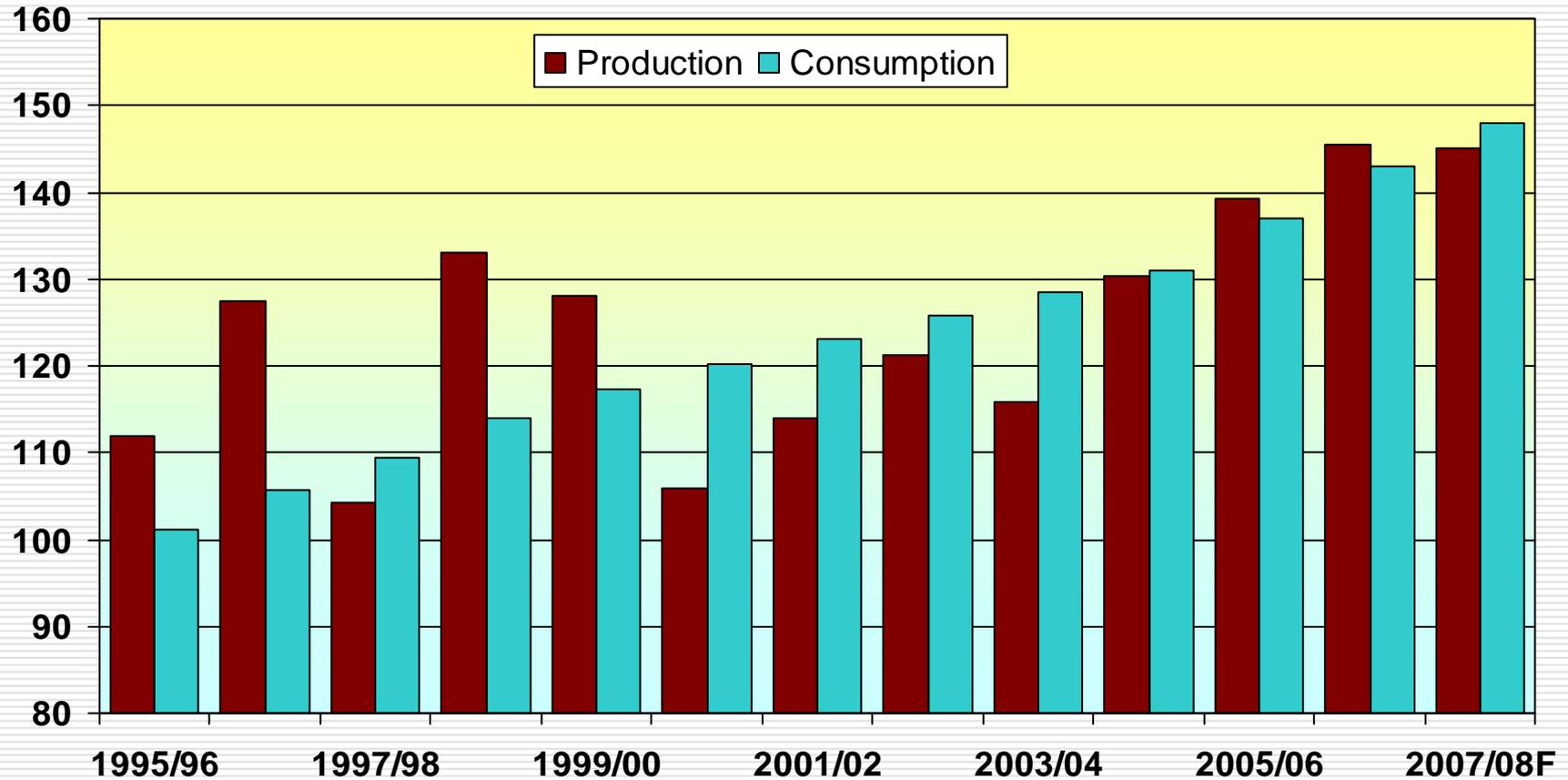


Note: 2007/08 projections based on the *World Agricultural Supply and Demand Estimates*, March 11, 2008. 2008/09 projections from USDA's *Grains & Oilseeds Outlook*, Agricultural Outlook Forum, Washington, D.C., February 22, 2008.

China Corn Production and Consumption

1995/96 through 2007/08F

Mil. Metric Tons

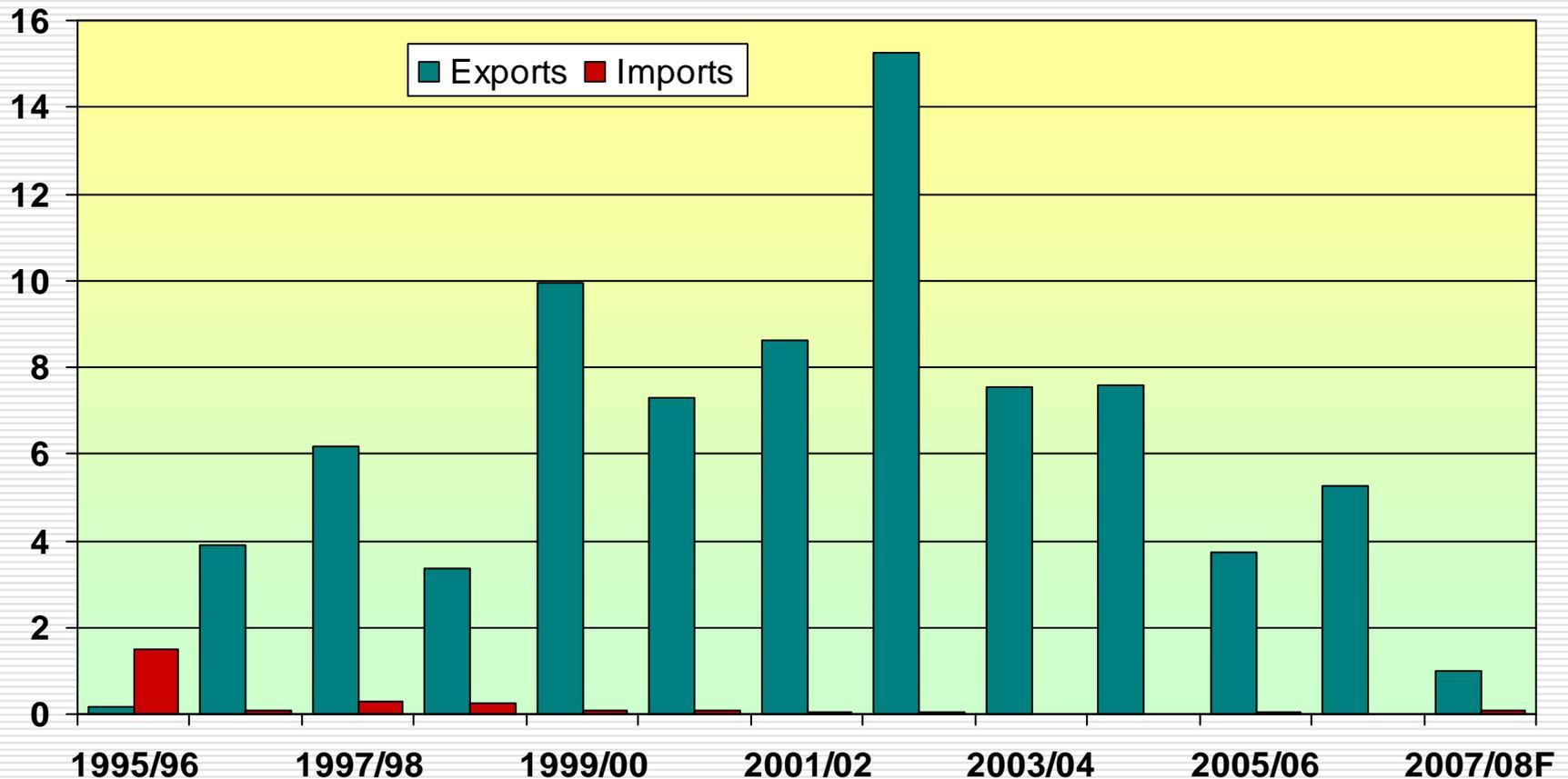


Note: 2007/08 production and consumption are projected based on the *World Agricultural Supply and Demand Estimates*, January 11, 2008.

