

AG RESOURCE
ARM
MANAGEMENT

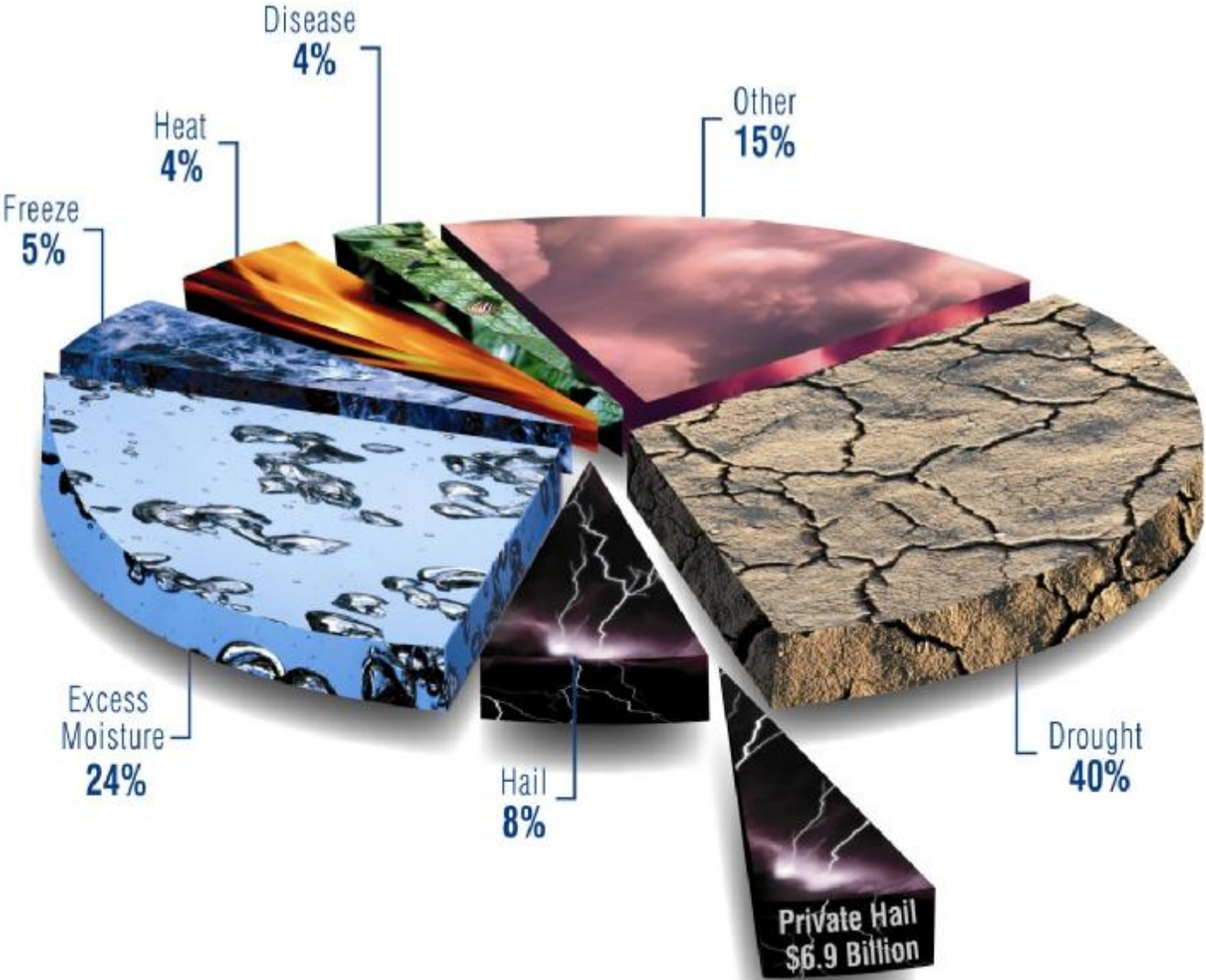
bterral@lansingtradegroup.com

(318) 282-4037

jmajure@armlend.com

(318) 381-1279

Why U.S. Crops Fail



US Crop Insurance Snapshot

(data in millions)

	<u>1994</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>LA 2012</u>
Contracts	0.8	2.0	2.0	2.0	2.1	2.1	0.022
Acres	100	272	265	256	265	282	2.8
Protection	13,586	89,886	79,567	78,064	114,064	116,820	985.0
Buy-Up	N/A	89%	91%	92%	92%	93%	81%
Revenue	N/A	72%	67%	71%	84%	76%	54%
Premium	949	9,851	8,949	7,589	11,952	11,071	95.1
Losses	579	8,533	5,223	4,156	10,595	14,229	30.2

2012 La Crop Insurance Participation (data in millions)

	<u>Acres</u>	<u>Liabilities</u>	<u>Premium</u>	<u>Subsidy</u>	<u>Loss</u>
CORN	0.516	254.9	21.7	16.0	12.3
SOYBEANS	1.043	254.5	35.2	25.8	7.7
RICE	0.333	162.4	7.4	5.1	2.2
COTTON	0.219	111.0	13.2	9.9	3.2
SUGARCANE	0.324	84.0	1.6	1.3	-
WHEAT	0.248	51.8	10.2	7.7	4.1
GRAIN SORGHUM	0.114	29.5	3.8	2.9	0.7
NURSERY (FG&C)	-	29.1	0.7	0.7	-
SWEET POTATOES	0.008	6.9	1.2	1.2	-
PEANUTS	0.001	0.4	0.0	0.0	-
OATS	0.003	0.2	0.0	0.0	0.0
PEACHES	0.000	0.1	0.0	0.0	-
PECANS	-	-	-	-	-
Total	2.808	984.7	95.1	70.6	30.2



Crop Insurance Benefits

- Ø Loss payments more closely track economic results.
- Ø Confidence to do pre-harvest crop sales to improve profits.
- Ø May be viewed favorably as loan collateral.

