Ethanol Usage Projections & Corn Balance Sheet (mil. bu.)

Updated 6/12/2015

Year: (production/marketing) [1/]	Historic 2010-11	Historic 2011-12	Historic 2012-13	Prelim. 2013-14	Est. 2014-15	Proj. 2015-16 Low	Proj. 2015-16 Med. [4]	Proj. 2015-16 High
Yield (bu. per acre)	152.8	147.2	123.4	158.1	171.0	159.0	165.5	170.0
Long-term Historical Yield Probability:						**15%**	**64%**	**21%**
Supplies:								
Planted acres (million)	88.2	91.9	97.2	95.4	90.6	89.2	89.2	89.2
Harvested acres (million)	81.4	84.0	87.4	87.5	83.1	81.5	81.7	81.7
Production (mil. bu.)	12,447	12,358	10,780	13,829	14,216	12,959	13,521	13,889
Beginning carryover (mil. bu.)	1,708	1,128	989	821	1,232	1,898	1,898	1,898
Imports	27	32	162	36	22	24	21	18
Total Supply (incl. imports)	**14,182**	**13,517**	**11,932**	**14,686**	**15,470**	**14,880**	**15,440**	**15,805**
Total Usage: (mil. bu.)								
Feed & residual	4,795	4,548	4,335	5,036	5,200	5,250	5,250	5,275
Ethanol & DGS	5,019	5,011	4,648	5,134	5,200	5,225	5,225	5,240
Food, ind. & seed	1,407	1,426	1,396	1,367	1,347	1,360	1,360	1,360
Exports	1,834	1,543	731	1,917	1,825	1,875	1,900	1,920
Total Usage	**13,055**	**12,528**	**11,111**	**13,454**	**13,572**	**13,710**	**13,735**	**13,795**
Ethanol Usage: [2/]								
Ethanol & DGS usage (Mil. bu. corn)	5,019	5,011	4,648	5,134	5,200	5,225	5,225	5,240
DDGS production (mil. bu. corn equiv.) [3/]	1,161	1,166	1,089	1,204	1,219	1,225	1,225	1,227
Ethanol & DGS usage (bu. per acre)	62	60	53	59	63	64	64	64
DDGS production (bu. per acre equiv.)	14	14	12	14	15	15	15	15
Ethanol & DGS usage (% corn production)	40.3%	40.5%	43.1%	37.1%	36.6%	40.3%	38.6%	37.7%
DDGS production (corn equiv. % of crop)	9.3%	9.4%	10.1%	8.7%	8.6%	9.5%	9.1%	8.8%
Mil. bu. change in ethanol vs. prev. year	451	-8	-363	486	66	91	91	106
Ending Carryover: (mil. bu.)	**1,128**	**989**	**821**	**1,232**	**1,898**	**1,170**	**1,705**	**2,010**
Carryover as percent of supply	8.0%	7.3%	6.9%	8.4%	12.3%	7.9%	11.0%	12.7%
Carryover, weeks of total use	4.5	4.1	3.8	4.8	7.3	4.4	6.5	7.6
Prices:								
U.S. weighted avg. farm price	$5.18	$6.22	$6.95	$4.54	$3.65	$4.25	$3.75	$3.50
Iowa weighted avg. farm price	$5.13	$6.12	$6.90	$4.49	$3.60	$4.20	$3.70	$3.45
Harvest price (central Iowa)	$4.75	$5.85	$7.40	$4.20	$3.25	$3.75	$3.25	$3.10
Dec. futures price (harvest avg.)	$5.35	$6.20	$7.75	$4.50	$3.70	$4.20	$3.70	$3.60
Other:								
Feed use % chg. low-yield years vs. 2007-08		-23.1%	-26.7%			-11.2%		
Mil. bu. domestic corn feeding replaced by increased DDGS [3/]	69	-7	-63	88	-7	4	4	7
Mil. bu. corn exports replaced by increased DDGS	41	11	-13	27	21	1	1	1
Mil. bu. change in corn feeding vs. prev. year	-346	-247	-213	701	164	50	50	75
% change in corn feeding vs. prev. year:	-6.7%	-5.1%	-4.7%	19.9%	3.3%	1.0%	1.0%	1.0%
Net change in domestic corn feeding (mil. bu.) vs. prev. yr., incl. DDGS	**-276**	**-253**	**-276**	**788**	**157**	**54**	**54**	**82**

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Notes:

[1/] Marketing year - starts at Sept. 1 of the production year and ends August 31 of the following year. For example, the 2011 crop is marketed from Sept. 1, 2011 to August 31, 2012.

