

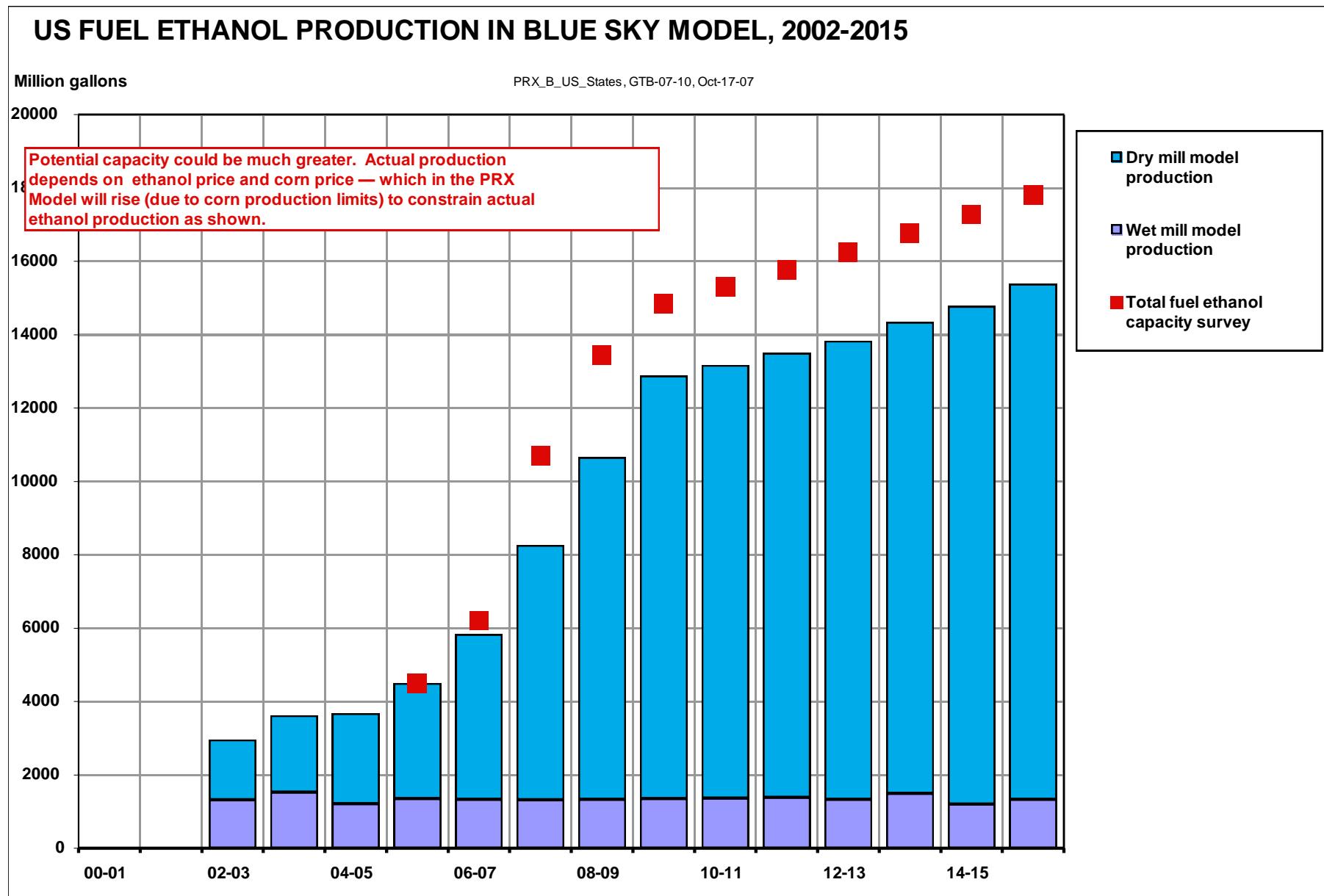
# The Fertilizer Institute Fertilizer Outlook and Technology Conference

## The Outlook for Biofuels

**November 6, 2007**

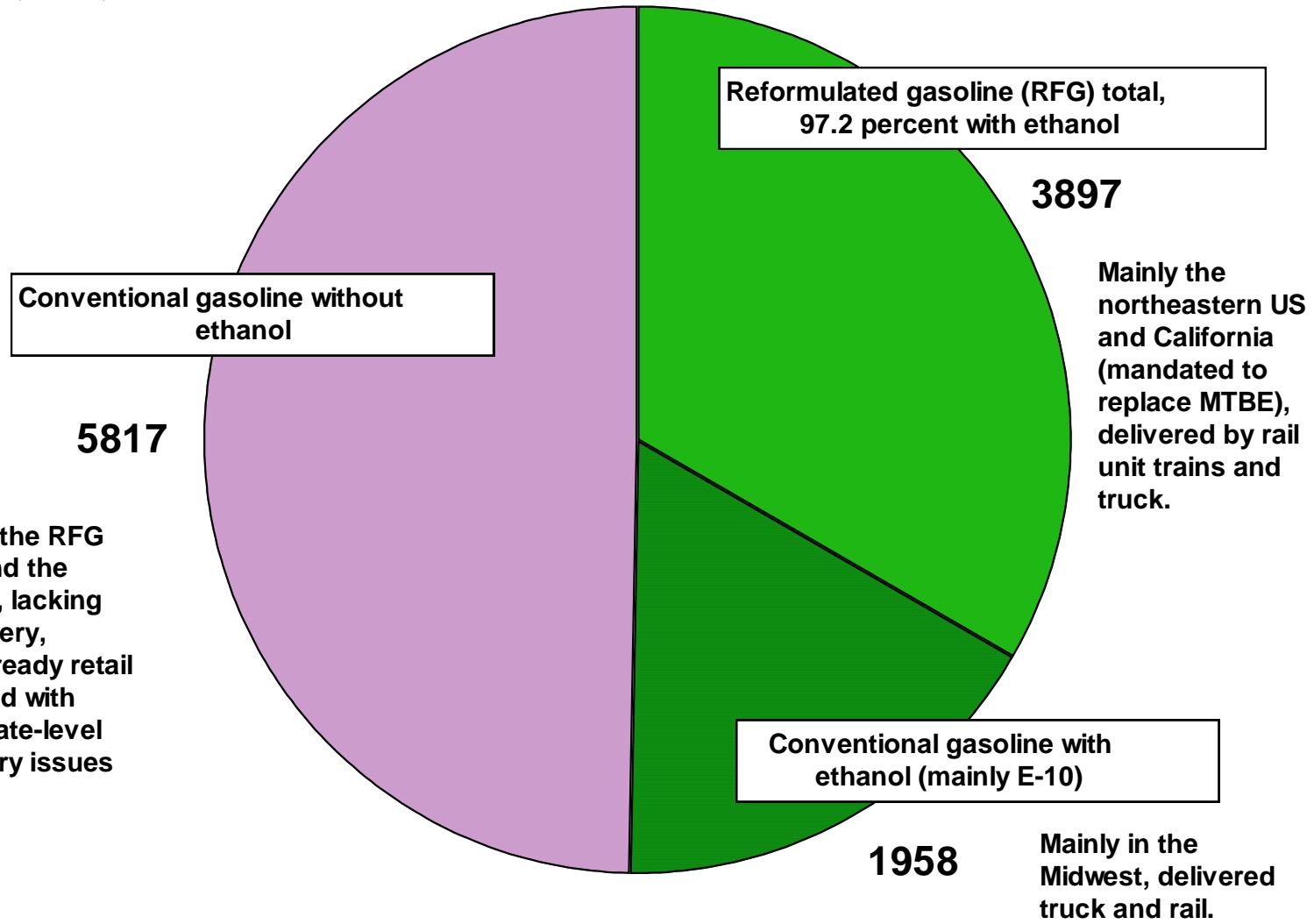
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## BS-2 Corn Ethanol Expansion