Crop Insurance: The Affordable Solution

Coverage Level

50% 55% 60% 65% 70% 75% 80% 85%

Premium Assistance

67% 64% 64% 59% 59% 55% 48% 38%

Insurance Products



Federally Reinsured Products

Yield Protection (YP)

Revenue Protection (RP)

Revenue Protection w/ HP
Exclusion

AGR-lite

Group Risk Plan (GRP)

Group Risk Income Protection
(GRIP)

Livestock Risk Protection (LRP)

Livestock Gross Margin (LGM)

Downed Rice Endorsement

Private Crop-Hail Coverage and Endorsements

Crop Hail

Companion Hail

Production Plan

Replant Extra

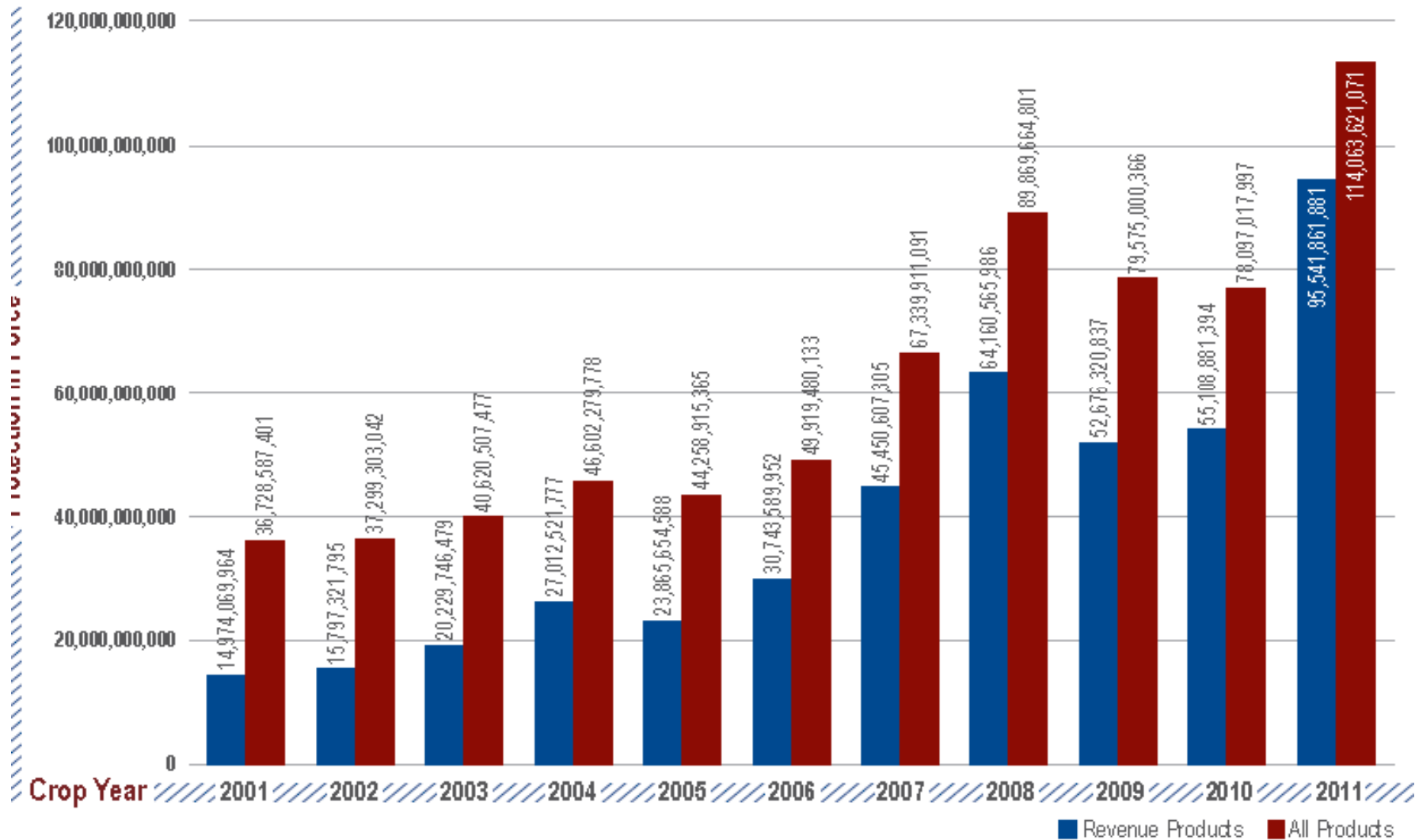
Rain Insurance for Events

Green Snap, Wind & Extra Harvest

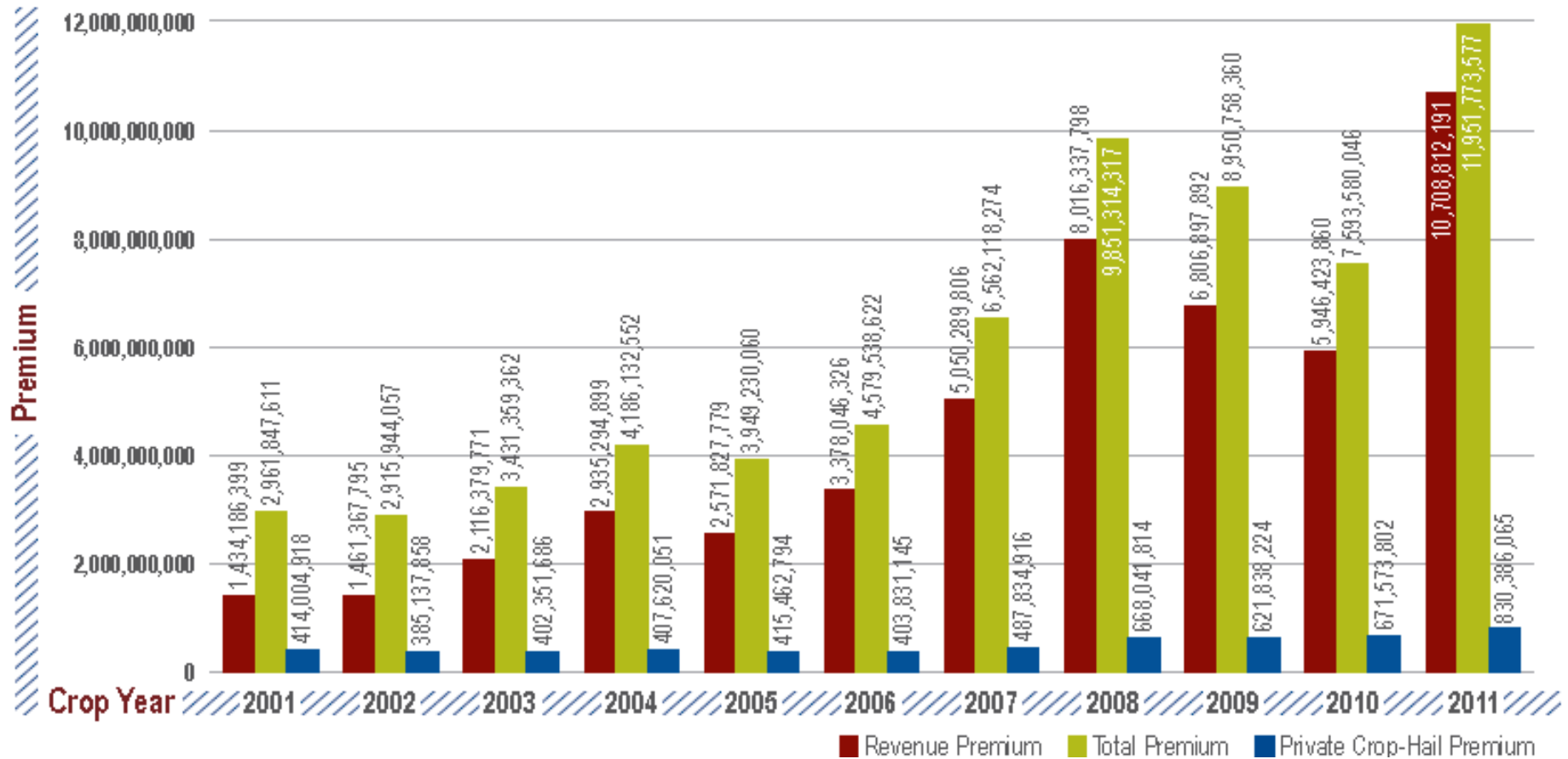
GRIP replant

Replant Buy-out