[2/] DDGS bu. equivalent production & substitution for corn feeding is based on 17 lbs. of DDGS per bushel of corn. Assumed DDGS consumption by species varies by year. Current estimates: of the 75% of production consumed domestically after deducting exports is as follows: 33% fed to dairy, 54% fed to beef,7.2% fed to hogs, and 5.3% fed to poultry. Exports are assumed to account for 25% of current production,. Assumed percentage of one pound of corn replaced by each pound of DDGS in rations = 45% for dairy, 100% for beef, 55% for poultry and 85% for hogs.

[3/] Includes corn equivalent of DDGS exports.

[4/] Medium yield is 3 bu./A below 1980-2007 trend. Long-term probabilities reflect historical frequencies.

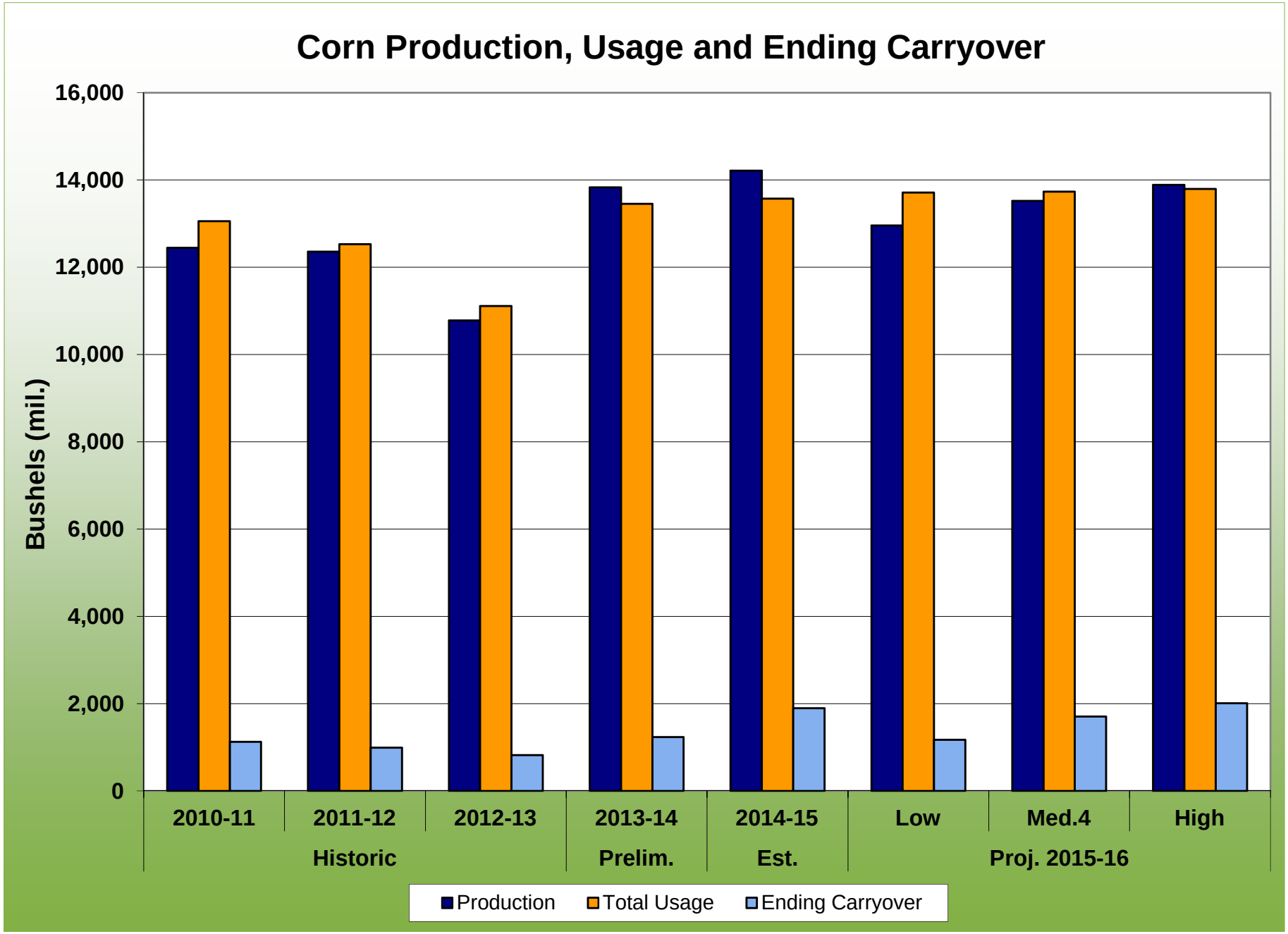
Key Balance Sheet Assumptions:

1. No changes in Conservation Reserve Program.
2. Crude oil (petroleum) price for the next 18 months is in the $50-$70/barrel range .
3. U.S. Ethanol mandates are announced in a range of 13.4 to 14 billion gallons and are enforced.
4. U.S. & World economies accelerate slightly in 2015 and 2016.
5. U.S. dollar remains relatively strong vs. foreign currencies through 2016, but may weaken slightly from mid-May levels.

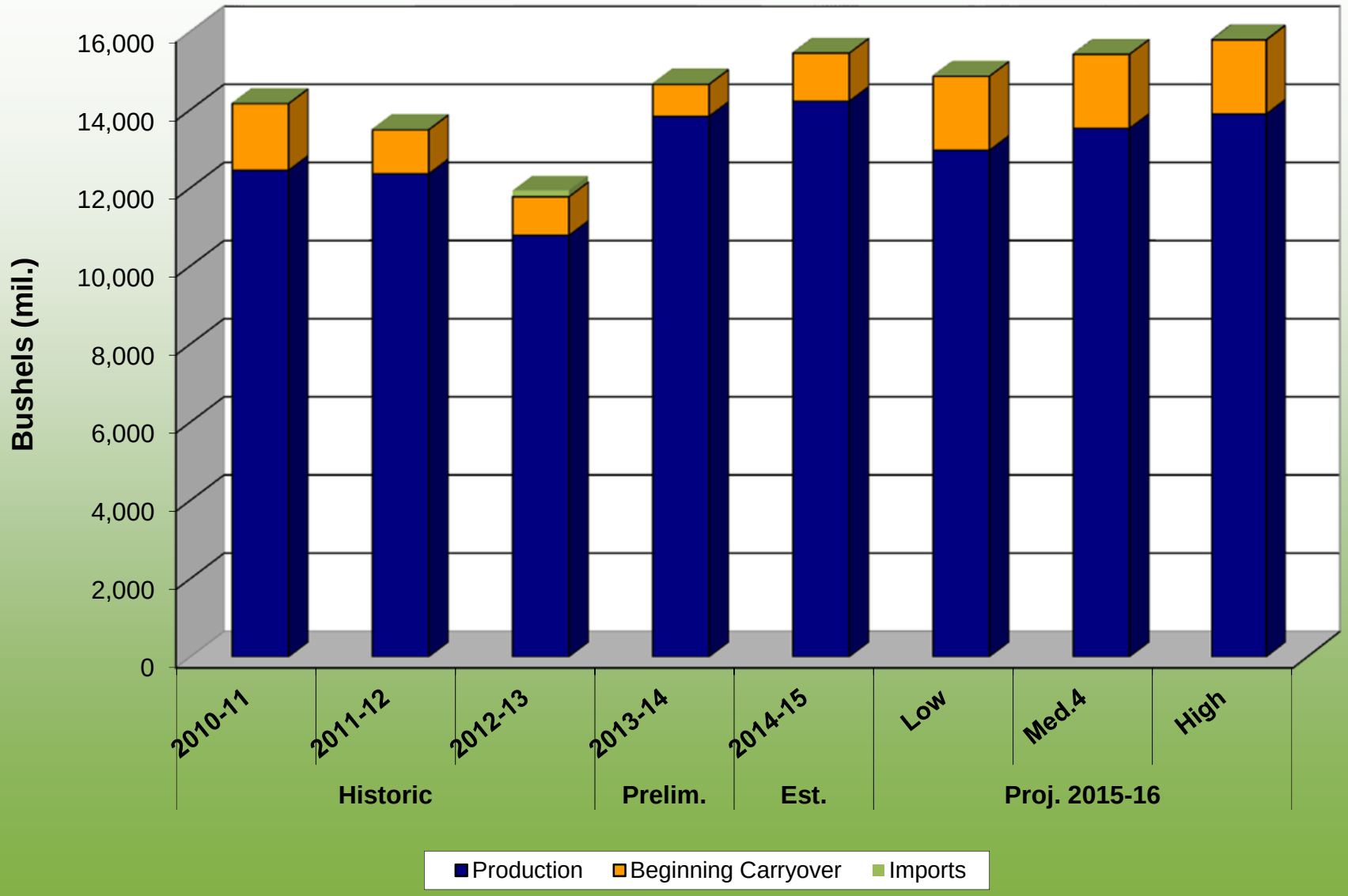
. . . and justice for all

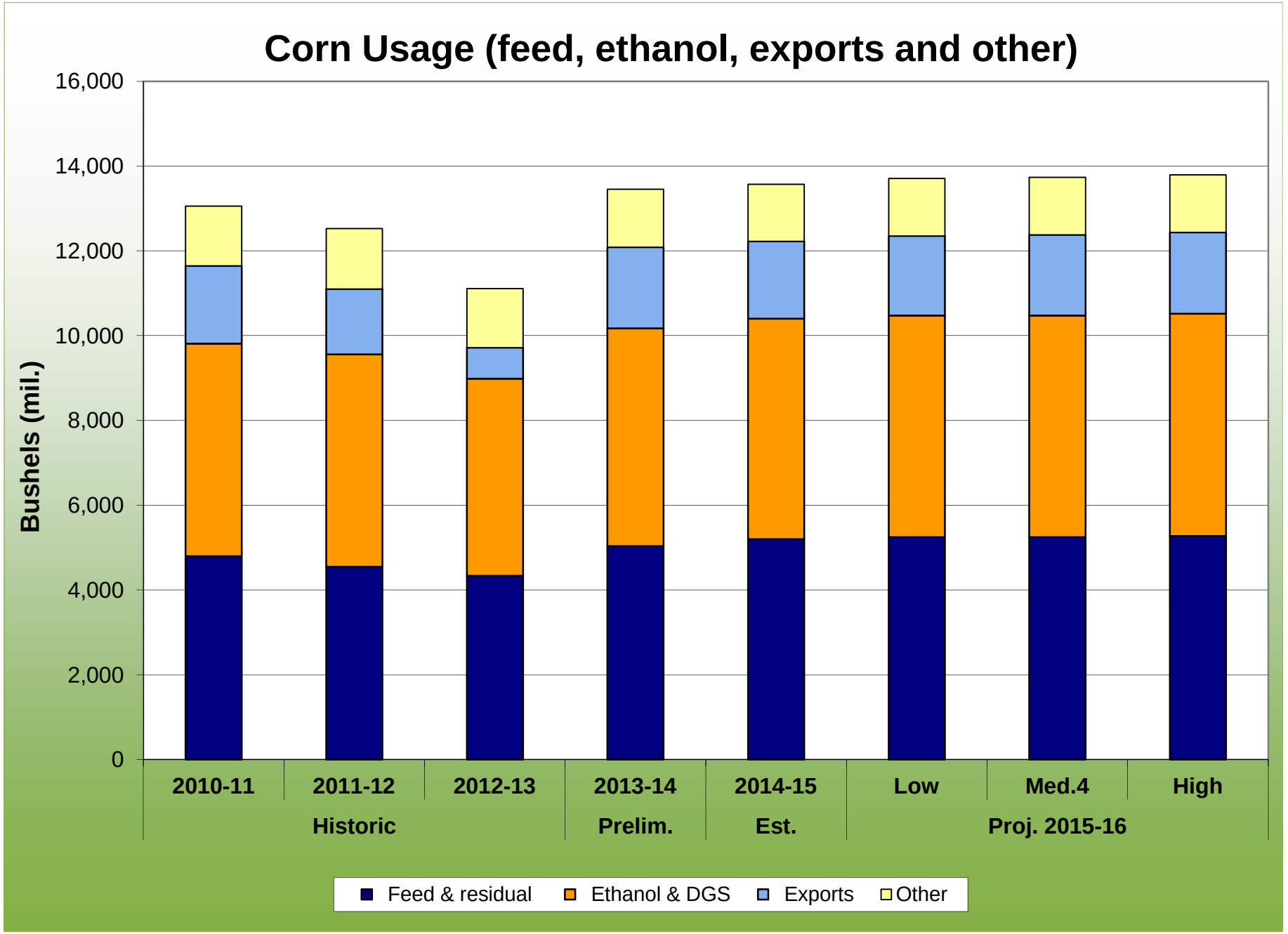
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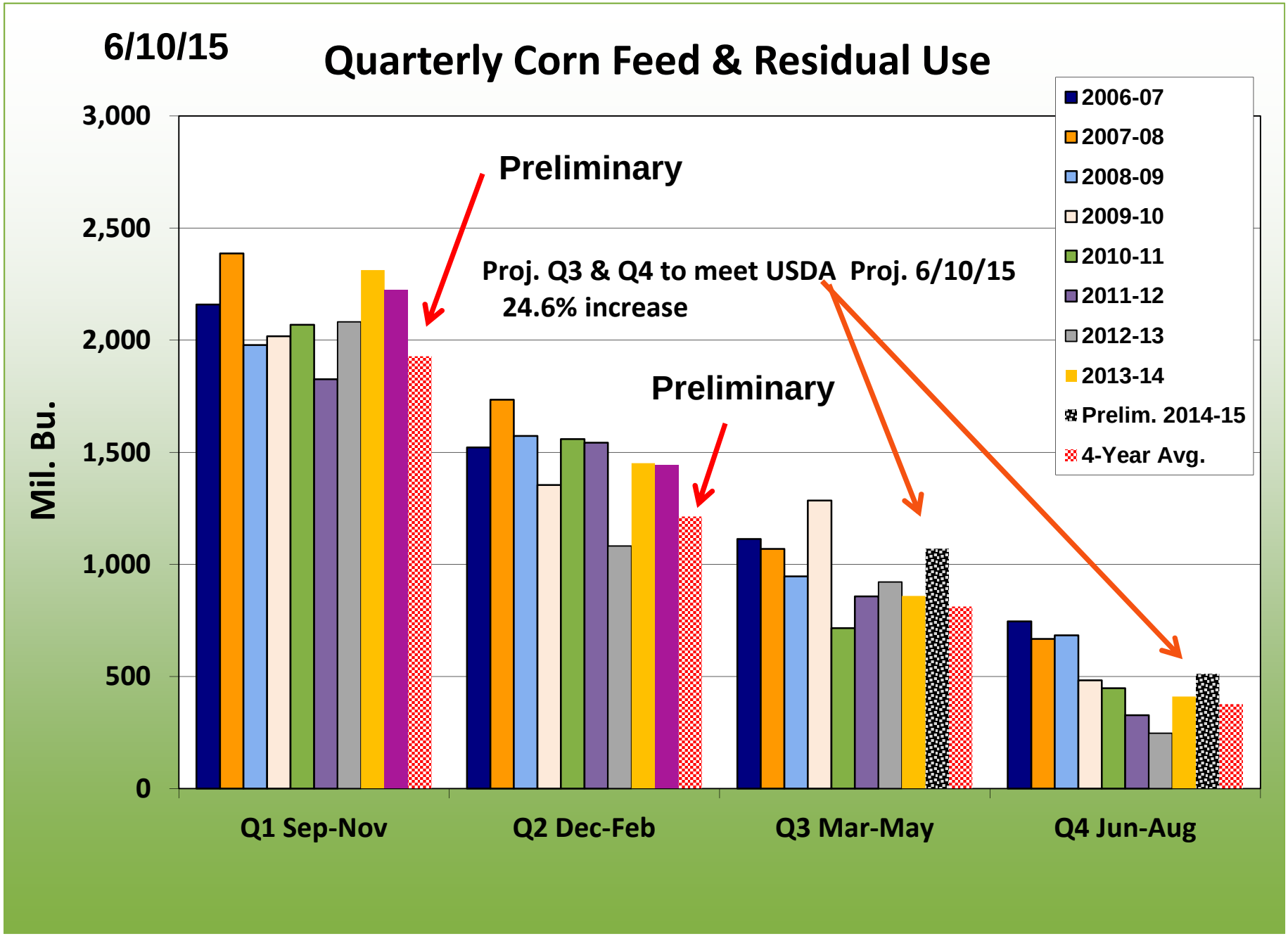
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Corn Production, Usage and Ending Carryover
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Bushels (mil.)
2010-11
2011-12
2012-13
2013-14
2014-15
Low
Med.4
High
Historic
Prelim.
Est.
Proj. 2015-16
Production
Total Usage
Ending Carryover