China Corn Exports

1995/96 through 2007/08F

Mil. Metric Tons



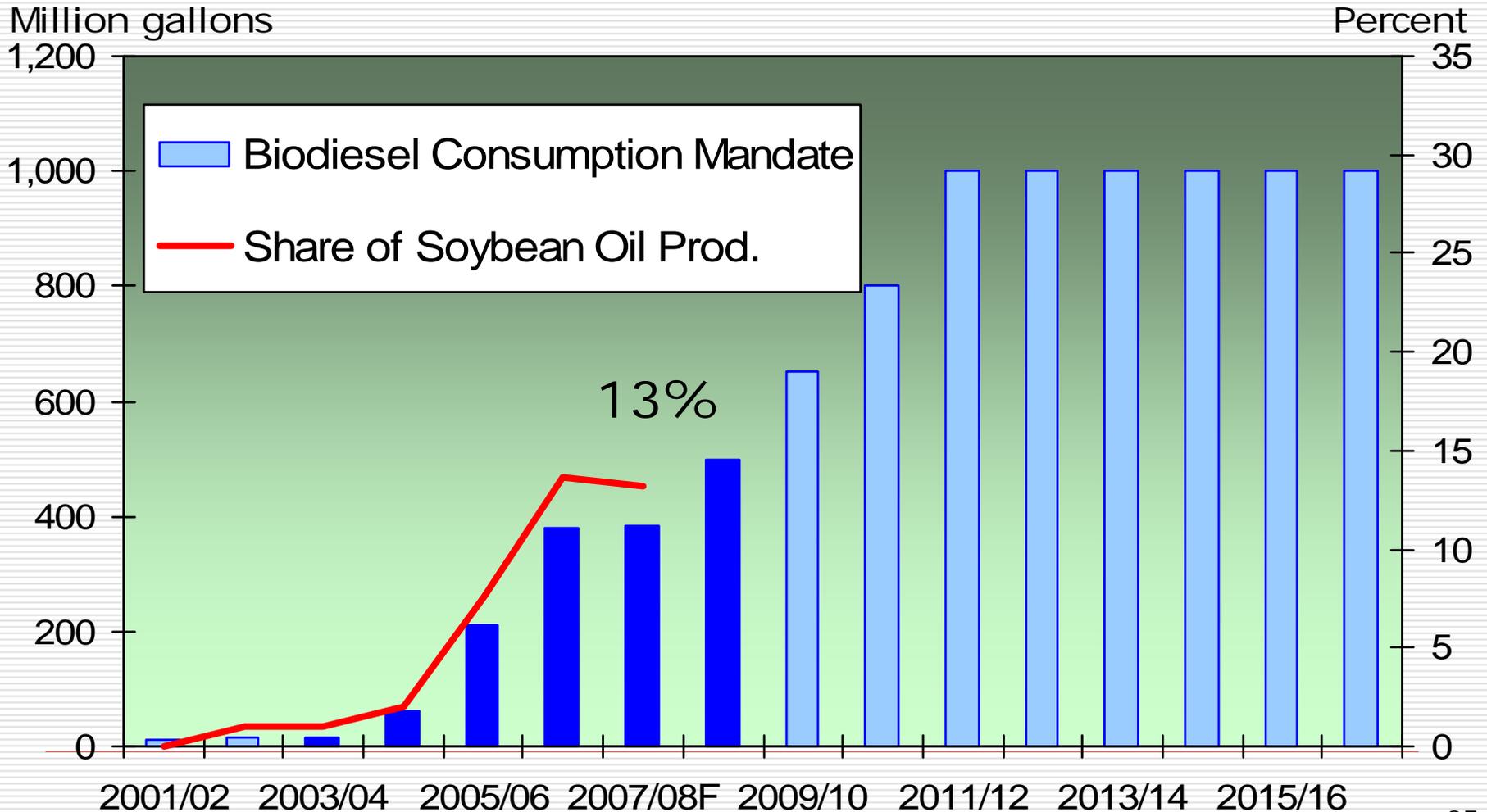
Note: 2007/08 production and consumption are projected based on the *World Agricultural Supply and Demand Estimates*, January 11, 2008.

U.S. Soybean Oil Supply and Demand

	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2008/09
	<i>Million pounds</i>			<i>Percent</i>
Beginning stocks	3,010	2,904	2,502	-13.9
Production	20,487	21,195	21,205	0.0
Imports	37	37	50	33.4
Total supply	23,535	24,137	23,757	-1.6
Domestic	18,743	18,900	19,750	4.5
Methyl ester	2,796	2,800	3,500	25.0
Exports	1,888	2,400	1,850	-22.9
Total use	20,630	21,300	21,600	1.4
Ending stocks	2,904	2,837	2,157	-24.0
	<i>Cents per pound</i>			
Average market price	31.02	55.00	49.50	-10.0

