

World Feed and Food Supply and Demand

Governors' Agriculture, Energy, and Sustainability Roundtable **Governors' Biofuels Coalition**

Washington, DC
January 28, 2010

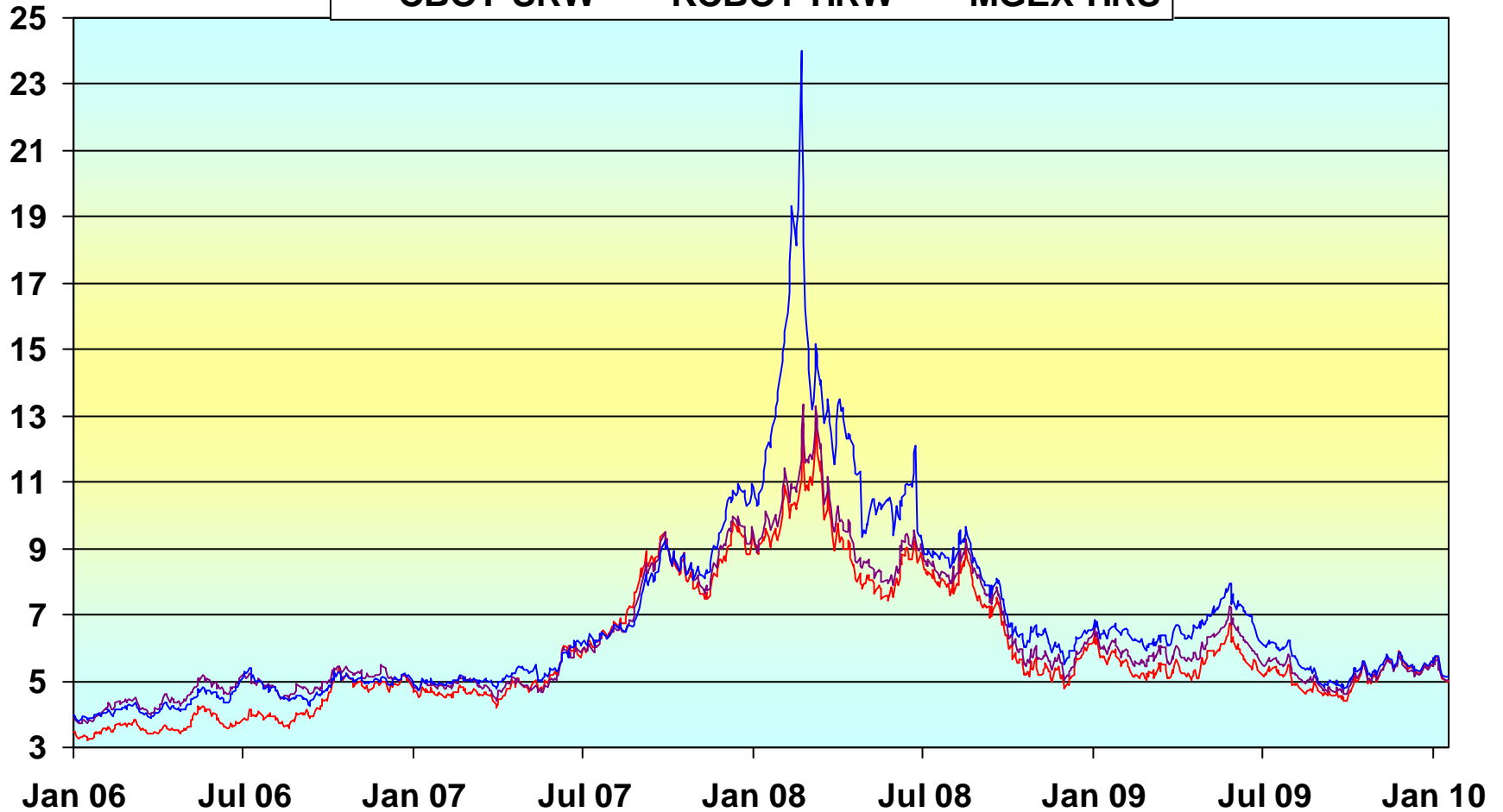
Gerald A. Bange
Chairperson, World Agricultural Outlook Board
United States Department of Agriculture

Wheat Futures Prices

\$/bushel

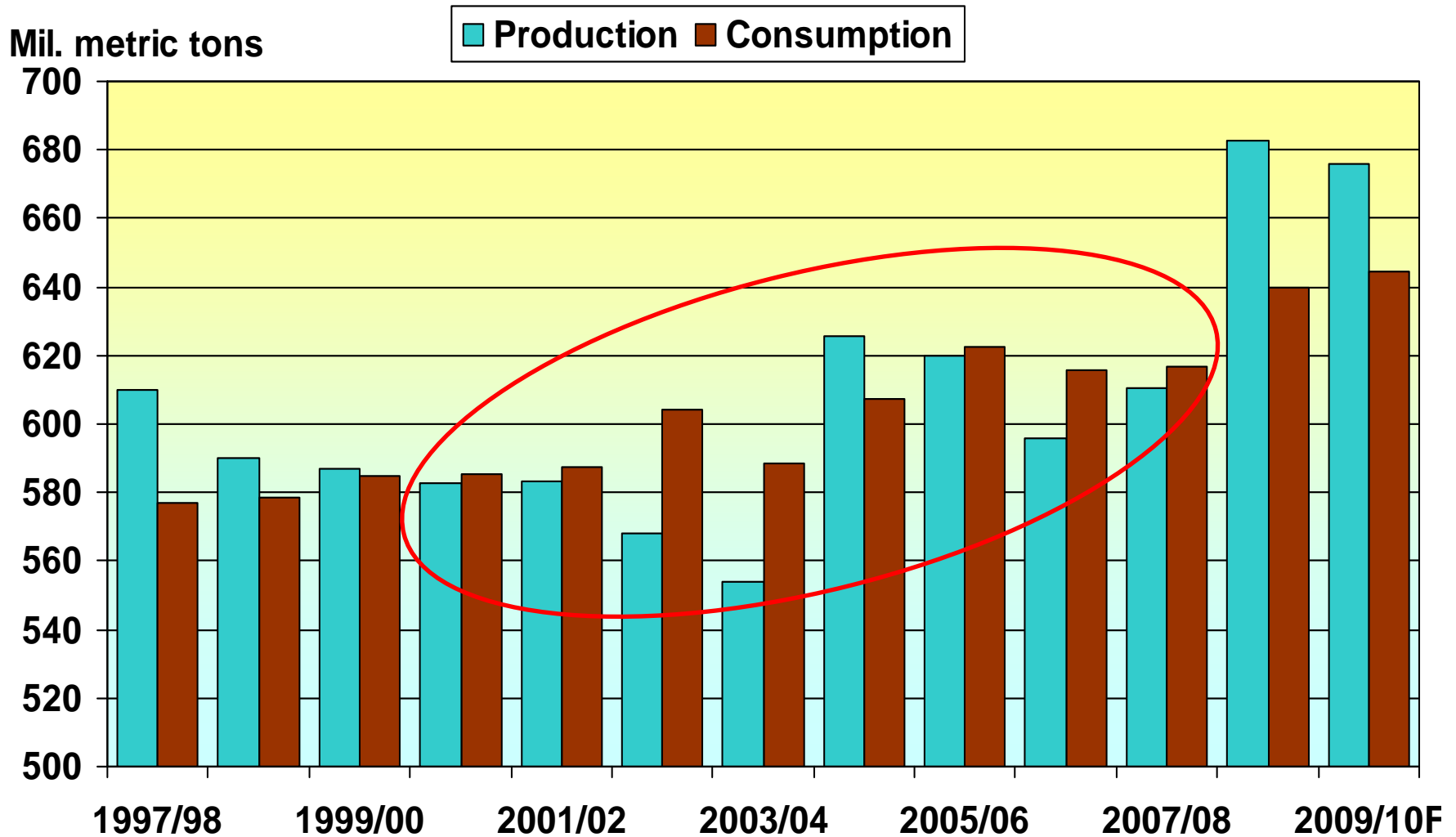
Nearby Futures Contracts

— CBOT-SRW — KCBOT-HRW — MGEX-HRS



Source: Chicago Board of Trade, Kansas Board of Trade, and Minneapolis Grain Exchange settlement prices.

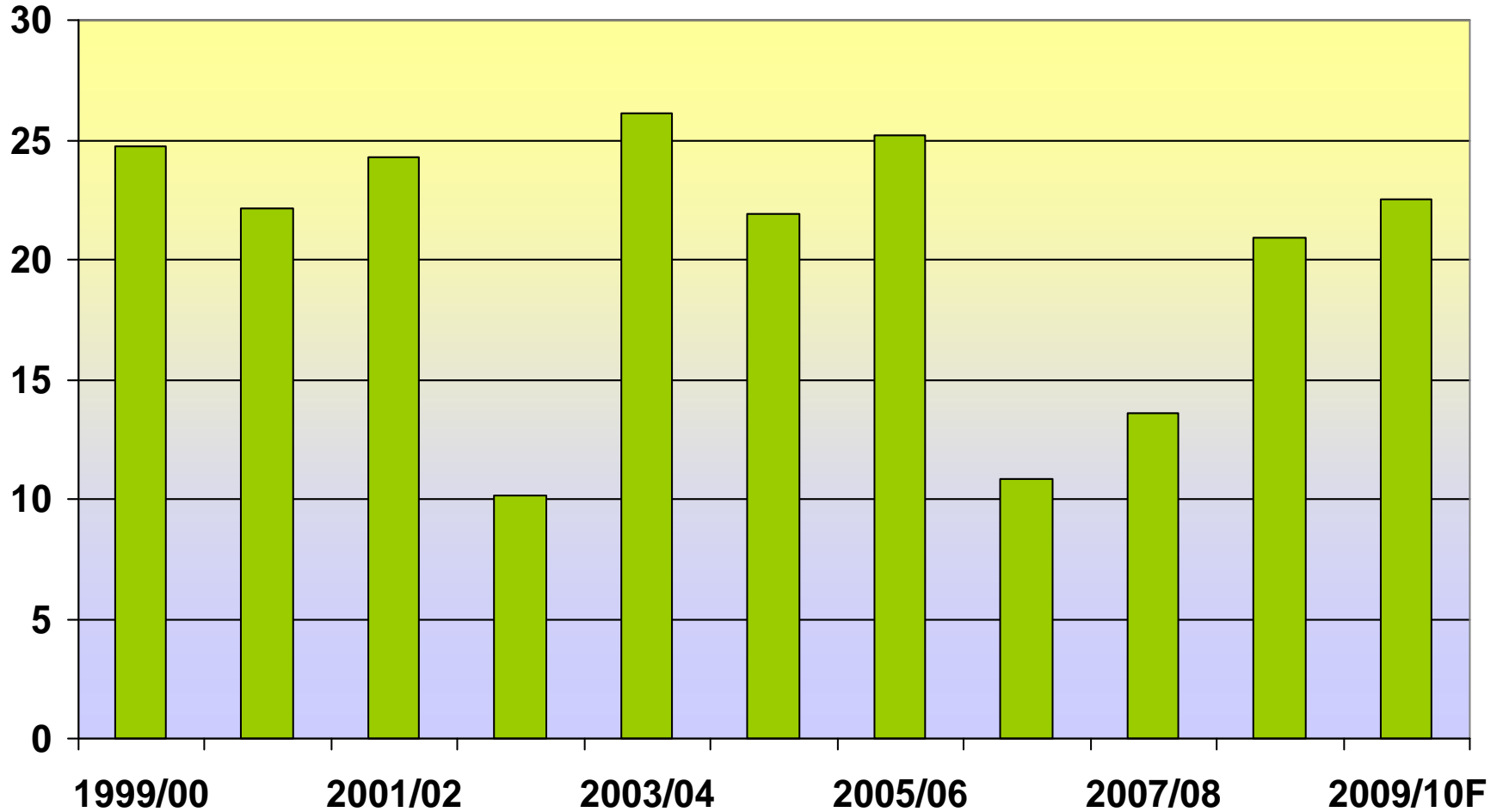
Global Wheat Production & Consumption



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

Australia Wheat Production

Mil. metric tons

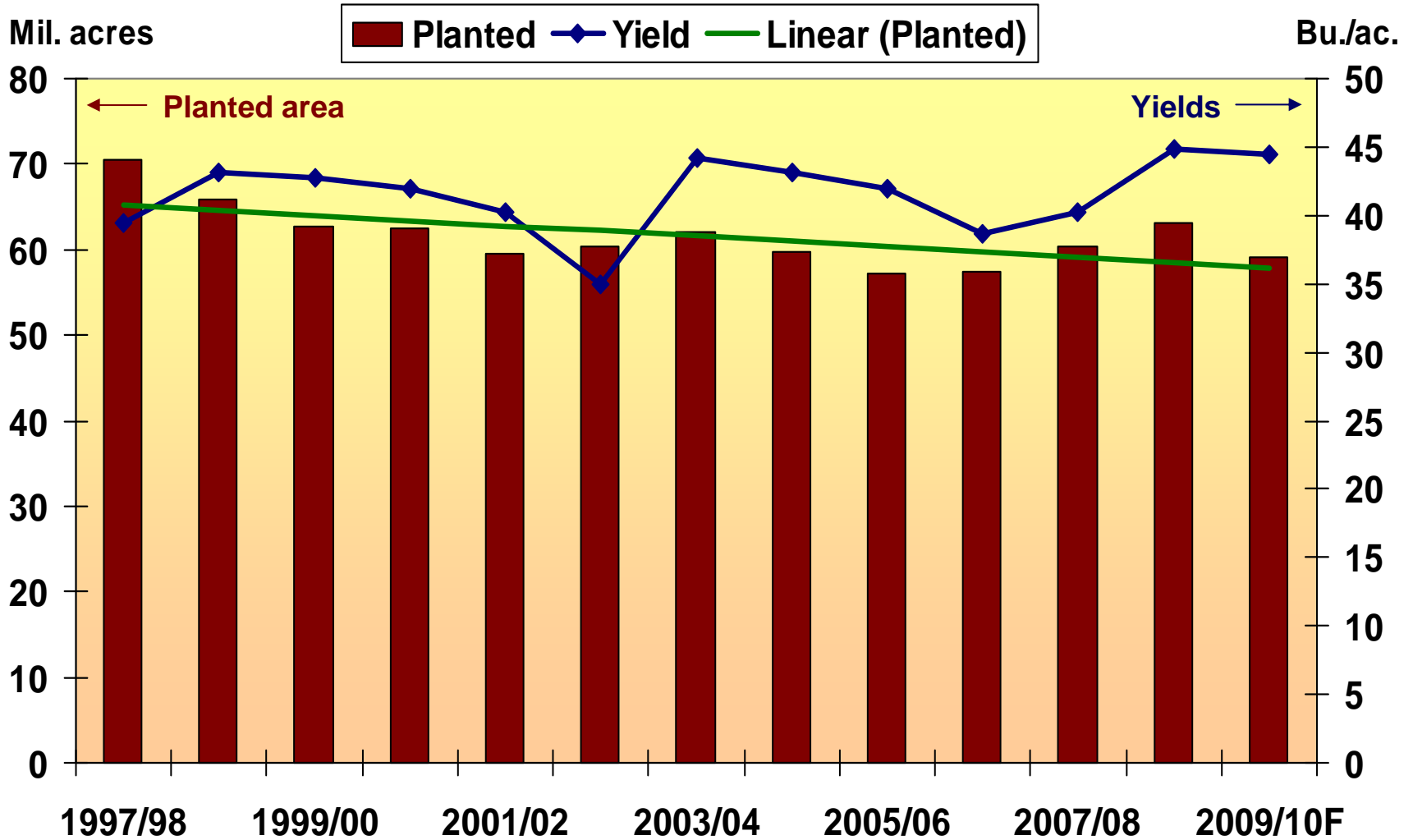


Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

World Wheat Production

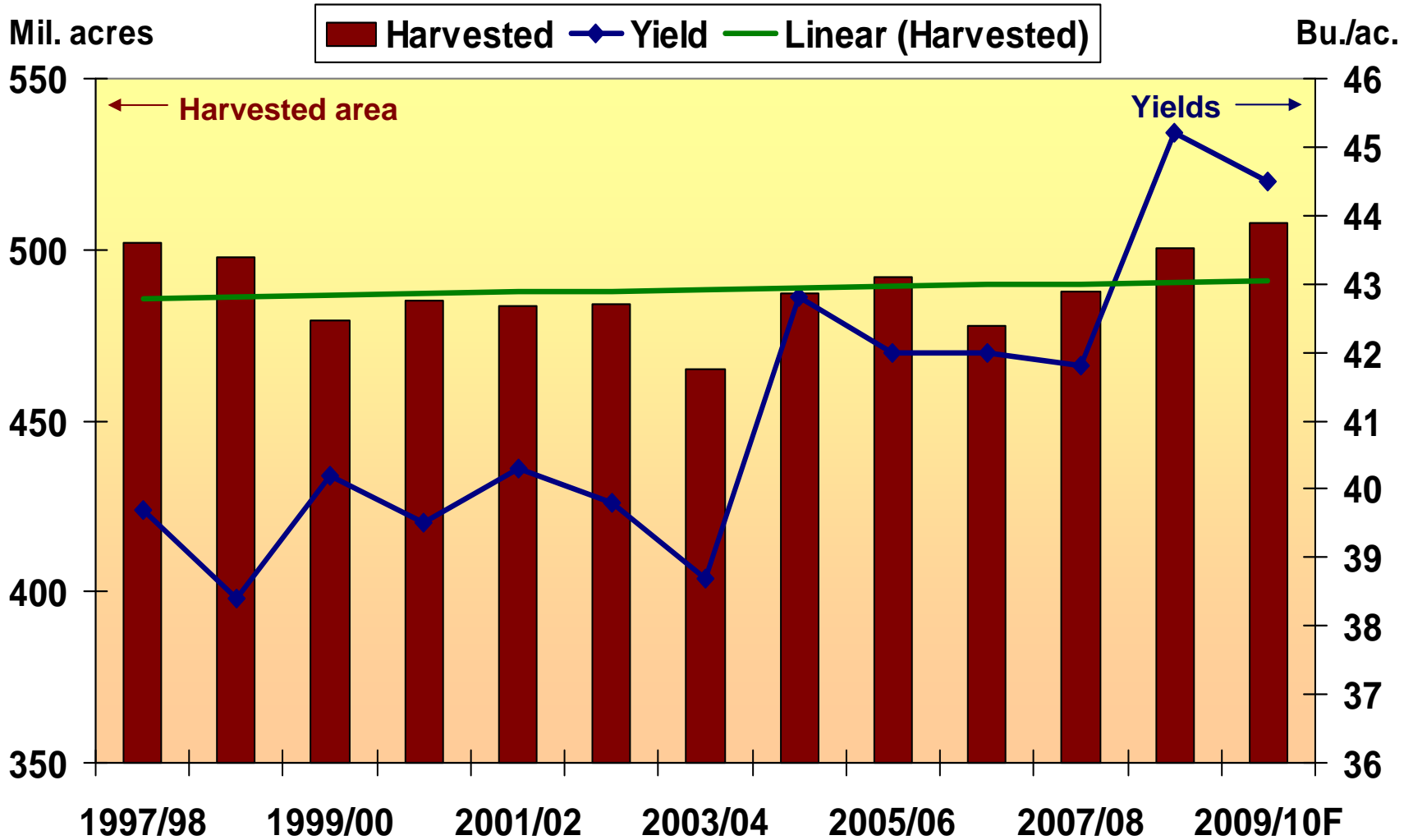
Country or Region	2008/09 estimate	2009/10 forecast	Change from previous month	Change from 2008/09
	<i>Million Tons</i>		<i>Percent</i>	<i>Percent</i>
World	682.7	676.1	0.3	-1.0
United States	68.0	60.3	0.0	-11.3
Foreign	614.7	615.8	0.4	0.2
Argentina	9.0	8.0	0.0	-11.1
Canada	28.6	26.5	0.0	-7.4
Australia	20.9	22.5	0.0	7.5
European Union	151.1	138.3	0.0	-8.4
Russian Federation	63.7	61.7	3.7	-3.1
Ukraine	25.9	20.5	0.0	-20.8
Kazakhstan	12.6	17.0	0.0	35.5
China	112.5	114.5	0.0	1.8
India	78.6	80.6	0.0	2.6