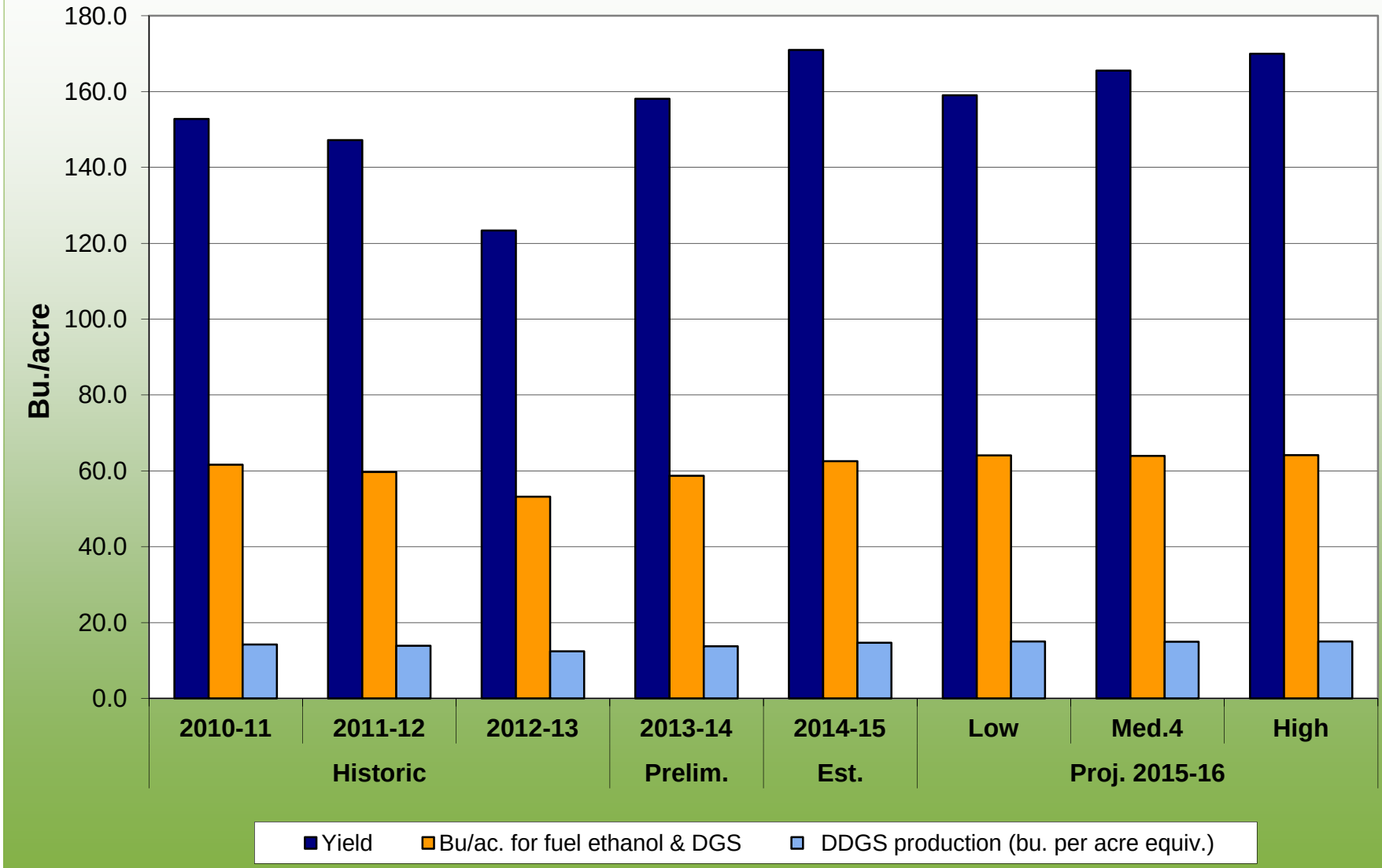
Total Corn Supply
(beginning carryover, production, imports)