## US MOTOR GASOLINE with and without ETHANOL, Jul-07, Monthly Total of 11671 Million Gallons

PRX\_EthanolPrdn, GTB-07-09, Oct-02-07



# US ETHANOL INDUSTRY MODEL RETURNS\* & US OUTPUT

PRX\_HolbrookModel4\_2006px, GTB-07-08r, Sep-05-07

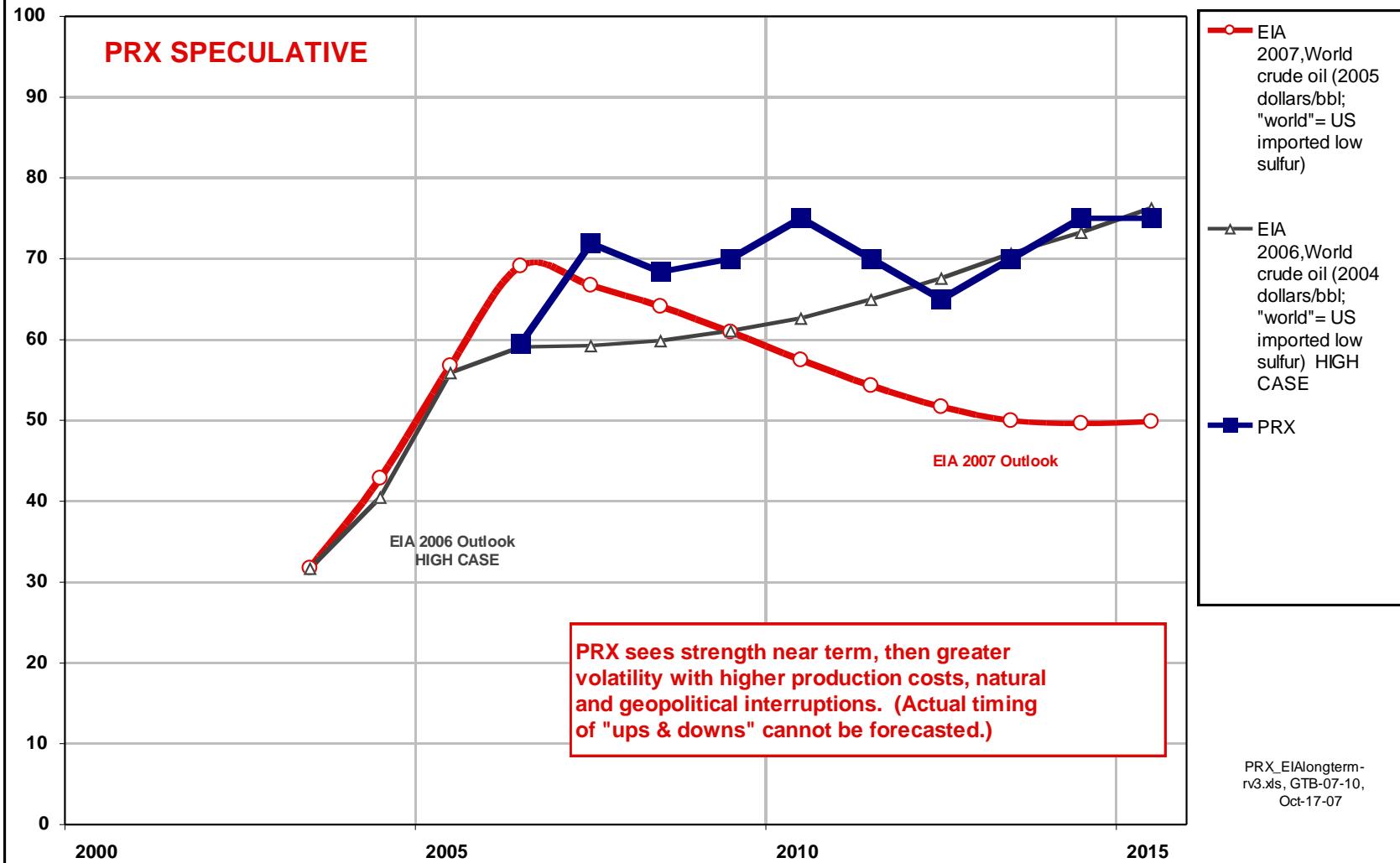
Item	Unit	Crop Year (Sep-Aug)					YTD 07-08
		02-03	03-04	04-05	05-06	06-07	
<b><u>Production Costs, Commodity Specific Values</u></b>							
Corn (Farm Price)	\$/bu	2.32	2.50	2.05	2.01	3.13	<b>3.19</b>
Natural Gas	\$/mmBtu	5.00	5.33	6.57	8.17	6.51	<b>6.00</b>
<b><u>Output Value</u></b>							
Ethanol (US Spot, RFN)	\$/gal	1.15	1.52	1.51	2.49	2.06	<b>1.57</b>
DDGS	\$/ston	102	105	75	81	105	<b>100</b>
<b><u>Production Costs, Converted to Dollars per Gallon, 40 mil gal plant</u></b>							
Corn	\$/gal	0.83	0.89	0.73	0.72	1.12	<b>1.14</b>
Natural Gas	\$/gal	0.17	0.18	0.22	0.28	0.22	<b>0.20</b>
Other operating costs	\$/gal	0.20	0.20	0.20	0.20	0.21	<b>0.23</b>
Interest & depreciation	\$/gal	<u>0.22</u>	<u>0.22</u>	<u>0.22</u>	<u>0.22</u>	<u>0.23</u>	<u>0.25</u>
Total Cost	\$/gal	1.42	1.49	1.38	1.42	1.78	<b>1.82</b>
<b><u>Output Value</u></b>							
Ethanol	\$/gal	1.15	1.52	1.51	2.49	2.06	<b>1.57</b>
DDGS	\$/gal	<u>0.31</u>	<u>0.32</u>	<u>0.23</u>	<u>0.25</u>	<u>0.32</u>	<u>0.30</u>
Total Value	\$/gal	1.46	1.84	1.73	2.73	2.38	<b>1.87</b>
<b><u>Return to Capital</u></b>							
Without state incentives	\$/gal	0.04	0.35	0.36	1.32	0.59	<b>0.05</b>

ROI declined in crop year 06-07, but was still very solid. Picture for 07-08 much lower!

BS-1 Energy Outlook**CRUDE OIL PRICE OUTLOOK, EIA & PRX**

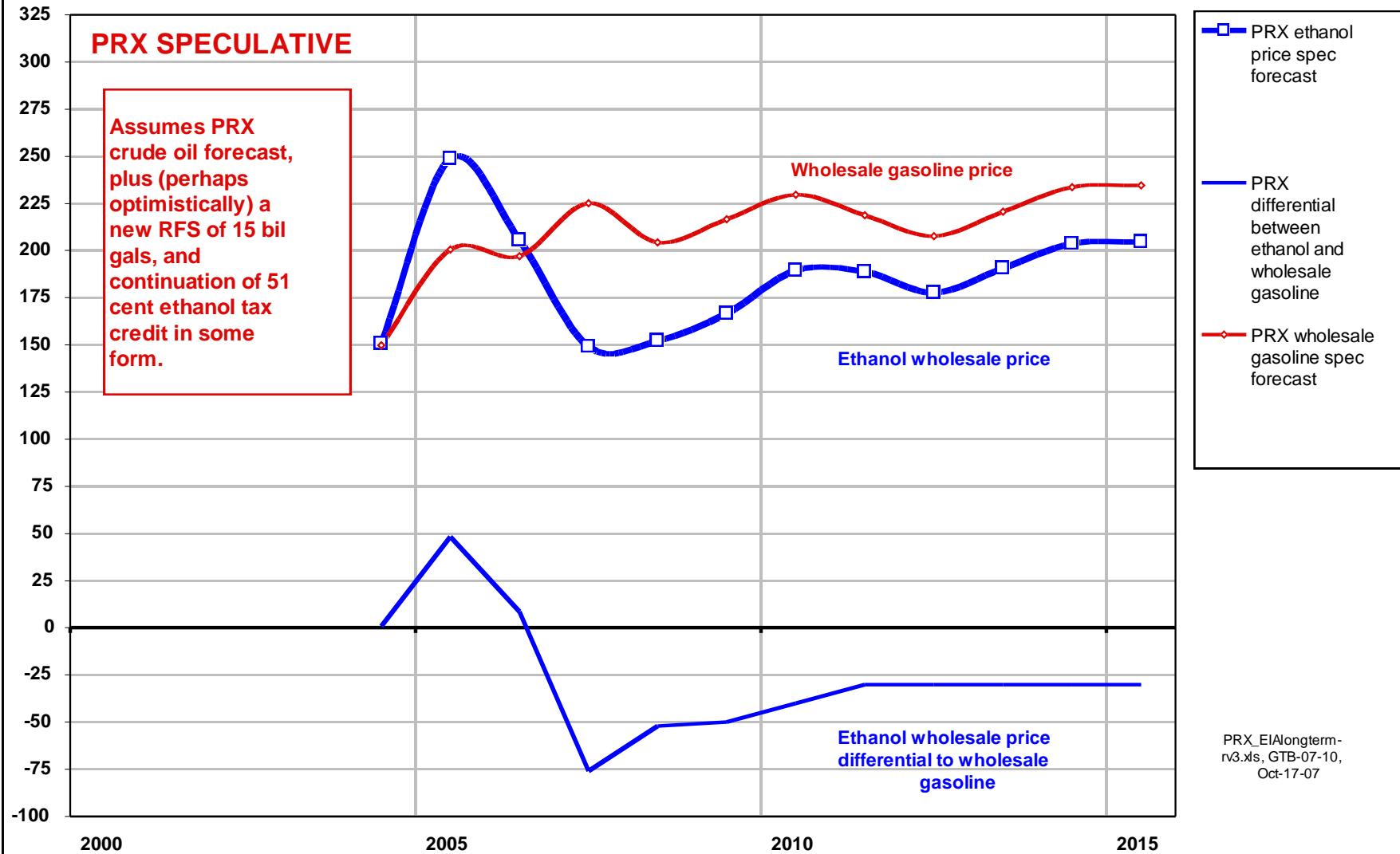
Energy Information Administration (EIA), US DOE, Annual Energy Outlook (AEO)

