



Corn Outlook

David Miller
Director of Research & Commodity Services
Iowa Farm Bureau Federation
December 2013

U.S. Corn Supply & Usage

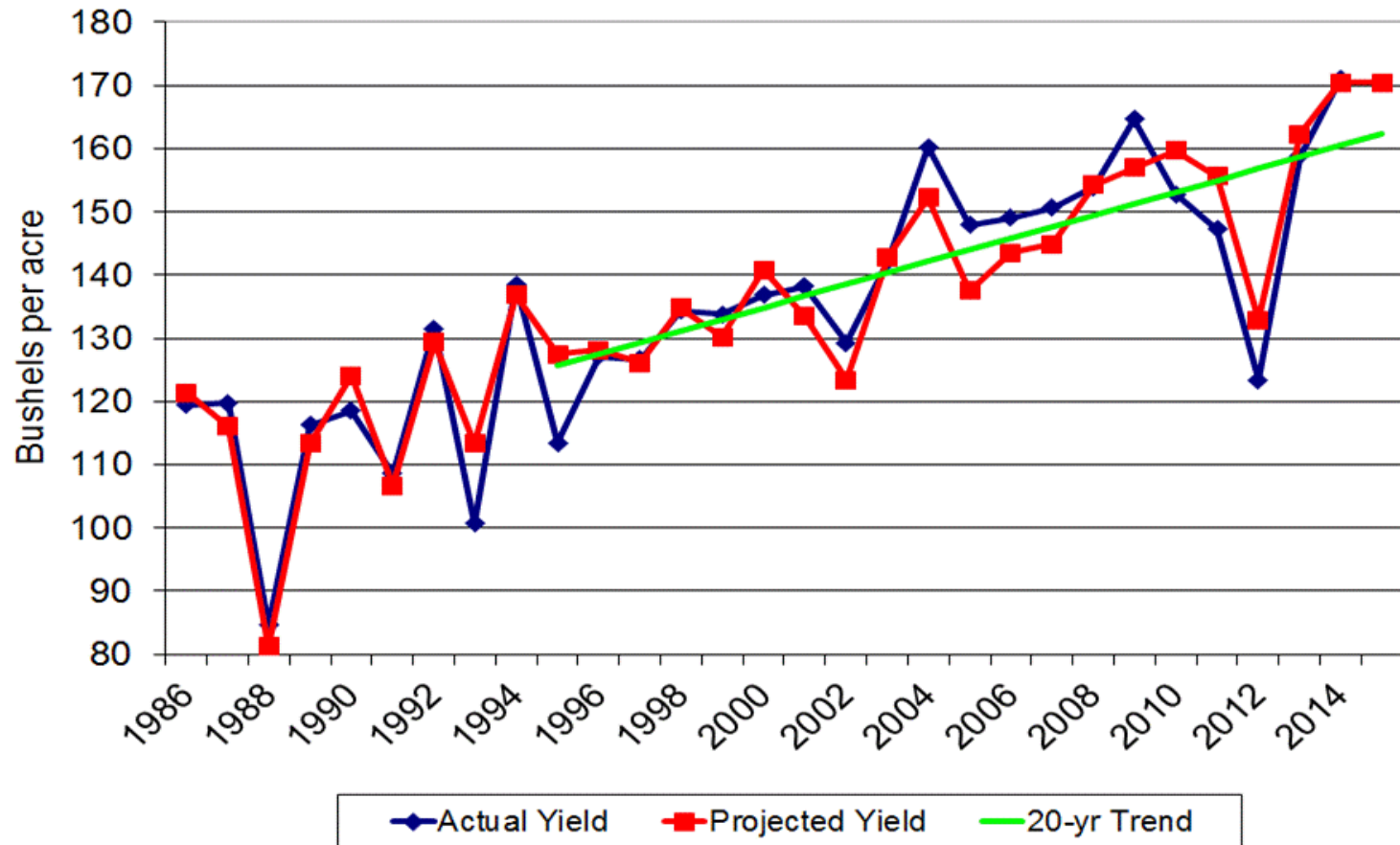
		2011	2012	2013	2014	2015
Area Planted	(mil. acres)	91.9	97.3	95.4	90.6	88.9
Yield	(bu./acre)	147.2	123.1	158.1	171.0	168.8
Production	(mil. bu.)	12,360	10,755	13,829	14,216	13,686
Beg. Stocks	(mil. bu.)	1,128	989	821	1,232	1,772
Imports	(mil. bu.)	29	160	36	30	30
Total Supply	(mil. bu.)	13,517	11,904	14,686	15,477	15,488
Feed & Residual	(mil. bu.)	4,557	4,315	5,034	5,300	5,300
Ethanol	(mil. bu.)	5,000	4,641	5,134	5,200	5,250
Food, Seed, & Other	(mil. bu.)	1,428	1,397	1,369	1,355	1,375
Exports	(mil. bu.)	1,543	730	1,917	1,850	1,850
Total Use	(mil. bu.)	12,528	11,083	13,454	13,705	13,775
Ending Stocks	(mil. bu.)	989	821	1,232	1,772	1,713
Season-Average Price	(\$/bu.)	6.22	6.89	4.46	3.70	3.65

Source: USDA-WAOB

U.S. Corn Supply & Usage Comments

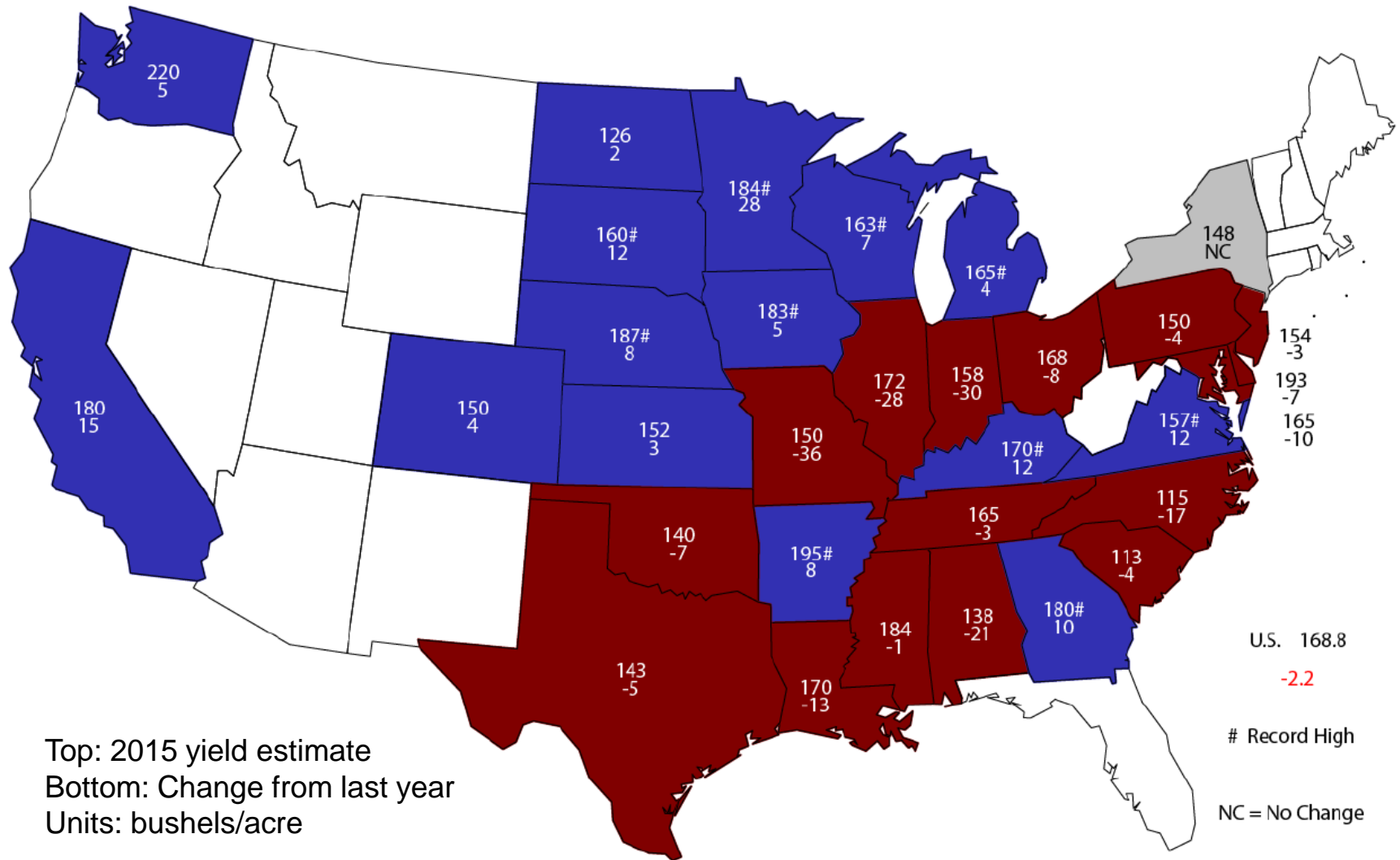
- With the largest projected ending stocks in the past 5 years and a large new crop, total supply of corn at the start of the 2015-26 marketing year will be the largest ever.
- With continued growth of feed and ethanol usage and stable use for domestic food and exports, total projected use will set a new record.
- The two items with the most uncertainty are the actual size of this year's crop and whether exports will actually meet projections given a strong U.S. dollar.