US Crop Insurance Participation



Crop Insurance Premiums

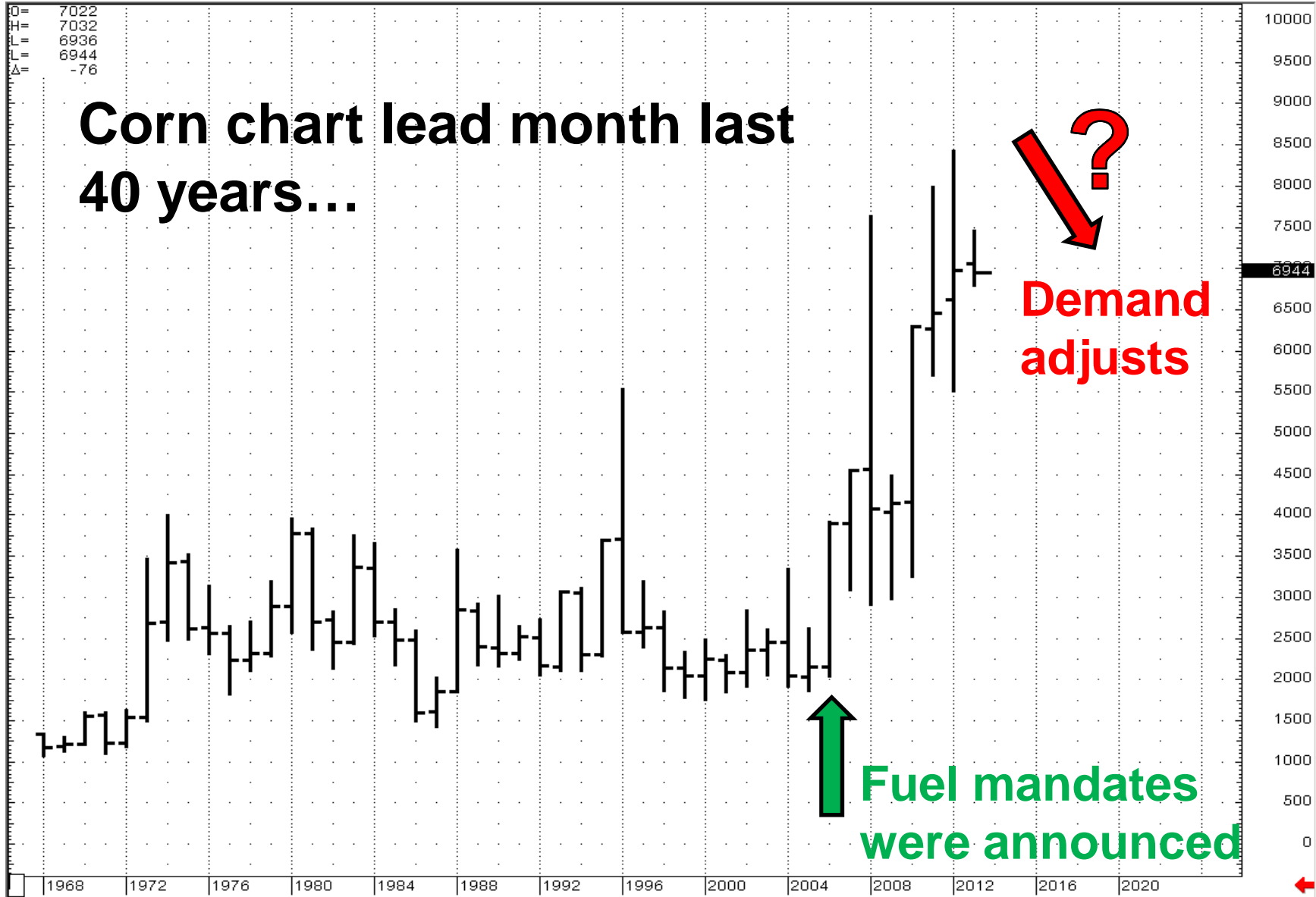


Planted Acreage Data

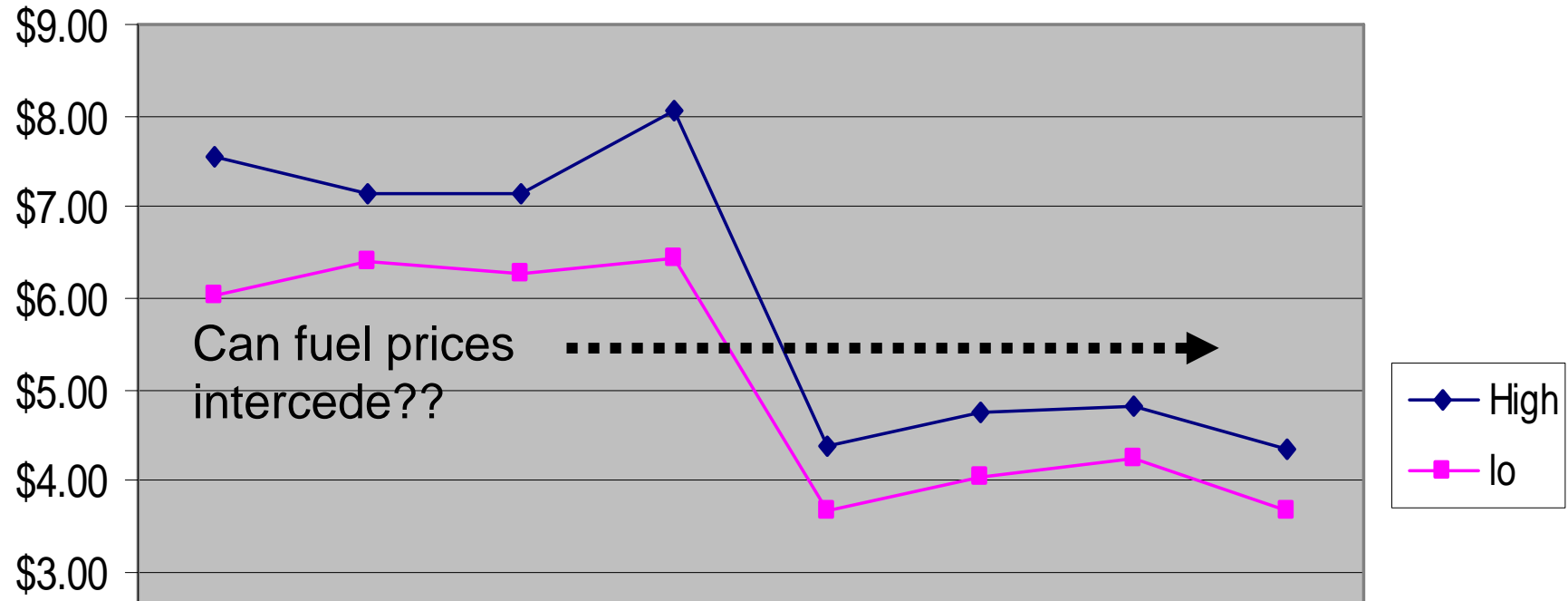
	Planted	Planted	Planted	Planted	Planted	Planted	Planted	Planted	Planted	Planted	Planted	Harvested		
	Corn	Soy	W Wheat	S wht+dur	Oats	Barley	Sorghum	Cotton	Rice	Sunseed	Canola	Hay	Total	
2000	79.6	74.3	43.3	19.2	4.5	5.8	9.2	15.5	3.1	2.8	1.6	60.4	319.1	
2001	75.7	74.1	40.9	18.5	4.4	5.0	10.2	15.8	3.3	2.6	1.5	63.5	315.5	
2002	78.9	74.0	41.9	18.5	5.0	5.0	9.6	14.0	3.2	2.6	1.5	63.9	318.0	
2003	78.6	73.4	45.4	16.7	4.6	5.3	9.4	13.5	3.0	2.3	1.1	63.4	316.8	
2004	80.9	75.2	43.4	16.4	4.1	4.5	7.5	13.7	3.3	1.9	0.9	62.0	313.7	
2005	81.8	72.0	40.2	16.6	4.2	3.9	6.5	14.2	3.4	2.7	1.2	61.7	308.4	