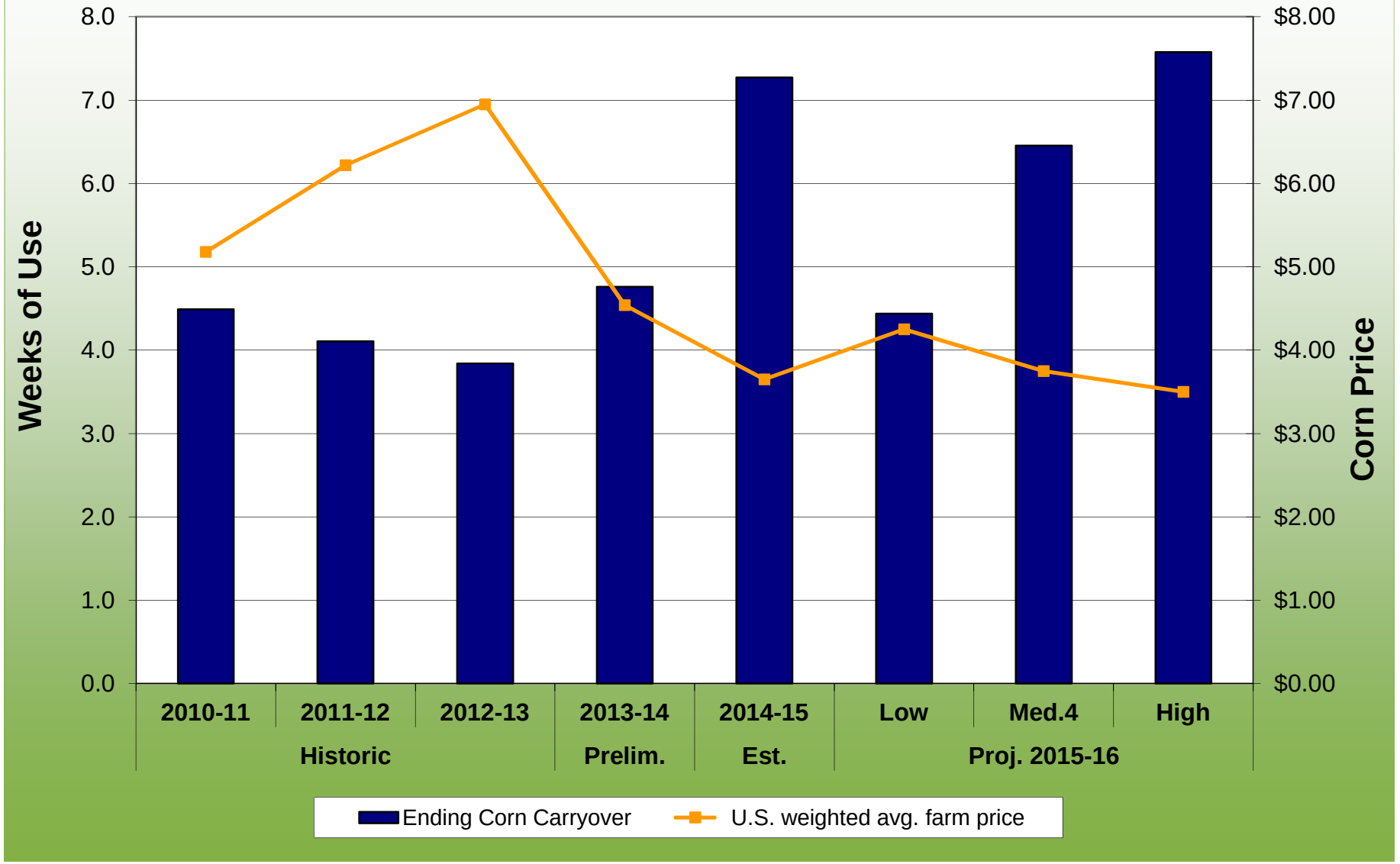

Corn Usage (feed, ethanol, exports and other)
Bushels (mil.)
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
2010-11
2011-12
2012-13
2013-14
2014-15
Low
Med.4
High
Historic
Prelim.
Est.
Proj. 2015-16
Feed & residual
Ethanol & DGS
Exports
Other


6/10/15
Quarterly Corn Feed & Residual Use
Mil. Bu.
3,000
2,500
2,000
1,500
1,000
500
0
Preliminary
Proj. Q3 & Q4 to meet USDA Proj. 6/10/15
24.6% increase
Preliminary
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
Prelim. 2014-15
4-Year Avg.
Q1 Sep-Nov
Q2 Dec-Feb
Q3 Mar-May
Q4 Jun-Aug