September Corn Yield Estimate vs Actual



- In general, when the yield is “above trend” the final yield will be greater than early estimates and when the yield is below trend, the final yield declines from the early estimate, but there are exceptions to this rule.

Early Corn Yield Estimate



Cattle Crush Margin

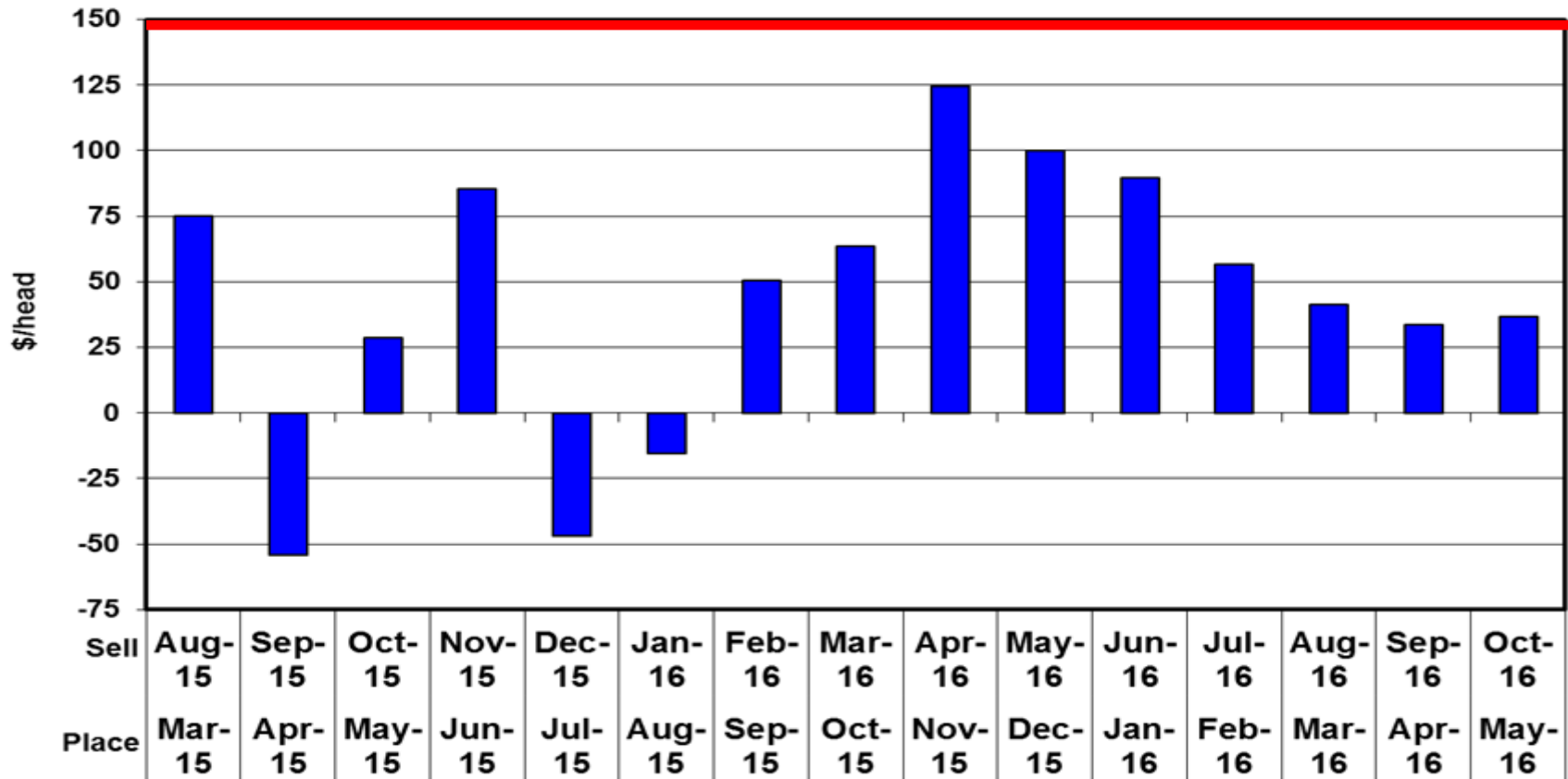
The Crush Margin is the return after the feeder steer and corn costs.

Live weight: 1250 pounds

Feeder weight: 750 pounds

Corn: 50 bushels per head

Projected Yearling to Finish Crush Margin, August 5, 2015



Source: ISU Extension

Hog Crush Margin

The Crush Margin is the return after the pig, corn and soybean meal costs.

