



Soybean Oil and Biodiesel Usage Projections & Balance Sheet

Updated: 10/12/2011

Year: (production/marketing) ^{1/}
Oil Yield, lbs./ bu. of soybeans ^{2/}

Mil. Harvested Acres of U.S. Soybeans
U.S. Soybean Production, mil. bu.
U.S. Soybean Yield, per acre
U.S. Domestic Soybean Crush

SB Oil Supplies (Mil. Lbs.):
Production
Beginning carryover
Imports
Total Supply

Usage (Mil. Lbs.):

Margarine ^{3/}
Salad & cooking oils
Baking, frying fats & oils ^{3/}
Other food & industrial ^{3/}
Total food & non-biodiesel industrial
Soy oil biodiesel (methyl ester)^{4/}
Non-soy biodiesel ^{4/}
Total domestic soy oil use
Exports
Total Usage

Soybean oil use, % of biodiesel mandates

Biodiesel Usage:

Use for biodiesel, bushel equivalent
Mil. acres used for biodiesel
% of U.S. soybean acres used for biodiesel
Soybean oil for biodiesel:
% of oil from crop
% of oil from crush
% of domestic food & non-biodiesel use
% of soy oil exports
Soy + non-soy oil for biodiesel, % of mandates

Ending Carryover: (mil. lbs.)
Carryover as percent of supply
Carryover as percent of use
Weeks of use in carryover stocks

Prices:

Soy oil, \$ per cwt., marketing year avg.