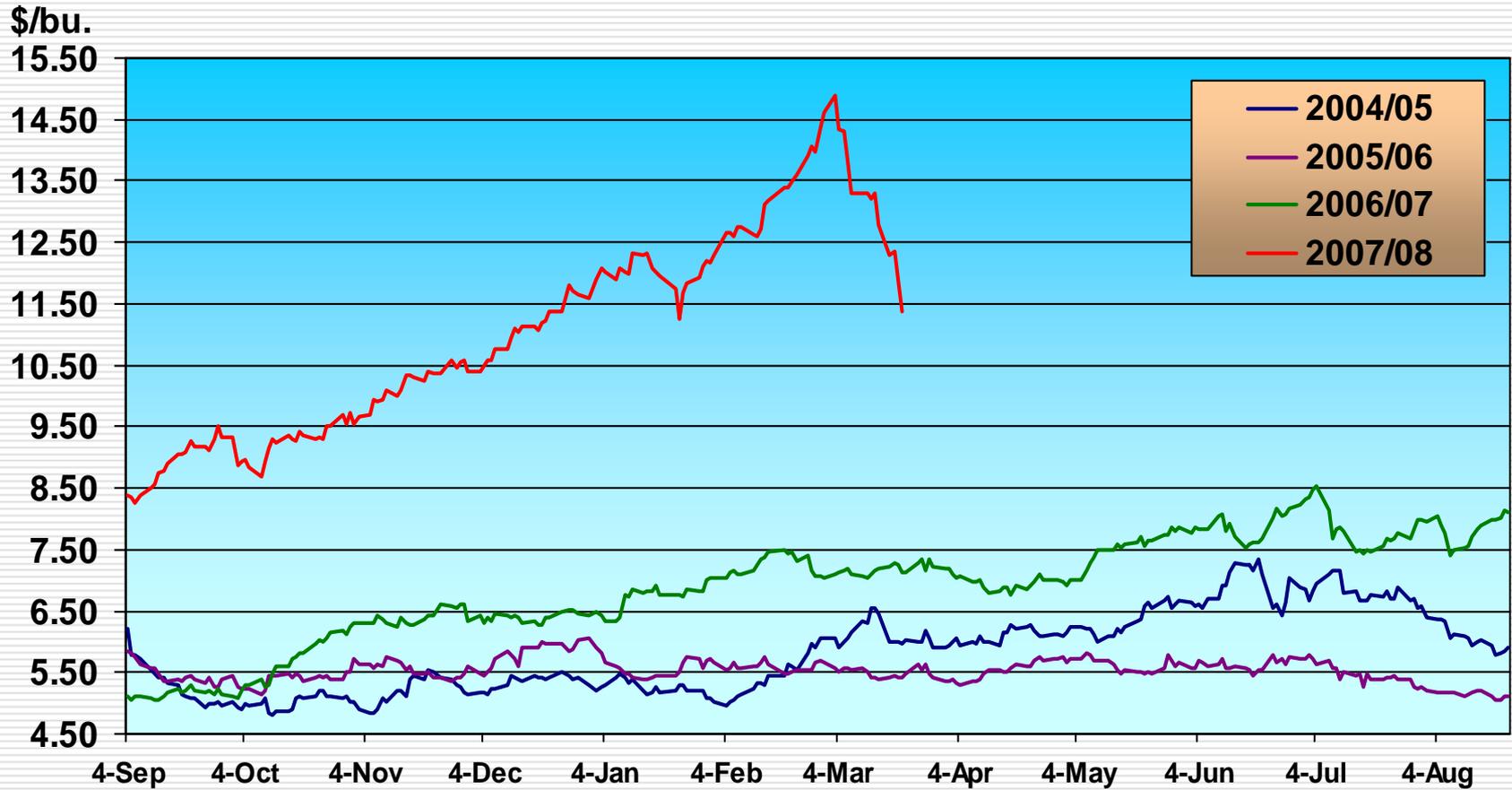
U.S. Biodiesel Mandate . . .

(2007 Energy Act)



Daily Cash Market Soybean Prices

2004/05 through 2007/08 to date



Note: Central Illinois cash bids.

Soybean Oil Futures Prices

December 2008 Contract



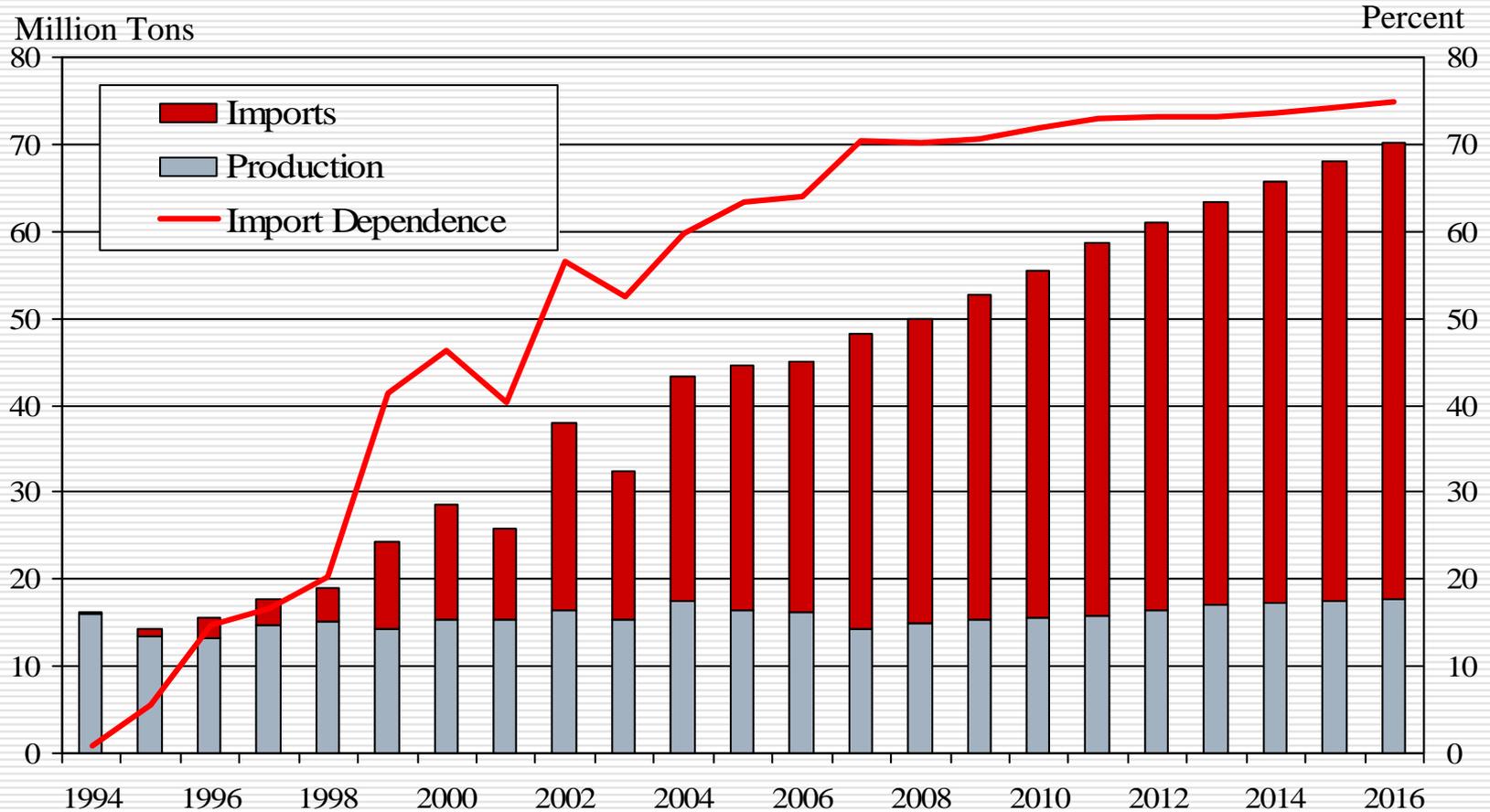
Note: Chicago Board of Trade daily settlement prices.