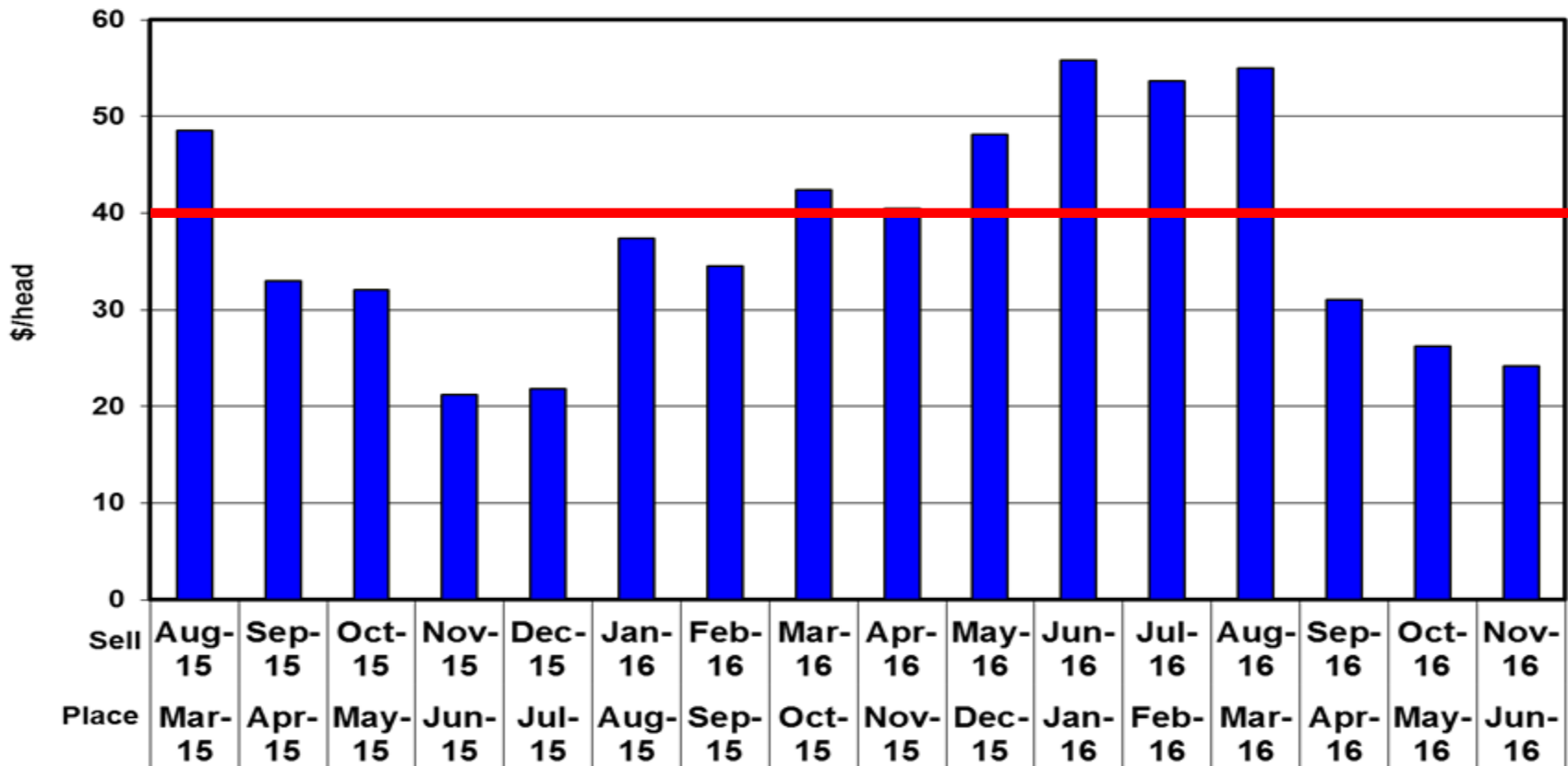
Carcass weight: 200 pounds

Pig price: 50% of 5 mth out lean hog futures

Corn: 10 bushels per pig

Soybean meal: 150 pounds per pig

Projected Wean to Finish Crush Margin, August 5, 2015



Source: ISU Extension

U.S. Meat Production & Prices

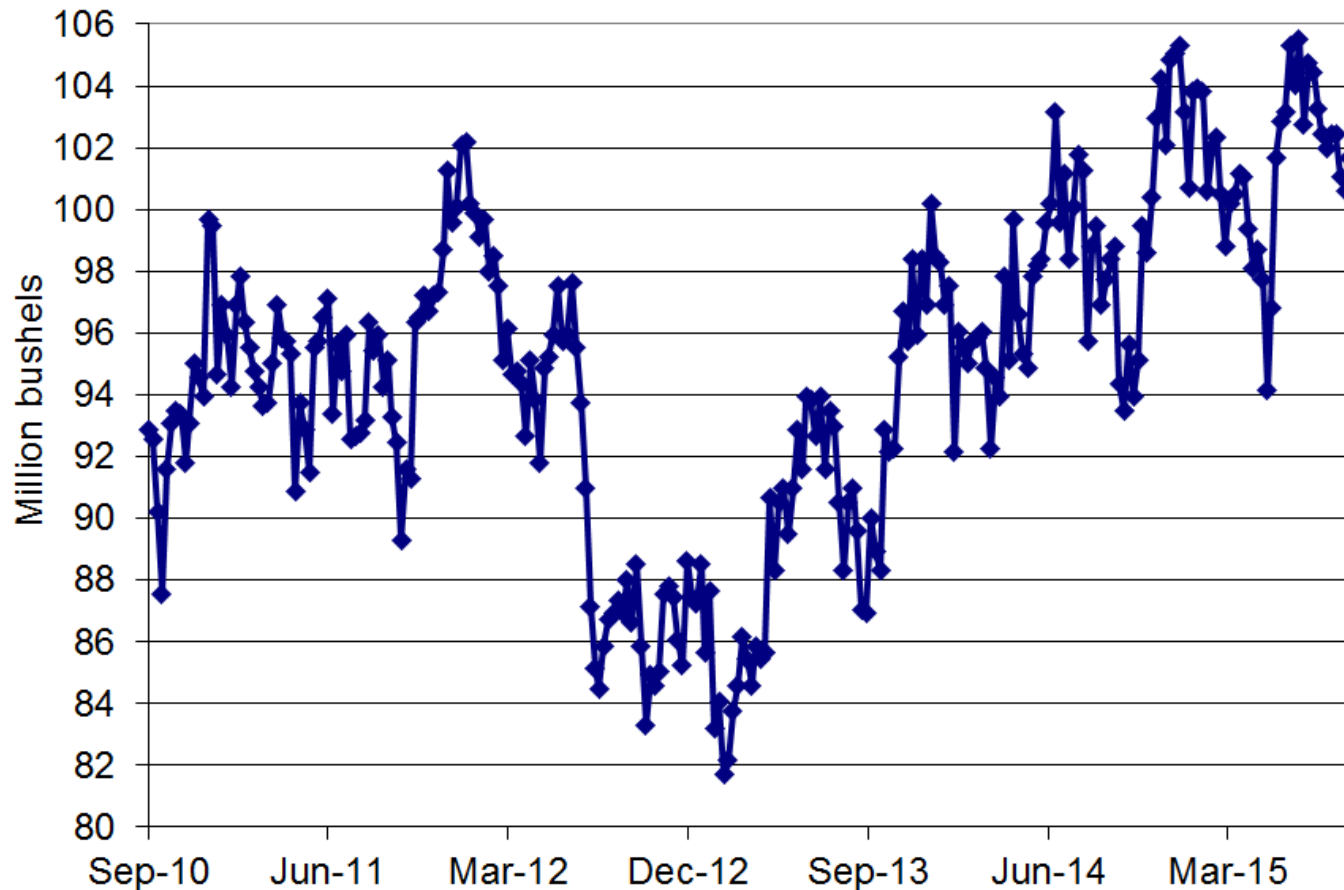
	2015 forecast	2016 forecast	Change from July 10	Change from 2015
Production	<i>Billion pounds</i>		<i>Percent</i>	<i>Percent</i>
Beef	23.76	24.84	-0.1	4.5
Pork	24.58	24.71	0.0	0.5
Broilers	40.25	41.38	0.0	2.8
Turkey	5.63	6.01	0.0	6.7
Total meat	94.97	97.70	0.0	2.9
Prices	<i>Dollars/cwt</i>			
Steers	155.89	156.00	-3.1	0.1
Hogs	49.92	47.50	0.0	-4.8
	<i>Cents/lb</i>			
Broilers	95.8	98.3	-4.8	2.6
Turkey	116.0	114.5	0.0	-1.3

- Beef, pork, chicken and turkey production is growing compared to a year ago and is likely to continue that expansion into the coming year.