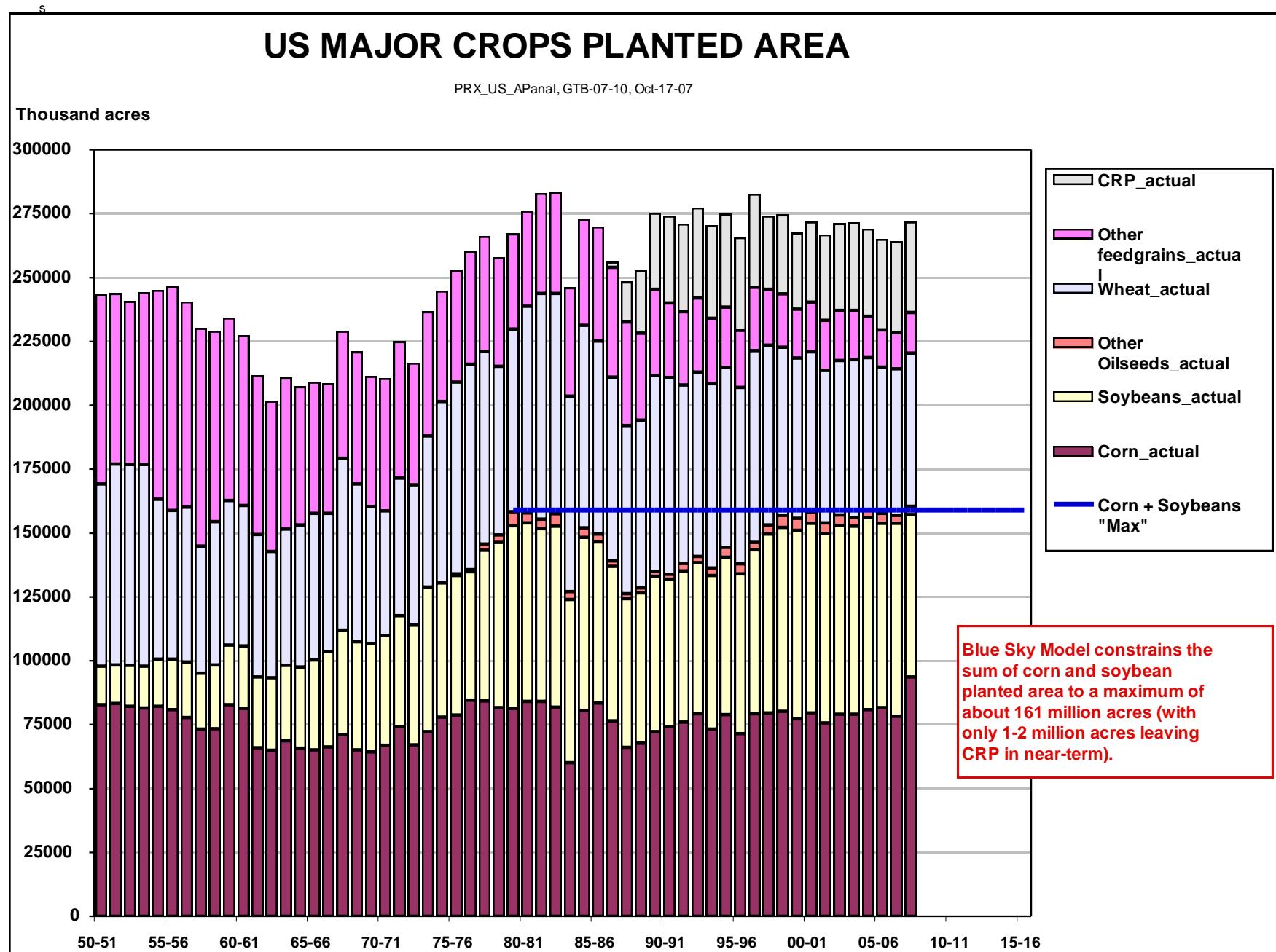
Dollars per barrel, inflation-adjusted to earliest year shown