	Historic			Prelim. 2009-10	Proj. 2010-11	Projected 2011-2012			Projected 2012-2013		
	2006-07	2007-08	2008-09			Low	Med.	High	Low	Med.	High
Oil Yield, lbs./ bu. of soybeans ^{2/}	11.3	11.5	11.3	11.2	11.6	11.2	11.5	11.5	11.2	11.4	11.5
Mil. Harvested Acres of U.S. Soybeans	74.6	64.1	74.7	76.4	76.6	73.4	73.7	73.8	76.4	76.7	76.7
U.S. Soybean Production, mil. bu.	3,188	2,676	2,967	3,359	3,329	2,936	3,060	3,137	3,132	3,336	3,490
U.S. Soybean Yield, per acre	42.7	41.7	39.7	44.0	43.5	40.0	41.5	42.5	41.0	43.5	45.5
U.S. Domestic Soybean Crush	1,808	1,803	1,662	1,752	1,648	1,550	1,635	1,635	1,575	1,645	1,650
SB Oil Supplies (Mil. Lbs.):											
Production	20,489	20,580	18,745	19,615	19,050	17,360	18,721	18,803	17,640	18,753	18,975
Beginning carryover	3,010	3,085	2,485	2,861	3,406	2,816	2,816	2,816	2,107	2,107	2,107
Imports	37	65	90	103	160	220	185	160	140	90	75
Total Supply	23,536	23,730	21,320	22,578	22,616	20,396	21,722	21,779	19,887	20,950	21,157
Usage (Mil. Lbs.):											
Margarine ^{3/}	961	902	770	760	775	710	770	775	700	715	715
Salad & cooking oils	8,708	9,612	10,321	9,339	9,330	9,130	9,270	9,270	8,950	9,100	9,100
Baking, frying fats & oils ^{3/}	6,225	5,271	4,445	3,883	3,860	3,900	3,925	3,930	3,800	3,820	3,850
Other food & industrial ^{3/}	(81)	(694)	(1,292)	151	485	300	450	10	150	200	220
Total food & non-biodiesel industrial	15,813	15,091	14,244	14,134	14,450	14,040	14,415	13,985	13,600	13,835	13,885
Soy oil biodiesel (methyl ester) ^{4/}	2,762	3,245	2,021	1,680	2,500	3,450	3,500	3,550	3,650	3,800	3,850
Non-soy biodiesel ^{4/}	425	503	2,166	3,654	4,716	4,560	4,510	4,460	5,350	5,200	5,150
Total domestic soy oil use	18,575	18,335	16,265	15,814	16,600	17,490	17,915	17,535	17,250	17,635	17,735
Exports	1,877	2,911	2,193	3,359	3,200	1,500	1,700	1,775	1,550	1,700	1,775
Total Usage	20,451	21,246	18,458	19,173	19,800	18,990	19,615	19,310	18,800	19,335	19,510
Soybean oil use, % of biodiesel mandates	Not Applicable			23.9%	36.4%	43.1%	43.7%	44.3%	40.6%	42.2%	42.8%
Biodiesel Usage:											
Use for biodiesel, bushel equivalent	244	281	179	150	216	308	306	309	326	333	335
Mil. acres used for biodiesel	5.72	6.74	4.51	3.42	4.98	7.70	7.36	7.26	7.95	7.66	7.36
% of U.S. soybean acres used for biodiesel	7.7%	10.5%	6.0%	4.5%	6.5%	10.5%	10.0%	9.8%	10.4%	10.0%	9.6%
Soybean oil for biodiesel:											
% of oil from crop	7.7%	10.5%	6.0%	4.5%	6.5%	10.5%	10.0%	9.8%	10.4%	10.0%	9.6%
% of oil from crush	13.5%	15.8%	10.8%	8.6%	13.1%	19.9%	18.7%	18.9%	20.7%	20.3%	20.3%
% of domestic food & non-biodiesel use	17.5%	21.5%	14.2%	11.9%	17.3%	24.6%	24.3%	25.4%	26.8%	27.5%	27.7%
% of soy oil exports	147.2%	111.5%	92.2%	50.0%	78.1%	230.0%	205.9%	200.0%	235.5%	223.5%	216.9%
Soy + non-soy oil for biodiesel, % of mandates	88%			93%	103%	100%	105%	100%	100%	100%	100%
Ending Carryover: (mil. lbs.)	3,085	2,485	2,861	3,406	2,816	1,406	2,107	2,469	1,087	1,615	1,647
Carryover as percent of supply	13.1%	10.5%	13.4%	15.1%	12.5%	6.9%	9.7%	11.3%	5.5%	7.7%	7.8%
Carryover as percent of use	15.1%	11.7%	15.5%	17.8%	14.2%	7.4%	10.7%	12.8%	5.8%	8.4%	8.4%
Weeks of use in carryover stocks	7.8	6.1	8.1	9.2	7.4	3.9	5.6	6.6	3.0	4.3	4.4
Prices:											
Soy oil, \$ per cwt., marketing year avg.	\$31.00	\$52.03	\$32.16	\$35.95	\$53.25	\$57.50	\$55.00	\$53.50	\$63.00	\$57.00	\$55.00

By Dr. Robert Wisner, biofuels economist, 1-515-294-4275, rwwisner@iastate.edu

Notes:

- ^{1/} Marketing year starts at October 1 of the production year and ends September 30 of the following year, one month later than the soybean marketing year.
- ^{2/} Oil yield for medium-yield soybean crop in 2011-12 is near the 2001-06 average, with a slight increase for assumed good crop growing conditions. Actual oil yield varies with weather.
- ^{3/} Estimated, since published data are not available after 2007-08. Other industrial includes possible statistical errors.
- ^{4/} Non-soy biodiesel is estimated from U.S. Department of Energy, Energy Information Administration monthly data for 2006-07 through 2008-09. Data for later years are tentative projections by Robert Wisner. The DOE monthly data are available at http://www.eia.doe.gov/mer/pdf/pages/sec10_8.pdf.