Feed Demand

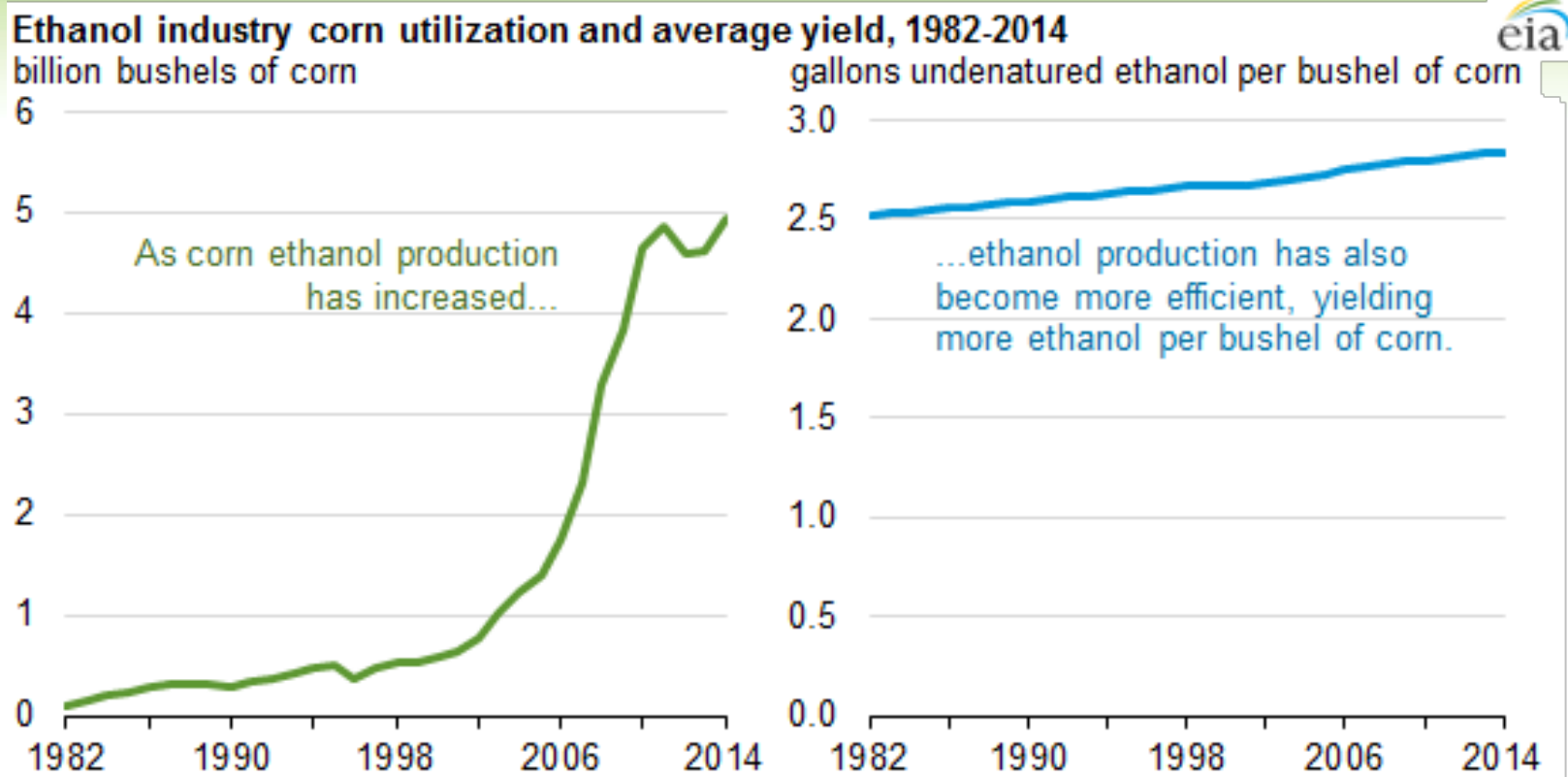
- Fed cattle feeding margins are projected to be quite variable this fall with both positive and negative margins anticipated before rising into Spring 2016
- Hog feeding margins are not as high as a year ago, and are expected to deteriorate some this Fall before rising into Summer 2016.
- The longer term outlook for both cattle and hog feeding margins will be supportive of expansion of those sectors and supportive of increased feed usage in the 2015-16 marketing year.

Corn Grind for Ethanol



- Despite seasonal variations that cause ups and downs, the corn grind for ethanol has been trending upward since hitting a bottom after the drought-reduced 2012 corn crop.

Corn Ethanol Production & Yield

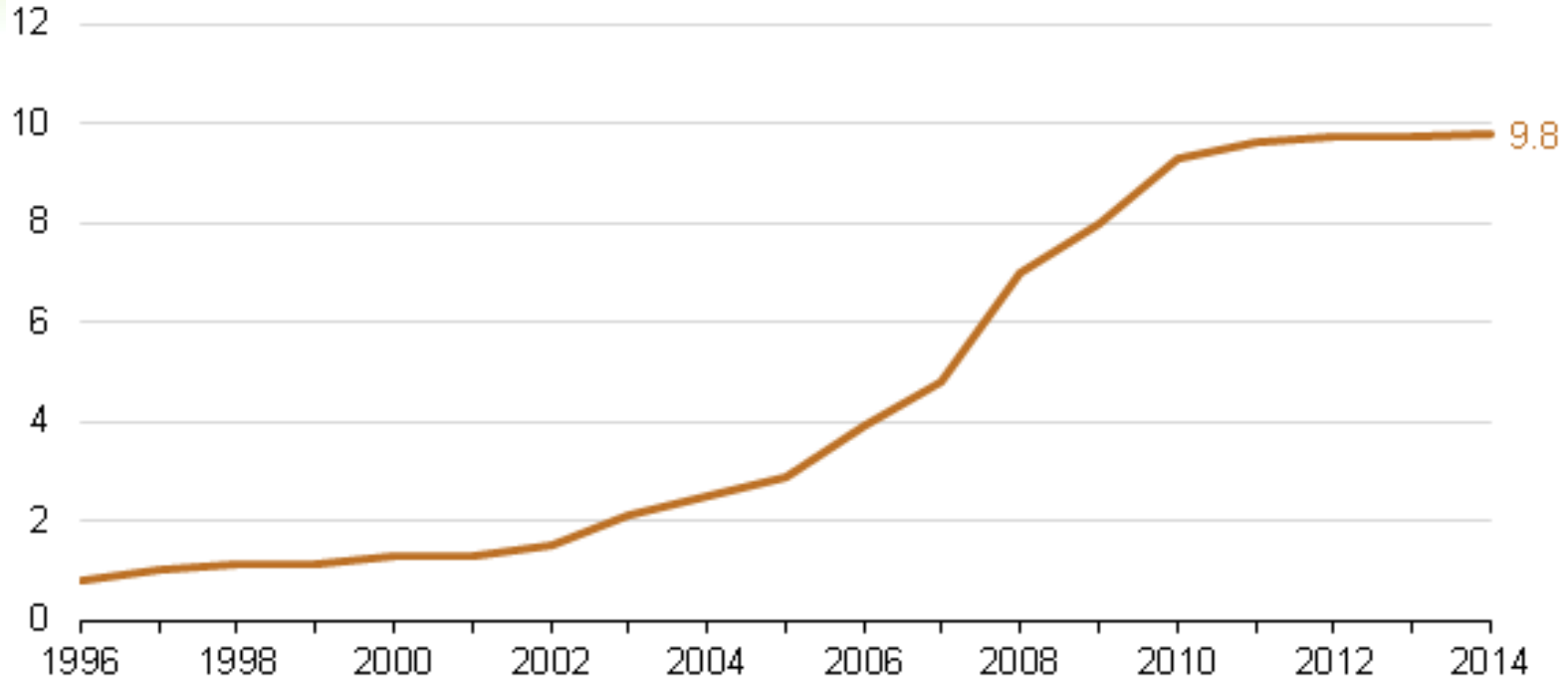


- In 2014, U.S. fuel ethanol production reached 14.3 billion gallons of ethanol fuel, the highest level ever. The growth in U.S. fuel ethanol production has outpaced growth in corn consumed as feedstock—as the industry has grown, it has become more efficient, using fewer bushels of corn to produce a gallon of ethanol.
- If ethanol plant yields per bushel of corn in 2014 had remained at 1997 levels (when ethanol made up just 1% of the total U.S. motor gasoline supply), the ethanol industry would have needed to grind an additional 343 million bushels, or 7% more corn, to produce the same volume of fuel.