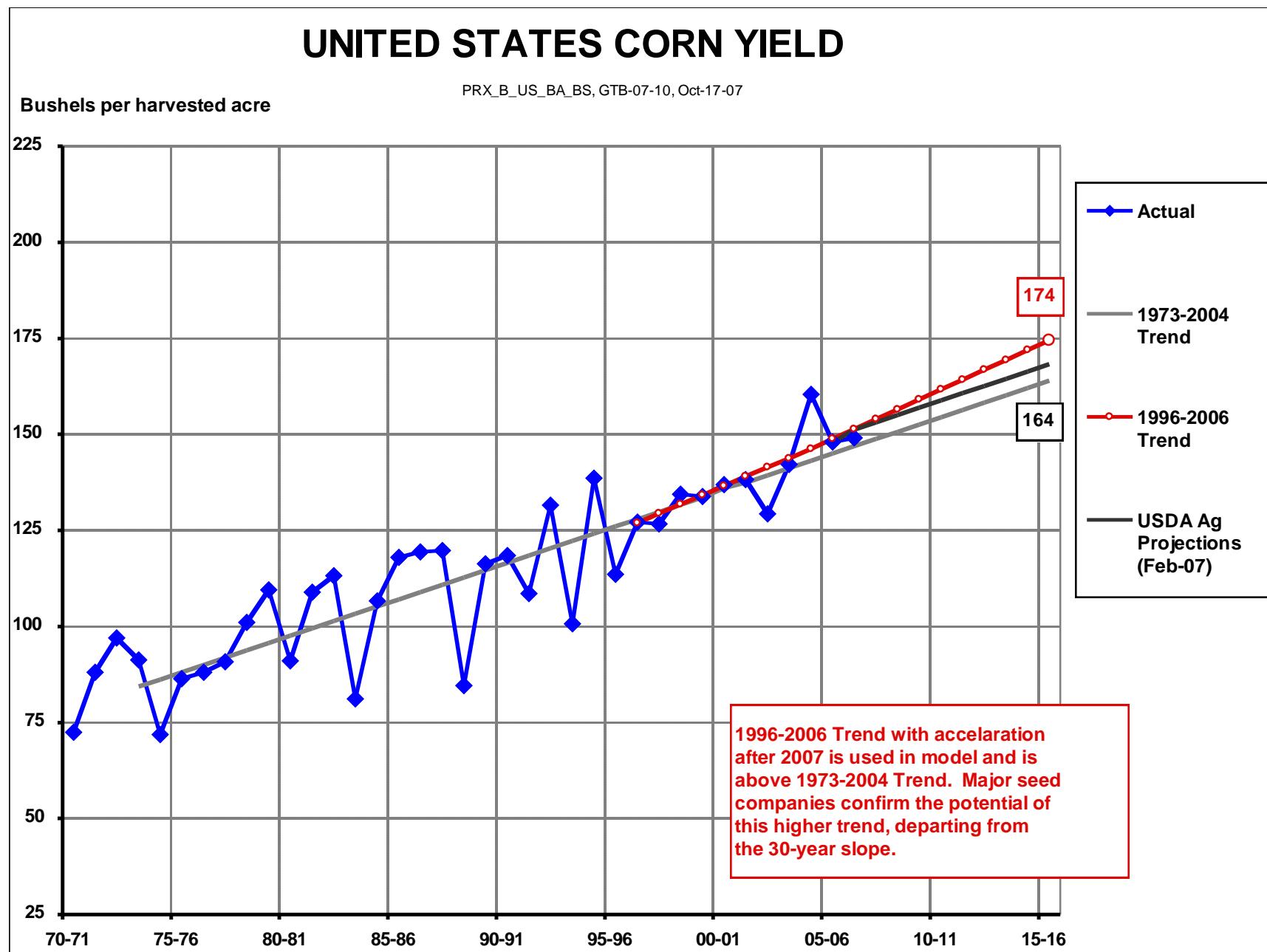


## US MOTOR GASOLINE WHOLESALE PRICE vs. ETHANOL WHOLESALE PRICE, with PRX SPECULATIVE FORECAST

Cents per gallon

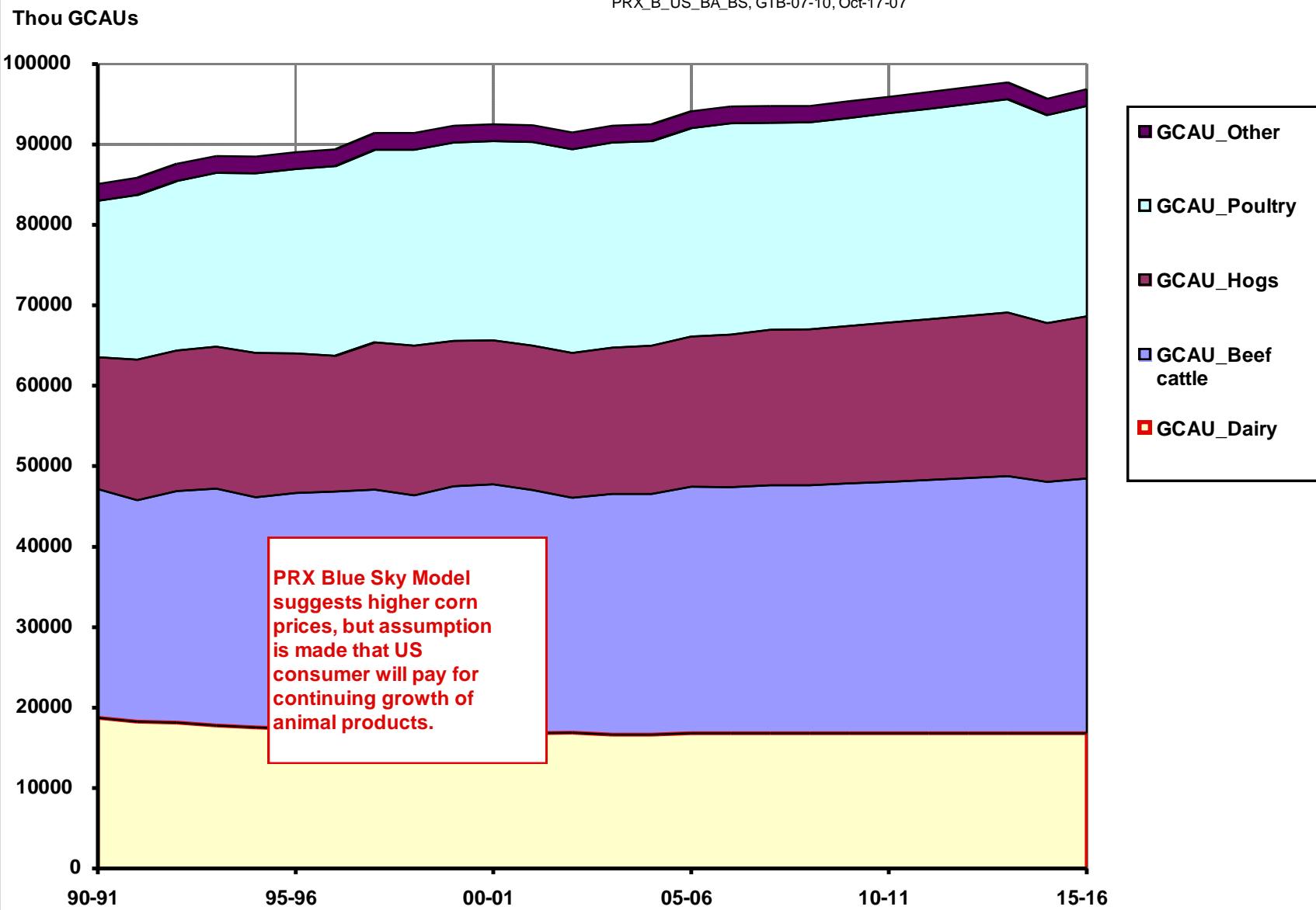






## US GRAIN CONSUMING ANIMAL UNITS, 1990-2015

PRX\_B\_US\_BA\_BS, GTB-07-10, Oct-17-07



## UNITED STATES CORN SUPPLY-DEMAND

PRX\_B\_US\_BA\_BS, GTB-07-10, Oct-17-07

Item	Unit	Crop year (Sep-Aug)										
		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
Carry-in	mil bu	2114	1967	1304	2162	1673	1190	1023	648	565	574	448
Area planted	thou ac	81779	78327	93616	87598	91259	91549	91726	92724	93724	93726	93726
Area harvested	thou ac	75117	70648	86071	80459	83732	84051	84168	85043	85919	86304	86266
Yield	bu/ac	148.0	149.1	154.7	156.9	158.7	166.6	165.6	170.5	172.3	160.4	176.2
Production	mil bu	11114	10535	13318	12622	13284	14005	13939	14502	14801	13843	15197
Supply	mil bu	13238	12512	14637	14794	14967	15205	14972	15160	15377	14427	15655
Carry-out	mil bu	1967	1304	2162	1673	1190	1023	648	565	574	448	511
	pct use	17.5%	11.6%	17.3%	12.8%	8.6%	7.2%	4.5%	3.9%	3.9%	3.2%	3.4%
Disappearance (Use)	mil bu	11271	11208	12475	13121	13777	14182	14324	14595	14803	13979	15144
Feed/Residual Use	mil bu	6155	5602	5800	5525	5325	5575	5600	5750	5775	5450	5750
Processing Use	mil bu	2975	3483	4375	5246	6052	6157	6274	6395	6578	6729	6944
of which, Fuel ethanol	mil bu	1648	2129	3010	3871	4666	4760	4867	4976	5148	5288	5492
	mil gal	4501	5829	8000	10654	12874	13167	13495	13833	14347	14775	15382
Domestic Use	mil bu	9130	9085	10175	10771	11377	11732	11874	12145	12353	12179	12694
Foreign Exports (Minus = exports from US)	mil bu	-2141	-2124	-2300	-2350	-2400	-2450	-2450	-2450	-2450	-1800	-2450
With sum of corn & soy area held to max of about 160 mil ac, ethanol and export use constrained by high corn price.												
US Farm Price, hist-model	cts/bu	190	304	320	243	262	281	308	321	335	358	364
US Farm Price, spec*	cts/bu	190	304	320	325	325	340	350	375	375	375	375
*Corn price required at PRX forecast ethanol prices to reduce ethanol ROI model to near zero, idling some capacity.												
Idled vs. Jan-07 Survey	mil gal (pct)	0 (0 %)	2700 (25 %)	2790 (21 %)	1970 (13 %)	2130 (14 %)	2270 (14 %)	2420 (15 %)	2410 (14 %)	2490 (14 %)	2420 (14 %)	2420 (14 %)
See following pages for the difference between the historical model of corn price and the Spec estimate.												

## UNITED STATES CORN SUPPLY-DEMAND DETAIL

PRX\_B\_US\_BA\_BS, GTB-07-10, Oct-17-07

Item	Unit	Crop year (Sep-Aug)										
		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
Carry-in	mil bu	2114	1967	1304	2162	1673	1190	1023	648	565	574	448
Production	mil bu	11114	10535	13318	12622	13284	14005	13939	14502	14801	13843	15197
Supply	mil bu	13238	12512	14637	14794	14967	15205	14972	15160	15377	14427	15655
Carry-out	mil bu	1967	1304	2162	1673	1190	1023	648	565	574	448	511
Disappearance (Use)	mil bu	11271	11208	12475	13121	13777	14182	14324	14595	14803	13979	15144
Residual use	mil bu	1056	527	1091	1051	1179	1361	1369	1450	1471	1333	1598
Feed use in state of which,	mil bu	5099	5075	4709	4474	4146	4214	4231	4300	4304	4117	4152
Dairy	mil bu	910	900	834	793	730	738	736	744	740	723	720
Beef cattle	mil bu	1660	1640	1532	1455	1350	1374	1380	1405	1407	1345	1359
Hogs	mil bu	1012	1016	962	915	851	868	875	893	897	850	864
Poultry	mil bu	1404	1407	1277	1213	1124	1143	1148	1166	1167	1110	1120
Other	mil bu	113	112	104	98	91	92	91	92	92	90	89
Processing in US of which,	mil bu	2975	3483	4375	5246	6052	6157	6274	6395	6578	6729	6944
Dry mill fuel ethanol	mil bu	1152	1642	2529	3386	4176	4265	4367	4498	4611	4858	5016
	mil gals	3147	4495	6942	9318	11521	11798	12110	12504	12850	13574	14049
DDG production	thou mt	8353	11905	18342	24565	30300	30949	31687	32638	33455	35251	36395
Corn displcd by DDG	mil bu	342	510	793	1069	1328	1319	1323	1349	1357	1414	1438
Wet mill fuel ethanol	mil bu	496	487	481	486	490	495	500	478	537	430	476
	mil gals	1355	1334	1320	1336	1353	1369	1386	1329	1497	1201	1333
Total fuel ethanol	mil bu	1648	2129	3010	3871	4666	4760	4867	4976	5148	5288	5492
	mil gals	4501	5829	8262	10654	12874	13167	13495	13833	14347	14775	15382
Total domestic use	mil bu	9130	9085	10175	10771	11377	11732	11874	12145	12353	12179	12694
Foreign Exports of Corn	mil bu	-2141	-2124	-2300	-2350	-2400	-2450	-2450	-2450	-2450	-1800	-2450
Foreign Exports of DDG	thou mt	-1200	-1500	-1889	-2400	-3050	-3700	-4350	-5000	-5650	-6300	-6950
DDG Export Corn Displ	mil bu	-57	-74	-91	-116	-149	-179	-210	-244	-276	-308	-339
Corn & DDG exports	mil bu	-2199	-2197	-2391	-2466	-2549	-2629	-2660	-2694	-2726	-2108	-2789