2006	78.3	75.6	40.6							2.8	2.0	1.0	60.6	307.1
<i>Fuel Mandates</i>														
2007	93.5	64.7	45.0	15.4	3.9	4.0	7.7	10.8	2.8	2.1	1.2	61.0	312.1	
2008	86.0	75.7	46.3	16.9	3.2	4.2	8.3	9.5	3.0	2.5	1.0	60.2	316.8	
2009	86.4	77.5	43.3	15.8	3.4	3.6	6.6	9.1	3.1	2.0	0.8	59.8	311.5	
2010	88.2	77.4	37.3	16.3	3.1	2.9	5.4	11.0	3.6	2.0	1.4	59.9	308.5	
2011	91.9	75.0	40.6	13.8	2.5	2.6	5.5	14.7	2.7	1.5	1.1	55.6	307.5	
USDA 2012	96.9	77.2	41.3	14.4	2.8	3.6	6.2	12.4	2.7	1.9	1.8	57.6	318.8	
Informa 2013	97.7	80.1	42.5	14.5	2.7	3.7	6.8	10.0	2.6	2.0	1.9	57.9	322.3	
LaSalle 2013	94.0	81.0	43.8	14.0	2.8	3.8	7.0	10.0	2.6	2.0	2.0	59.0	322.0	

O= 7022
H= 7032
L= 6936
L= 6944
Δ= -76

Corn chart lead month last 40 years...