Ethanol Share of U.S. Motor Fuel Market

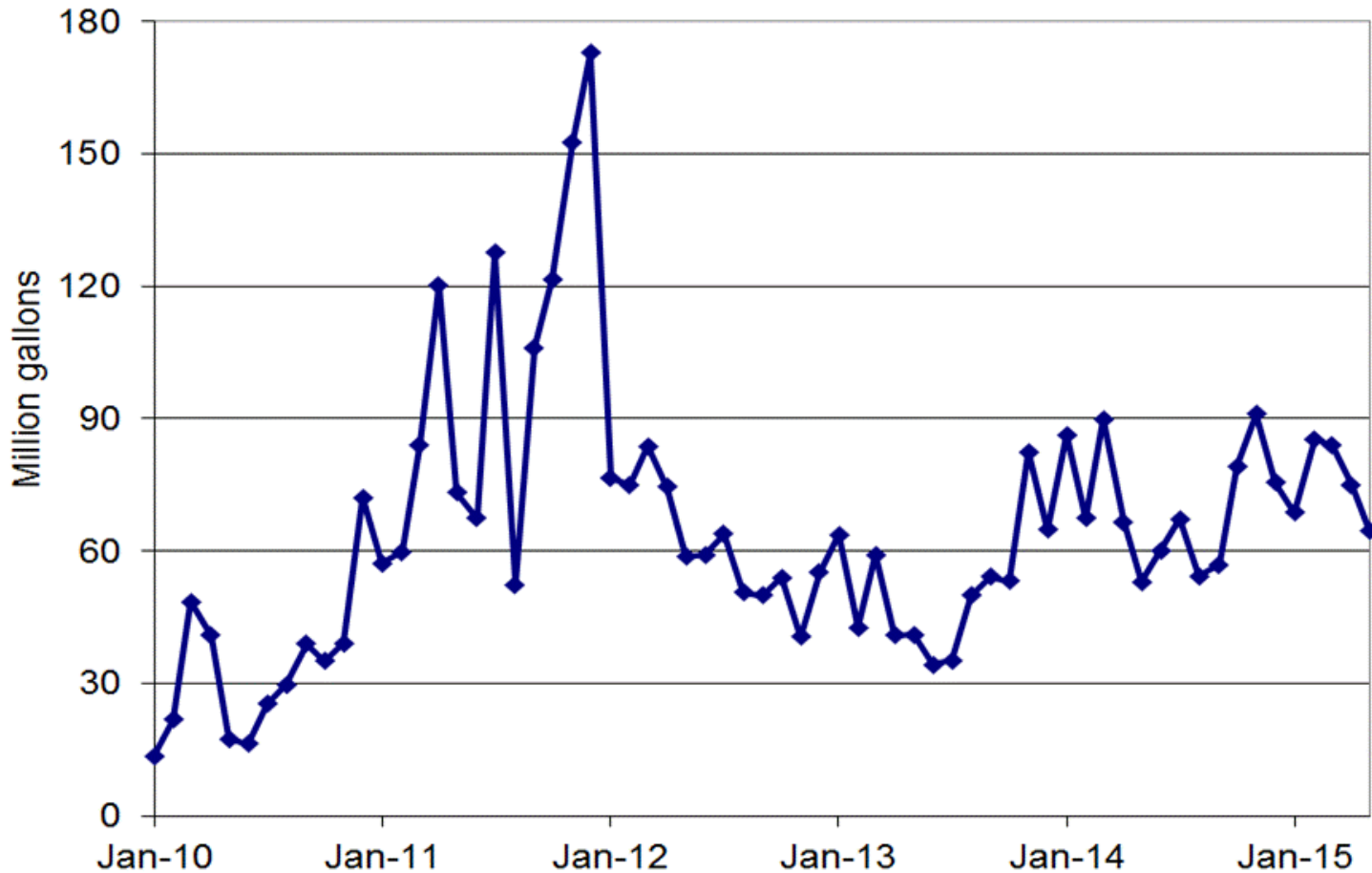
Ethanol's share of U.S. motor gasoline, 1996-2014

percent of total gasoline supply



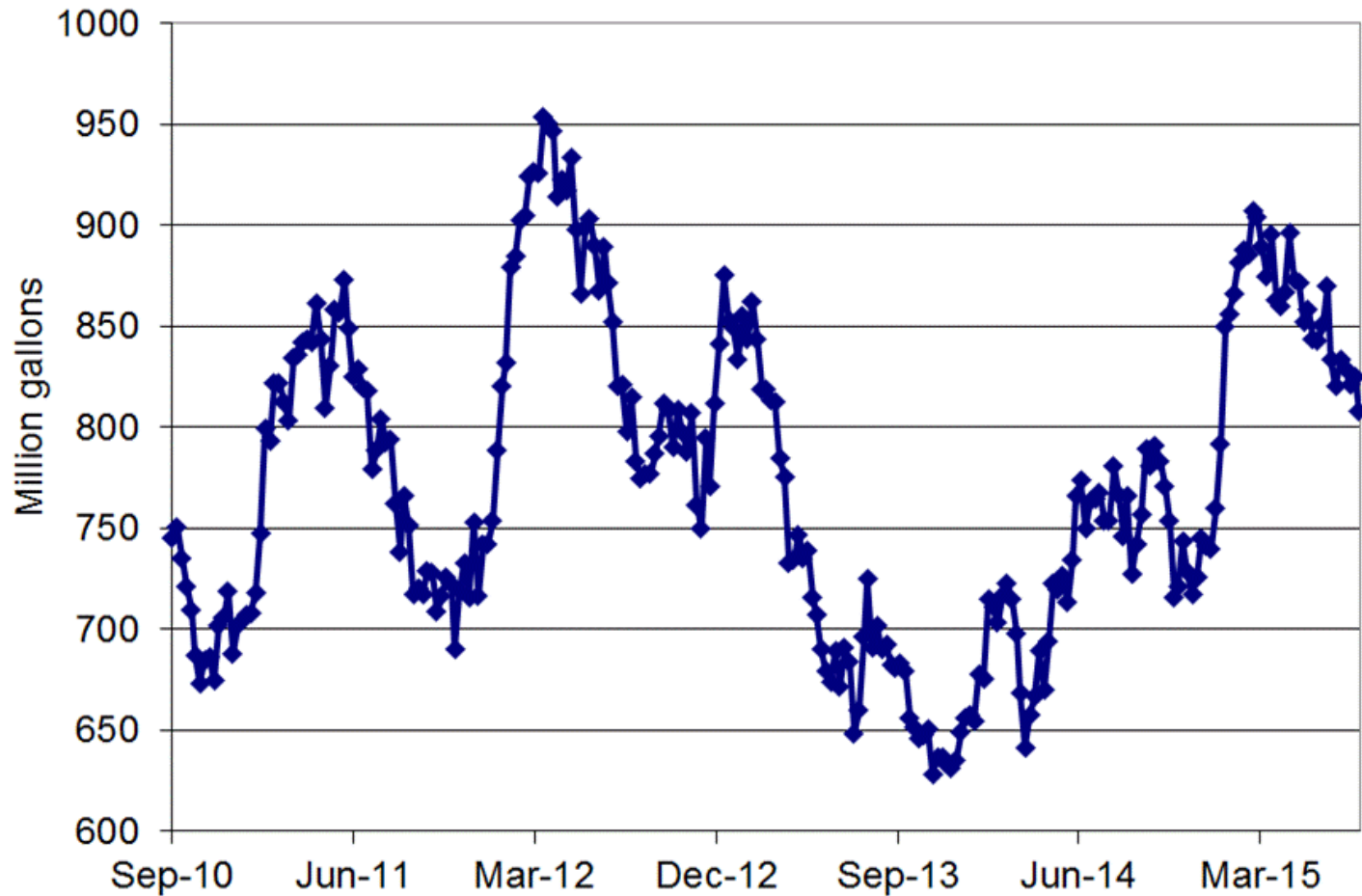
Growth in ethanol production has been made possible by a rise in demand for ethanol to increase octane levels as MTBE, a gasoline additive, has been phased out of gasoline, and to meet Renewable Fuel Standard (RFS) targets enacted in 2005 and expanded by subsequent legislation in 2007. Recently, ethanol's volumetric share of total U.S. motor gasoline supply has been just below 10%, reaching 9.8% in 2014.