## ETHANOL DRY MILL ROI in BLUE SKY MODEL

PRX\_ROI\_Revised, GTB-07-10, Oct-20-07

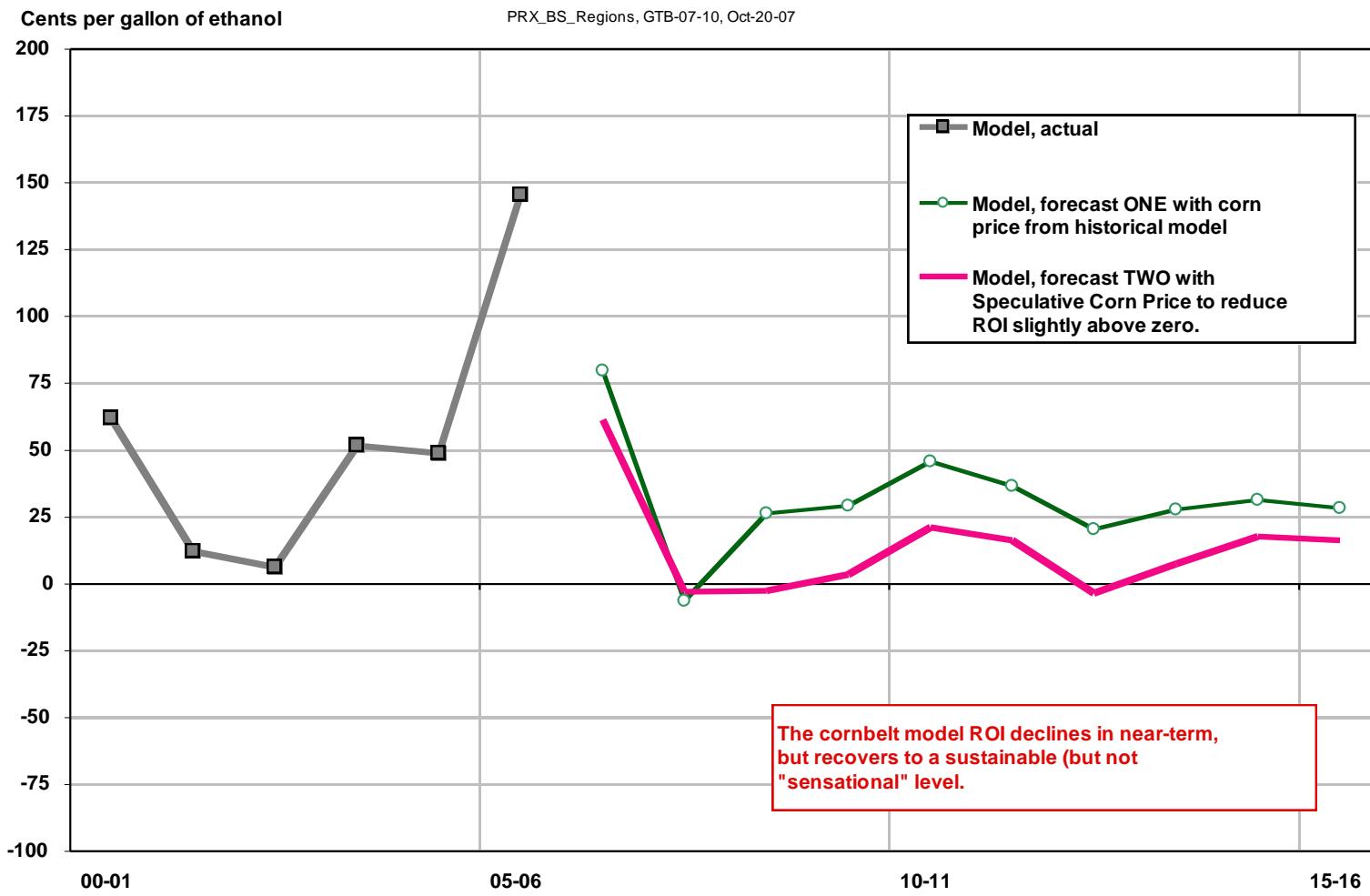
Crop Year	Price History & Assumptions				Calculations							Note	
	Corn (\$/bu)	Natural Gas (\$/mcf)	Ethanol (\$/gal)	DDGS (\$/ton)	Corn (\$/gal)	Natural Gas (\$/gal)	Ethanol (\$/gal)	DDGS (\$/gal)	Other Costs (\$/gal)	Return to Var (\$/gal)	Int & Depr (\$/gal)	Return (\$/gal)	
00-01	1.85	5.09	1.58	84.47	0.66	0.17	1.58	0.26	0.19	0.81	0.20	0.61	1.28
01-02	1.97	2.60	1.09	82.35	0.70	0.09	1.09	0.25	0.20	0.35	0.22	0.13	1.17
02-03	2.32	5.00	1.15	101.89	0.83	0.17	1.15	0.31	0.20	0.26	0.22	0.04	1.23
03-04	2.42	5.33	1.52	105.45	0.86	0.18	1.52	0.32	0.20	0.60	0.22	0.38	1.22
04-05	2.05	6.57	1.51	74.82	0.73	0.22	1.51	0.23	0.20	0.58	0.22	0.36	1.02
05-06	2.00	8.17	2.49	80.80	0.71	0.28	2.49	0.25	0.20	1.54	0.22	1.32	1.13
06-07	3.04	6.86	2.06	105.37	1.09	0.23	2.06	0.32	0.21	0.85	0.23	0.61	0.97
07-08	3.20	7.47	1.54	100.53	1.14	0.25	1.54	0.31	0.23	0.22	0.25	-0.03	0.95
08-09	3.25	8.23	1.59	105.63	1.16	0.28	1.59	0.32	0.24	0.23	0.26	-0.02	0.91
09-10	3.25	8.13	1.67	100.98	1.16	0.28	1.67	0.31	0.24	0.30	0.26	0.04	0.87
10-11	3.40	7.83	1.90	100.79	1.21	0.27	1.90	0.31	0.25	0.48	0.27	0.21	0.83
11-12	3.50	7.44	1.89	98.75	1.25	0.25	1.89	0.30	0.25	0.43	0.27	0.16	0.79
12-13	3.75	7.29	1.78	100.45	1.34	0.25	1.78	0.30	0.26	0.24	0.28	-0.03	0.75
13-14	3.75	7.09	1.91	95.09	1.34	0.24	1.91	0.29	0.26	0.35	0.28	0.07	0.71
14-15	3.75	7.12	2.04	89.73	1.34	0.24	2.04	0.27	0.27	0.46	0.29	0.18	0.67
15-16	3.75	7.06	2.05	84.37	1.34	0.24	2.05	0.26	0.27	0.45	0.29	0.16	0.63

Model assumes natural gas and ethanol prices (explained elsewhere), and then selects a corn price to bring ROI slightly above zero. DDG price calculated as shown.