Biodiesel Margin

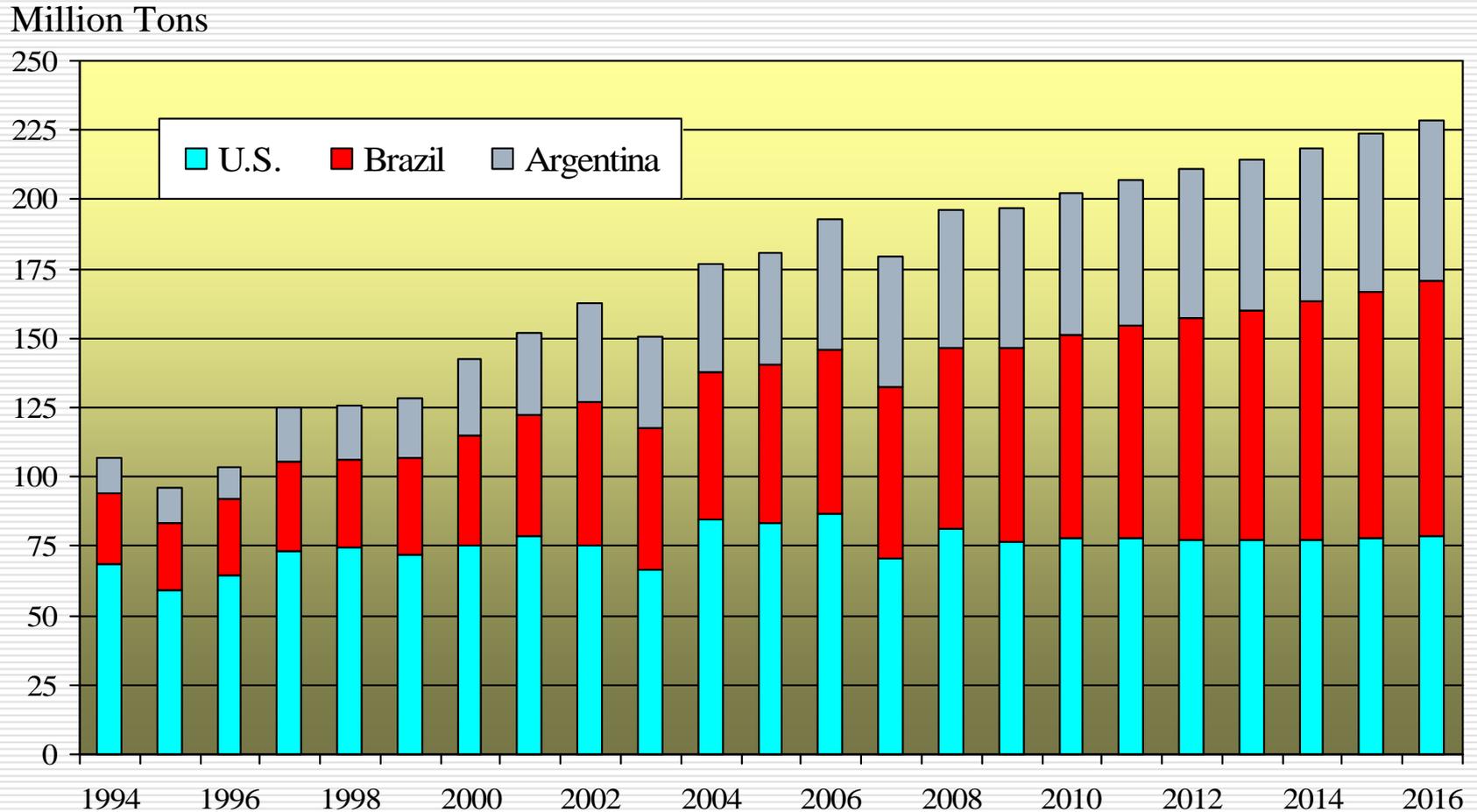
cents/lb



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

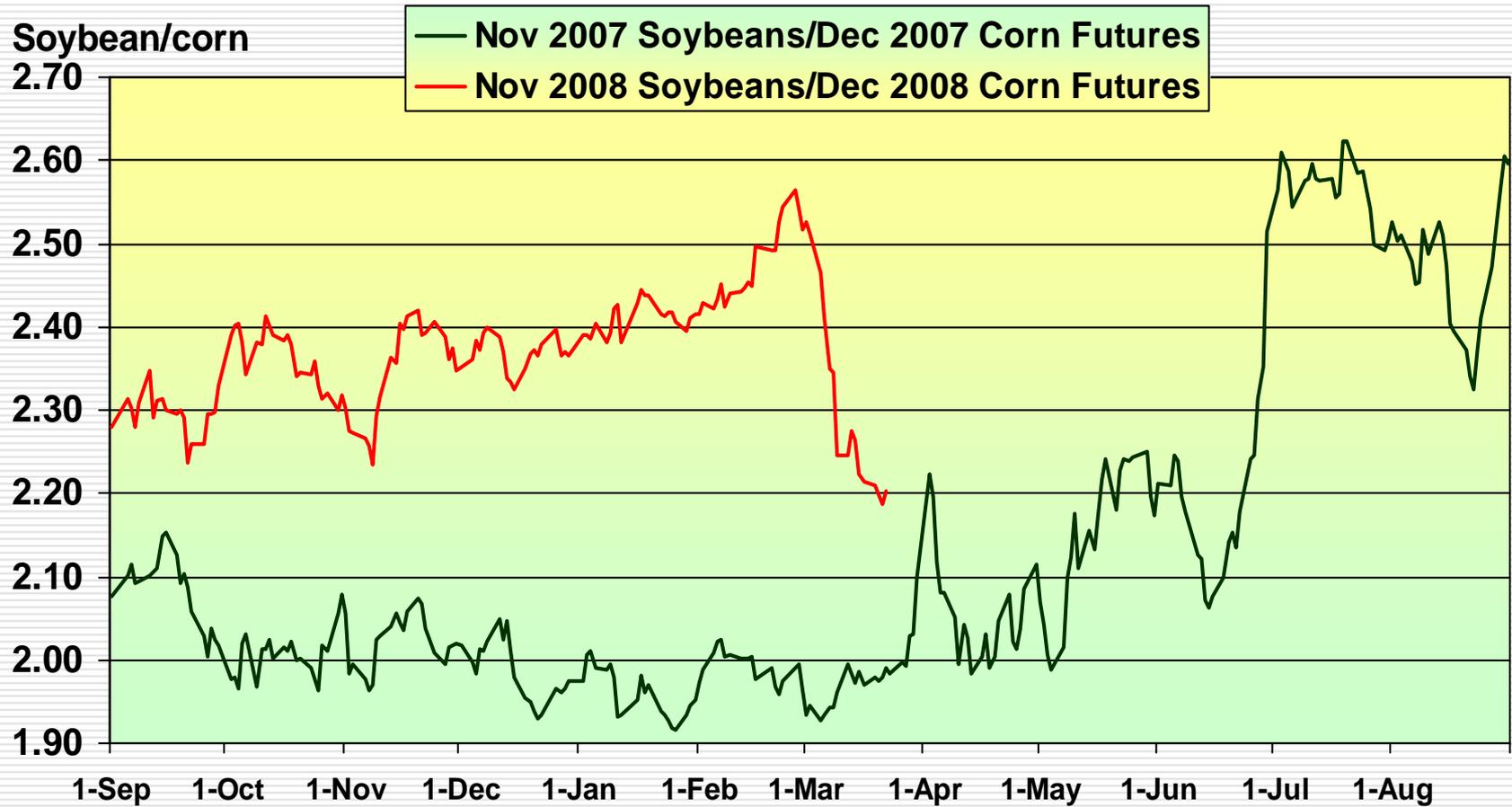


Soybean Production Trends



New-crop Soybean/Corn Price Ratios

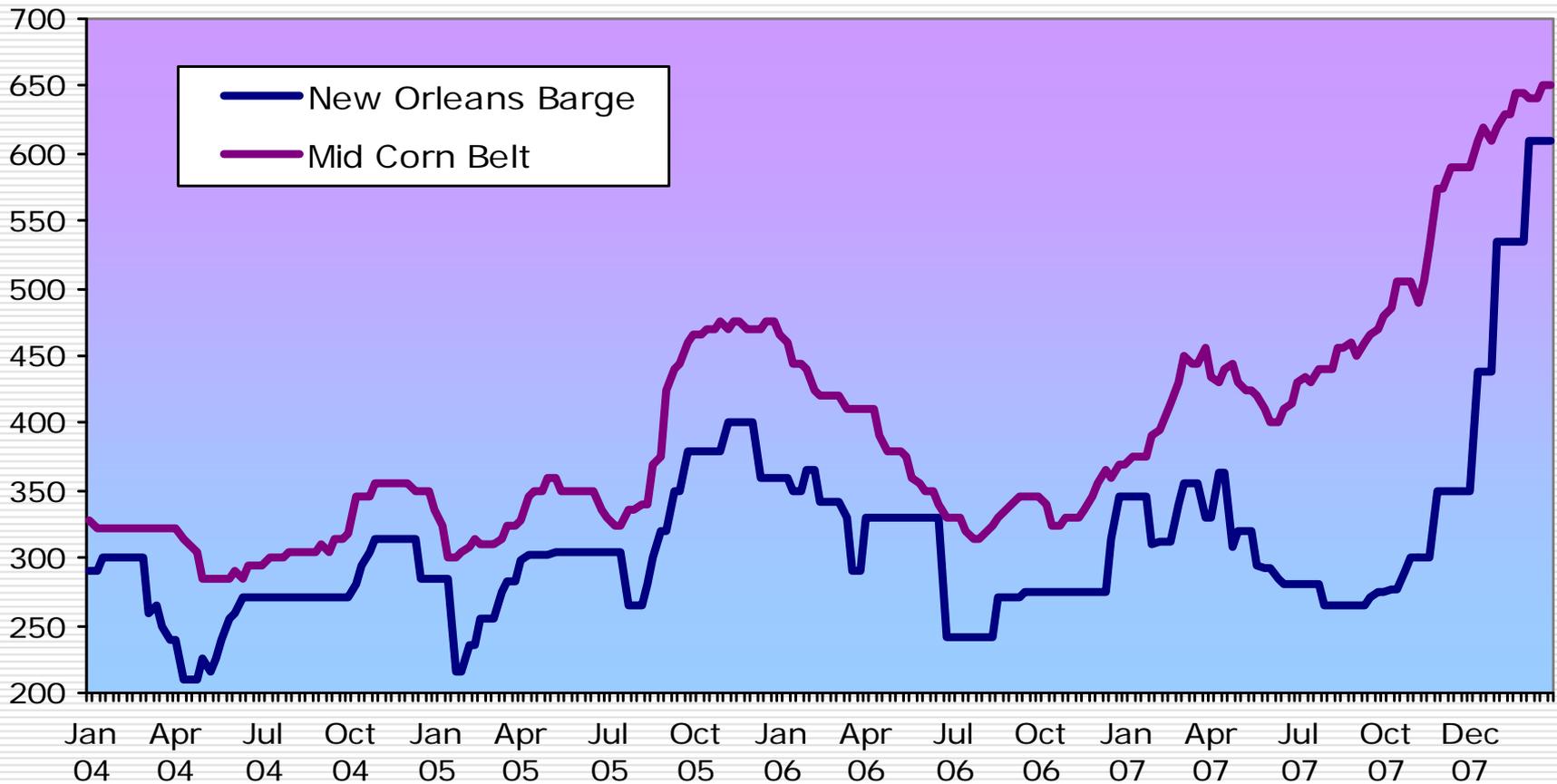