U.S. Wheat Area and Yields



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

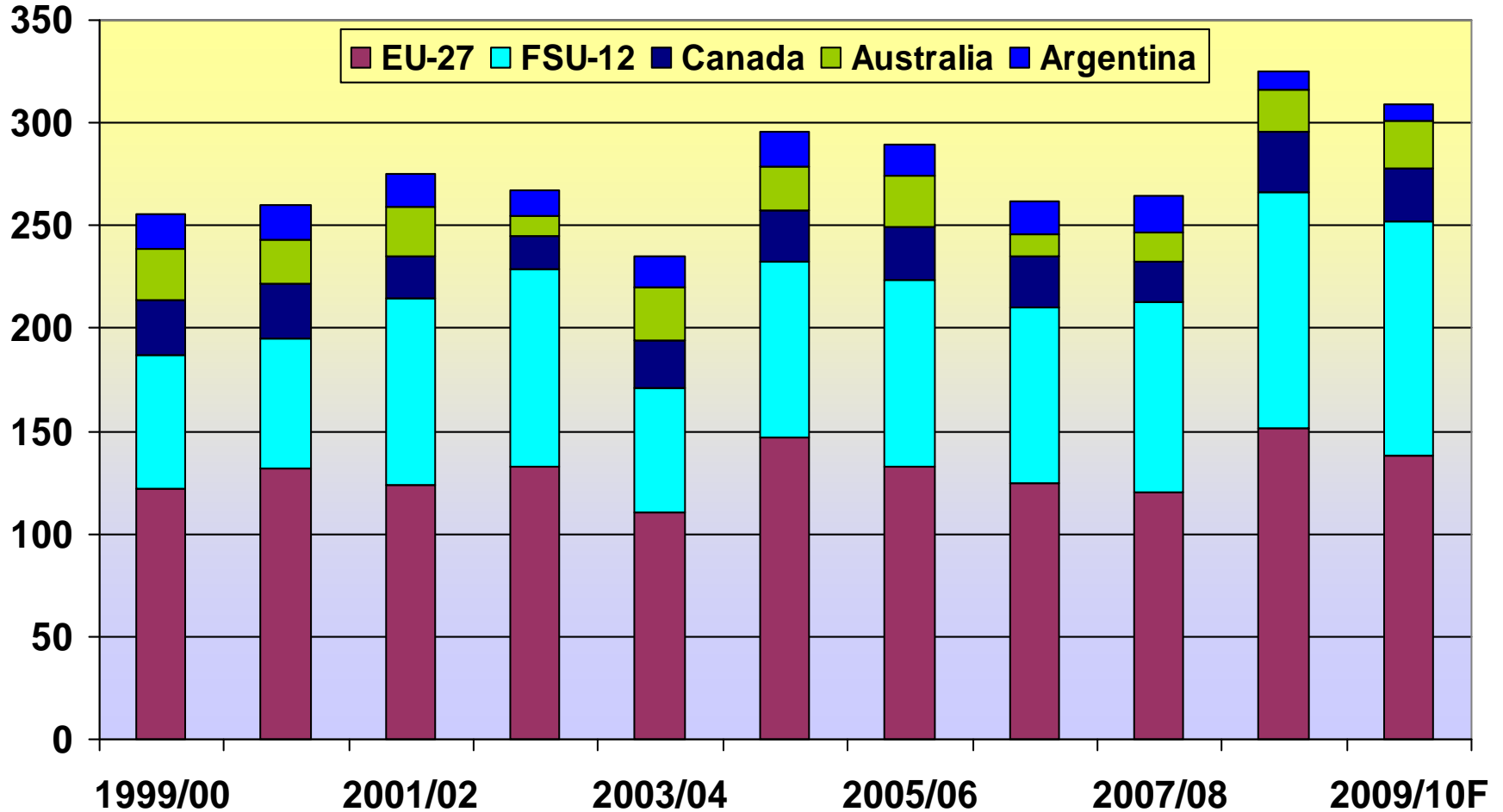
Foreign Wheat Area and Yields



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

Wheat Production by Other Major Exporters

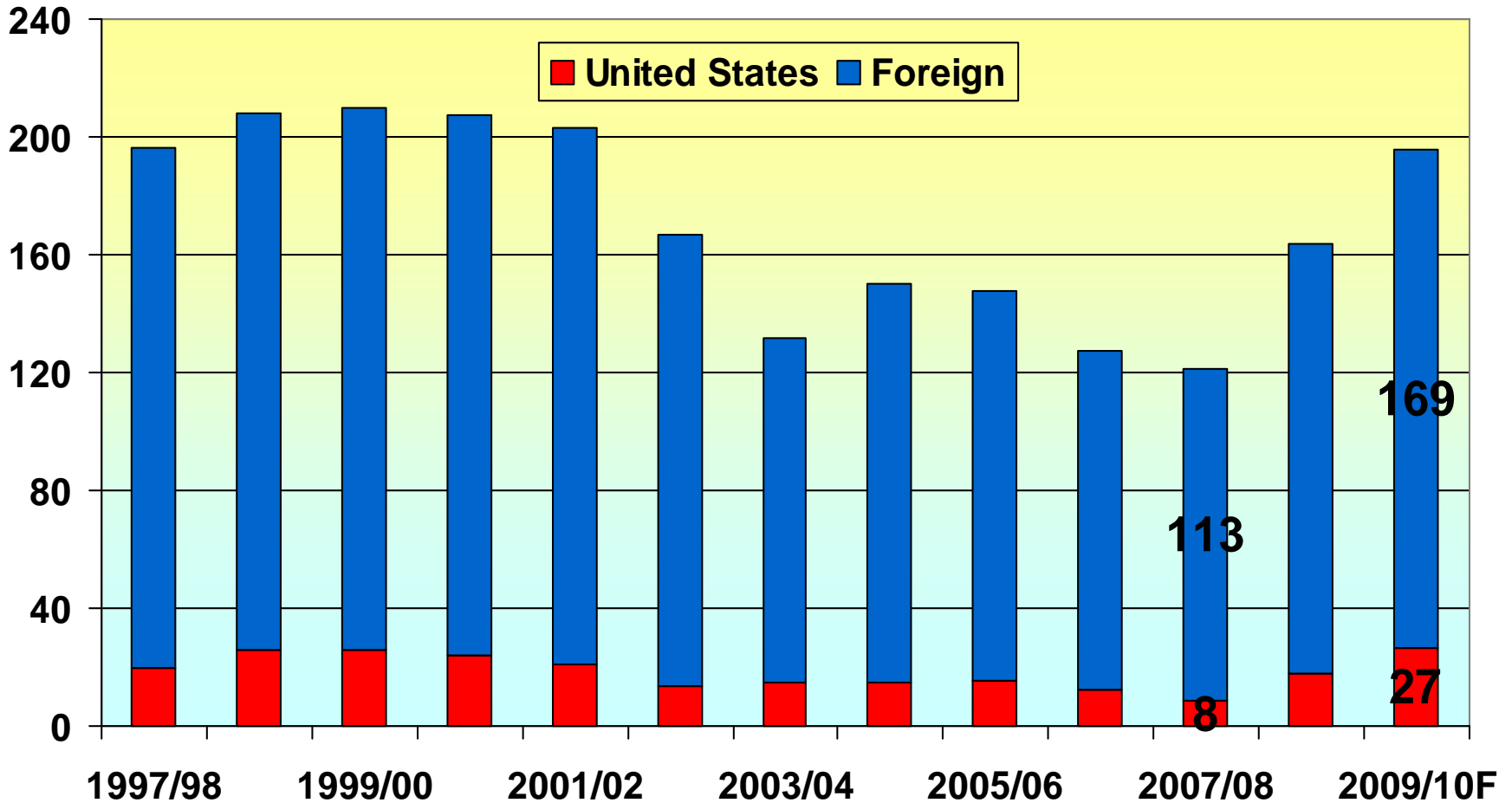
Mil. metric tons



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

Global Wheat Ending Stocks

Mil. metric tons

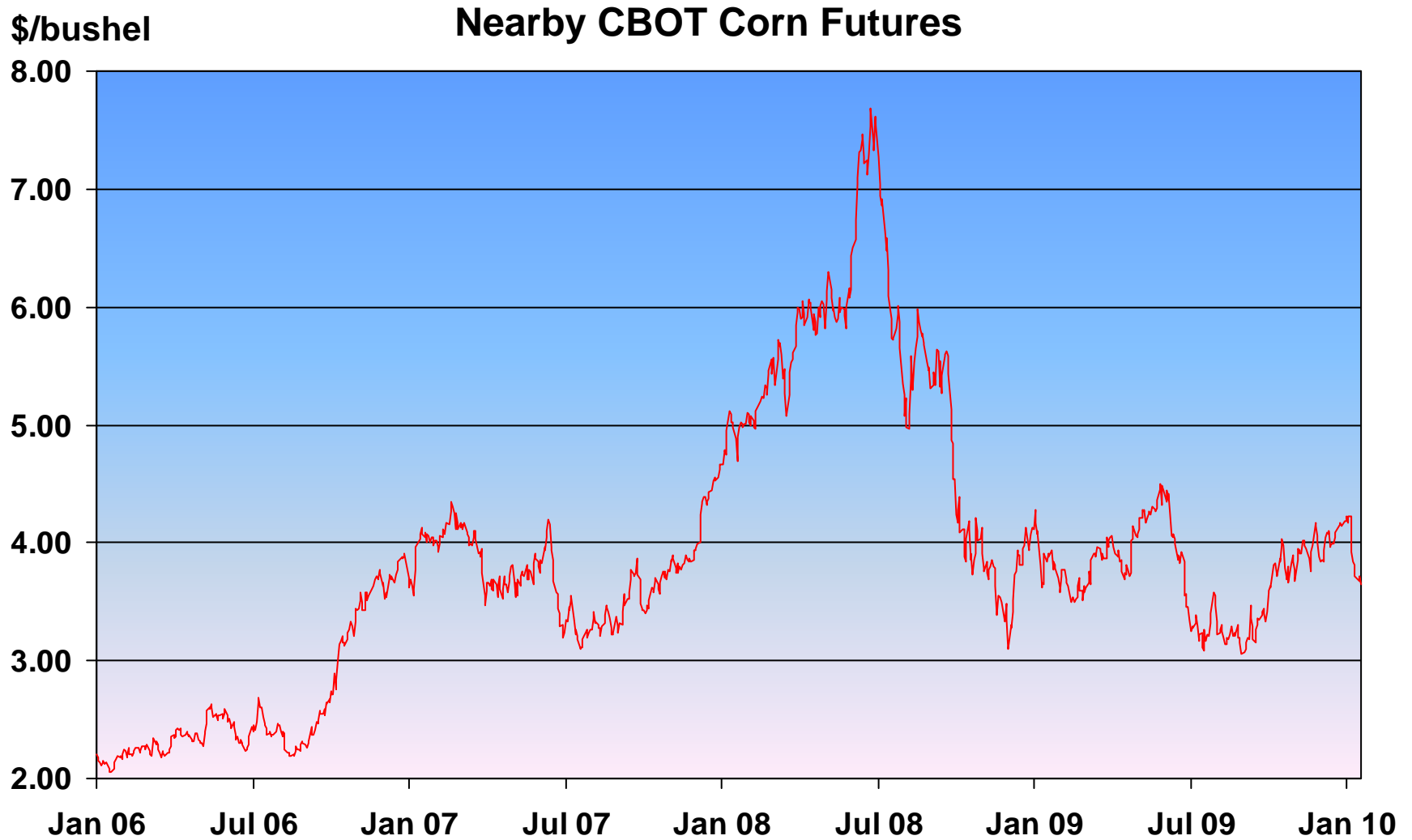


Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

U.S. Wheat Supply and Demand

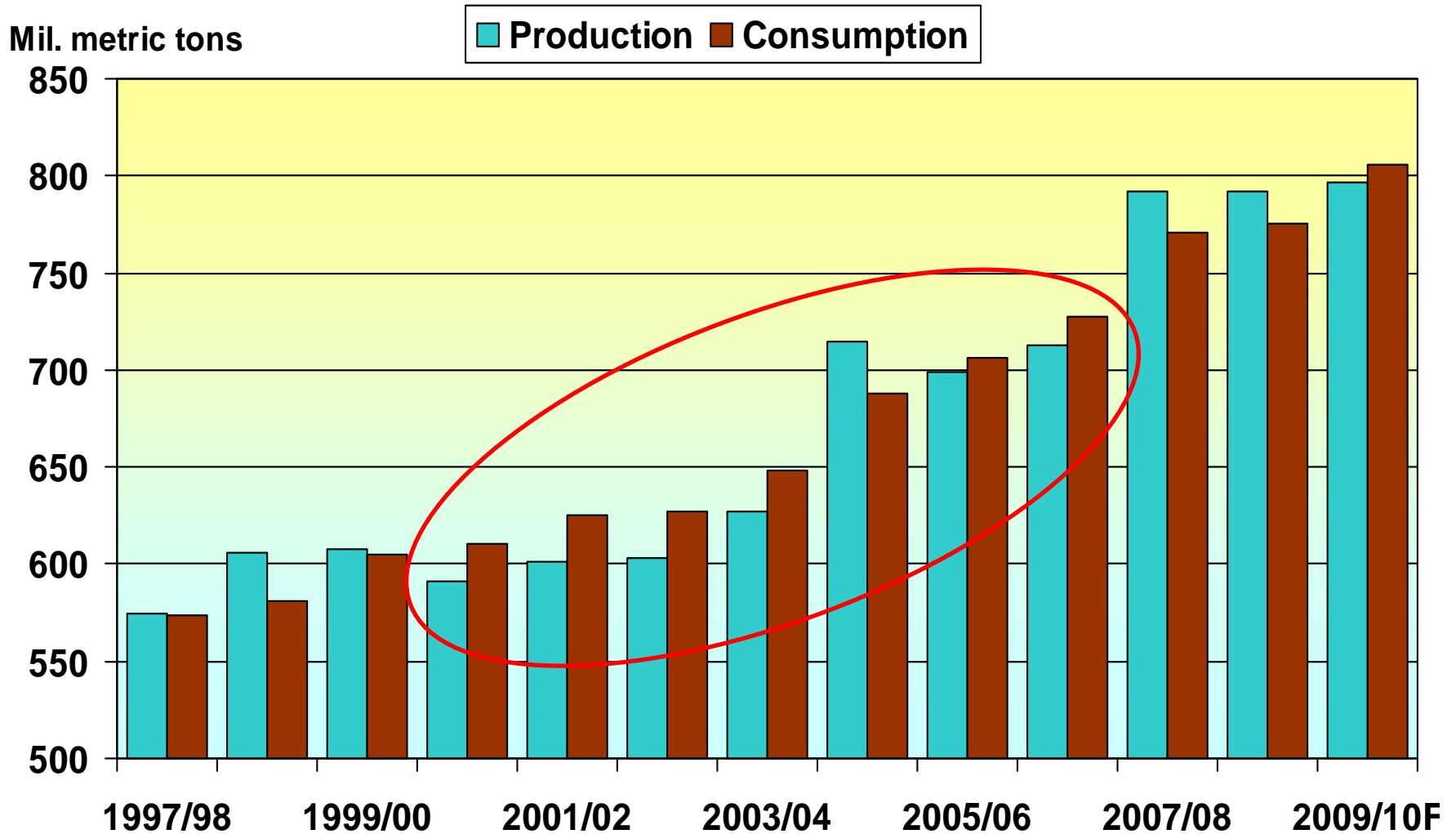
	2008/09 estimate	2009/10 forecast	Change from last month	Change from 2008/09
			<i>Percent</i>	<i>Percent</i>
Planted area (million acres)	63.2	59.1	0.0	-6.4
Harvested area (million acres)	55.7	49.9	0.0	-10.5
Yield (bushels per acre)	44.9	44.4	0.0	-1.1
	<i>Million bushels</i>			
Beginning stocks	306	657	0.0	114.7
Production	2,499	2,216	0.0	-11.3
Imports	127	110	0.0	-13.4
Total supply	2,932	2,983	0.0	1.7
Food use	927	940	0.0	1.4
Seed	75	72	-7.7	-4.1
Feed and residual	258	170	-10.5	-34.2
Domestic use	1,260	1,182	-2.2	-6.2
Exports	1,015	825	-5.7	-18.8
Total use	2,275	2,007	-3.6	-11.8
Ending stocks	657	976	8.4	48.6
	<i>Percent</i>			
Stocks to use ratio	28.9	48.6		
	<i>Dollars per bushel</i>			
Average market price	6.78	4.70/5.00	0.0	-28.5