Ethanol Exports



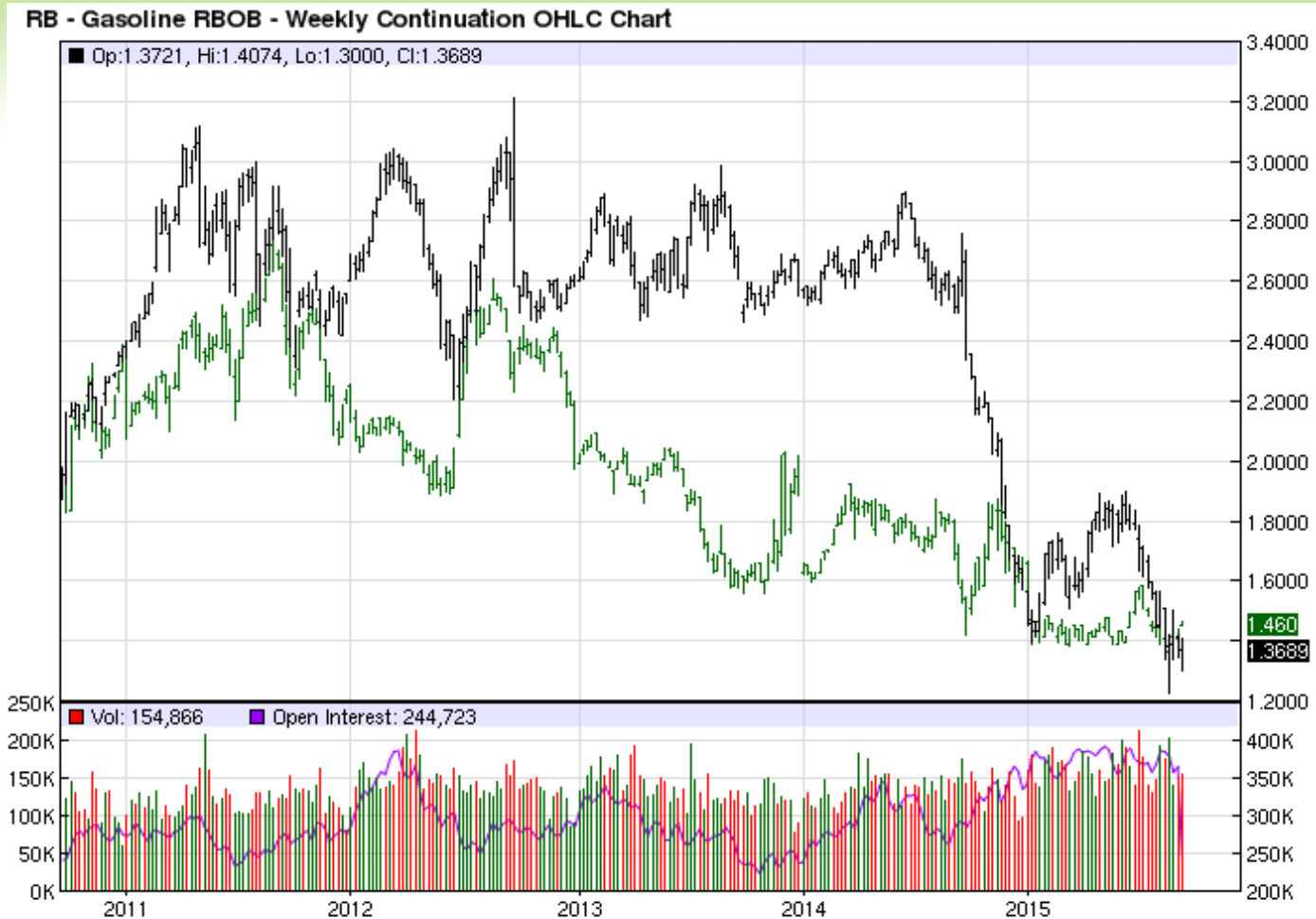
Ethanol exports have been climbing since mid 2013 and account for about 5-7% of U.S. ethanol production. The U.S. has been a net exporter of ethanol since January 2010.

U.S. Ethanol Stocks



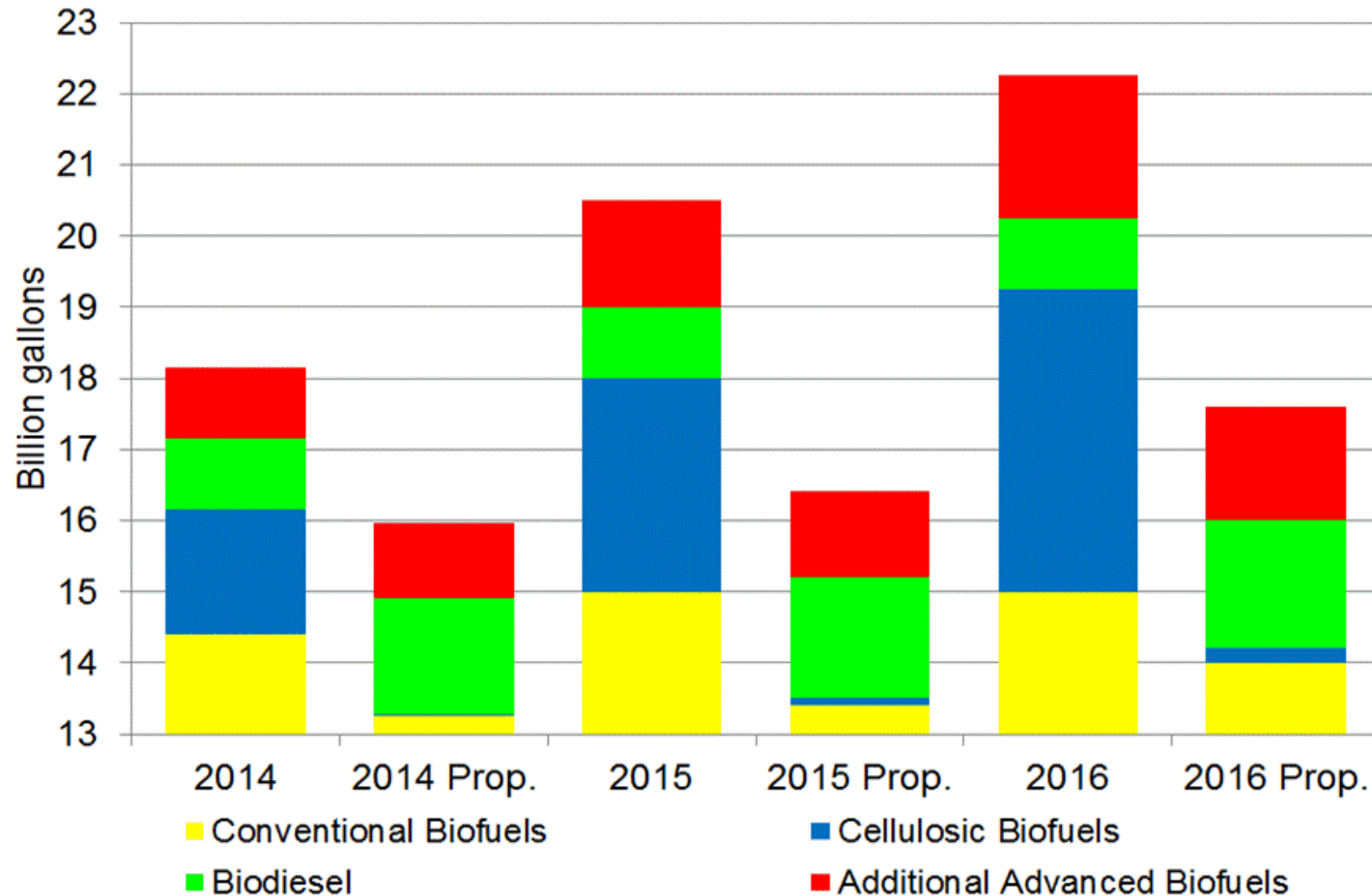
Ethanol stocks increased from 2014 into late 2014, but more recently, ethanol stocks have been pulled down to more relatively moderate levels.