Model Forecast Corn Prices



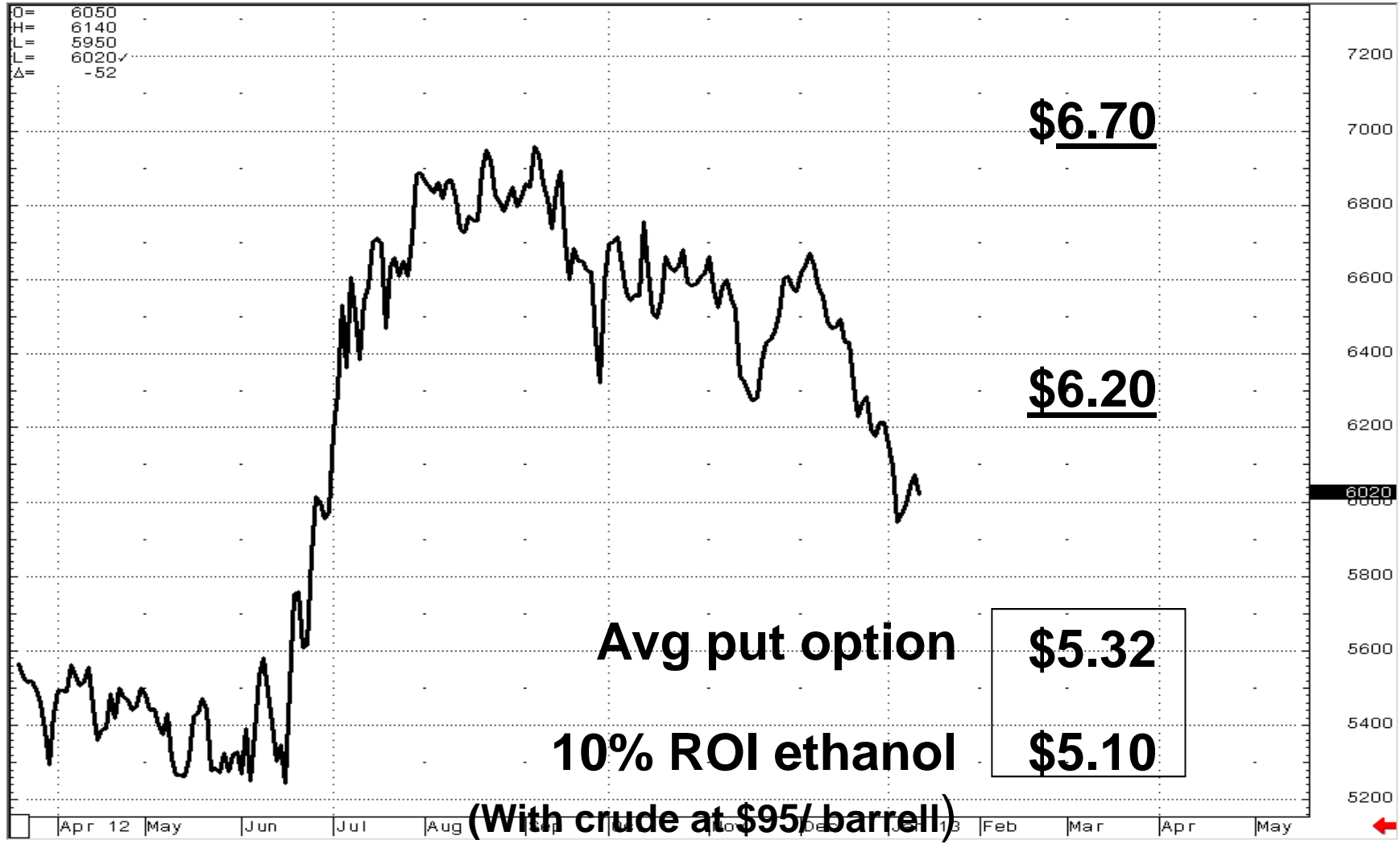
Forecast price range...								
	<u>2012</u>	<u>2013</u>	<u>2013</u>	<u>2013</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2014</u>
High	\$7.65	\$7.30	\$7.28	\$8.29	\$4.38	\$4.74	\$4.81	\$4.36
Lo	\$6.12	\$6.56	\$6.41	\$6.63	\$3.69	\$4.06	\$4.23	\$3.67
	Sep-Nov	Dec-Feb	Mch-May	June-Aug	Sept-Nov	Dec-Feb	Mch-May	June-Aug

Flattening Demand Growth from Bio-fuels...

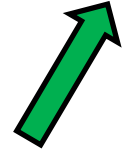


- Models suggest overpriced corn
- Fuel consumption in this country slowed...
- Already enough capacity for max mandate
- More world feed wheat
- Congress taken away ethanol subsidy
- Green push in Europe is slowing...
- Large growth in Palm oil production