Corn Futures Prices



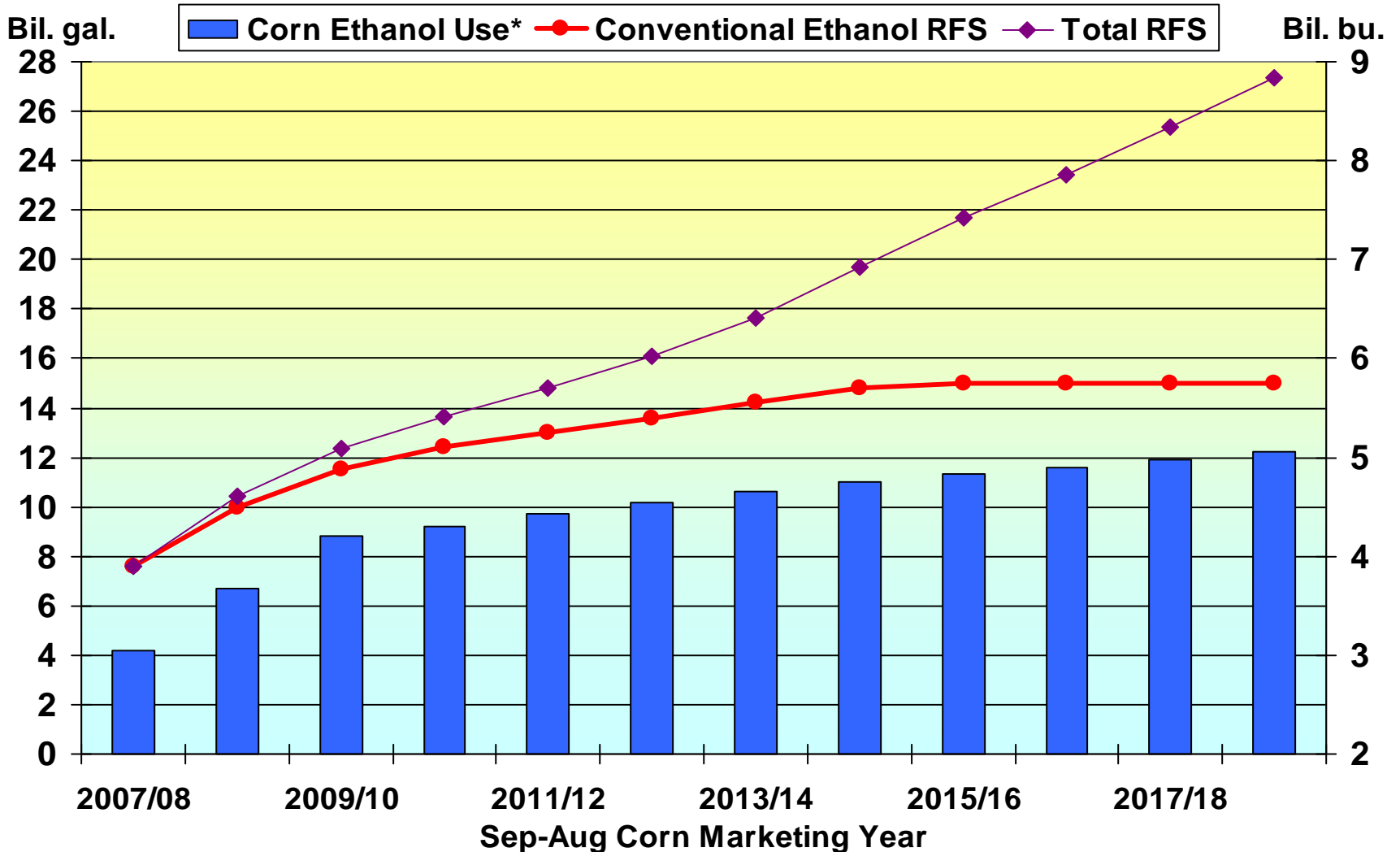
Source: Chicago Board of Trade settlement prices.

Global Corn Production & Consumption



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

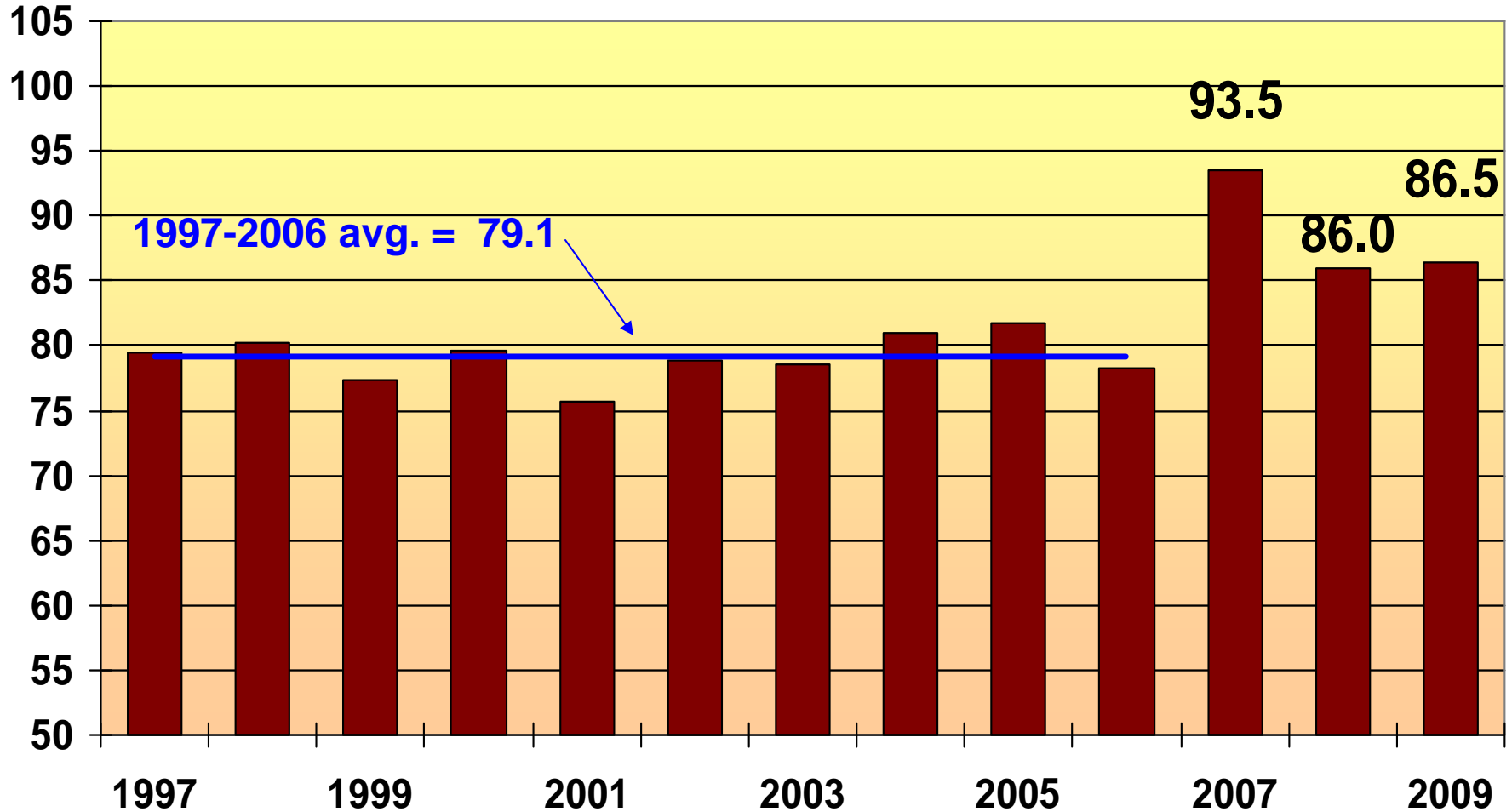
RFS and Corn Ethanol Use



* 2008/09 and 2009/10 projected based on the *World Agricultural Supply and Demand Estimates*, January 12, 2010. Projections for 2010/11-13 2015/16 are from USDA *Agricultural Projections to 2018*, February 2009.

U.S. Corn Planted Area

Mil. acres



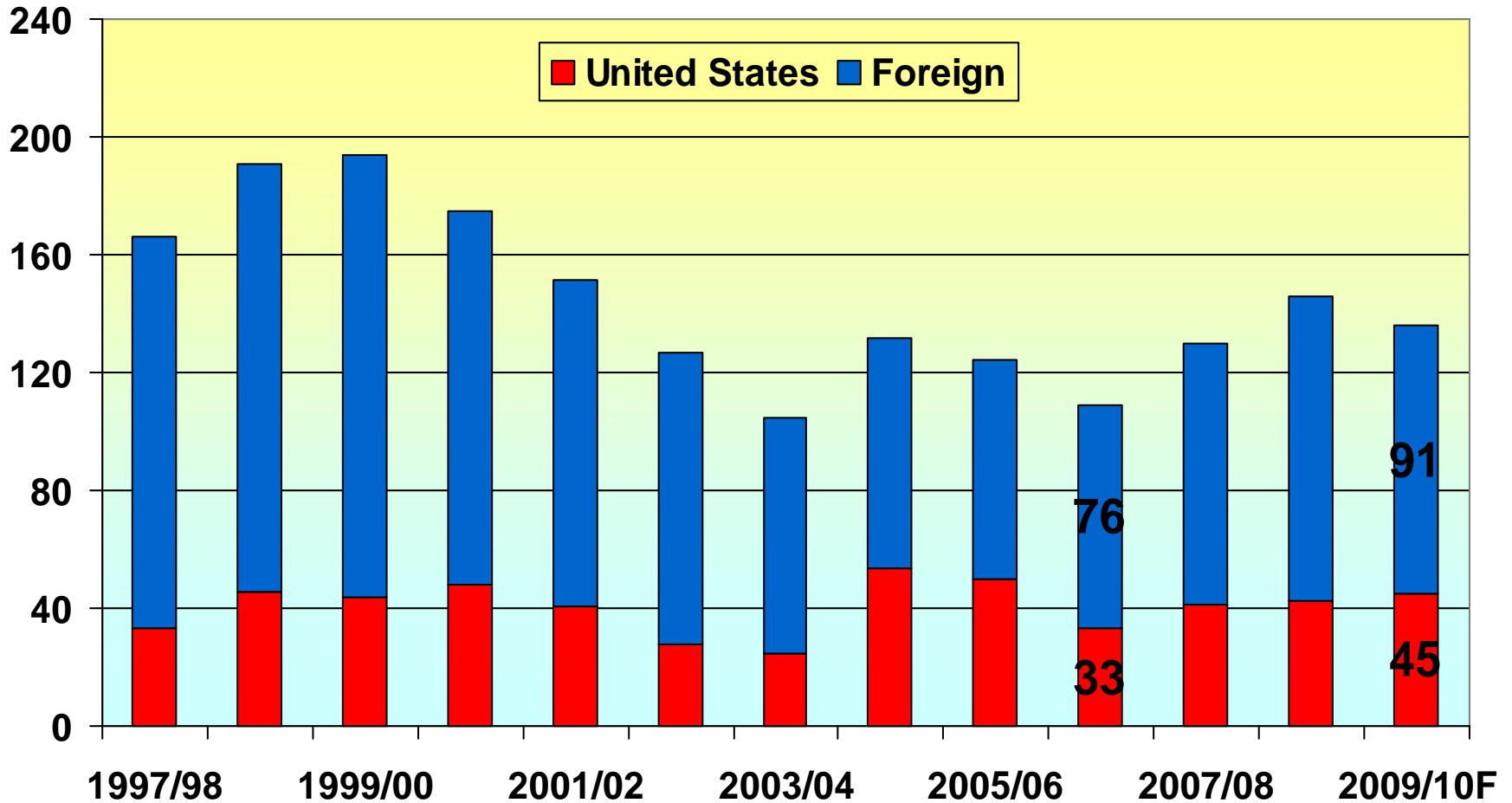
Source: USDA-NASS, *Crop Production 2009 Summary*, January 12, 2010.

World Corn Production

Country or Region	2008/09 estimate	2009/10 forecast	Change from previous month	Change from 2008/09
	<i>Million Tons</i>		<i>Percent</i>	<i>Percent</i>
World	791.6	796.4	0.8	0.6
United States	307.1	334.1	1.8	8.8
Foreign	484.5	462.4	0.1	-4.6
Argentina	12.6	15.0	7.1	19.0
Brazil	51.0	51.0	0.0	0.0
Mexico	24.2	22.0	-2.2	-9.2
Canada	10.6	9.6	0.0	-9.7
European Union	62.7	56.1	0.0	-10.5
FSU-12	21.3	17.9	0.0	-16.2
South Africa	12.6	11.5	0.0	-8.5
China	165.9	155.0	0.0	-6.6