2007-crop and 2008-crop through March 24, 2008



Note: Chicago Board of Trade daily settlement prices.

U.S. Ammonia Prices, weekly

\$ per short ton



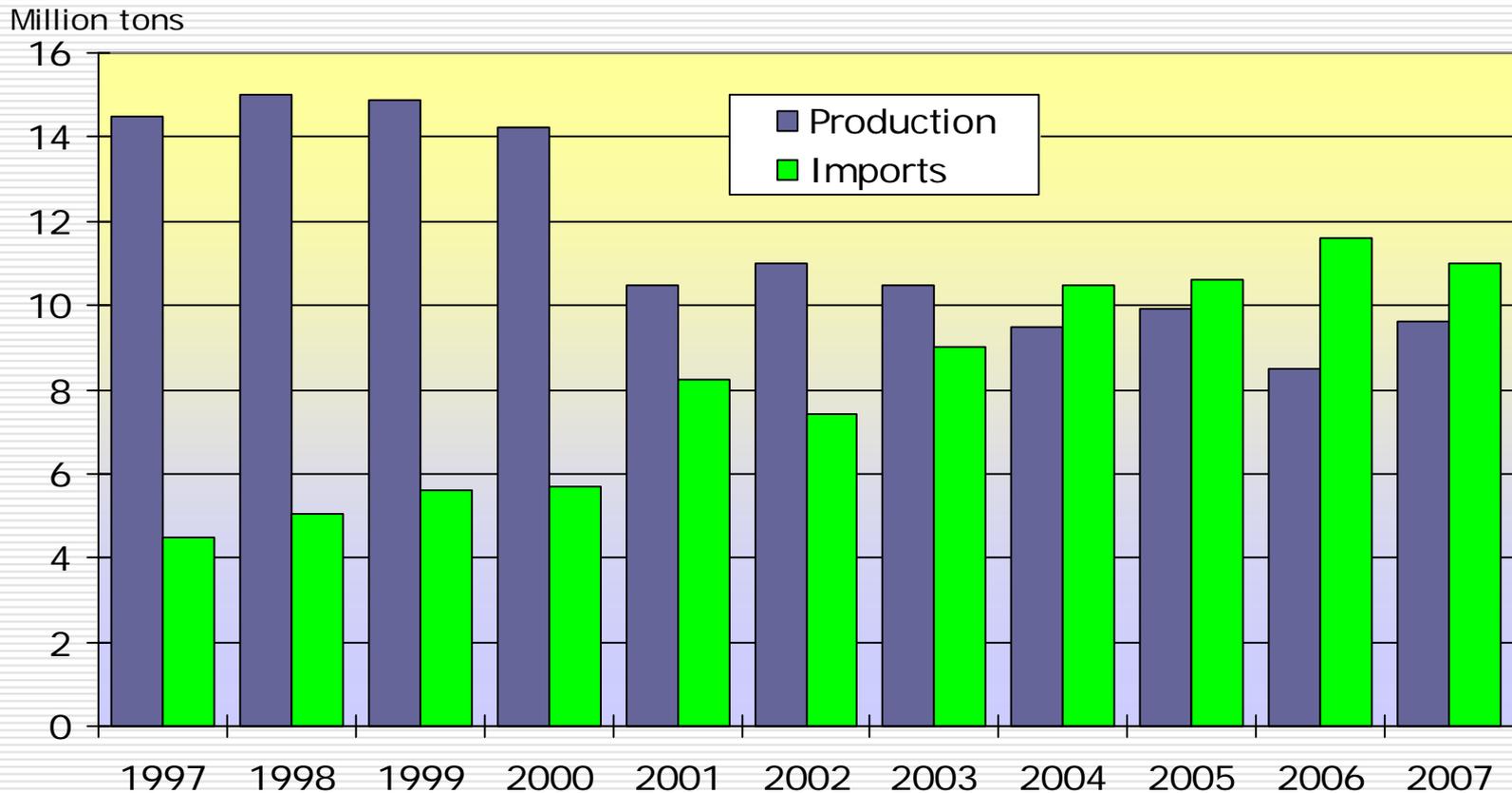
Source: Green Markets Fertilizer Market Intelligence Weekly