Sept corn futures

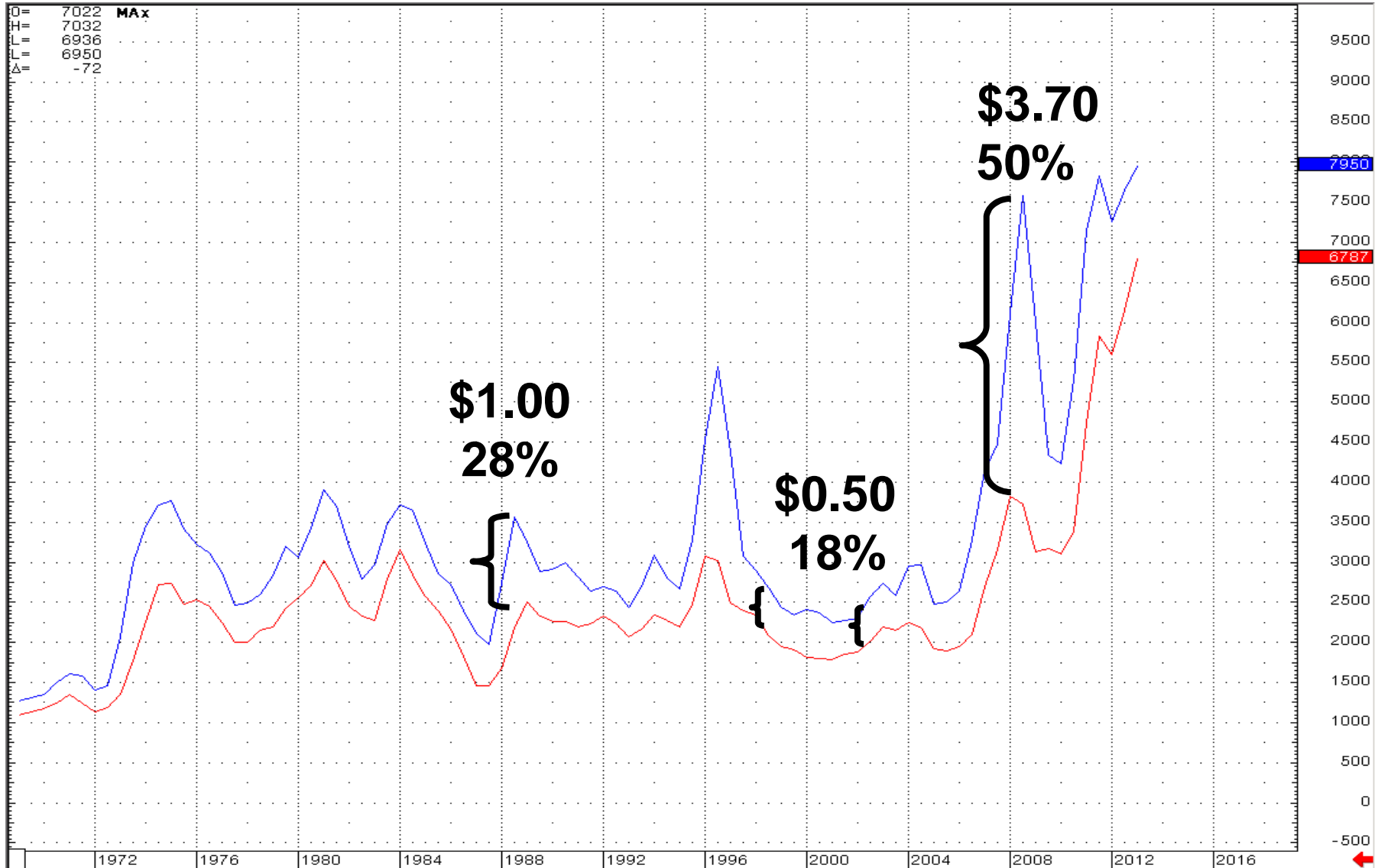


High Prices & High Volatility Still Likely... (somewhat)



- Fuel mandates have built in-elastic demand
- At low prices discretionary use can sap up excess supplies...
- US corn consumption relies on corn acres with higher yield volatility..
- Dependent on less reliable suppliers like Argentina... and FSU...areas
- Chinese demand to import 10-15mmt more
- Weather – Is drought over???

Average Price Range per Year



STEP 1) Budget Input Costs

	Corn	Cotton	Soybeans	Milo	Rice
Futures	\$ 5.78	\$ 0.84	\$ 12.68	\$ 5.59	\$ 0.154
Basis	\$ (0.080)	\$ (0.100)	\$ -	\$ (0.750)	\$ (0.010)
Market Price	\$ 5.70	\$ 0.74	\$ 12.68	\$ 4.84	\$ 0.144
Total Expenses	\$ 666.12	\$ 742.37	\$ 441.20	\$ 430.15	\$ 820.69
Break-Even Yield	116.9	1,003.2	34.8	88.9	5,699.2
30% Return Yield	145.8	1,256.9	42.5	108.3	7,165.9
High Yield	200.0	1,250.0	70.0	140.0	8,100.0
Expected Yield (APH)	165.0	1,000.0	50.0	100.0	7,200.0
Low Yield	130.0	750.0	30.0	80.0	5,400.0
High Profit	\$ 473.38	\$ 182.63	\$ 446.40	\$ 247.45	\$ 345.71
Expected Profit	\$ 273.97	\$ (2.37)	\$ 192.80	\$ 53.85	\$ 216.11
Low Profit	\$ 74.55	\$ (187.37)	\$ (60.80)	\$ (42.95)	\$ (43.09)
Insurance Base	\$ 6.06	\$ 0.81	\$ 13.07	\$ 5.71	\$ 0.156
Insurance Level	75%	75%	75%	75%	75%
Less: Premium	19.57	25.54	16.44	33.94	18.08
Net Margin / (Risk)	\$ 99.23	\$ (125.41)	\$ 67.49	\$ (0.84)	\$ 38.63
Premium per Unit	\$ 0.119	\$ 0.026	\$ 0.329	\$ 0.339	\$ 0.003