Global Corn Ending Stocks

Mil. metric tons

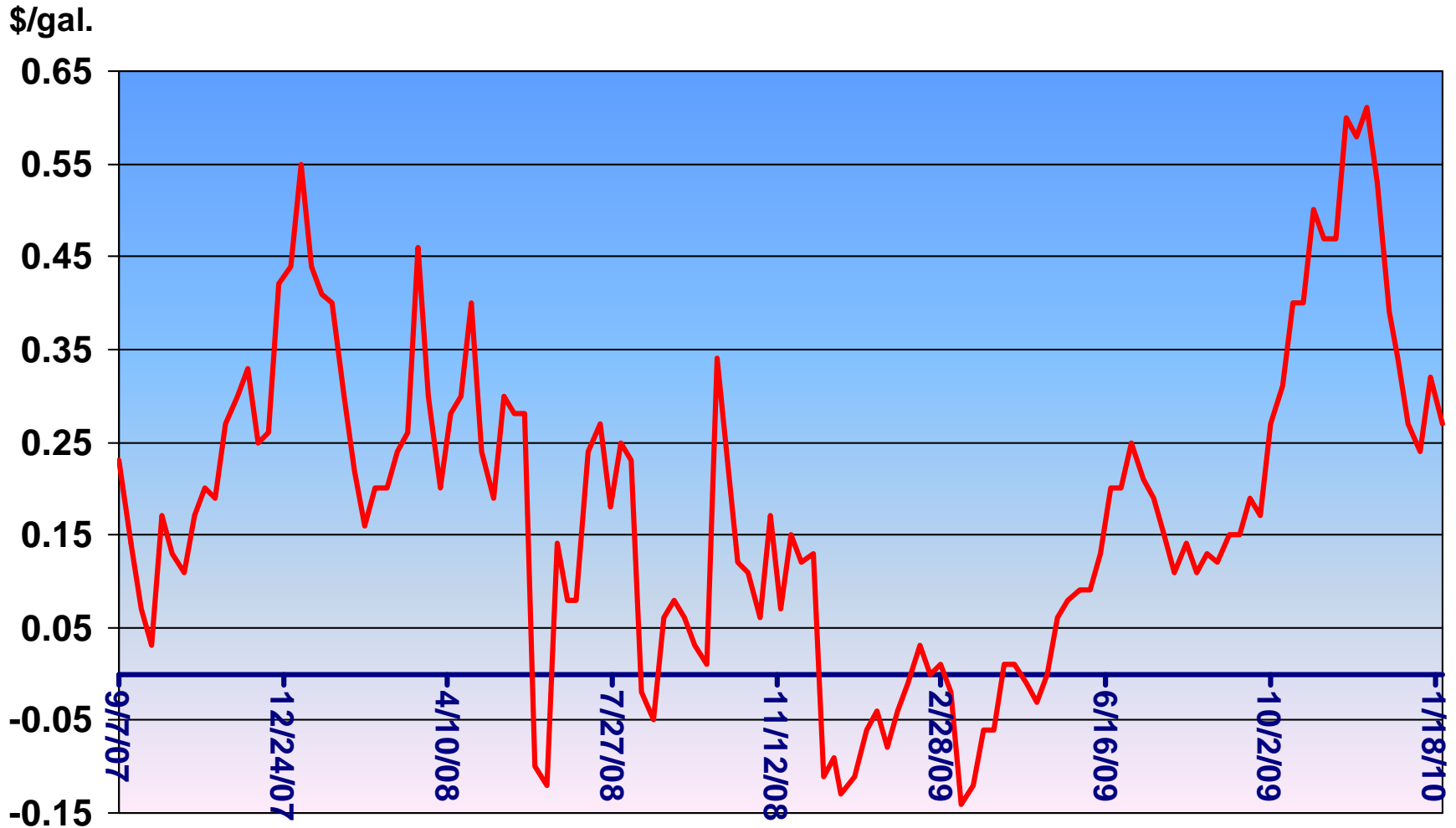


Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

U.S. Corn Supply and Demand

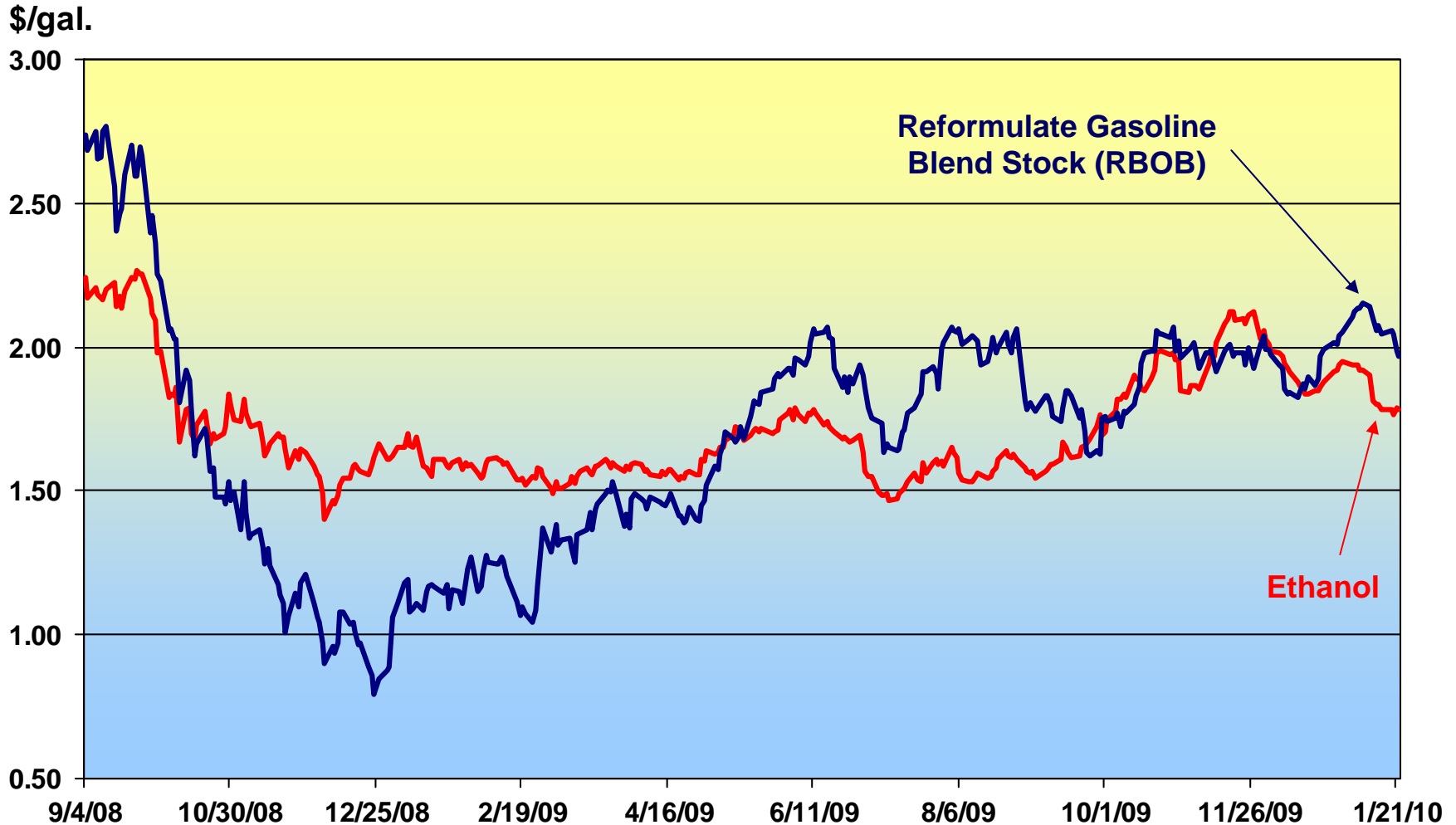
	2008/09 estimate	2009/10 forecast	Change from last month	Change from 2008/09
			<i>Percent</i>	<i>Percent</i>
Planted area (million acres)	86.0	86.5	0.2	0.6
Harvested area (million acres)	78.6	79.6	0.4	1.3
Yield (bushels per acre)	153.9	165.2	1.4	7.3
	<i>Million bushels</i>			
Beginning stocks	1,624	1,673	0.0	3.0
Production	12,092	13,151	1.8	8.8
Total supply	13,729	14,834	1.6	8.0
Feed and residual	5,246	5,550	2.8	5.8
Food, seed, and industrial	4,953	5,470	-0.2	10.4
Ethanol	3,677	4,200	0.0	14.2
Domestic use	10,198	11,020	1.3	8.1
Exports	1,858	2,050	0.0	10.4
Total use	12,056	13,070	1.1	8.4
Ending stocks	1,673	1,764	5.3	5.4
	<i>Percent</i>			
Stocks to use ratio	13.9	13.5		
	<i>Dollars per bushel</i>			
Average market price	4.06	3.40/4.00	4.2	-8.9

Ethanol Producer Net Returns Above Variable Costs



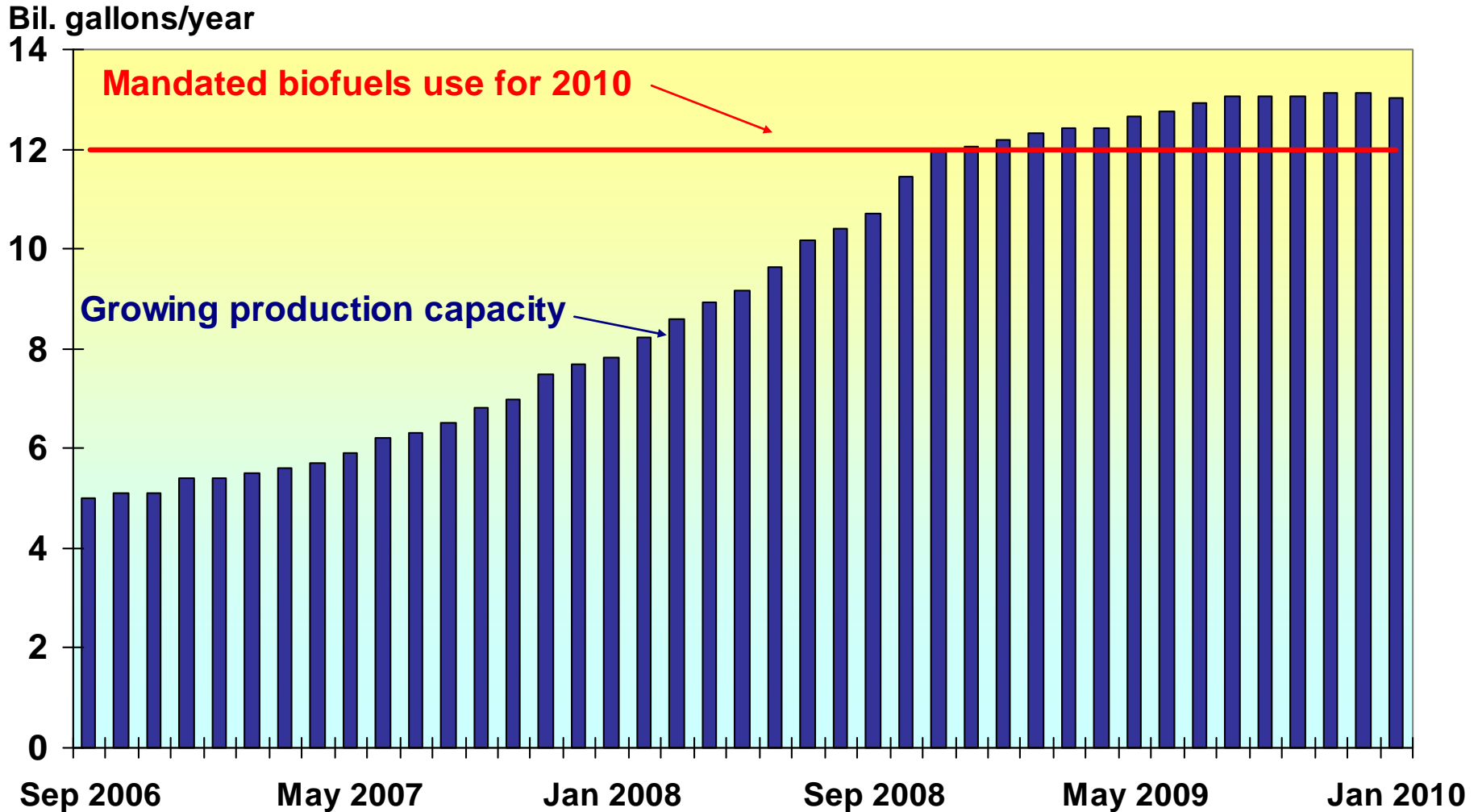
Note: USDA-WAOB estimates based on USDA-AMS plant reports and DOE-EIA estimates and forecasts for natural gas and electricity prices.

Ethanol and RBOB Nearby Futures Prices



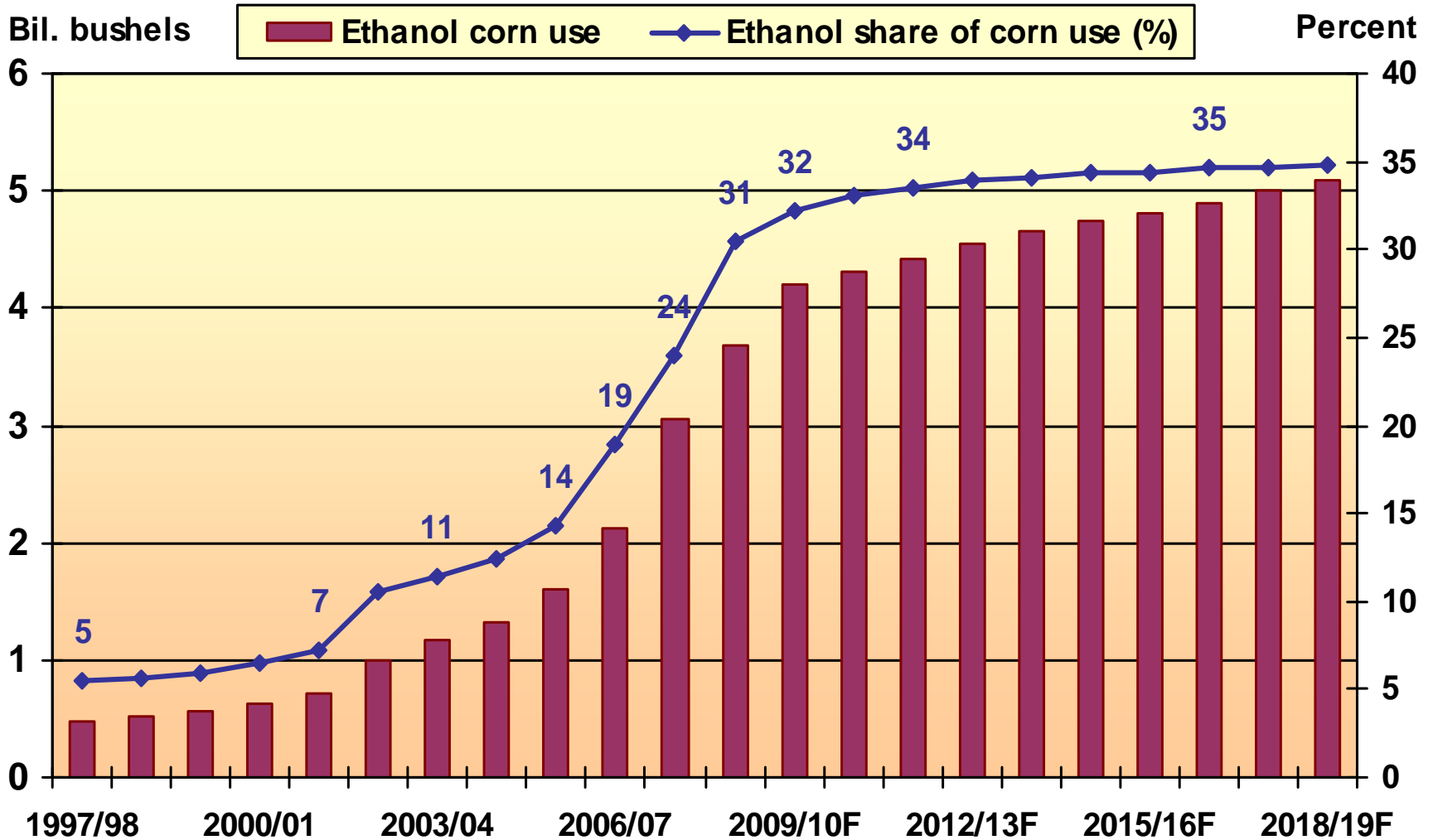
Note: Ethanol prices based on CBOT nearby futures. RBOB (Reformulated Gasoline Blend Stock) based on NYME nearby futures.

U.S. Ethanol Production Capacity



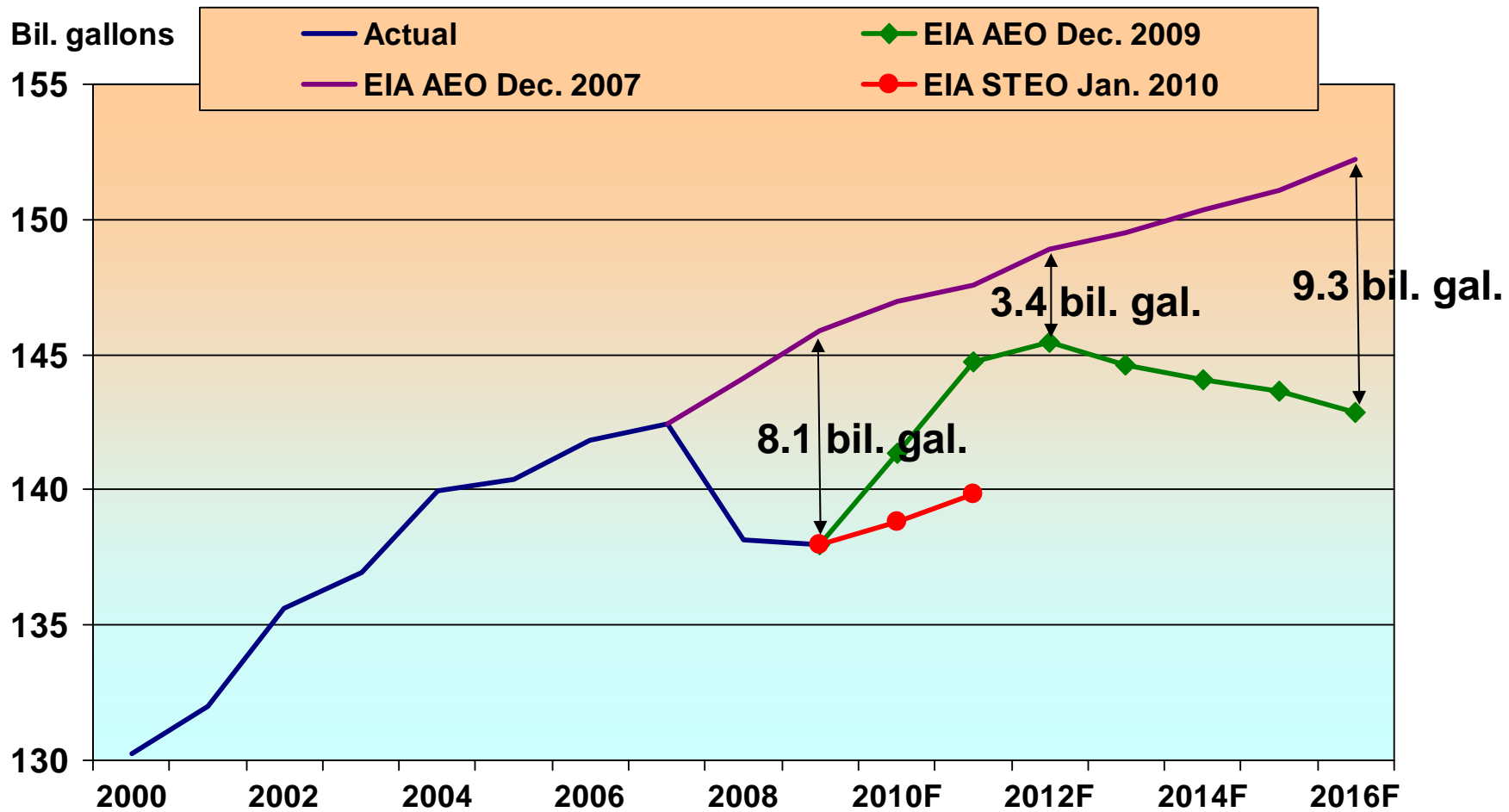
Source: Renewable Fuels Association and Energy Independence and Security Act of 2007.

U.S. Corn Used for Ethanol



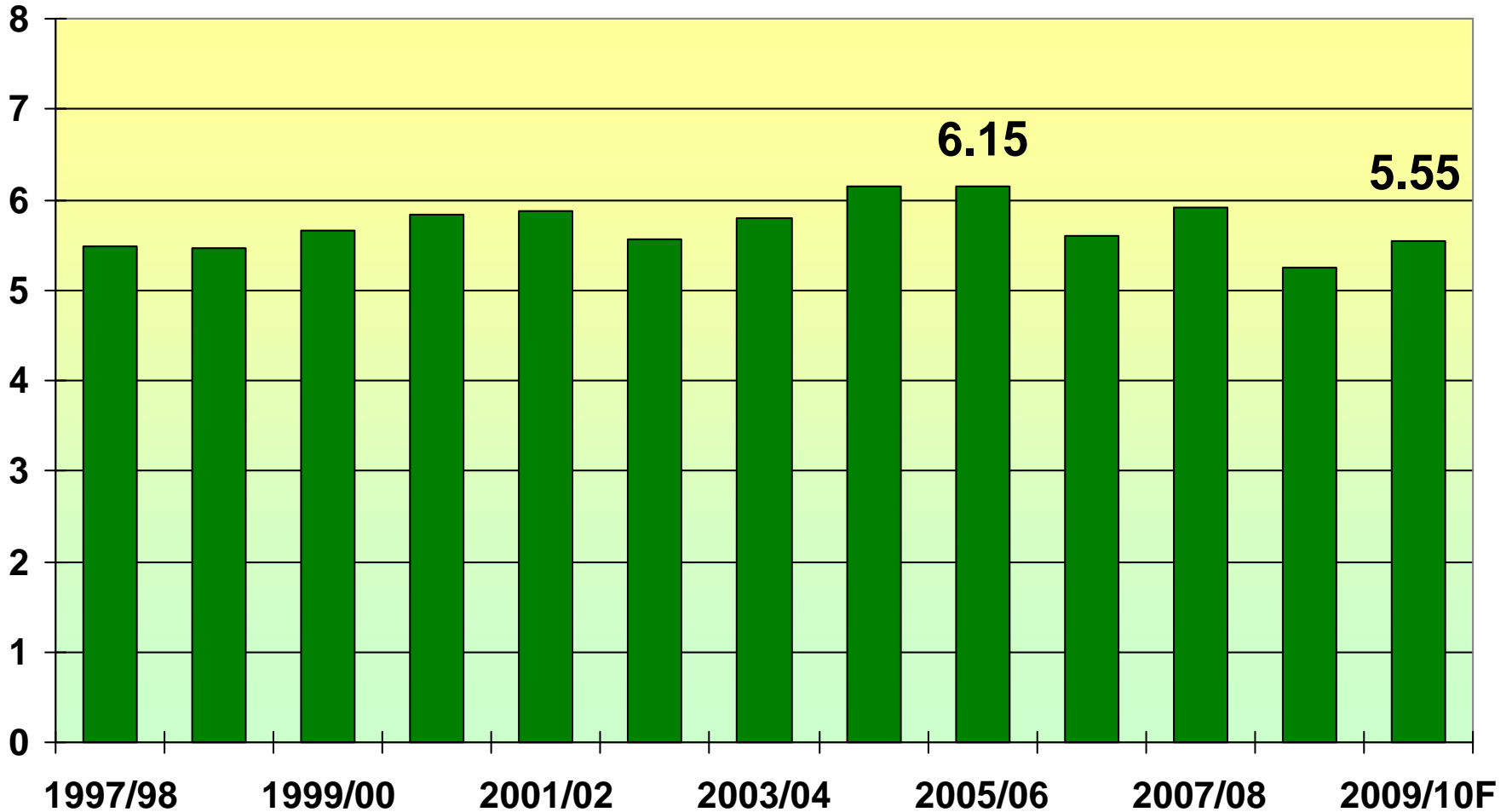
Note: 2008/09 and 2009/10 projected based on the *World Agricultural Supply and Demand Estimates*, January 12, 2010. Projections for 2010/11-2018/19 are from USDA *Agricultural Projections to 2018*, February 2009.