Projected Growth Rates

	2008	2009	2010	Average
U.S.	1.8	2.7	3.5	2.7
EU-27	2.1	2.4	2.3	2.3
Japan	1.5	2.0	2.1	1.9
China	11.4	9.2	8.7	9.8
India	7.8	7.7	7.6	7.7
World	3.4	3.6	3.7	3.6

Source: Oxford Economics

U.S. Nitrogen Production and Imports



U.S. Meat Production and Prices

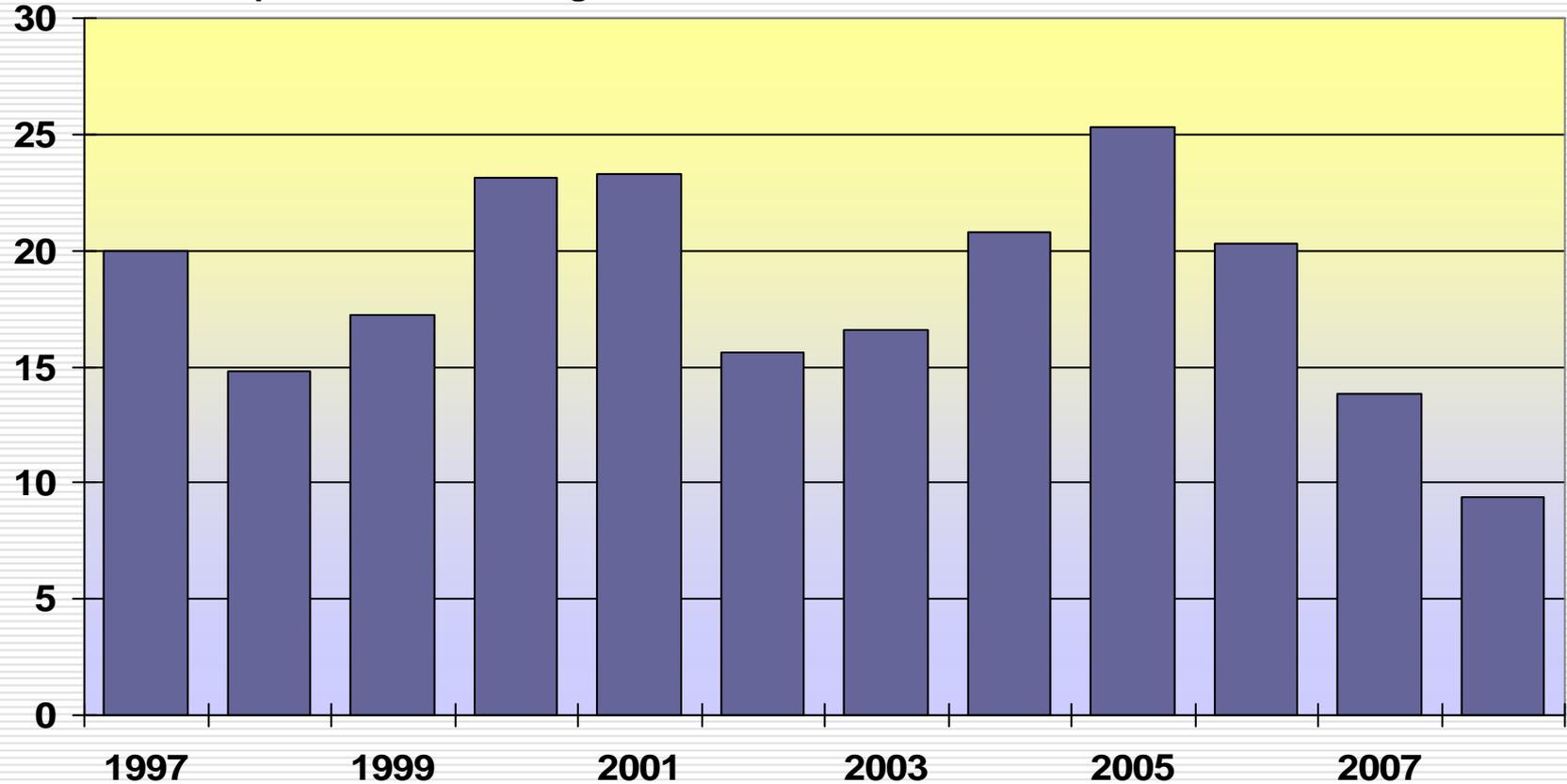
Item	2006	2007	Change from 2006	2008	Change from 2007
Production	<i>Billion pounds</i>	<i>Billion pounds</i>	<i>Percent</i>	<i>Billion pounds</i>	<i>Percent</i>
Beef	26.15	26.42	1.0	26.44	0.1
Pork	21.06	21.94	4.2	23.14	5.4
Broilers	35.50	36.13	1.8	37.13	2.8
Turkey	5.68	5.96	4.9	6.14	3.0
Total meat	89.23	91.27	2.3	93.67	2.6
Prices					
			<i>Dollars/Cwt</i>		
Steers	85.41	91.82	6.41	90.88	-0.94
Hogs	47.26	47.09	-0.17	42.38	-4.71
			<i>Cents/pound</i>		
Broilers	64.4	76.4	12.1	76.4	0.0
Turkey	77.0	82.1	5.1	81.1	-1.0

U.S. Soybean Meal Supply and Demand

	2006/07 estimate	2007/08 forecast	2008/09 forecast	Change from 2008/09
	<i>Thousand short tons</i>			<i>Percent</i>
Beginning stocks	314	351	300	-14.5
Production	43,027	43,784	44,235	1.0
Imports	156	165	165	0.0
Total supply	43,497	44,300	44,700	0.9
Domestic	34,360	35,300	35,600	0.9
Exports	8,786	8,700	8,800	1.2
Total use	43,146	44,000	44,400	0.9
Ending stocks	351	300	300	0.0
	<i>Dollars per short ton</i>			
Average market price	205.44	335.00	300.00	-10.4