Incr  
0.0050

Incr  
0.0050

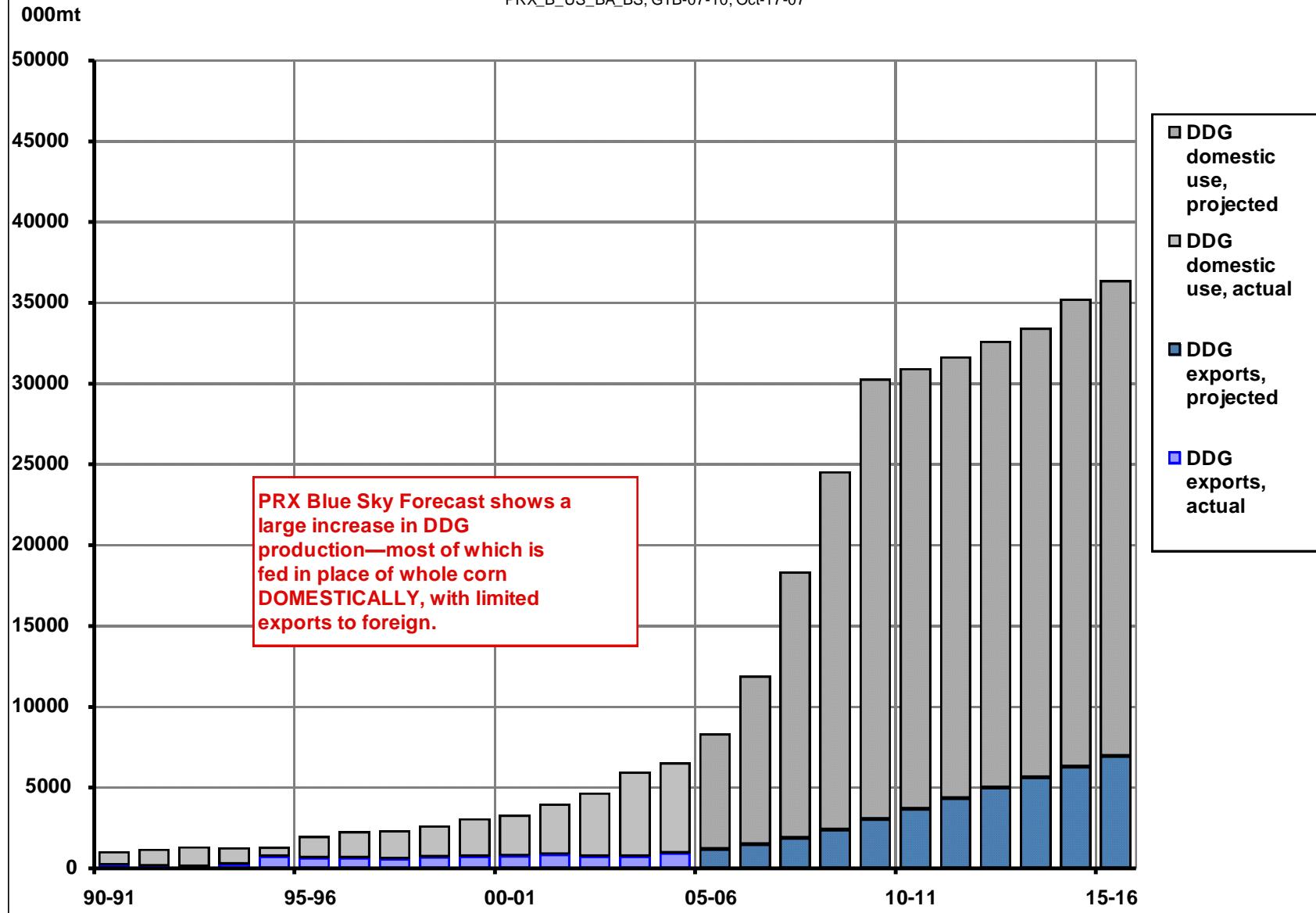
## CORN ETHANOL DRY MILL ROI, PRX Model across Cornbelt (without state incentives, but including est. debt service)



All scenarios use:	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
Ethanol, cts/gal	259	174	162	132	206	131	174	158	181	201	194
Scenario ONE uses:											
Corn, cts/bu	200	304	320	243	262	281	308	321	335	358	364
Scenario TWO uses:											
Corn, cts/bu	200	304	320	325	325	340	350	375	375	375	375

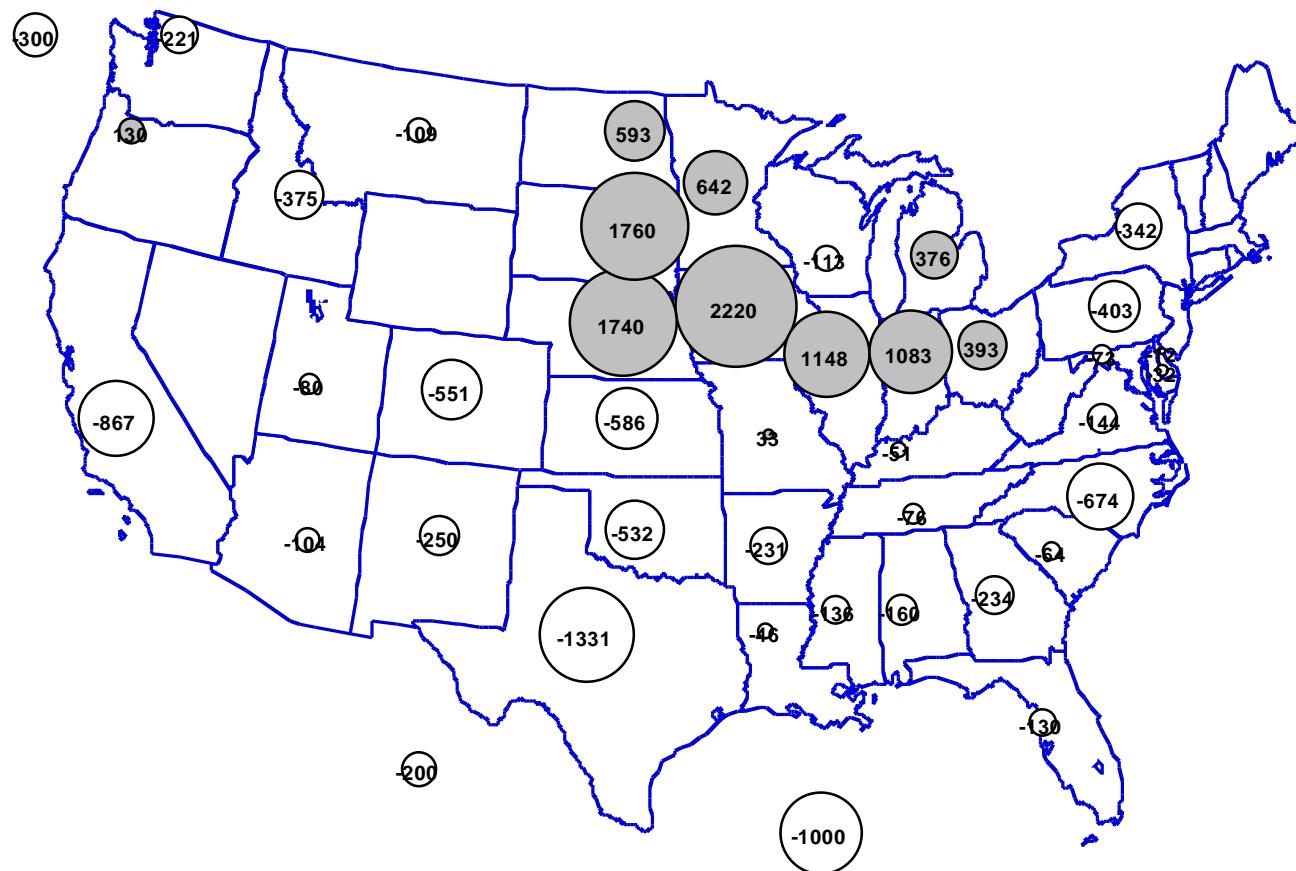
## US DDG DOMESTIC USE & EXPORTS to FOREIGN