U.S. Blended Motor Gasoline Consumption



U.S. Corn Feed & Residual Use

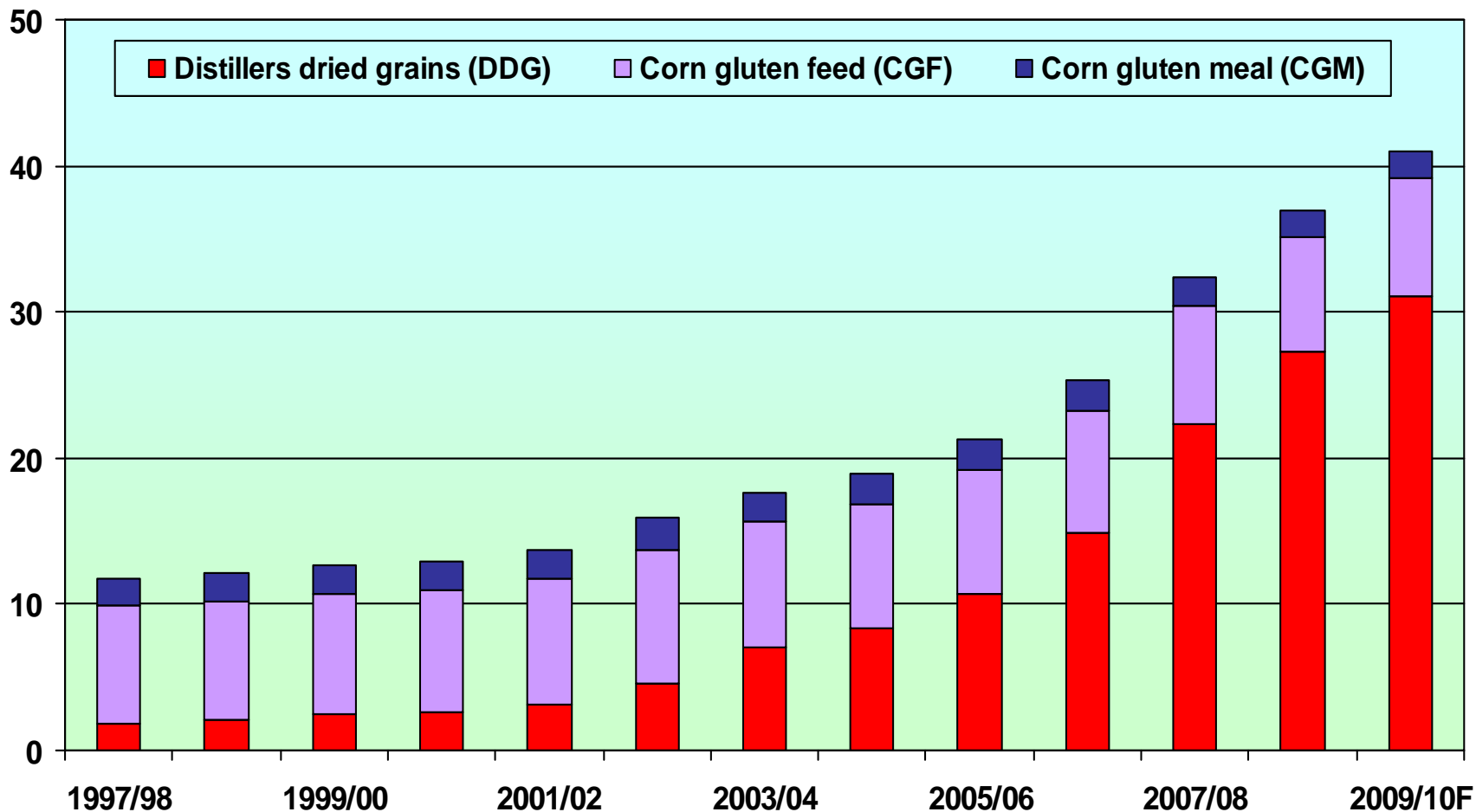
Bil. bushels



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

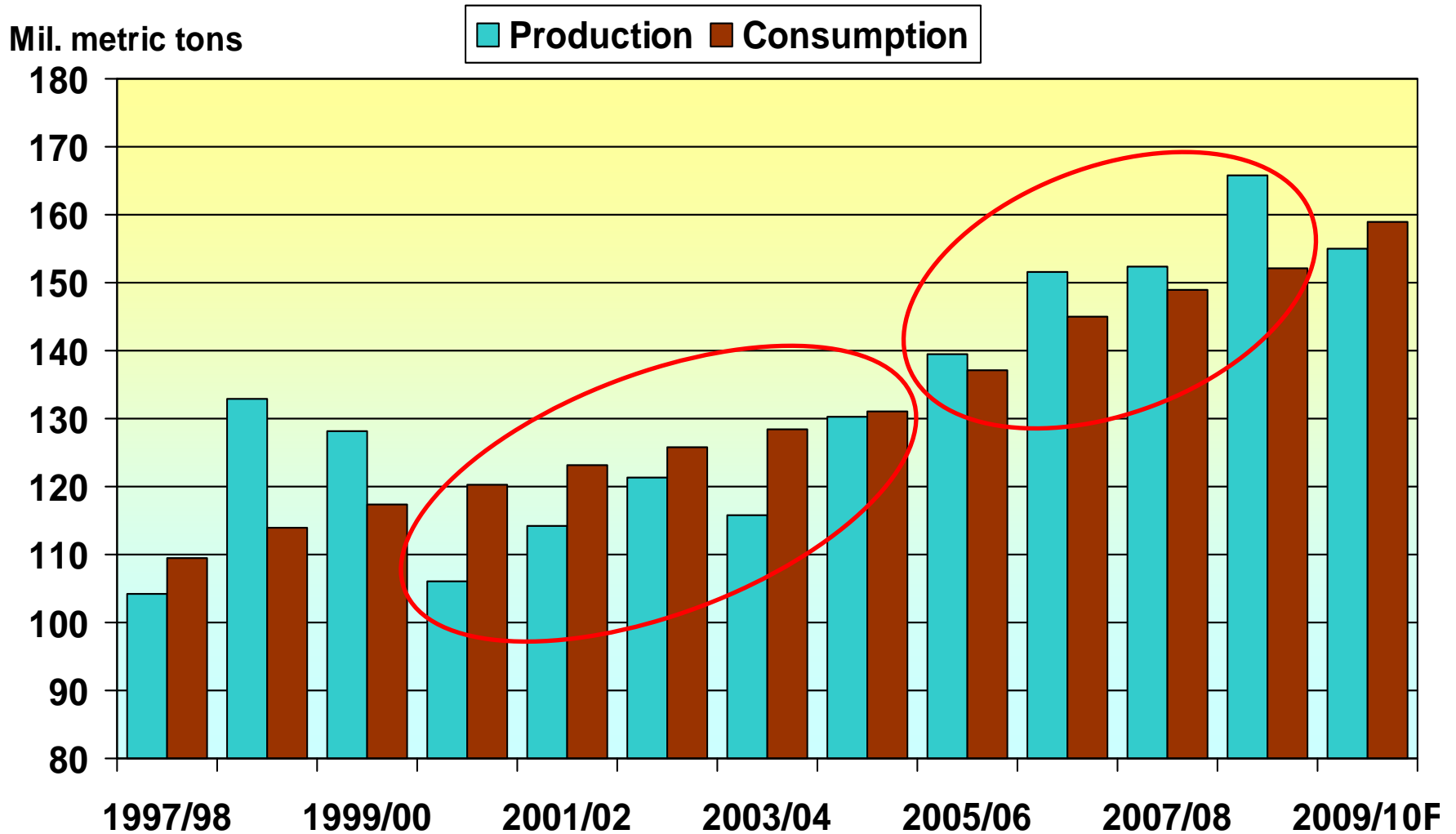
Corn Processing Feed Co-product Production

Mil. metric tons



Note: Based on food, seed, and industrial use, USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

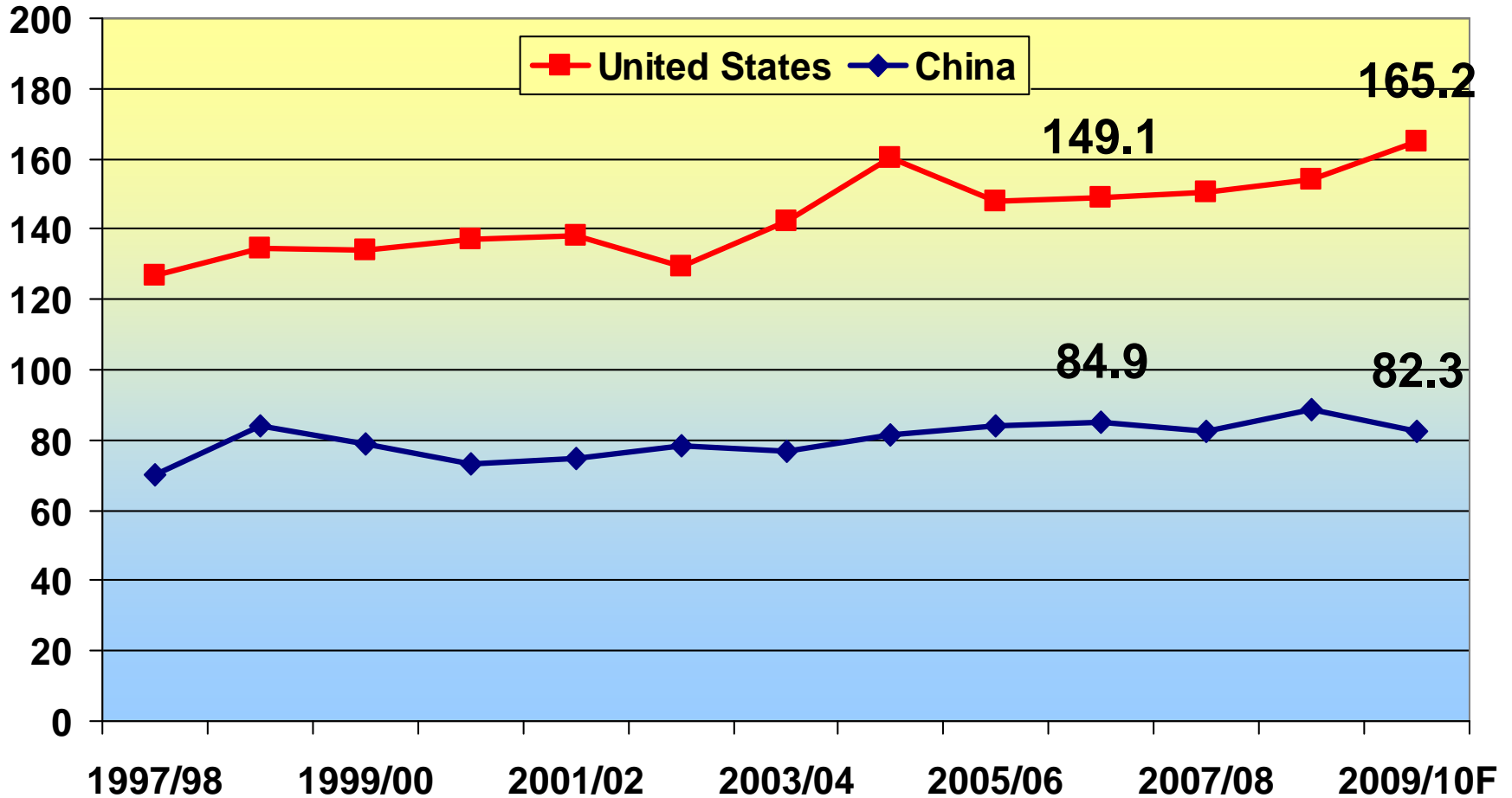
China Corn Production & Consumption



Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

U.S. and China Corn Yields

Bushels per acre

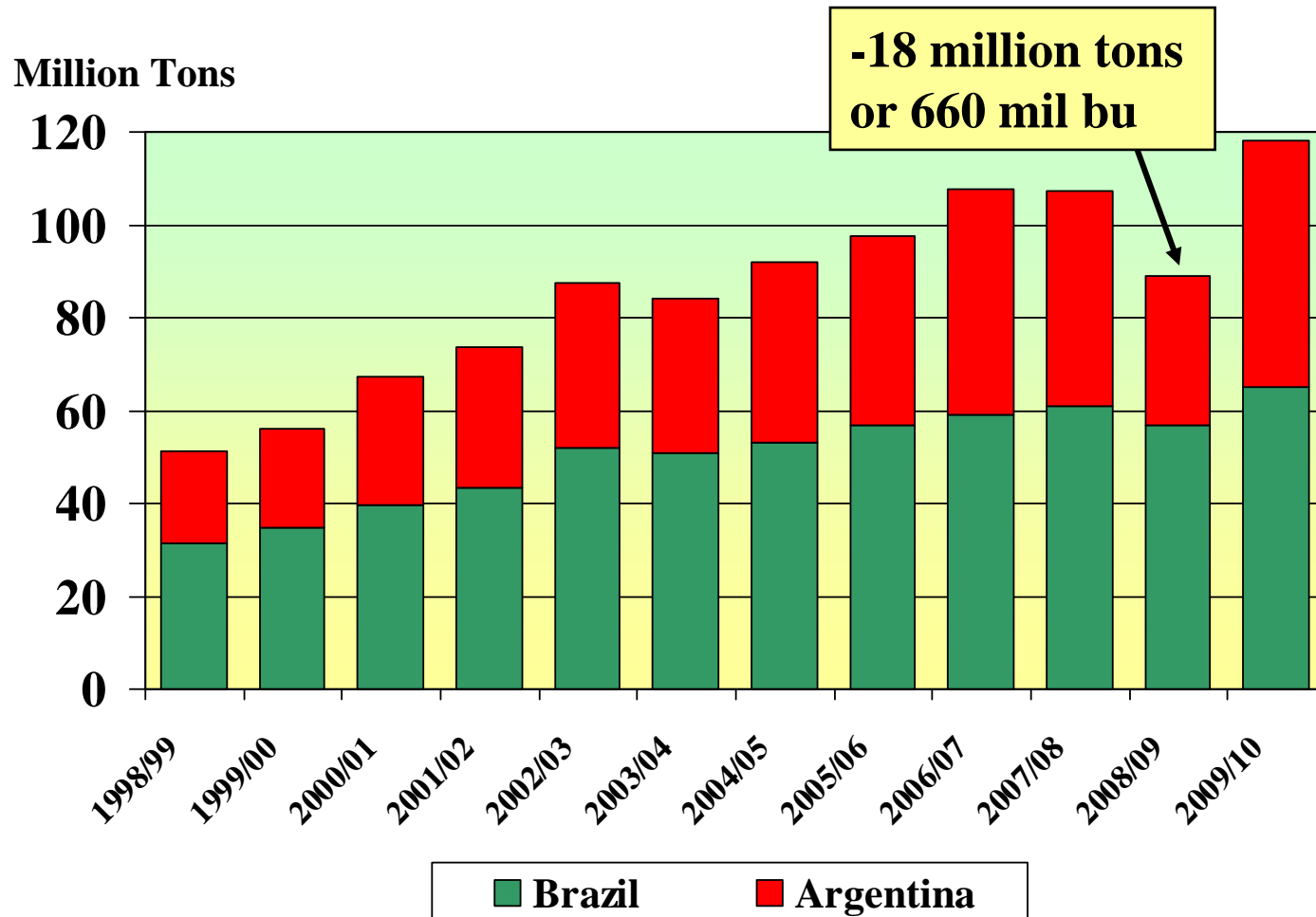


Source: USDA-WAOB, *World Agricultural Supply and Demand Estimates*, January 12, 2010.