Gasoline vs Ethanol Prices



- Gasoline prices moved to a premium over ethanol prices in 2011, but during the most recent decline, ethanol prices stabilized while gasoline prices continued to decline.

Renewable Fuel Standard



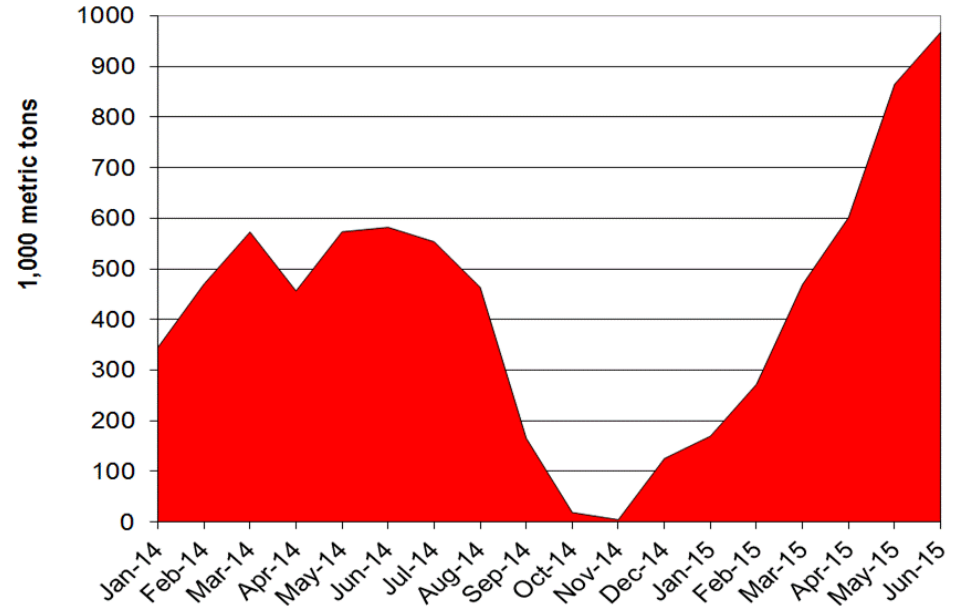
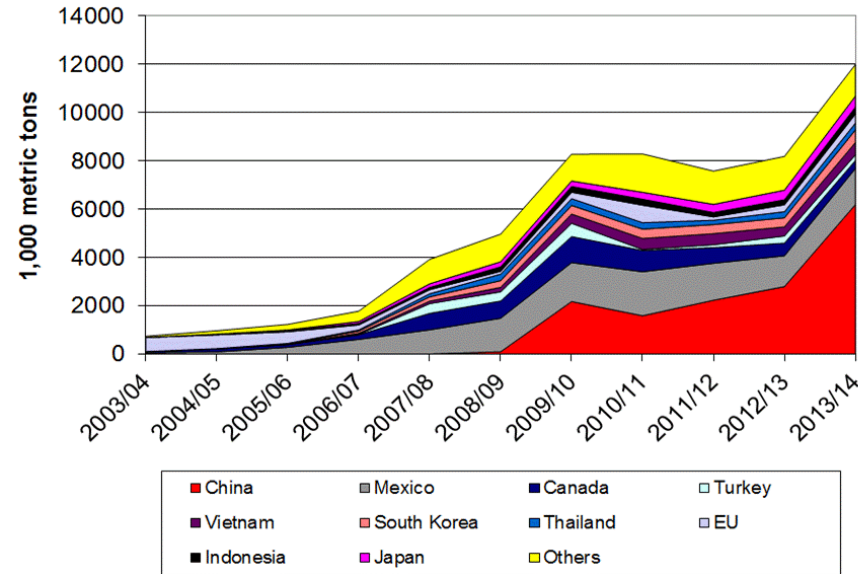
While the RFS calls for increasing amounts of ethanol and advanced biofuels in the U.S. fuel supply, it is quite likely that EPA will continue to significantly reduce the total ethanol and advanced biofuels requirements of the RFS compliance levels in the coming year and that will effectively

U.S. DDG Supply & Use

		2011	2012	2013	2014	2015
Production	(mil. metric tons)	36.3	33.5	36.6	37.1	37.2
Imports	(mil. metric tons)	0.4	0.4	0.5	0.4	0.4
Total Supply	(mil. metric tons)	36.7	33.9	37.1	37.5	37.6
Domestic	(mil. metric tons)	29.1	25.7	25.1	27.0	27.6
Exports	(mil. metric tons)	7.6	8.2	12.0	10.5	10.0
Total Use	(mil. metric tons)	36.7	33.9	37.1	37.5	37.6
Price	(\$ per ton)	217	256	205	158	

DDG supplies continue to grow at a very slow pace in concert with the slow growth in ethanol production. Exports of DDGs have fallen off a bit as the U.S. dollar strengthened. That has pushed more supplies into the domestic market and has helped push DDG prices down.

DDG Exports by Country



- China has accounted for a larger and larger share of U.S. DDG exports. To a large degree, these exports have come as a result of the drop in corn exports to China from the U.S.