Key Balance Sheet Assumptions:

1. No changes in Conservation Reserve Program.
2. Crude oil (petroleum) price stays in \$75-\$90/barrel range for the rest of 2011, then gradually increases in the next two years.
3. U.S. ethanol & biodiesel mandates are unchanged & enforced.
4. U.S. & World economies have slowing growth through 2011, then accelerate slightly in 2012 & 2013
5. U.S. dollar gradually decreases relative to foreign currencies through 2013

Data Sources:

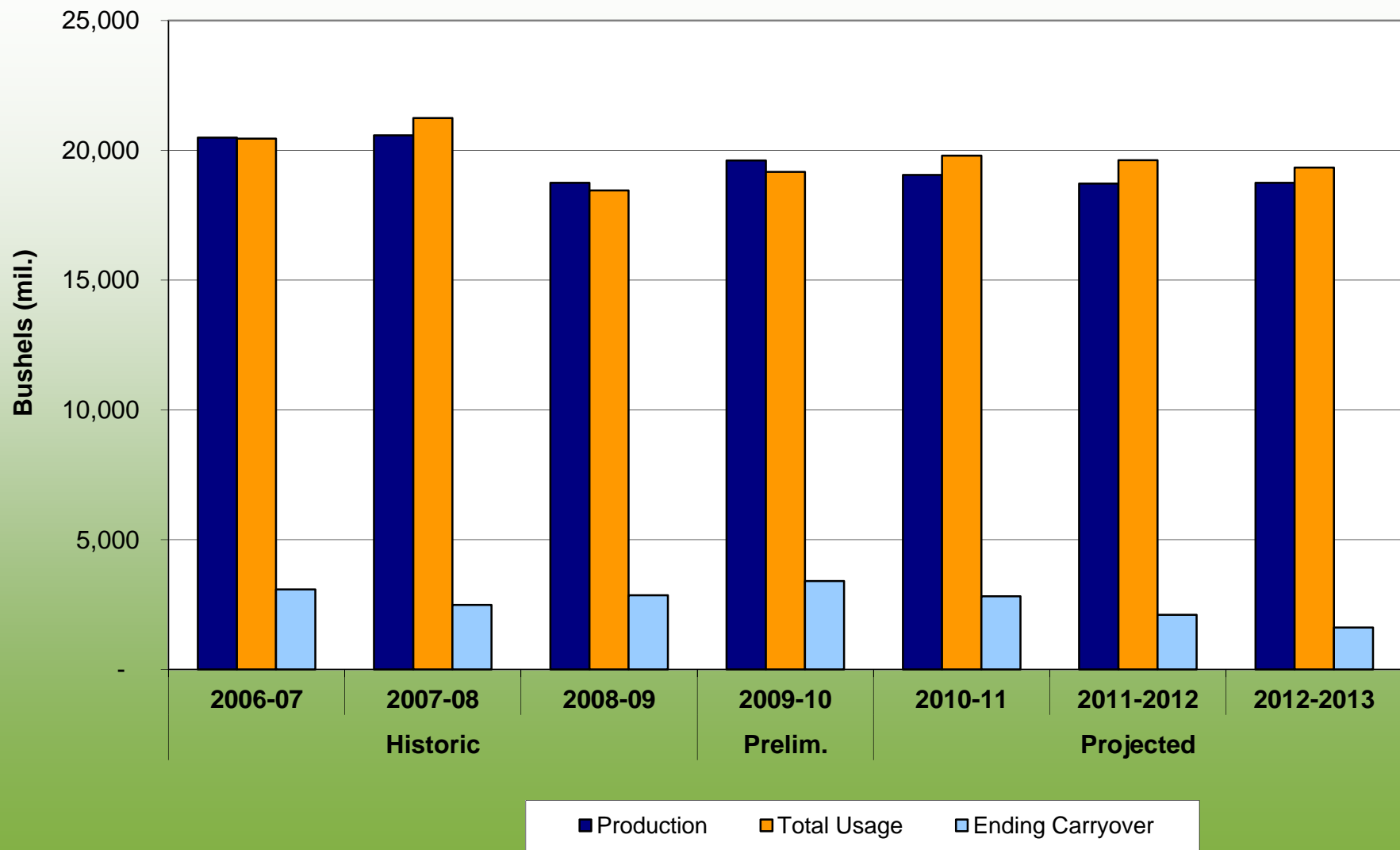
USDA, Economic Research Service, *Oil Crops Yearbook: Data Set* that is available at <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1290>
U.S. Census Bureau, *Census of Manufacturing: http://www.census.gov/manufacturing/cir/historical_data/m311k/index.html*
and the *World Agriculture Supply Demand Reports* that are available at <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1194>
Projections are by Wisner