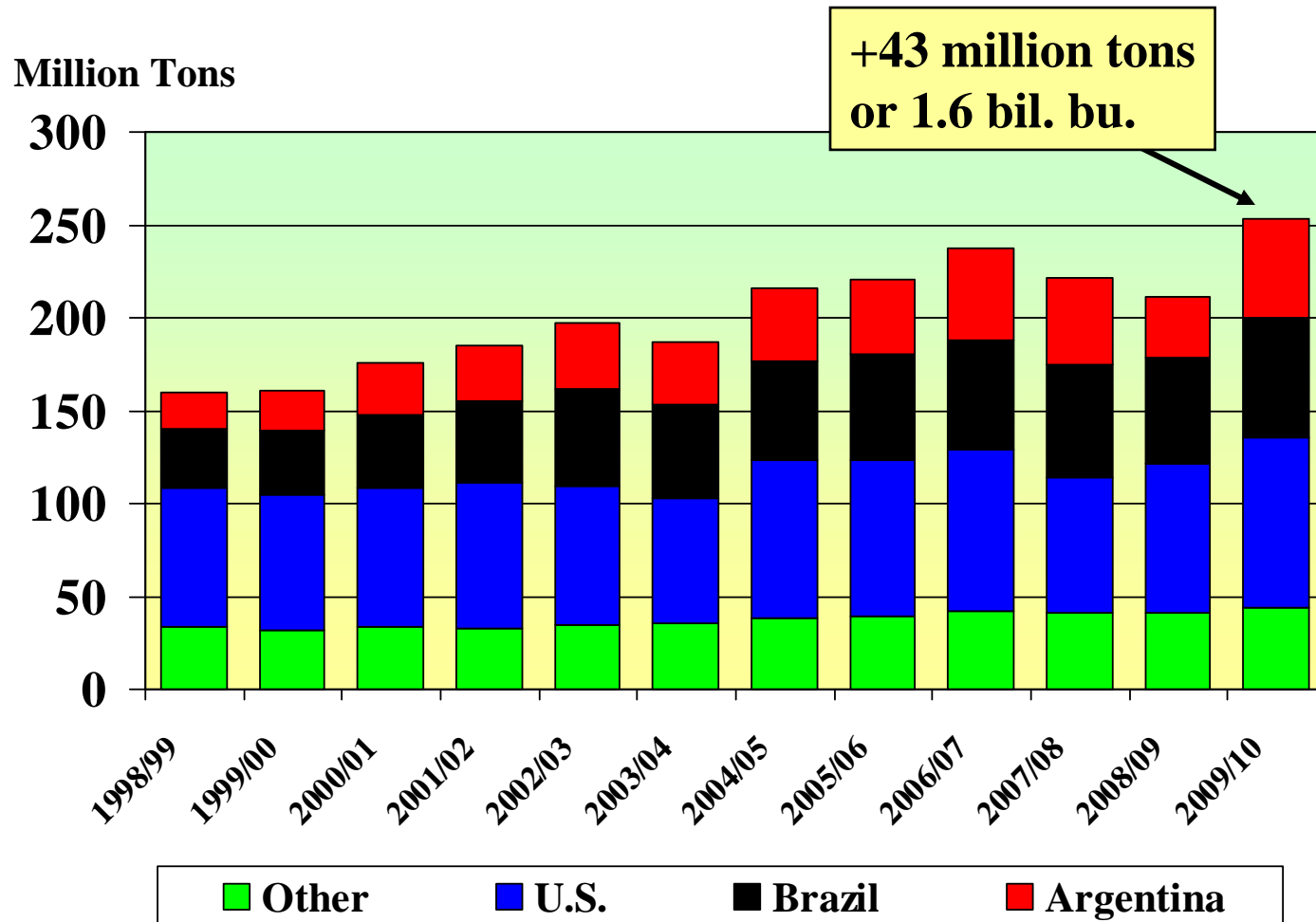
World Soybean Production

Country or Region	2008/09 estimate	2009/10 forecast	Change from previous month	Change from 2008/09
	<i>Million Tons</i>		<i>Percent</i>	<i>Percent</i>
World	210.9	253.4	1.2	20.2
United States	80.7	91.5	1.3	13.3
Foreign	130.1	161.9	1.2	24.4
Argentina	32.0	53.0	0.0	65.6
Brazil	57.0	65.0	3.2	14.0
India	9.1	8.8	0.0	-3.3
China	15.5	14.5	0.0	-6.5

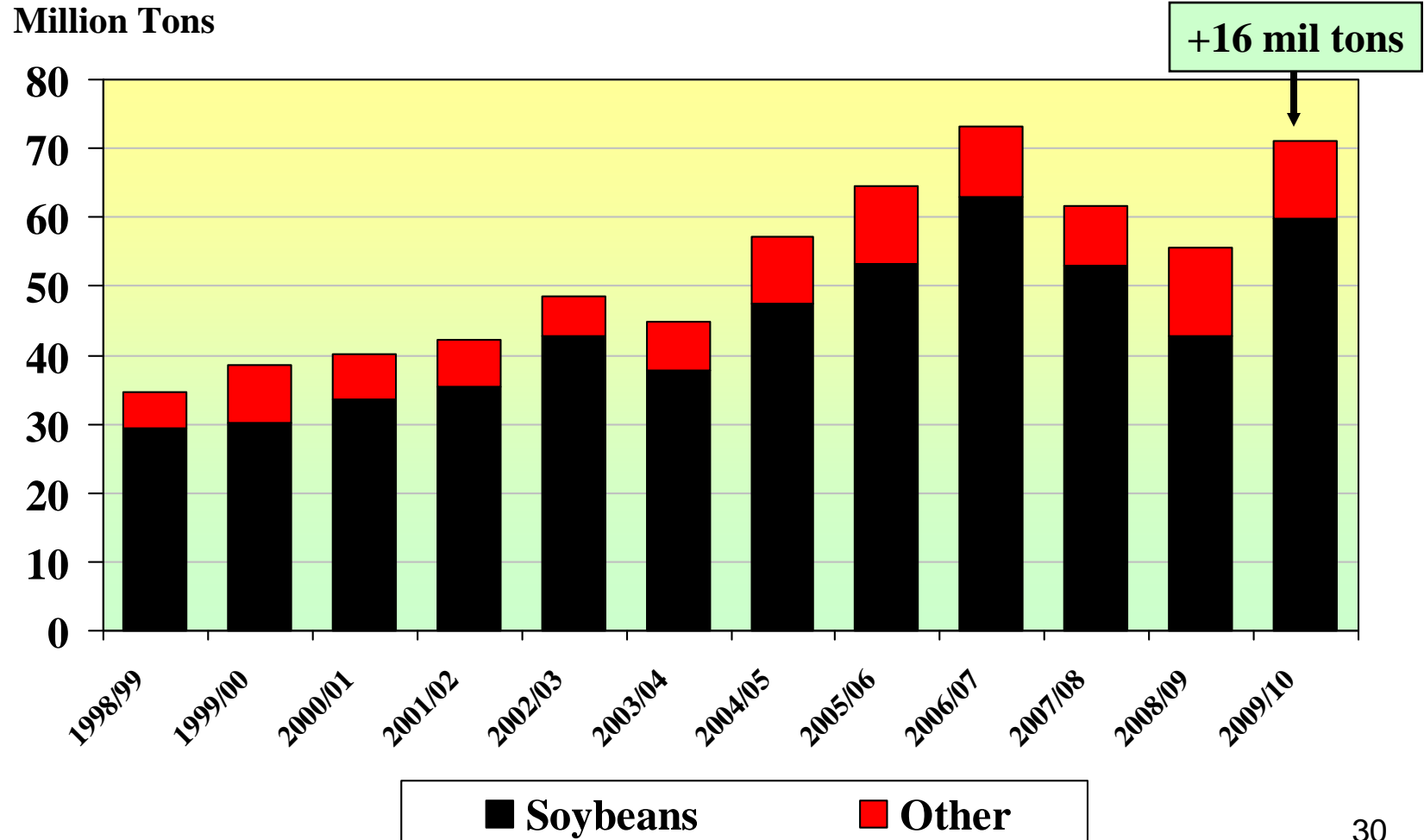
Argentina and Brazil soy production losses set the stage for 2009/10



Global soybean production rises 20% in 2009/10



Global oilseed stocks rebuild after 2-year decline

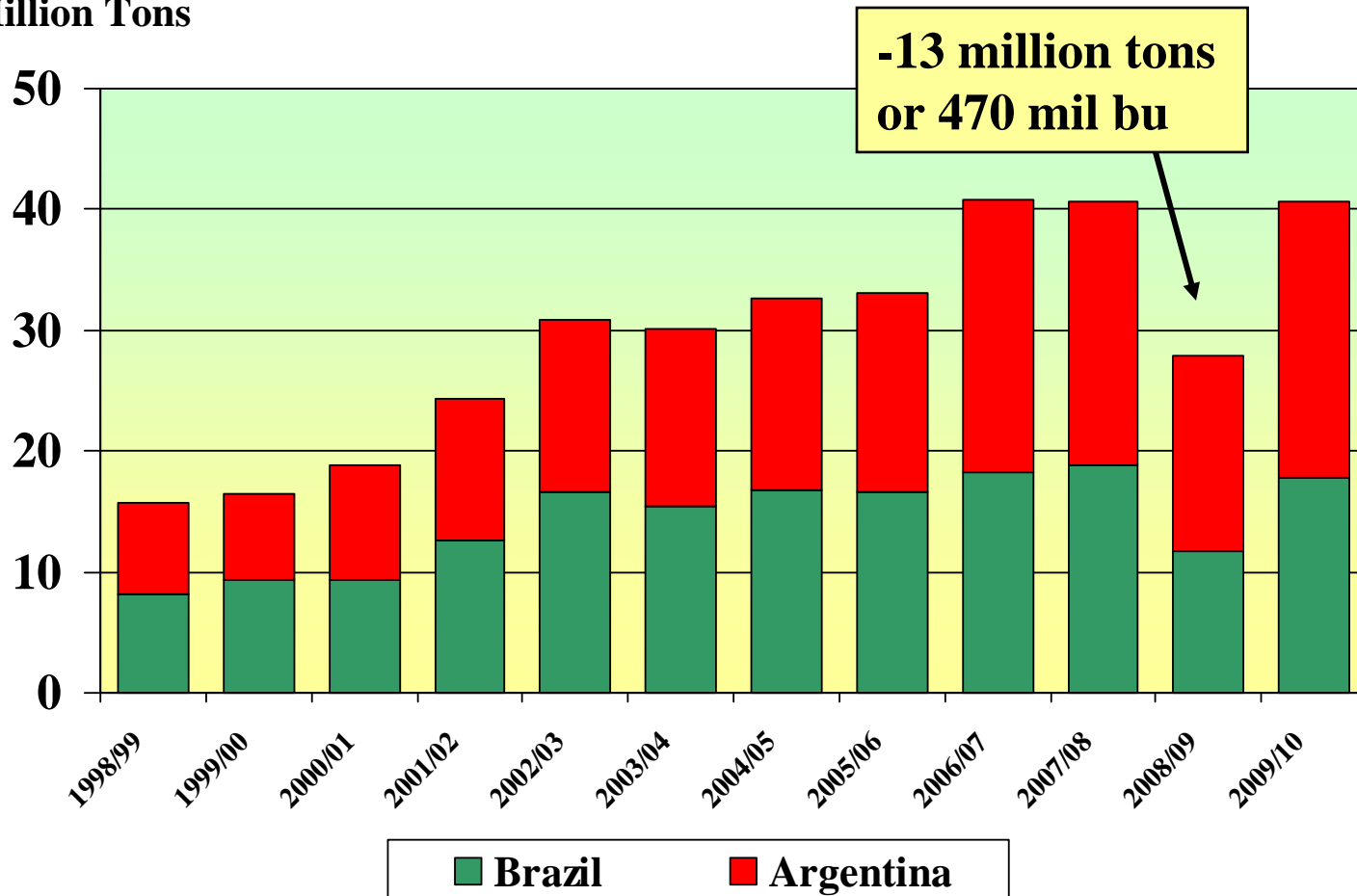


U.S. Soybean Supply and Demand

	2008/09 estimate	2009/10 forecast	Change from last month	Change from 2008/09
			<i>Percent</i>	<i>Percent</i>
Planted area (million acres)	75.7	77.5	-0.1	2.3
Harvested area (million acres)	74.7	76.4	-0.3	2.3
Yield (bushels per acre)	39.7	44.0	1.5	10.7
	<i>Million bushels</i>			
Beginning stocks	205	138	0.0	-32.6
Production	2,967	3,361	1.3	13.3
Imports	13	8	0.0	-39.7
Total supply	3,185	3,507	1.2	10.1
Crush	1,662	1,710	0.9	2.9
Seed and residual	102	177	1.2	74.0
Domestic use	1,764	1,887	0.9	7.0
Exports	1,283	1,375	2.6	7.1
Total use	3,047	3,262	1.6	7.1
Ending stocks	138	245	-4.0	77.2
	<i>Percent</i>			
Stocks to use ratio	4.5	7.5		
	<i>Dollars per bushel</i>			
Average market price	9.97	8.90/10.40	1.6	-3.2

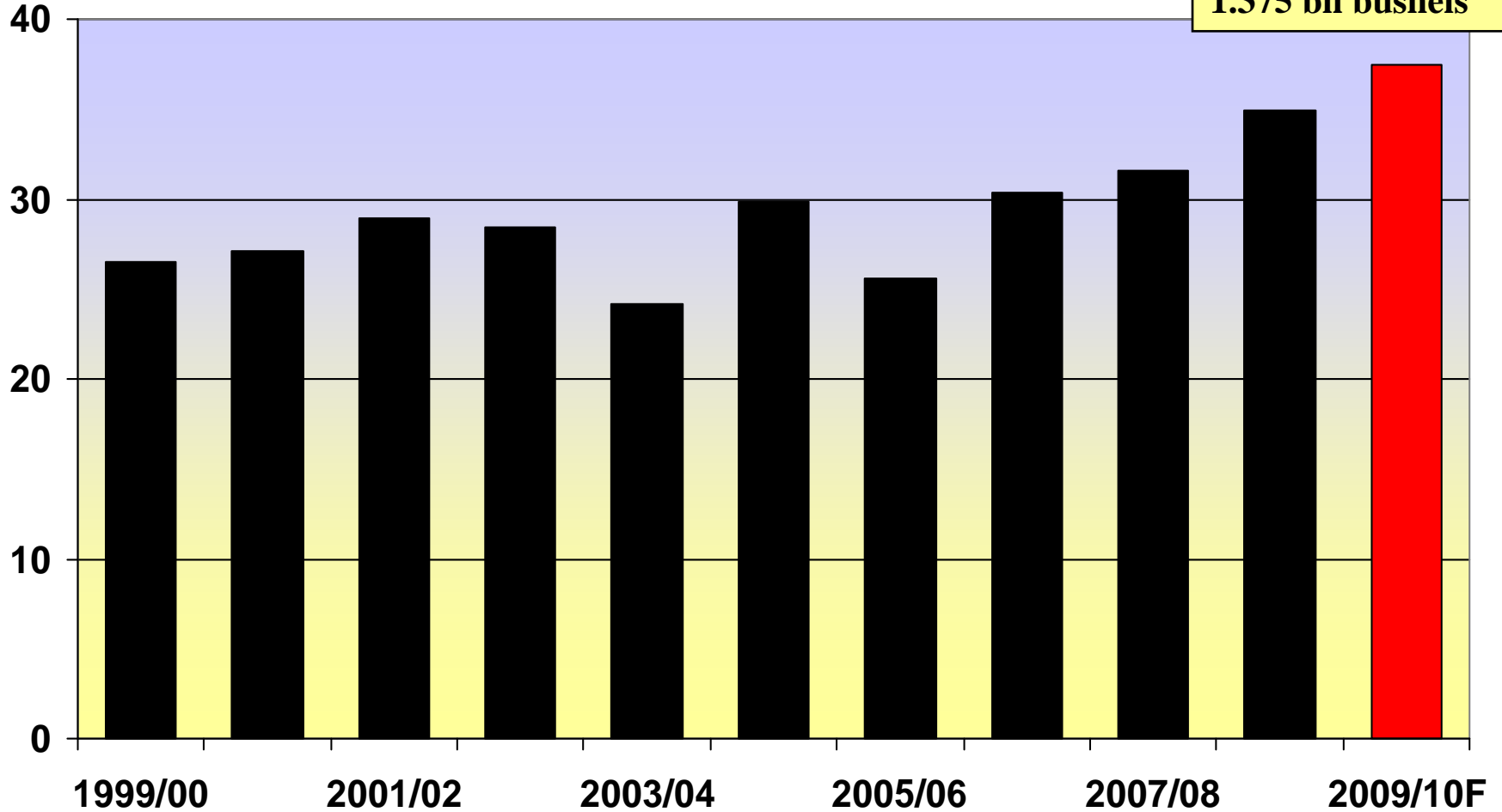
Lower S. American stocks in Fall 2009 boost U.S. exports in 2009/10