PRX\_B\_US\_BA\_BS, GTB-07-10, Oct-17-07

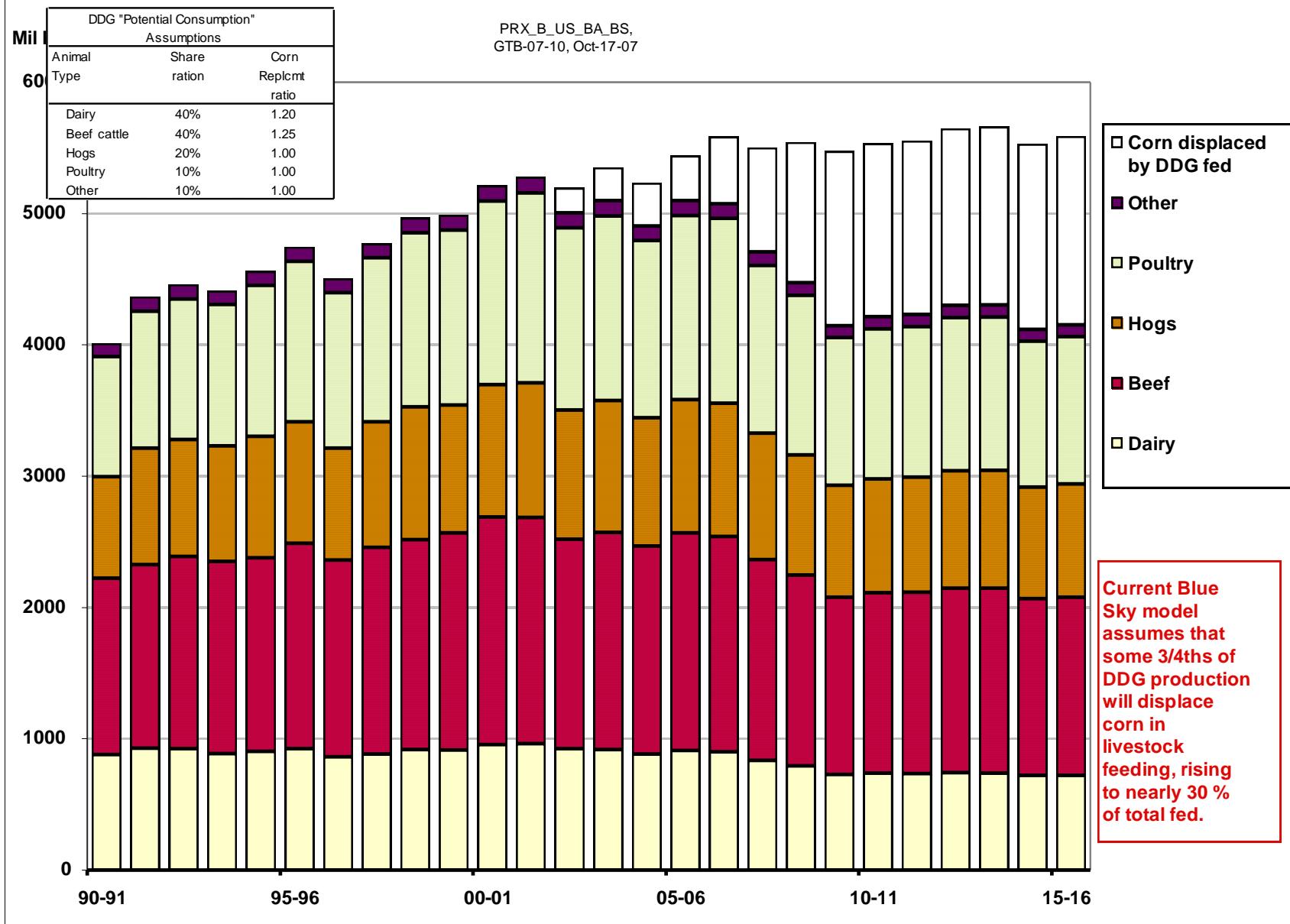


## DDG NET EXPORTS (+)/NET IMPORTS (-) BY STATE, 07-08

Based on All Animals, PRX Formulas (Not surveyed by USDA), 000MT



## UNITED STATES CORN FED with DDG DISPLACEMENT, 1990-2015



## ASSUMPTIONS IN BLUE SKY MODEL RUNS

PRX\_ROI\_Revised, GTB-07-10, Oct-20-07

Variable	Units	Jan-Sep 2007	12-Oct-07	
		Runs	Run	
RFS from 7.5 to 15 bil gals in 2015		YES	NO	<<
Excise tax credit 51 cts in 2015		YES	YES	
Acreage of corn + beans +CRP maximum	mil ac	157-160	161	
Trend yield of corn in 2015	bu/ac	173	176	<<
Corn area planted 2010-2015	mil ac	92	91-94	
Crude oil price 2010-2015	\$/bbl	50-70	65-75	<<
Ethanol price 2010-2015	\$/gal	1.50-2.00	1.80-2.05	<<
Ethanol demand (domestic and exports), 2010-2012	mil gal	13-14	13-14	
Ethanol demand (domestic and exports), 2015	mil gal	14	15	
Corn exports in 2015	mil bu	2300	2500	<<
DDG exports in 2015	000mt	5000	7000	<<
Domestic animal numbers		trend (1% up)	trend (1% up)	
DDG displacement ratio to corn, cattle	ratio	1.20	1.25	<<
Corn carryout to use, 2010-2015	percent	5 to 9	6 to 9	
Corn farm price, 2010-2015	\$/bu	3.15 to 4.60	3.50 to 3.75	<<
Ethanol industry ROI, 2010-2015	cts/gal	-12 to 6	0 to 20	<<
2007-2009	<i>With record prices in crude oil pushing up but with "blend wall" pushing down on ethanol price, and with record prices in wheat and soybeans, the nearerterm outlook is volatile—corn farm price between \$3.25 and \$3.50. How long will "blend wall" last, what will Congress do?</i>			
2010-2015	<i>In latest run with NO new RFS, but with higher crude oil and ethanol price, corn farm price is 50 cents/bu less but ethanol return is 15 cents/gal higher—leading to low but positive ethanol ROIs.</i>			

## BIODIESEL PRODUCTION FROM SOYBEAN CRUSH, with MEAL "BY-PRODUCT"

PRXfile:USnrbySD\_1i\_SoyOil. PRXrev. 12-Oct-07.

Crop Year	Area Planted	Area Hvstd 0.988	Yield	Soy-bean Prdn	Soy-bean Crush	Oil yield	Oil yield	Oil Prdn	Bio-diesel @ 7.3 lbs/gal	Meal yield	Meal yield	Meal Prdn
	mil ac	mil ac	bu/ac	mil bu	mil bu	lbs/bu	pct	bil lbs	mil gals	lbs/bu	pct	mil st
<b>Illustrative Portions of US Soybean Crop, Converted to Biodiesel</b>												
06-07	1.5	1.5	42.7	65	65	11.3	18.9%	0.7	100	47.5	79.1%	1.5
	3.1	3.0		129	129			1.5	201			3.1
	4.6	4.5		194	194			2.2	301			4.6
	6.1	6.1		258	258			2.9	402			6.1
	7.7	7.6		323	323			3.7	502			7.7
	9.2	9.1		388	388			4.4	602			9.2
	10.7	10.6		452	452			5.1	703			10.7
	12.2	12.1		517	517			5.9	803			12.3
	13.8	13.6		581	581			6.6	904			13.8
	15.3	15.1		646	646			7.3	1004			15.3
	16.8	16.6		710	710			8.1	1105			16.9
	18.4	18.2		775	775			8.8	1205			18.4
	19.9	19.7		840	840			9.5	1305			19.9
	21.4	21.2		904	904			10.3	1406			21.5
	23.0	22.7		969	969			11.0	1506			23.0

### Actual US Soybean Crop

06-07	75.5	74.6	42.7	3193	1806	11.3	18.9%	20.5	2808	47.5	79.1%	42.9
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### Actual Portion of Current Crop to Biodiesel

06-07								2.4	329			
									12%			

**Problem with biodiesel from soybeans is that only about 19% of bean is oil—and thus each 100 mil gals of biodiesel from soybeans generates about 1.5 mil st of soymeal. Soymeal exports in 06-07 were 8.4 mil st.**

**Second problem is that additional soybean acres must come in competition with corn, which means higher whole soybean price, which in turn pushes down on crush margin.**

## SOYBEAN CRUSH MARGIN AT GIVEN WHOLE SOYBEAN PRICE PER BUSHEL

PRX\_C\_US\_BA, GTB-07-10, Oct-12-07

Whole soybean price per bu

**7.00**Meal pounds per bushel of whole soybeans**43.8**Meal price per short ton, \$**180      200      220      240      260      280      300**Meal price contribution to crush, \$/bu

3.94      4.38      4.82      5.26      5.69      6.13      6.57

<u>Oil lbs/bu</u>	<u>Oil price, cts/lb</u>	<u>Oil contrb</u>	180	200	220	240	260	280	300
<b>11.2</b>	<b>22</b>	<b>2.46</b>	<b>(0.59)</b>	<b>(0.16)</b>	<b>0.28</b>	<b>0.72</b>	<b>1.16</b>	<b>1.60</b>	<b>2.03</b>
	<b>24</b>	<b>2.69</b>	<b>(0.37)</b>	<b>0.07</b>	<b>0.51</b>	<b>0.94</b>	<b>1.38</b>	<b>1.82</b>	<b>2.26</b>
	<b>26</b>	<b>2.91</b>	<b>(0.15)</b>	<b>0.29</b>	<b>0.73</b>	<b>1.17</b>	<b>1.61</b>	<b>2.04</b>	<b>2.48</b>
	<b>28</b>	<b>3.14</b>	<b>0.08</b>	<b>0.52</b>	<b>0.95</b>	<b>1.39</b>	<b>1.83</b>	<b>2.27</b>	<b>2.71</b>
	<b>30</b>	<b>3.36</b>	<b>0.30</b>	<b>0.74</b>	<b>1.18</b>	<b>1.62</b>	<b>2.05</b>	<b>2.49</b>	<b>2.93</b>
	<b>32</b>	<b>3.58</b>	<b>0.53</b>	<b>0.96</b>	<b>1.40</b>	<b>1.84</b>	<b>2.28</b>	<b>2.72</b>	<b>3.15</b>
	<b>34</b>	<b>3.81</b>	<b>0.75</b>	<b>1.19</b>	<b>1.63</b>	<b>2.06</b>	<b>2.50</b>	<b>2.94</b>	<b>3.38</b>
	<b>36</b>	<b>4.03</b>	<b>0.97</b>	<b>1.41</b>	<b>1.85</b>	<b>2.29</b>	<b>2.73</b>	<b>3.16</b>	<b>3.60</b>
	<b>38</b>	<b>4.26</b>	<b>1.20</b>	<b>1.64</b>	<b>2.07</b>	<b>2.51</b>	<b>2.95</b>	<b>3.39</b>	<b>3.83</b>