... and justice for all

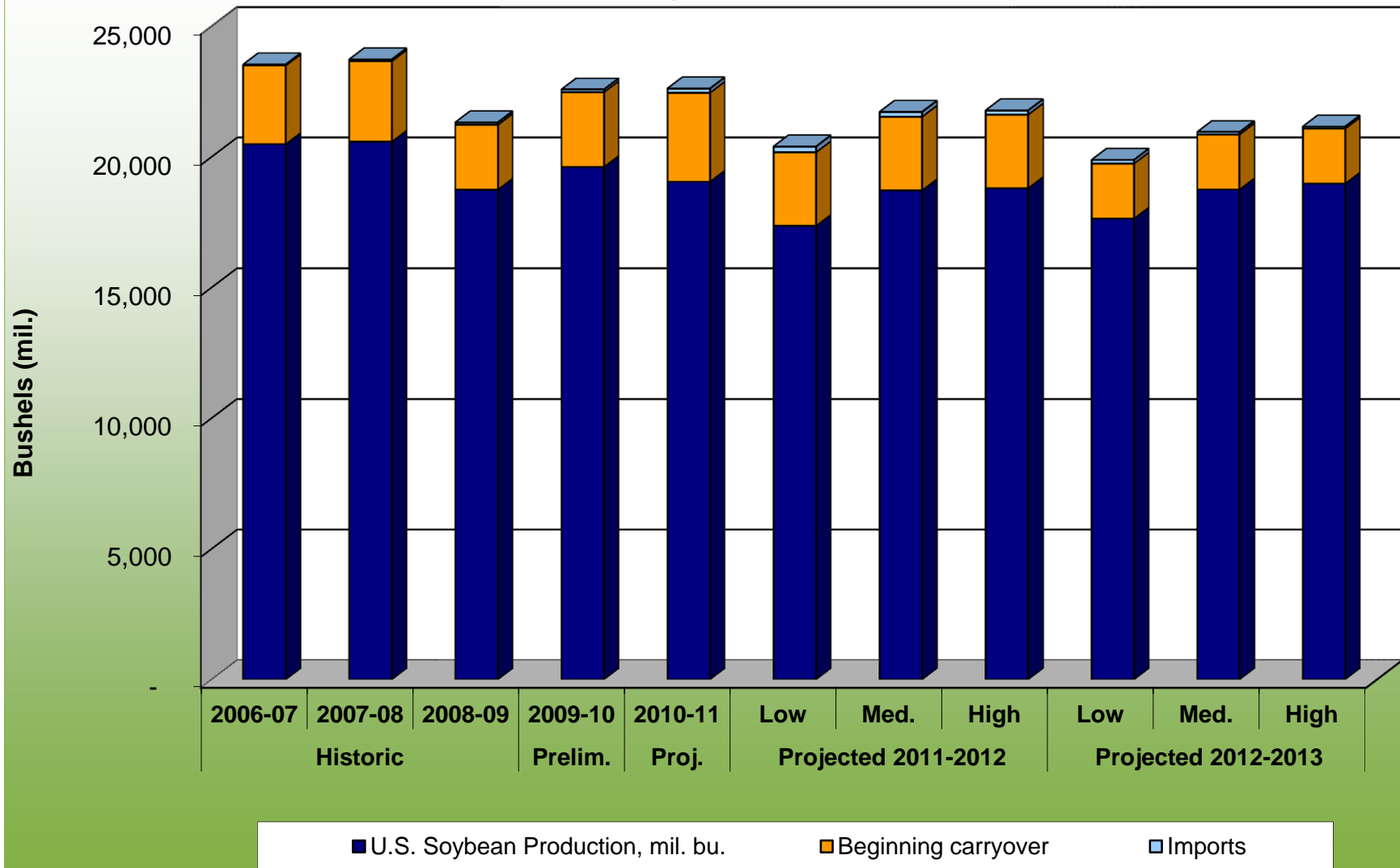
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