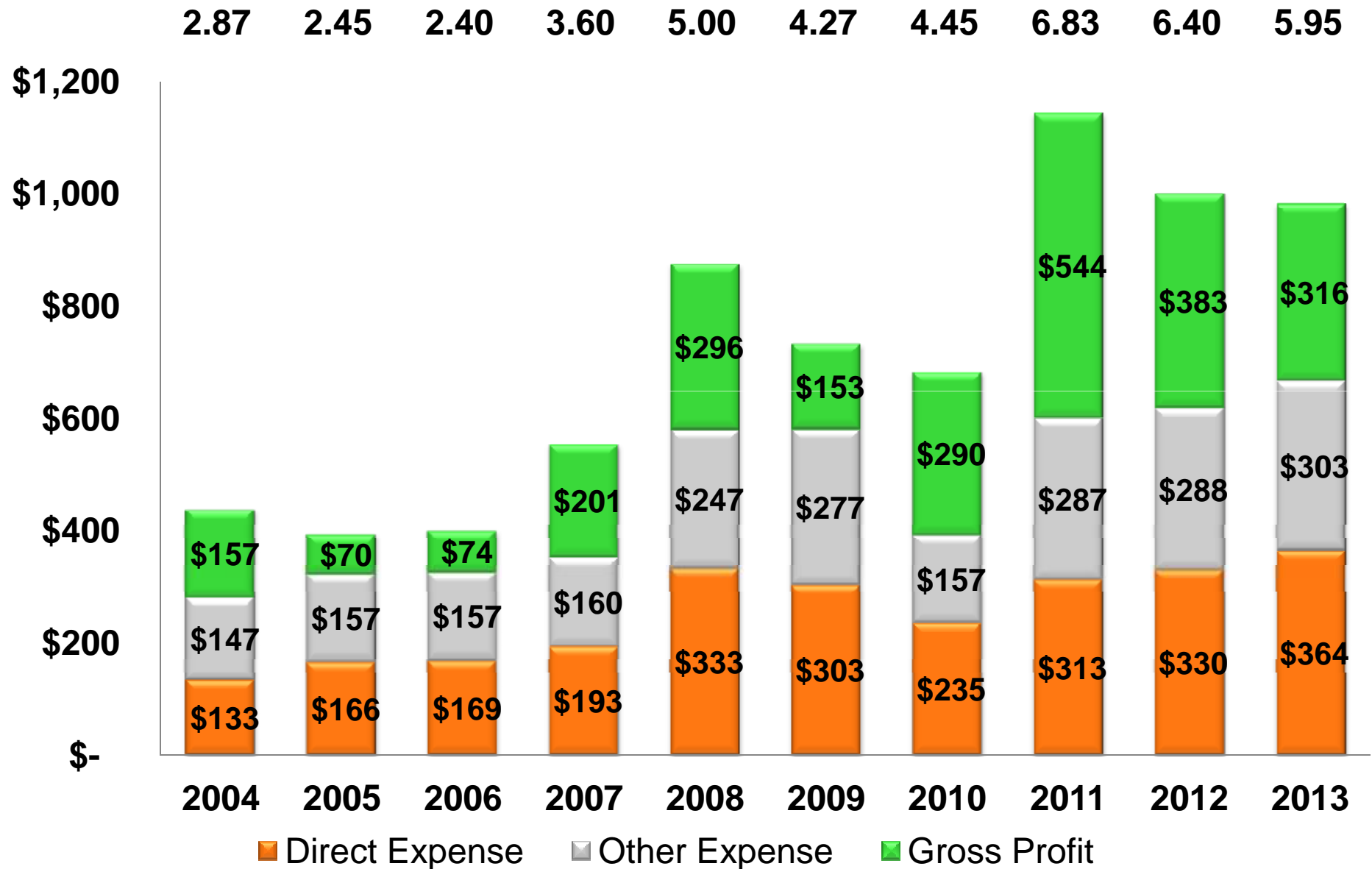
Crop Insurance Value vrs Puts and Calls

APH	165								
Risk Yield	165								
<u>Base</u>	<u>Level</u>	<u>Mkt</u>	<u>Yld</u>	<u>Net</u>	<u>Result</u>	<u>Month</u>	<u>Option</u>	<u>Strike</u>	<u>Last*</u>
\$ 6.06	75%	-25%	0%	-25%	\$ 4.55	Sep	Put	\$ 4.50	\$ 0.0430
		25%	0%	25%	\$ 7.58	Sep	Call	\$ 7.60	\$ 0.0620
									\$ 0.1050
							Value Per Acre		\$ 17.33

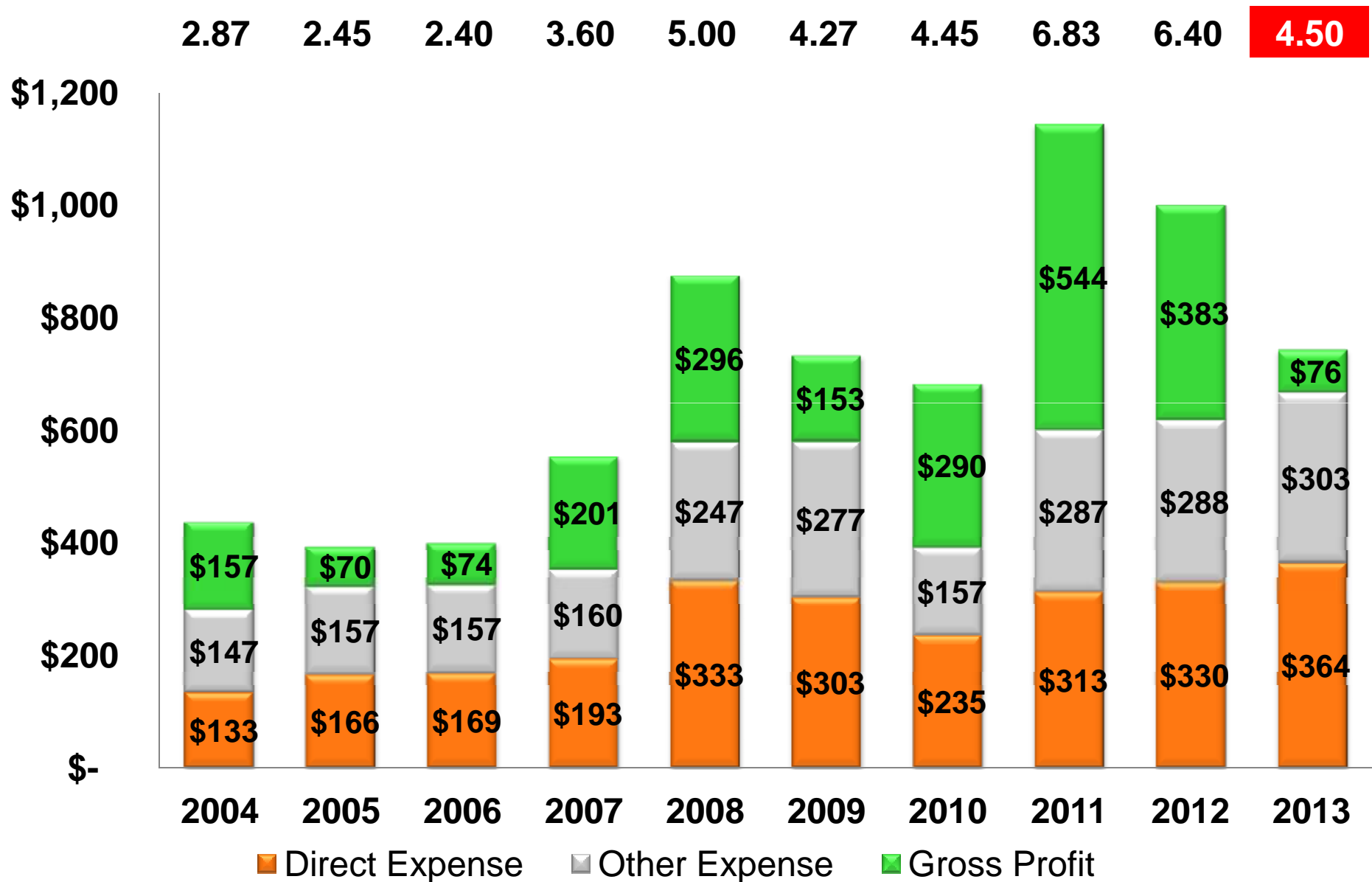
Crop Insurance Value vrs Puts and Calls

APH	165								
Risk Yield	130								
<u>Base</u>	<u>Level</u>	<u>Mkt</u>	<u>Yld</u>	<u>Net</u>	<u>Result</u>	<u>Month</u>	<u>Option</u>	<u>Strike</u>	<u>Last*</u>
\$ 6.06	75%	-25%	21%	-4%	\$ 5.83	Sep	Put	\$ 5.80	\$ 0.4100
		25%	-21%	4%	\$ 6.29	Sep	Call	\$ 6.30	\$ 0.2310
									\$ 0.6410
							Value Per Acre		\$ 105.77