Hog-Corn Price Ratio

Bushels of Corn per 100 lbs of Live Hogs



*Based on NASS Prices Received

U.S. Milk Supply and Demand

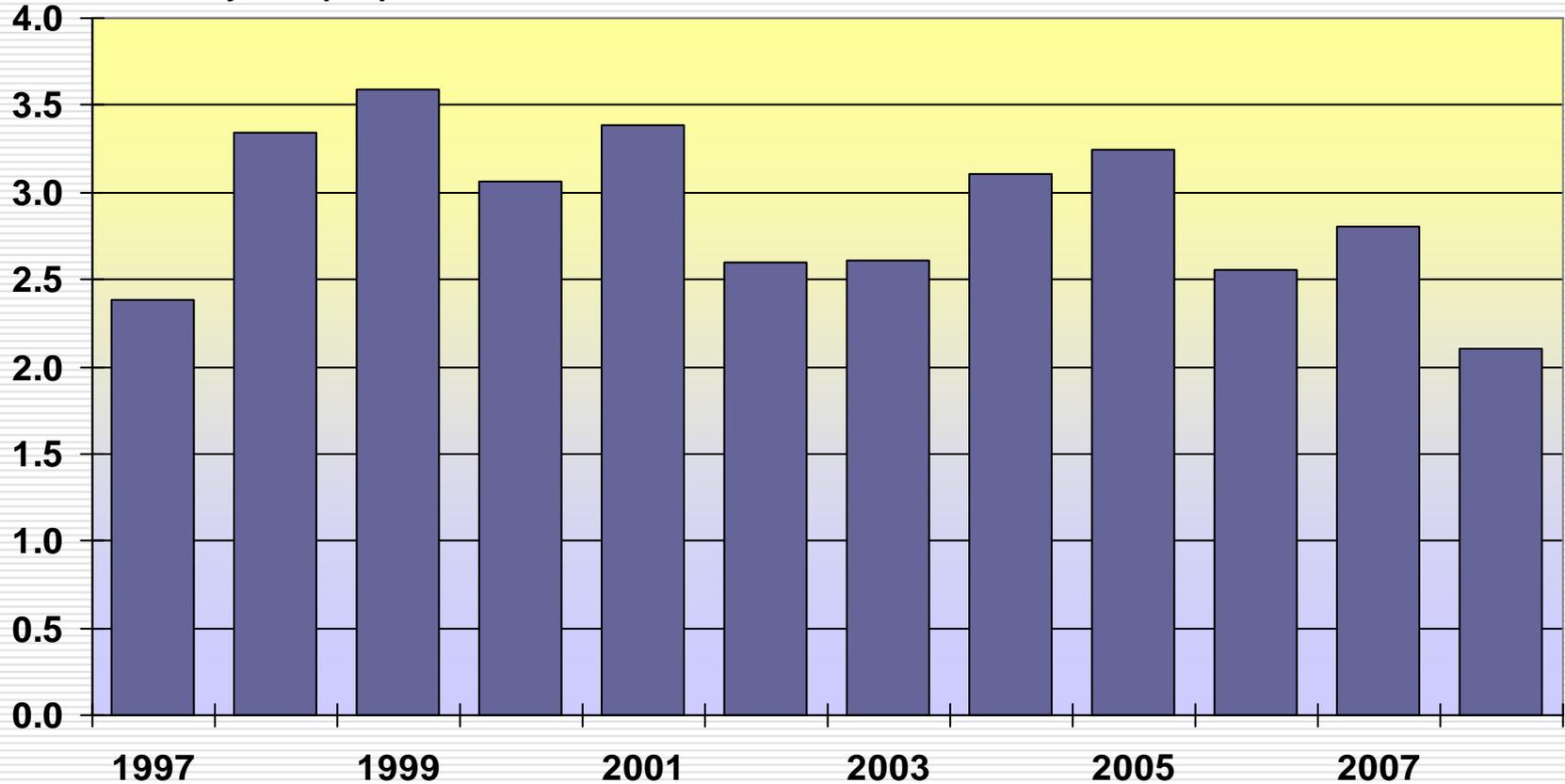
Item	2006	2007	Change from 2006	2008	Change from 2007
	<i>Billion pounds</i>	<i>Billion pounds</i>	<i>Percent</i>	<i>Billion pounds</i>	<i>Percent</i>
Production	181.8	185.6	2.1	190.7	2.7
Commercial use	184.1	188.3	2.2	194.0	3.1
CCC net removals 1/	<i>Million pounds</i>	<i>Million pounds</i>	<i>Percent</i>	<i>Million pounds</i>	<i>Percent</i>
Butter	0	0		0	
Cheese	0	0		0	
Nonfat dry milk	64	0		0	
Dry whole milk	0	0		0	
Average market price 2/			<i>Dollars/Cwt</i>		
Class III	11.89	18.04	6.15	16.45	-1.59
Class IV	11.06	18.36	7.30	15.30	-3.06
All milk	12.90	19.13	6.23	17.60	-1.53

1/ Includes products exported under the dairy export incentive program.

2/ Prices are mid-point of published forecasts; milk of average fat test.

Milk-Feed Price Ratio

Pounds of dairy feed per pound of milk*



*Based on NASS Prices Received

Price Summary

	2006/07 estimate	2007/08 forecast (midpoint)	Change from last year
<i>Crops and products</i>			<i>Percent</i>
Wheat (\$/bu)	4.26	6.65	56.1
Rice (\$/cwt)	9.96	12.00	20.5
Corn (\$/bu)	3.04	4.00	31.6
Soybeans (\$/bu)	6.43	10.40	61.7
Soybean oil (¢/lb)	31.02	55.00	77.3
Soybean meal (\$/s.t.)	205.44	335.00	63.1
Cotton (¢/lb)	46.50	55.10*	
<i>Livestock</i>			
Steers (\$/cwt)	91.82	90.88	-1.0
Hogs (\$/cwt)	47.09	42.38	-10.0
Broilers (¢/lb)	76.4	76.4	0.0
Turkeys (¢/lb)	82.1	81.1	-1.2
<i>Dairy products</i>			
Cheese	1.74	1.77	2.0
Butter	1.34	1.27	-5.4
Nonfat dry milk	1.71	1.38	-19.4
Dry whey	0.60	0.28	-53.2
<i>Milk classes</i>			
Class III (\$/cwt)	18.04	16.45	-8.8
Class IV (\$/cwt)	18.36	15.30	-16.7
All milk (\$/cwt)	19.13	17.60	-8.0