Ethanol Comments

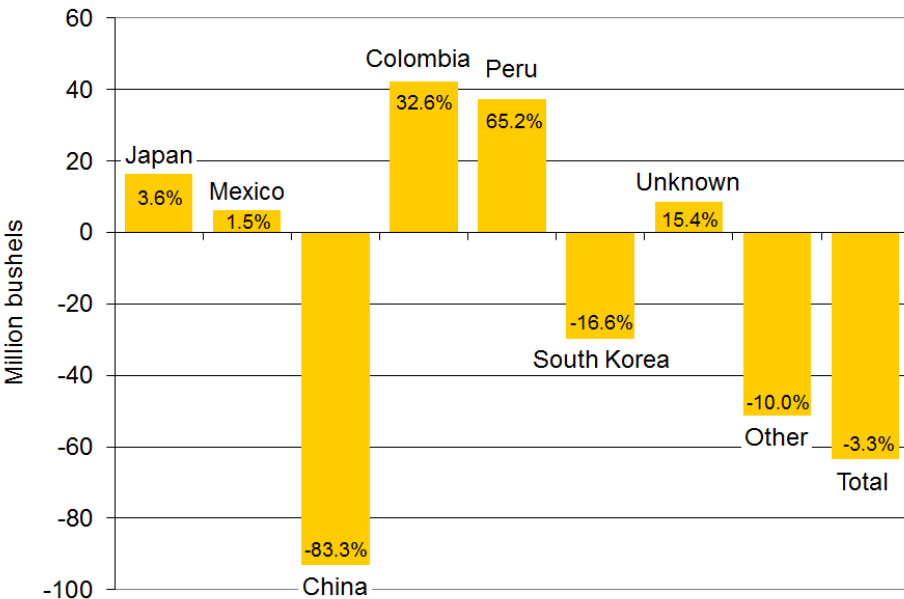
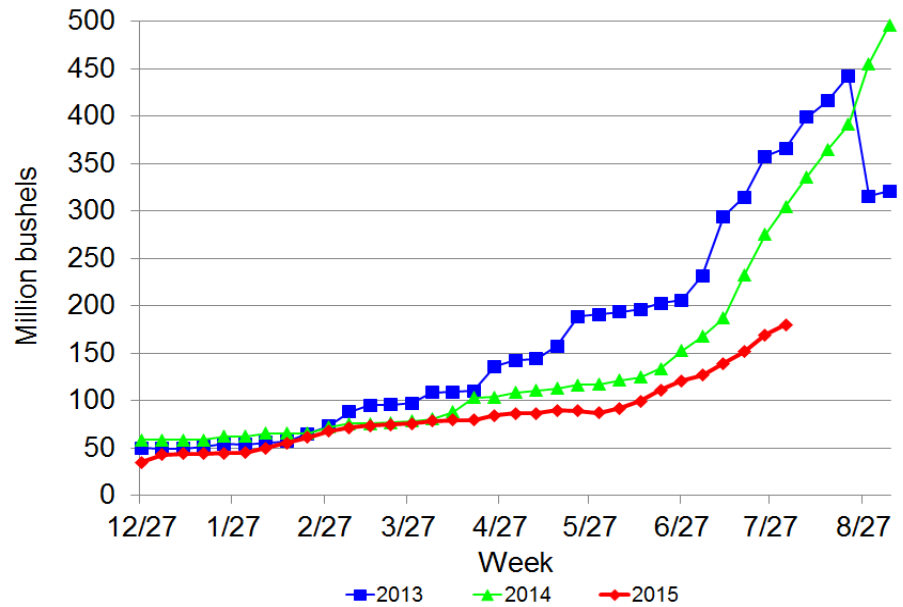
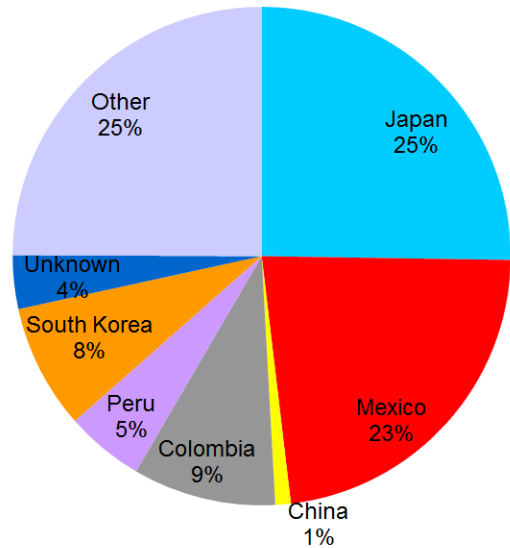
- Ethanol production and consumption continue a slow trend upward, but more of the growth is attributable to exports than more domestic consumption.
- With ethanol trading near the price of gasoline, demand for E-85 and higher ethanol blends is likely to come under some pressure.
- Corn grind for ethanol will increase slower than ethanol production as new technology continues to improve the corn-to-ethanol conversion process.

U.S. Dollar Index



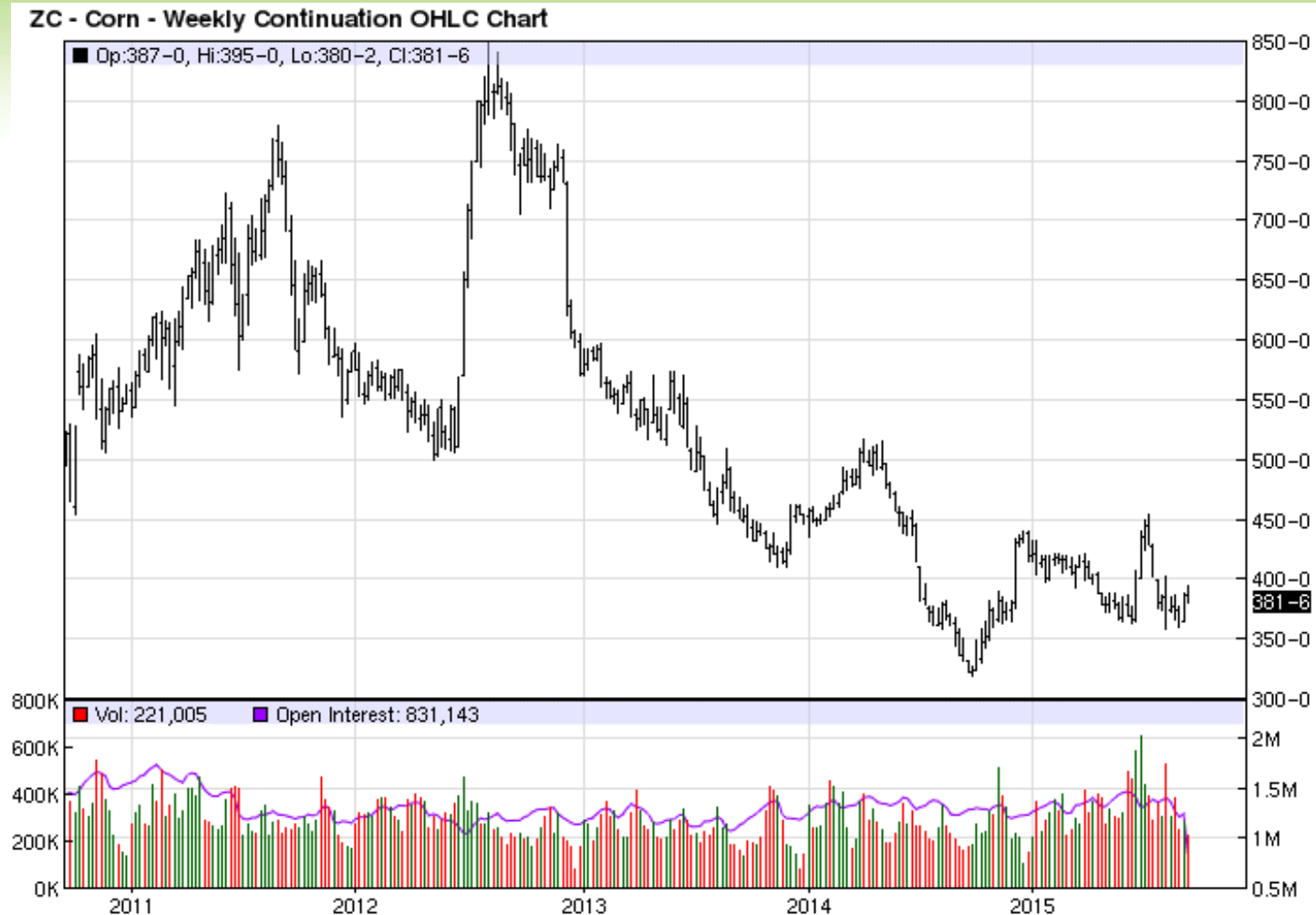
- Over the past year, the dollar has strengthened substantially which makes US ag exports relatively more expensive on world markets.

Corn Exports



- Corn exports to China and South Korea are lagging behind; exports to Columbia & Peru are rising
- Total advanced sales are lagging significantly behind normal. If total export projections for the year are met, it means a stronger export sales pace ahead.

U.S. Corn Price



The slide in the price of corn may be ending after 3 years. Corn ending stocks are not projected to grow in 2015-16 and weather-induced problems may intensify in other parts of the world in the coming year.

Thank You