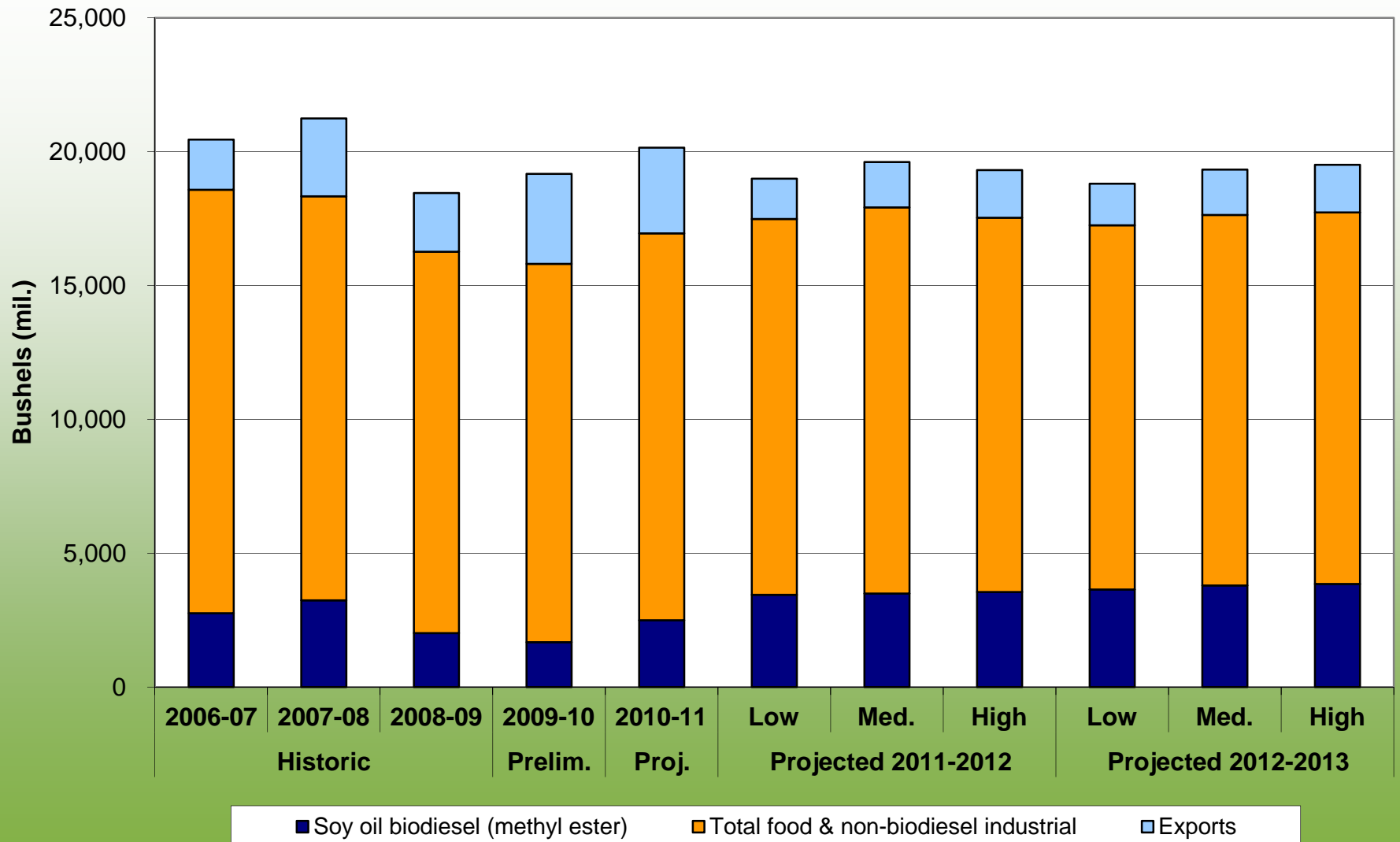
Soybean Oil Production, Usage, and Carryover