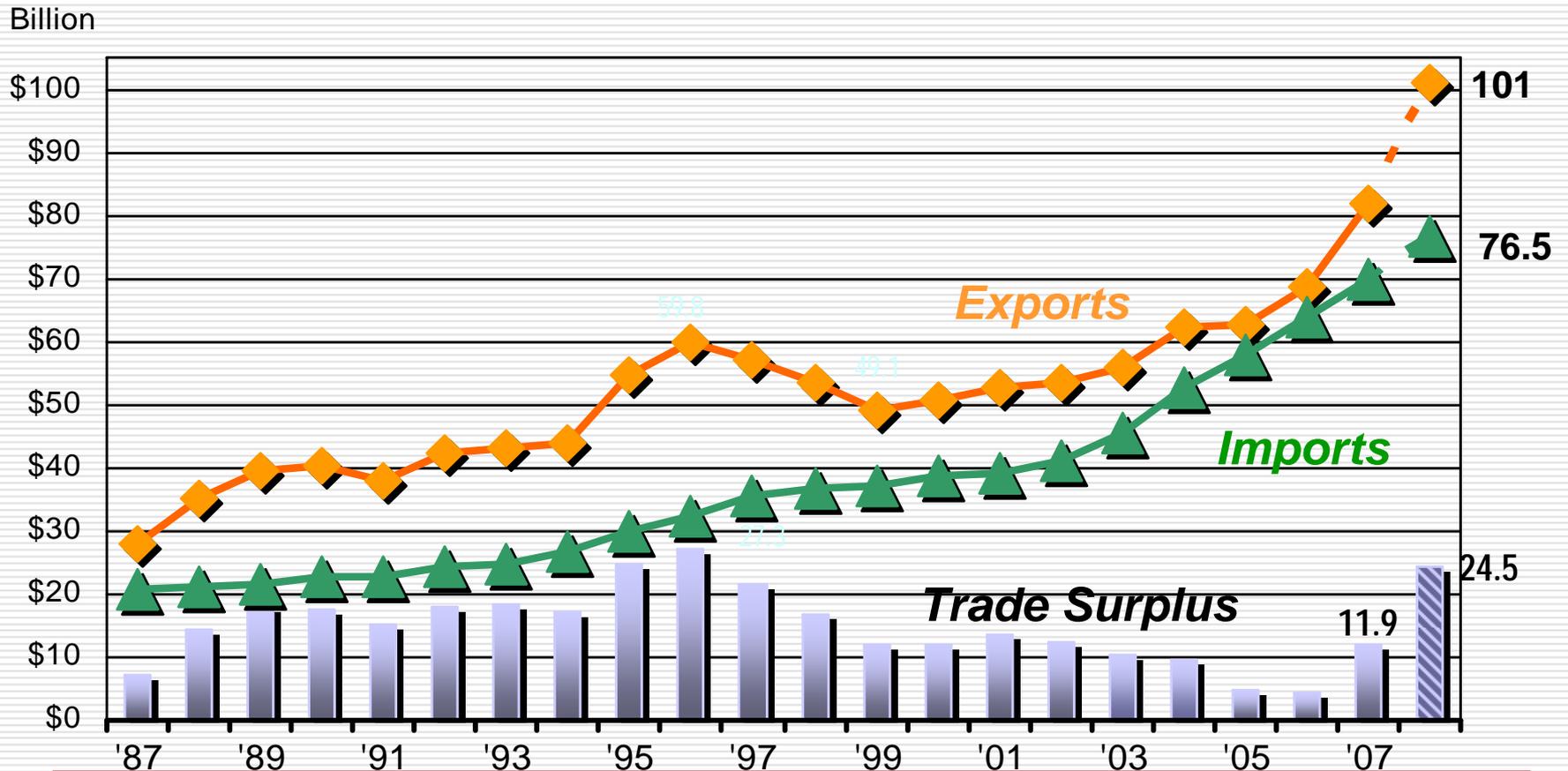
*Average price for August 2007-January 2008. USDA is prohibited by law from publishing cotton price projections.

Consumer Prices and Prices Received by Farmers

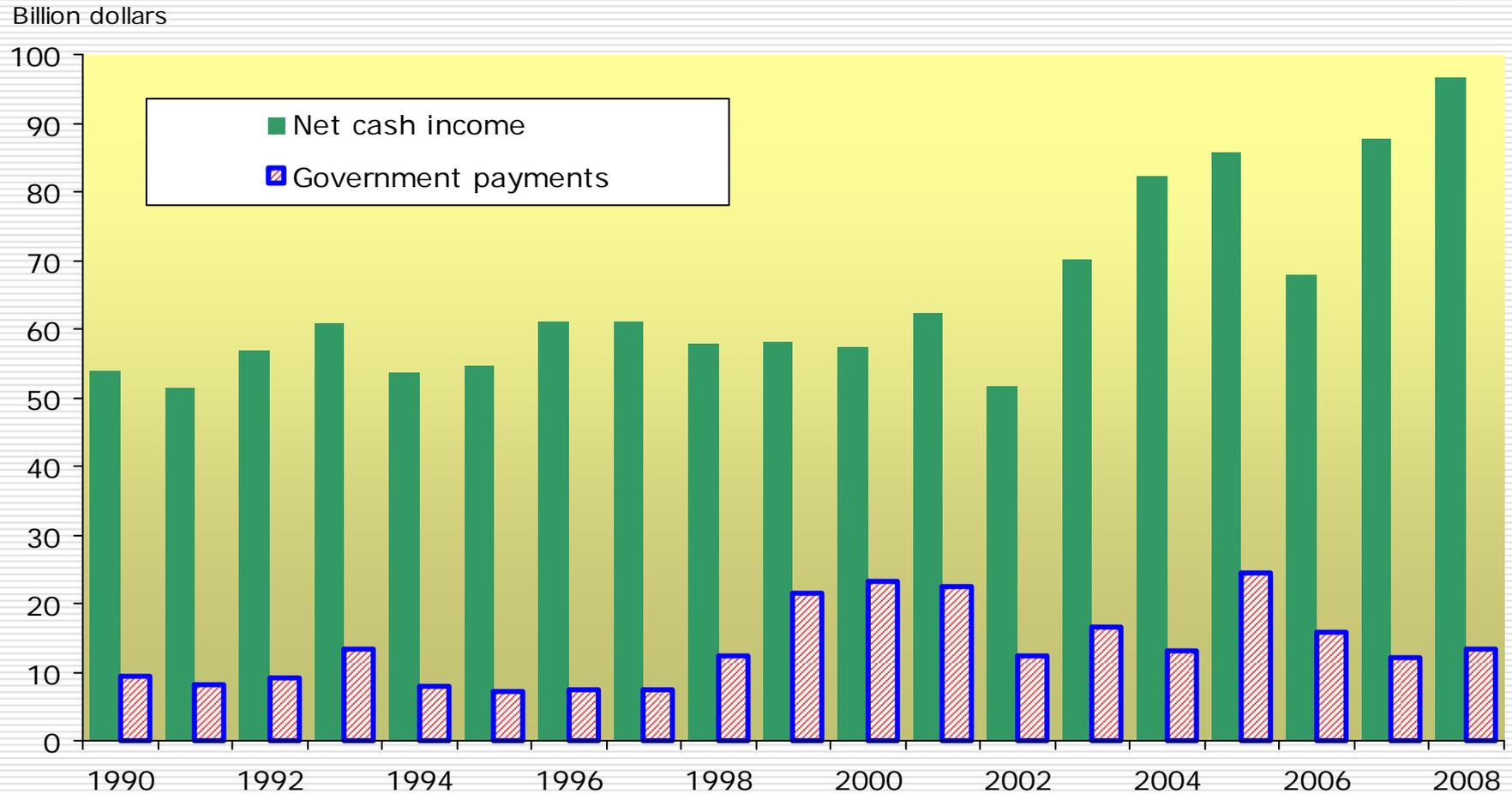
Year	CPI for Food	Farm Prices Percent
2005	2.4	-2.7
2006	2.4	0.1
2007	4.0	18.1
2008	3.5-4.5	?

Sources: U.S. Bureau of Labor Statistics, National Agricultural Statistics Service, Economic Research Service

U.S. Agricultural Exports and Imports



Cash Farm Income and Government Payments



Source: Economic Research Service, USDA

Adjustments to Outlook Stemming From Provisions of 2007 Energy Act

- ❑ Corn, Soybean, and Soybean Oil Prices would be Higher
- ❑ Overall Acres would be up with a Greater Proportion Planted to Corn and Soybeans
- ❑ Given Higher prices, Exports and Feed Use of Feed Grains would be Lower
- ❑ Soybean Meal would be more Plentiful
- ❑ Further Adjustments in the Livestock Sector would be Required

END

National Academies Presentation