Million Tons



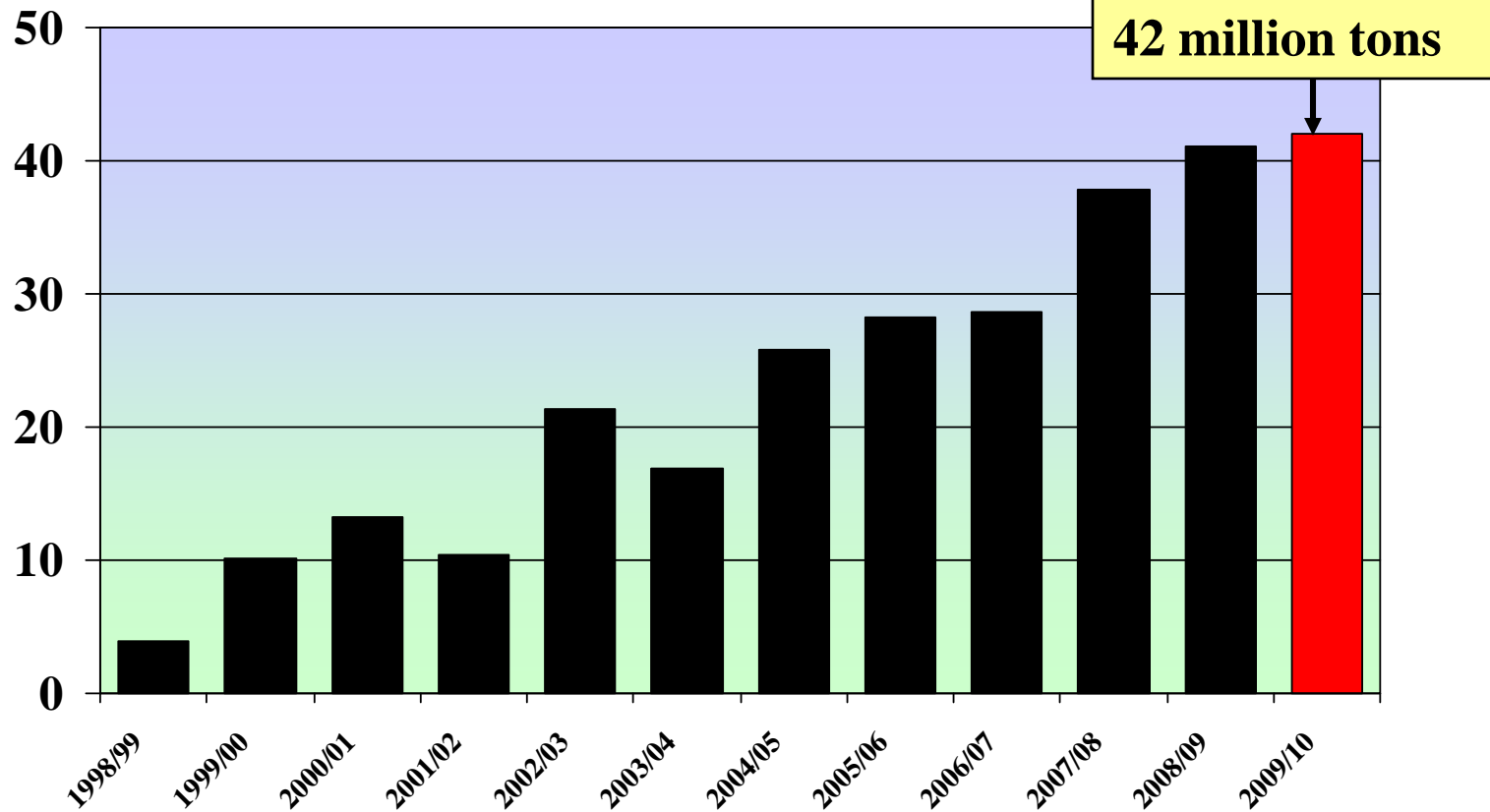
U.S. Soybean Exports

Mil. metric tons

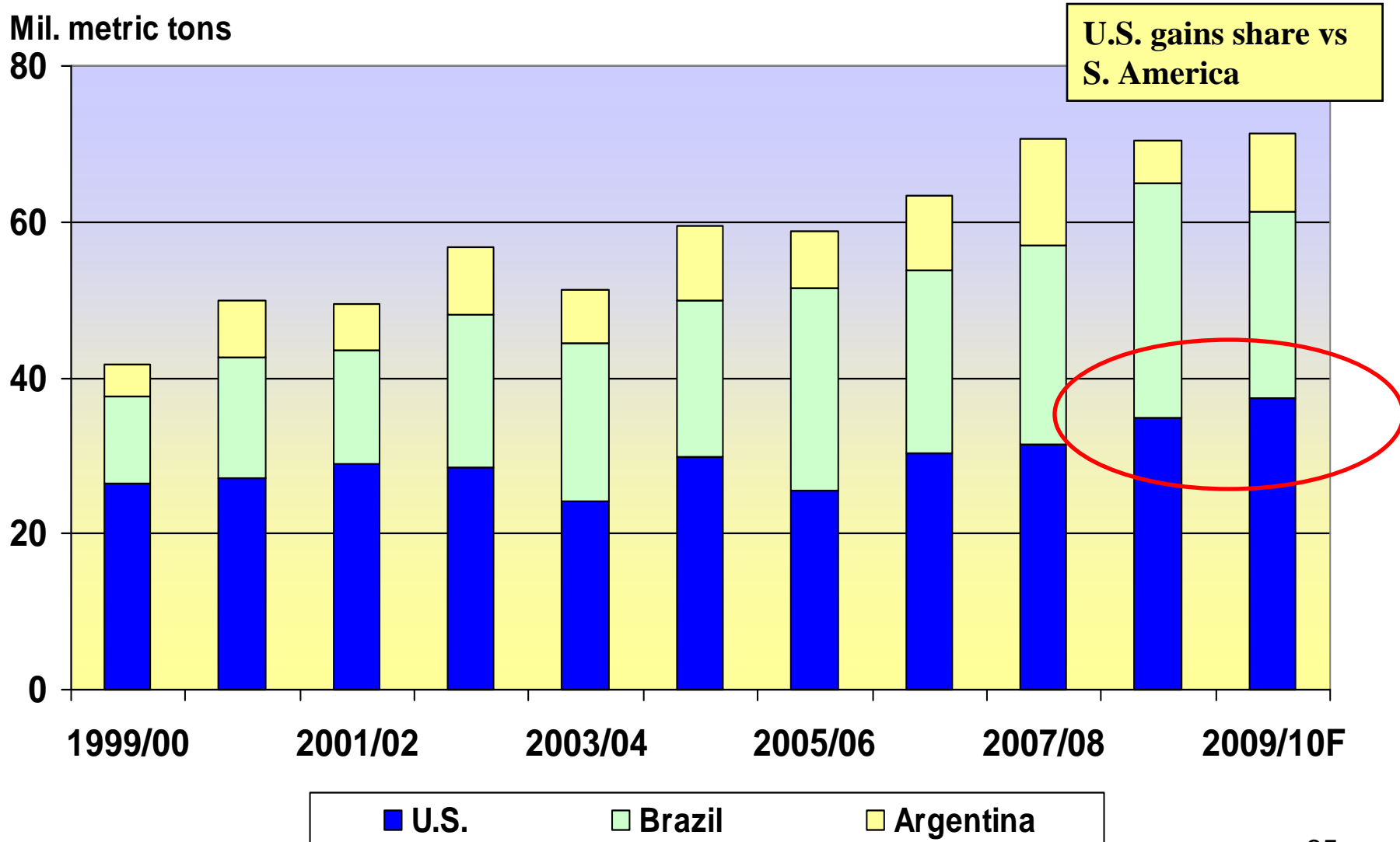


China soybean imports now account for 54% of global trade

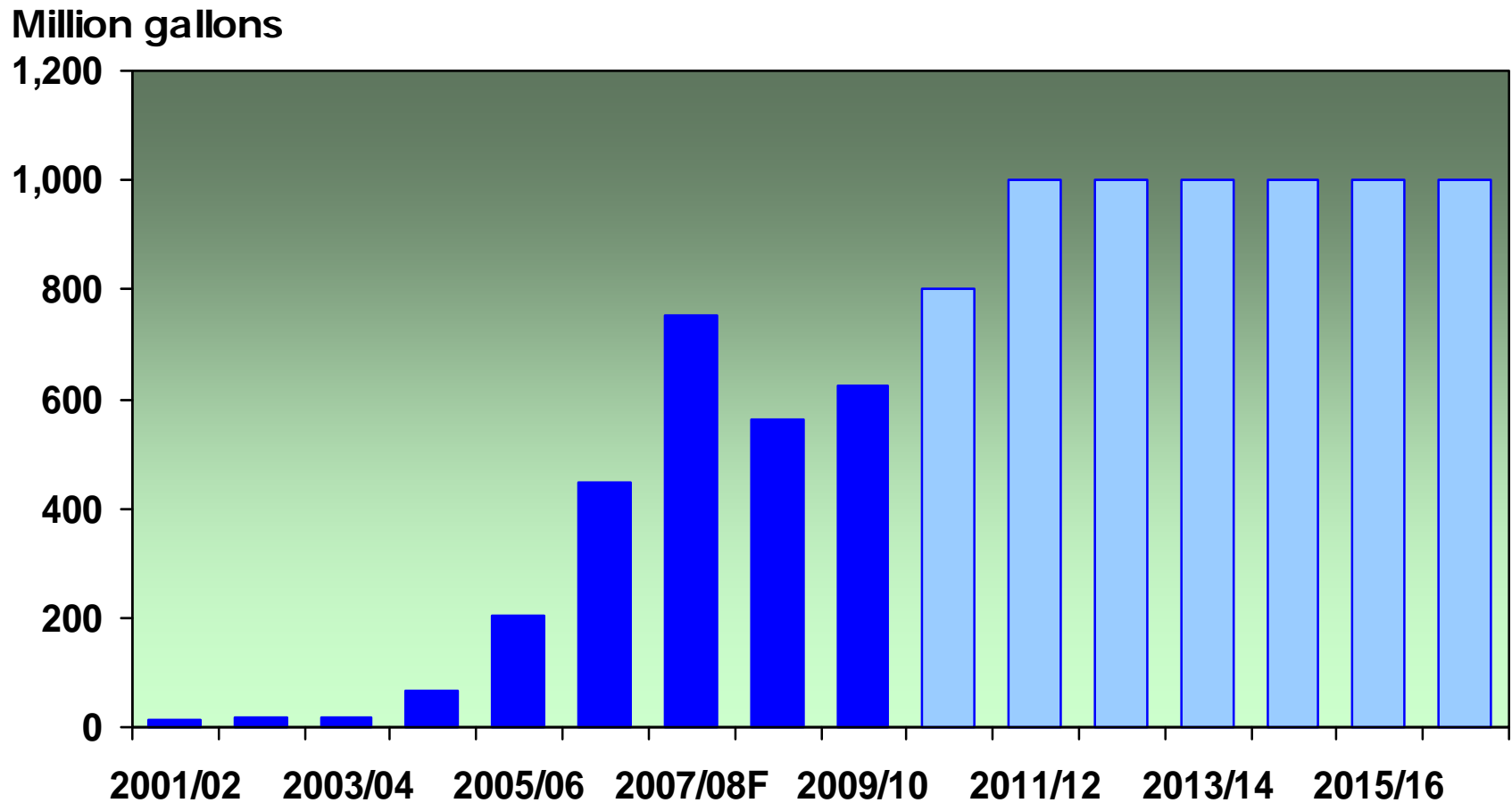
Million Tons



Global Soybean Exports

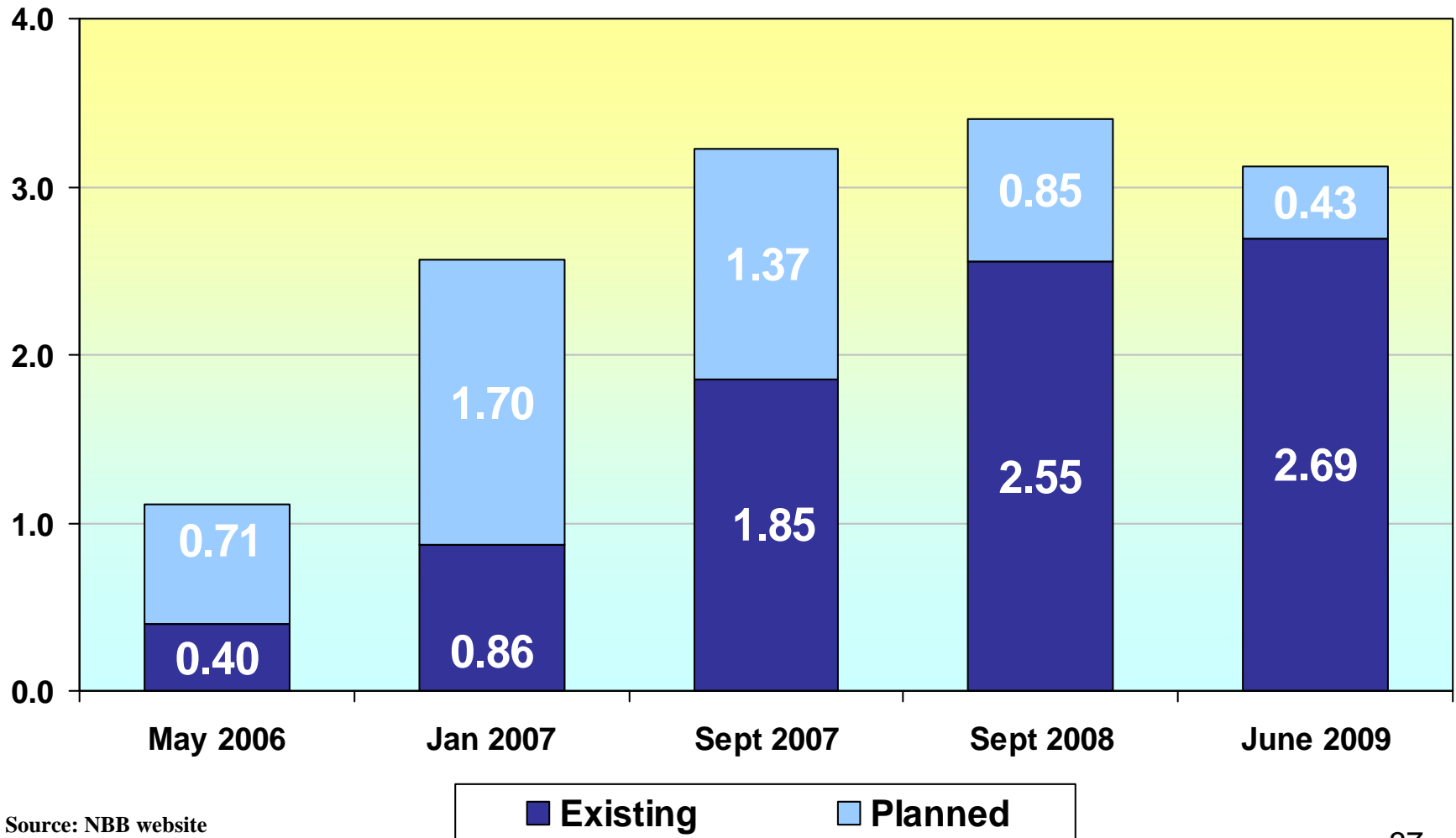


U.S. Biodiesel Mandate . . .