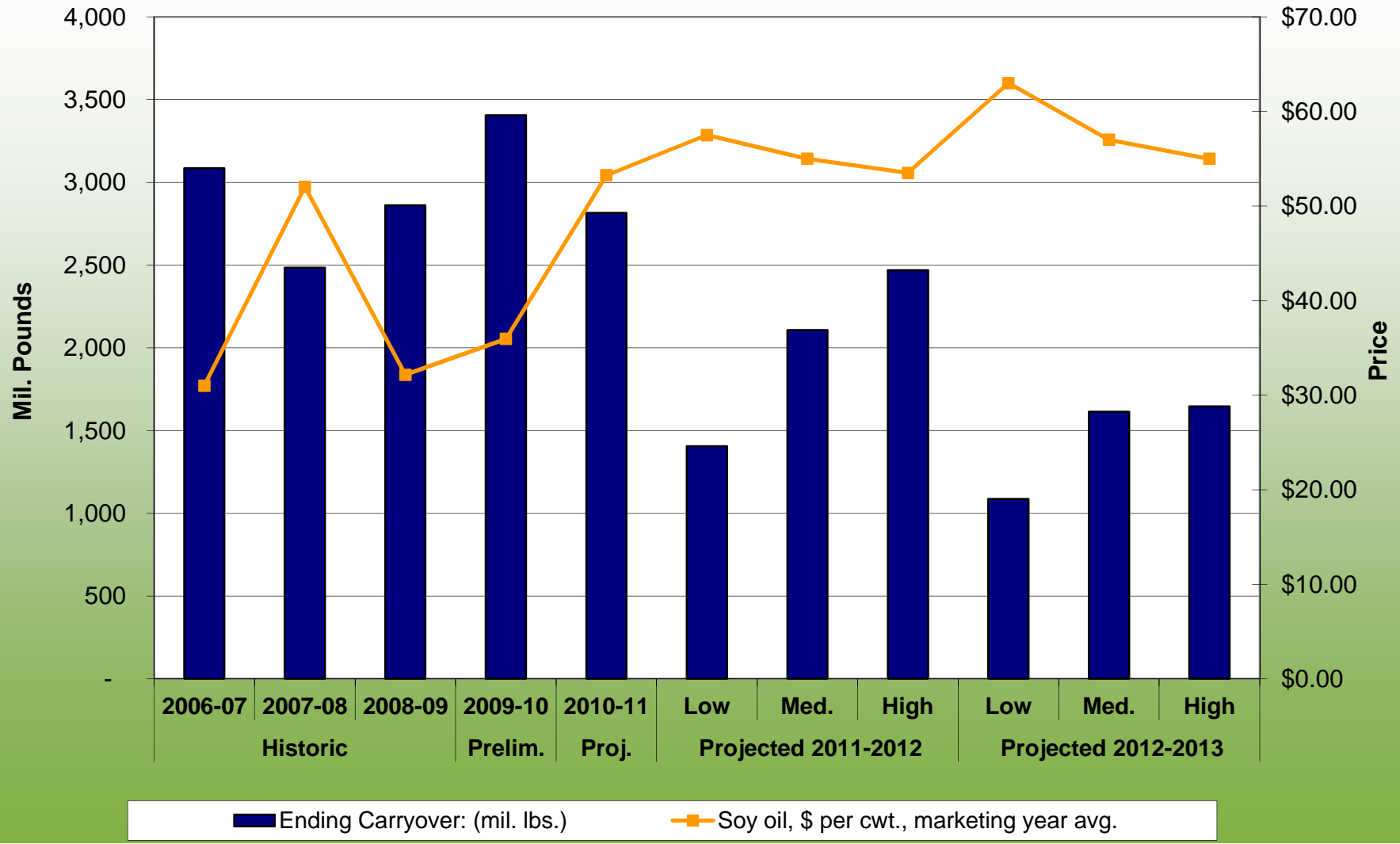
Yearly Production and Beginning Carryover for Soybean Oil