Reference Corn Price per bu, at ratio of**2.5****2.80**

## SOYBEAN CRUSH MARGIN AT GIVEN WHOLE SOYBEAN PRICE PER BUSHEL

PRX\_C\_US\_BA, GTB-07-10, Oct-12-07

Whole soybean price per bu

**8.50**Meal pounds per bushel of whole soybeans**43.8**Meal price per short ton, \$

180      200      220      240      260      280      300

Meal price contribution to crush, \$/bu

3.94      4.38      4.82      5.26      5.69      6.13      6.57

<u>Oil lbs/bu</u>	<u>Oil price, cts/lb</u>	<u>Oil contrb</u>	180	200	220	240	260	280	300
11.2	22	2.46	(2.09)	(1.66)	(1.22)	(0.78)	(0.34)	0.10	0.53
	24	2.69	(1.87)	(1.43)	(0.99)	(0.56)	(0.12)	0.32	0.76
	26	2.91	(1.65)	(1.21)	(0.77)	(0.33)	0.11	0.54	0.98
	28	3.14	(1.42)	(0.98)	(0.55)	(0.11)	0.33	0.77	1.21
	30	3.36	(1.20)	(0.76)	(0.32)	0.12	0.55	0.99	1.43
	32	3.58	(0.97)	(0.54)	(0.10)	0.34	0.78	1.22	1.65
	34	3.81	(0.75)	(0.31)	0.13	0.56	1.00	1.44	1.88
	36	4.03	(0.53)	(0.09)	0.35	0.79	1.23	1.66	2.10
	38	4.26	(0.30)	0.14	0.57	1.01	1.45	1.89	2.33

Reference Corn Price per bu, at ratio of**2.5****3.40**

## SOYBEAN CRUSH MARGIN AT GIVEN WHOLE SOYBEAN PRICE PER BUSHEL

PRX\_C\_US\_BA, GTB-07-10, Oct-12-07

Whole soybean price per bu

**10.00**Meal pounds per bushel of whole soybeans**43.8**Meal price per short ton, \$

180      200      220      240      260      280      300

Meal price contribution to crush, \$/bu

3.94      4.38      4.82      5.26      5.69      6.13      6.57

<u>Oil lbs/bu</u>	<u>Oil price, cts/lb</u>	<u>Oil contrb</u>	180	200	220	240	260	280	300
11.2	22	2.46	(3.59)	(3.16)	(2.72)	(2.28)	(1.84)	(1.40)	(0.97)
	24	2.69	(3.37)	(2.93)	(2.49)	(2.06)	(1.62)	(1.18)	(0.74)
	26	2.91	(3.15)	(2.71)	(2.27)	(1.83)	(1.39)	(0.96)	(0.52)
	28	3.14	(2.92)	(2.48)	(2.05)	(1.61)	(1.17)	(0.73)	(0.29)
	30	3.36	(2.70)	(2.26)	(1.82)	(1.38)	(0.95)	(0.51)	(0.07)
	32	3.58	(2.47)	(2.04)	(1.60)	(1.16)	(0.72)	(0.28)	0.15
	34	3.81	(2.25)	(1.81)	(1.37)	(0.94)	(0.50)	(0.06)	0.38
	36	4.03	(2.03)	(1.59)	(1.15)	(0.71)	(0.27)	0.16	0.60
	38	4.26	(1.80)	(1.36)	(0.93)	(0.49)	(0.05)	0.39	0.83

Reference Corn Price per bu, at ratio of**2.5****4.00**

## UNITED STATES SOYBEAN SUPPLY-DEMAND

PRX\_C\_US\_BA, GTB-07-10, Oct-20-07

Item	Unit	Crop year (Sep-Aug)										
		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
Carry-in	mil bu	256	449	573	231	191	316	287	162	197	234	138
Area planted	thou ac	72032	75505	63654	67868	69240	69490	69644	68642	67639	67639	67639
Area harvested	thou ac	71252	74586	62804	67024	68046	68292	68443	67458	66473	66473	66473
Yield	bu/ac	43.0	42.7	41.4	41.9	45.3	44.7	40.3	43.3	45.5	43.1	39.5
Production	mil bu	3063	3188	2598	2806	3085	3055	2760	2919	3022	2863	2623
Supply	mil bu	3322	3646	3177	3041	3269	3364	3040	3074	3212	3091	2754
Carry-out	mil bu	449	573	231	191	316	287	162	197	234	138	101
Disappearance (Use)	mil bu	2873	3073	2945	2850	2953	3078	2878	2878	2978	2953	2653
Seed/Residual Use	mil bu	194	149	151	150	150	150	150	150	150	150	150
Crush	mil bu	1739	1806	1795	1800	1800	1825	1825	1825	1825	1900	1900
Domestic Use	mil bu	1933	1955	1946	1950	1950	1975	1975	1975	1975	2050	2050
Foreign Exports <i>(Minus indicates exports from US)</i>	mil bu	-940	-1118	-999	-900	-1003	-1103	-903	-903	-1003	-903	-603
<b>Soy acreage fights corn, price of whole beans rises, foreign exports held below 1000 mil bu, biodiesel constrained, so that meal not "over-produced."</b>												
<b>Farm Price, Sales weighted annual average</b>												
US Farm Price Model	cts/bu	566	643	835	775	680	732	803	834	870	932	946
<b>Speculative model for soybeans to hold acreage vs. corn</b>												

## UNITED STATES SOYBEAN OIL SUPPLY-DEMAND

PRX\_C\_US\_BA, GTB-07-10, Oct-20-07

Item	Unit	Crop year (Sep-Aug)										
		05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16
Soybean crush	mil bu	1739	1806	1795	1800	1800	1825	1825	1825	1825	1900	1900
Yield	lbs/bu	11.6	11.3	11.3	11.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Soyoil production	mil lbs	20247	20496	20194	20250	20222	20503	20503	20503	20503	21346	21346
Soyoil supply	mil lbs	21960	23569	23201	22103	20989	21222	20973	20990	21023	21911	22113
Soyoil domestic use	mil lbs	17697	18791	19925	21537	21769	22002	22235	22470	22706	22944	23182
Soyoil net exports	mil lbs	1191	1770	1423	-200	-1500	-1250	-1750	-2000	-2250	-1800	-1900
Soyoil total use	mil lbs	18888	20561	21348	21337	20269	20752	20486	20471	20457	21144	21282
Soyoil carry-out	mil lbs	3072	3008	1853	767	719	470	487	520	566	767	831
US population	mil	290.8	293.6	296.4	299.2	302.0	304.8	307.6	310.4	313.2	316.0	318.8
Domestic SBO per cap	lbs	60.9	64.0	67.2	72.0	72.1	72.2	72.3	72.4	72.5	72.6	72.7
Avg price, Decatur, actl	cents/lb	23.4	31.0	36.5		40.0	40.0	40.0	40.0	40.0	40.0	40.0
Avg price, Decatur, model	cents/lb				40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
<u>Estimated domestic:</u>												
Soyoil food use	mil lbs	17097	16241	16675	18287	18519	18752	18986	19221	19457	19694	19932
Soyoil industrial use	mil lbs	600	2550	3250	3250	3250	3250	3250	3250	3250	3250	3250
	mil gals	82	349	445	445	445	445	445	445	445	445	445
<u>Estimated crush margin:</u>												
Soyoil price	cents/bu	23.4	31.0	36.5	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Soyoil yield per bu	lbs/bu	11.6	11.3	11.3	11.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Soyoil value per bu	cents/bu	273	352	411	450	449	449	449	449	449	449	449
Soymeal price	\$/st	174	205	235	197	161	182	215	230	249	268	278
Soymeal yield per bu	lbs/bu	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8
Soymeal value per bu	cents/bu	381	450	515	431	352	398	471	504	546	587	610
Soybean price, Decatur	cents/bu	572	633	764	724	680	732	802	834	870	932	946
Oil & meal value per bu	cents/bu	654	802	925	881	801	847	920	954	996	1036	1059
Crush margin	cents/bu	82	168	162	157	121	115	119	120	126	104	113
DDG corn oil Industrial	mil gals							0	0	0	0	0

*Speculative possibility at about 22 gals/mt DDG, with "surplus" DDG not fed.*

# Biodiesel Costs per Gallon

**7.3 pounds of soybean oil @ \$0.40 per pound = \$2.92**

**All other costs = \$0.40-0.50**

**Total costs = \$3.32-3.42**

**Minus blender credit of \$1.00 per gallon**

**Net costs at the biodiesel production plant = \$2.32-2.42**