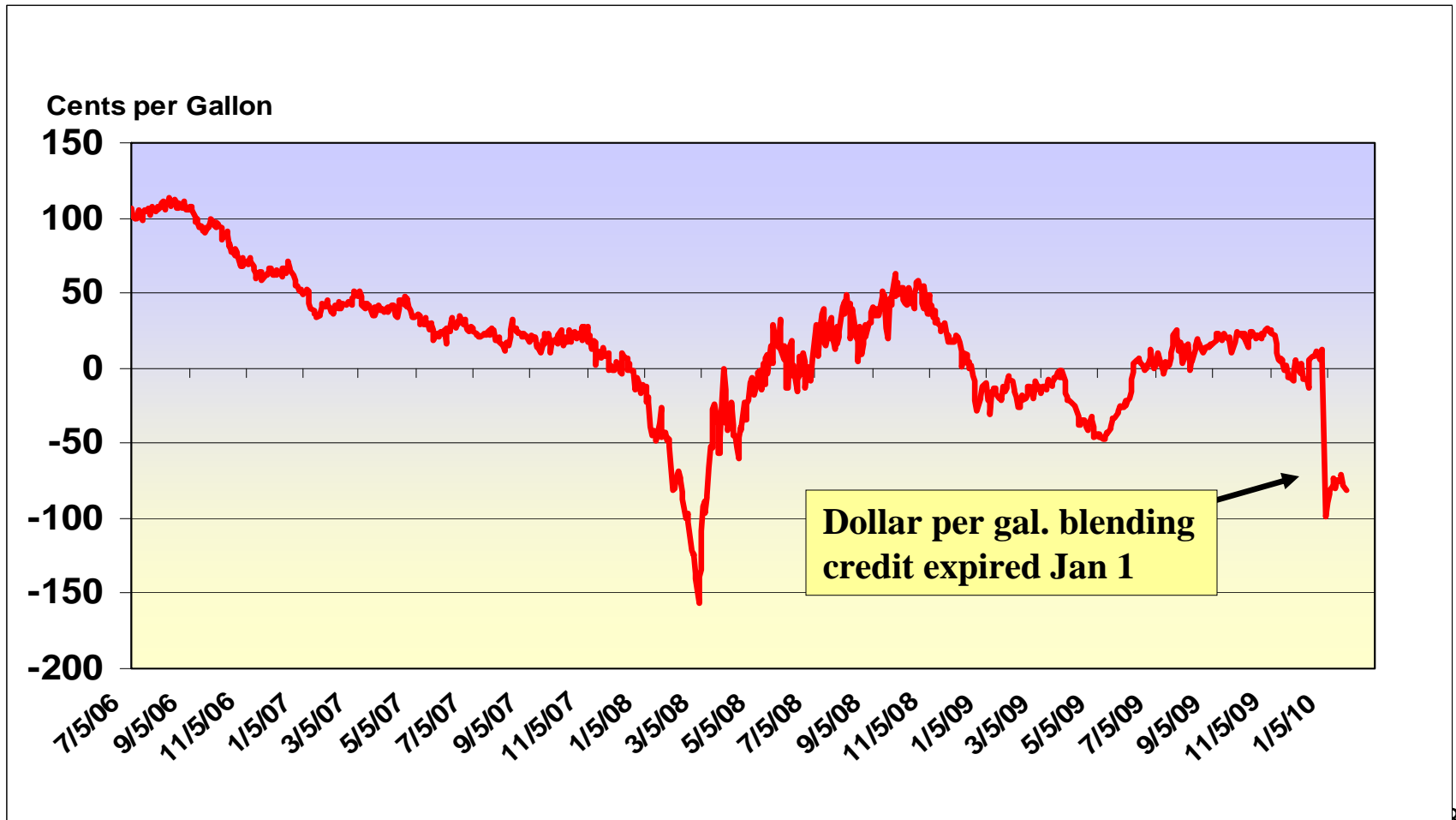
U.S. Biodiesel Production Capacity

Billion gallons



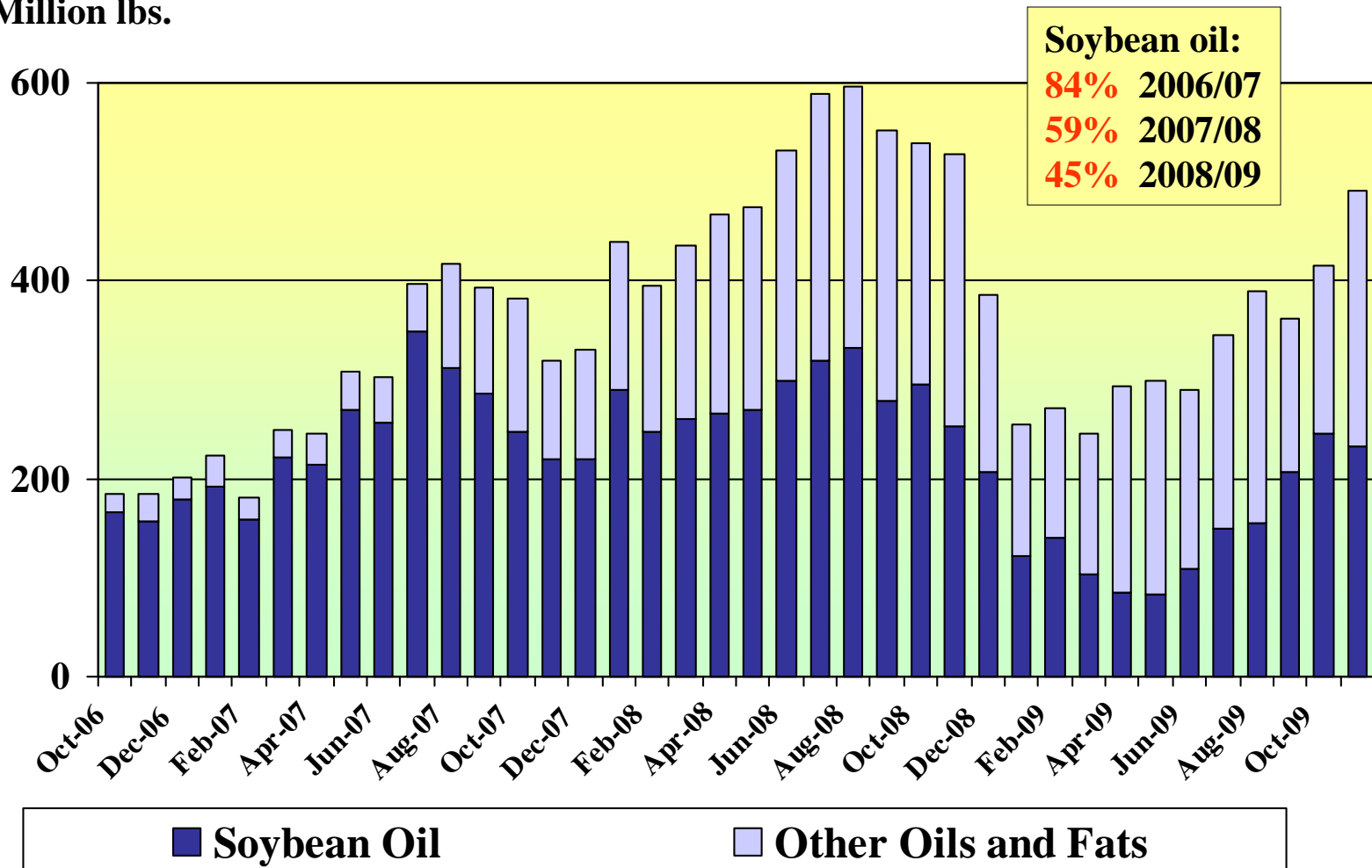
Source: NBB website

U.S. Domestic Soybean Oil-based Biodiesel Production Margin

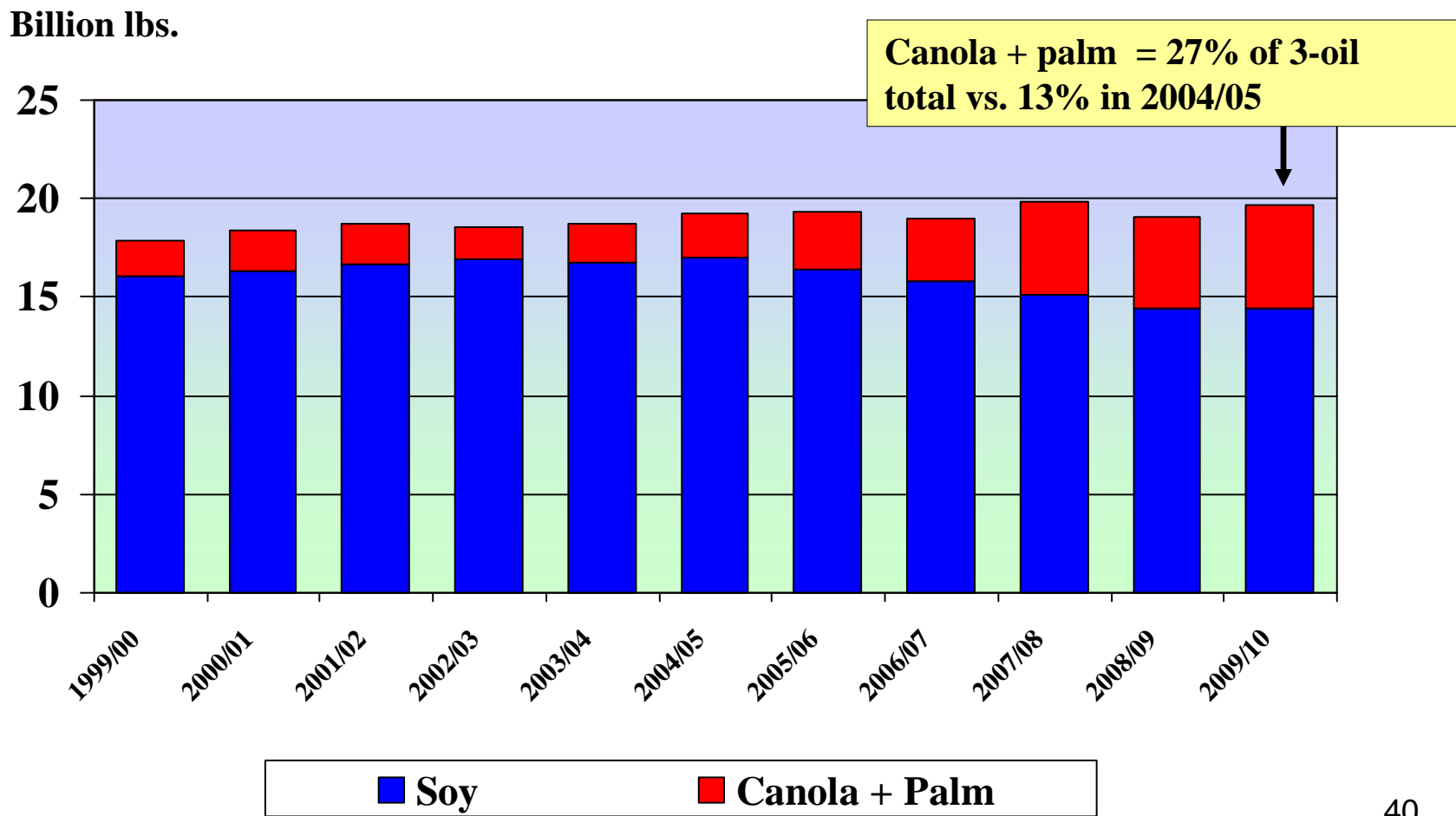


Other fats and oils account for about half of total biodiesel production

Million lbs.

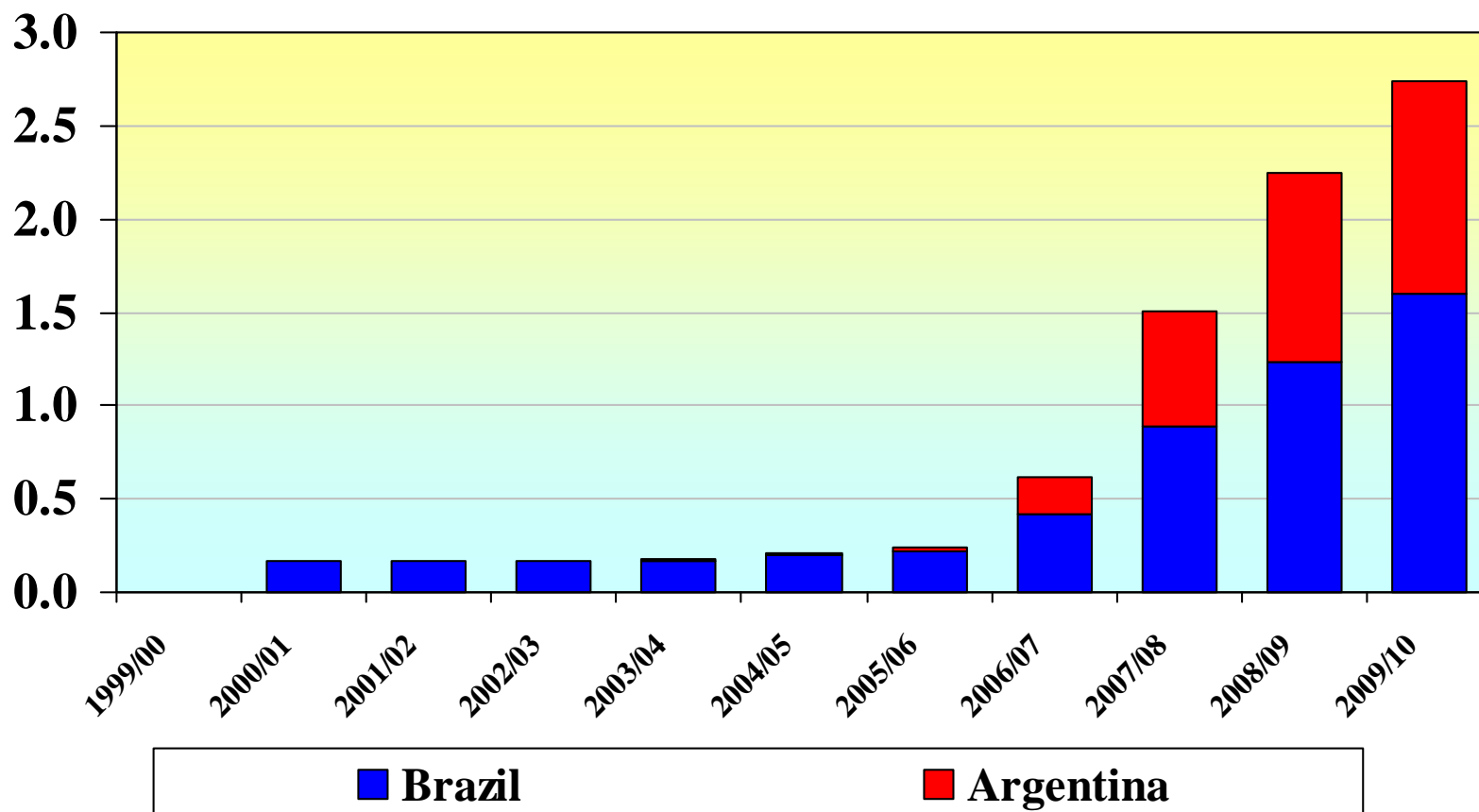


In the U.S. canola and palm oil continue to replace soybean oil in the edible use category

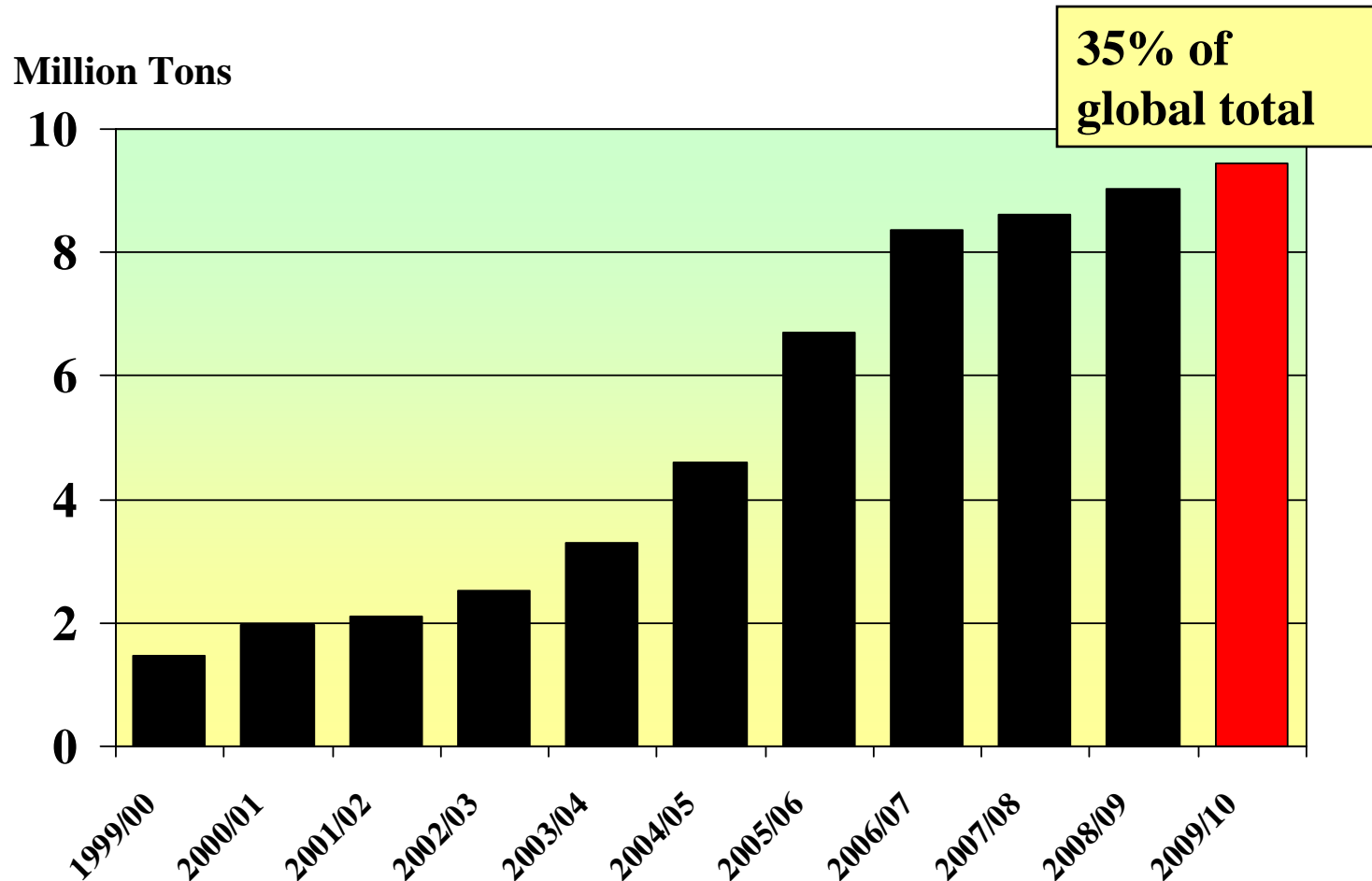


Brazil, Argentina Industrial Use of Soybean Oil

Million Tons



Vegetable oil used for EU biofuel production



World Rice Production

Country or Region	2008/09 estimate	2009/10 forecast	Change from previous month	Change from 2008/09
	<i>Million Tons</i>		<i>Percent</i>	<i>Percent</i>
World	446.6	434.7	0.2	-2.7
United States	6.5	7.0	0.7	7.9
Foreign	440.1	427.7	0.2	-2.8
Brazil	8.6	7.8	-4.2	-9.0
China	134.3	137.0	0.0	2.0
India	99.2	84.5	1.8	-14.8
Burma	10.2	10.7	0.0	5.7
Pakistan	6.7	6.2	3.3	-7.5
Thailand	19.6	20.5	0.0	4.6
Vietnam	24.4	24.3	0.0	-0.4

U.S. Meat Production and Prices

	2009 forecast	2010 forecast	Change from last month	Change from 2009
Production	<i>Billion pounds</i>		<i>Percent</i>	<i>Percent</i>
Beef	25.95	25.48	0.0	-1.8
Pork	23.00	22.64	1.0	-1.6
Broilers	35.53	35.90	0.0	1.0
Turkey	5.65	5.65	-0.4	0.1
Total meat	90.94	90.48	0.2	-0.5
Prices	<i>Dollars/cwt</i>			
Steers	82.68	89.50	0.0	8.2
Hogs	41.24	46.00	3.4	11.5
	<i>Cents/lb</i>			
Broilers	77.6	78.8	1.3	1.5
Turkey	79.9	82.3	0.0	3.0

U.S. Milk Supply and Demand

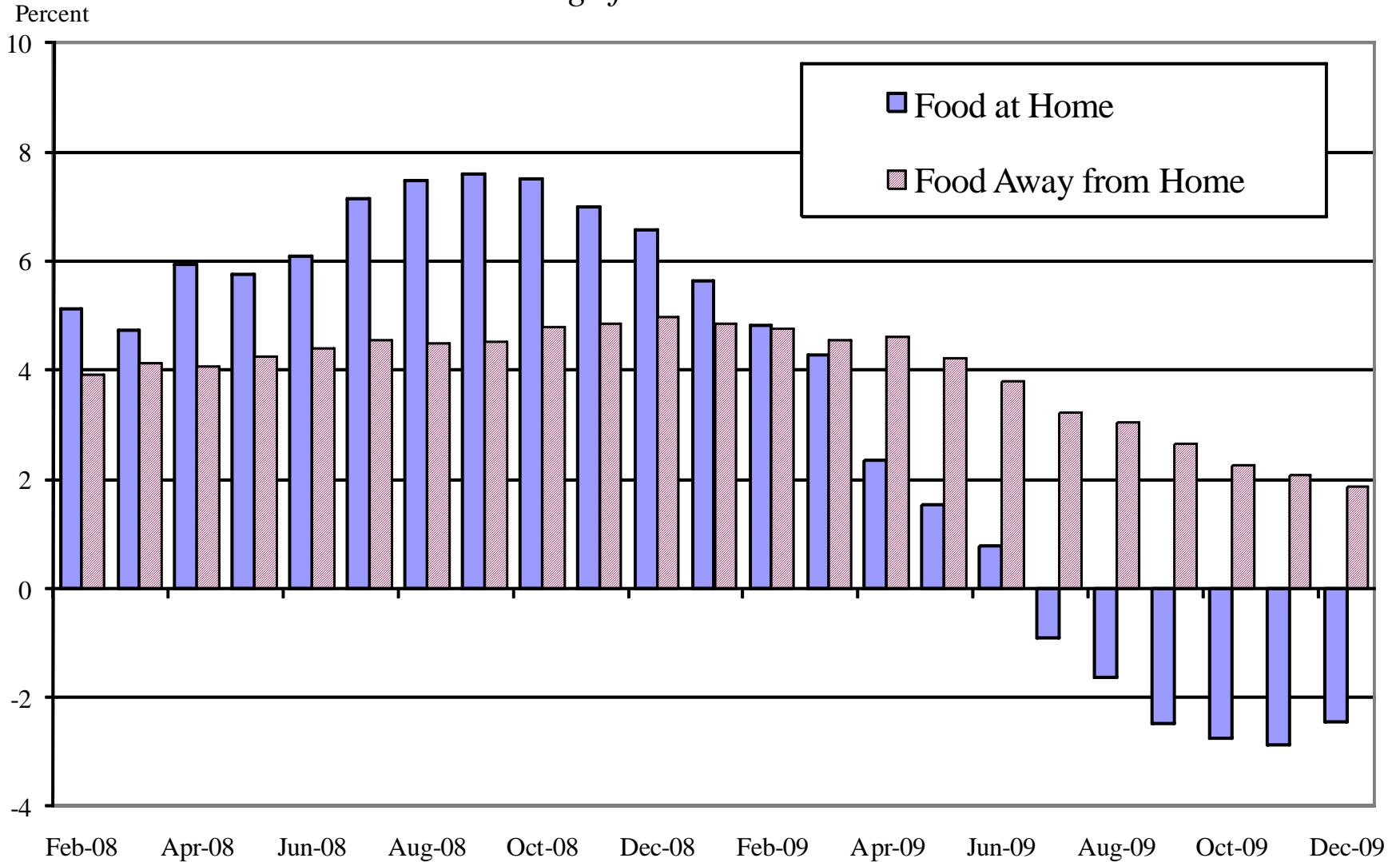
	2009 forecast	2010 forecast	Change from last month	Change from 2009
	<i>Billion pounds</i>		<i>Percent</i>	
Production	189.2	188.4	0.3	-0.4
Imports	4.1	4.2	0.0	4.2
Commercial use	186.4	188.6	0.5	1.2
Exports	4.0	4.8	0.0	20.2
CCC net removals 1/	<i>Billion pounds</i>			
Butter	0.023	0.016	14	-30.4
Cheese	0.002	0.002	100	-13.0
Nonfat dry milk	0.248	-0.050	0	-120.2
Dry whole milk	0.000	0.000		
Average market price 2/	<i>Dollars/cwt</i>			
Class III	11.36	15.15	-2.6	33.4
Class IV	10.89	15.15	0.7	39.1
All milk	12.79	16.60	-0.9	29.8

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

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

CPI for Food

Change from Previous Year



END