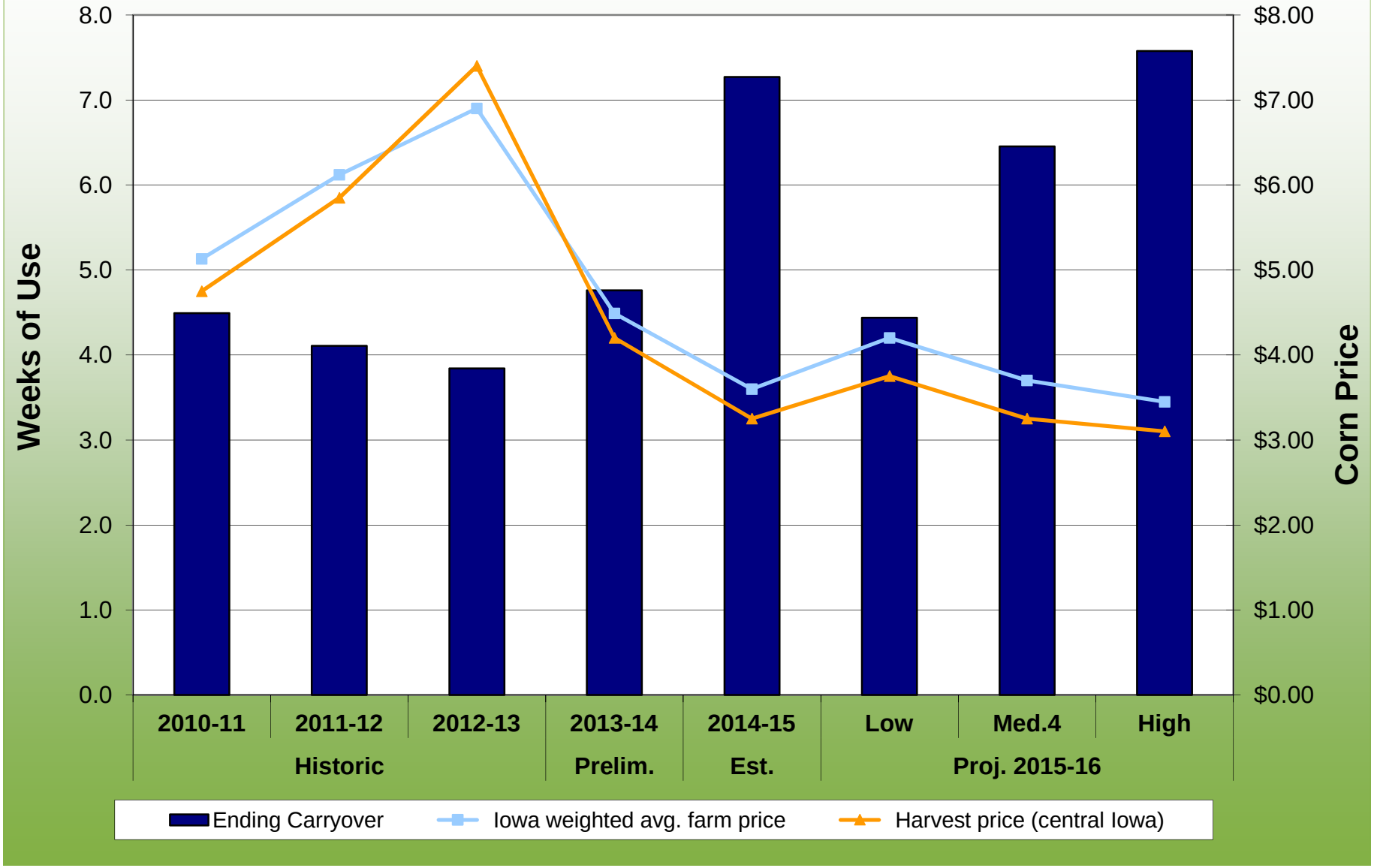
Yield, Bushels per Acre Used for Ethanol and Returned as Dried Distillers Grains



Ending Corn Carryover and the U.S. Weighted Average Farm Price



Ending Corn Carryover, Weighted Average Iowa Farm Price, and Iowa Harvest Price



U.S. Corn Yield, Alternative Long-Term Trends Through 2014 & Proj. Medium Yield for 2015