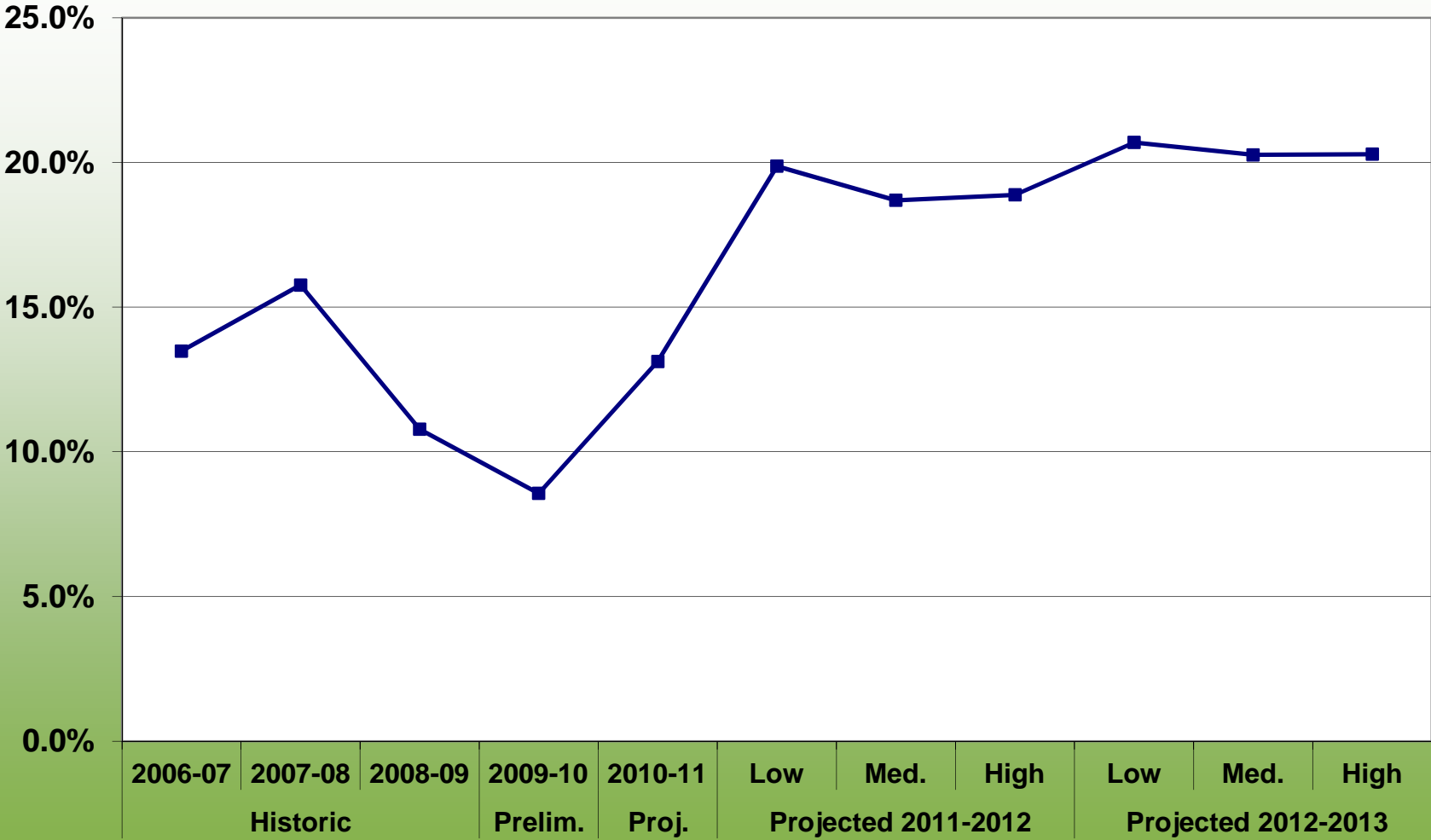
Usage of Soybean Oil and Biodiesel



Ending Soybean Oil Carryover and Price



Soybean Oil for Biodiesel, Percent of Crush



Mil. Lbs. Soybean Oil Requirements for Biodiesel in the December 2007 U.S. Energy Bill with 50% of Biodiesel Feedstock from Soy Oil