Corn Revenue / Expense w/ 1st Booking Price



Corn Revenue / Expense w/ Harvest Low



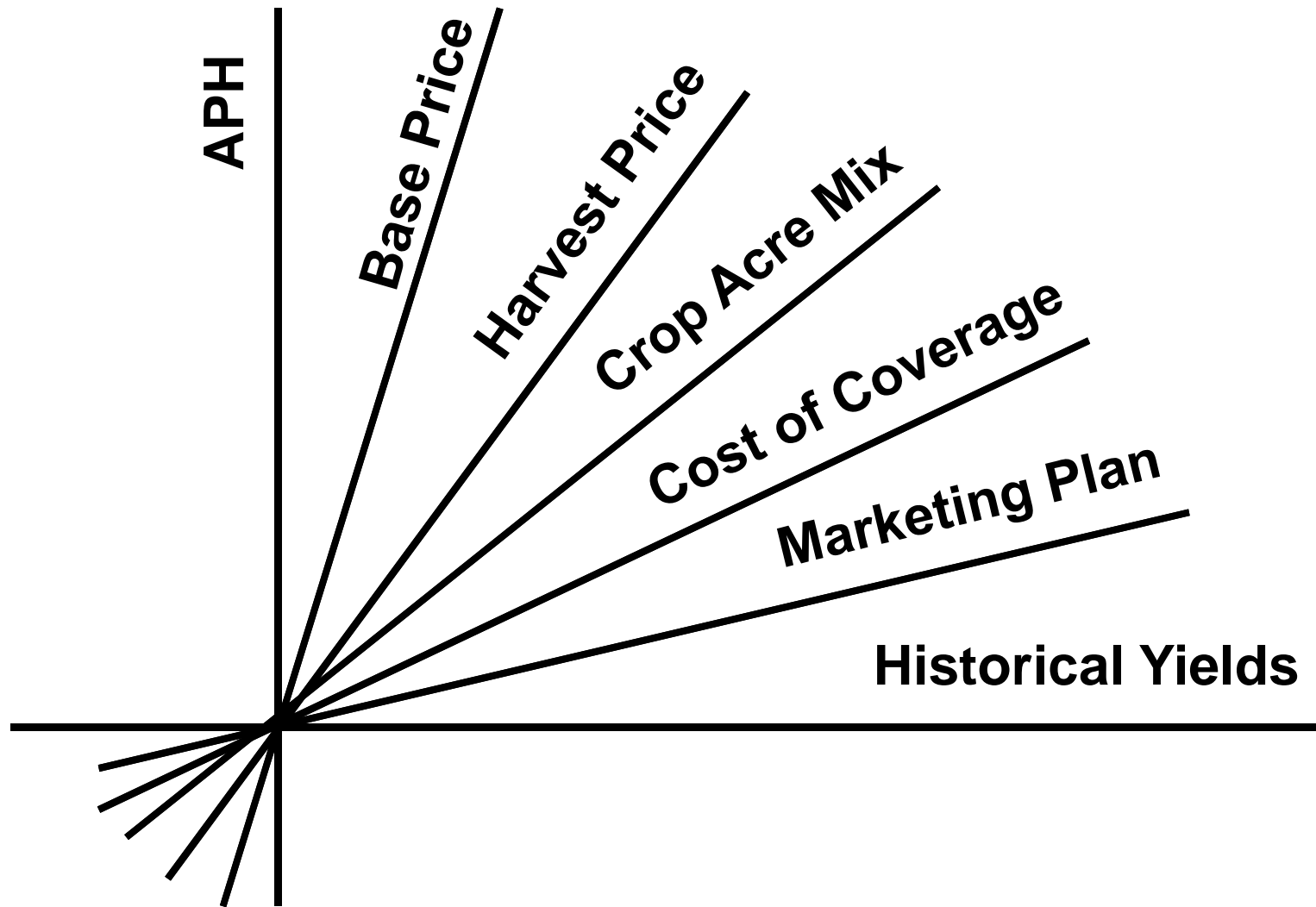
What's the Big Risk???

(165 BU Corn Example)



Opportunity Cost:	\$216
Contracting Risk:	\$752
Other Expenses:	\$303
Inputs:	<u>\$364</u>
Total:	\$1635

Step 3) Selecting the Right Coverage



Payoff if the Market Falls

Customer	John Doe						
Crop	Corn						
Base	\$ 6.0800						
Harvest	\$ 4.8000						
Probability	30%						
FSN / (i/ni)	1234 IR	1243 IR	5678 IR	4321 IR	6587 IR	Wgt Avg	
Acres*	358.0	125.0	35.0	160.0	467.0	1,145.0	
Weight	31%	11%	3%	14%	41%	100%	
	173	173	173		173		
	148	148	148		148		
Y**	193	193		193	193		
I	175		175		175		
E	205	205		205	205		
L	190	190			190		
D	178	178		178	178		
S	192	192	192	192	192		
	216	216	216	216	216		
	220	220	220	220	220		
APH***	186	189	187	201	189	190	

Payoff if the Market Falls

R	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Y	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
75%	\$ 848.16	\$ 861.84	\$ 852.72	\$ 916.56	\$ 861.84	\$ 864.93
	\$ 17.76	\$ 31.44	\$ 22.32	\$ -	\$ 31.44	\$ 22.49
	\$ 137.76	\$ 151.44	\$ 142.32	\$ -	\$ 151.44	\$ 125.72
H	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
I	\$ 8.16	\$ -	\$ 12.72	\$ -	\$ 21.84	\$ 11.85
S	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
T	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
O	\$ -	\$ 7.44	\$ -	\$ 62.16	\$ 7.44	\$ 12.53
R	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Y	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
80%	\$ 904.70	\$ 919.30	\$ 909.57	\$ 977.66	\$ 919.30	\$ 922.59

The Crop Insurance Solution

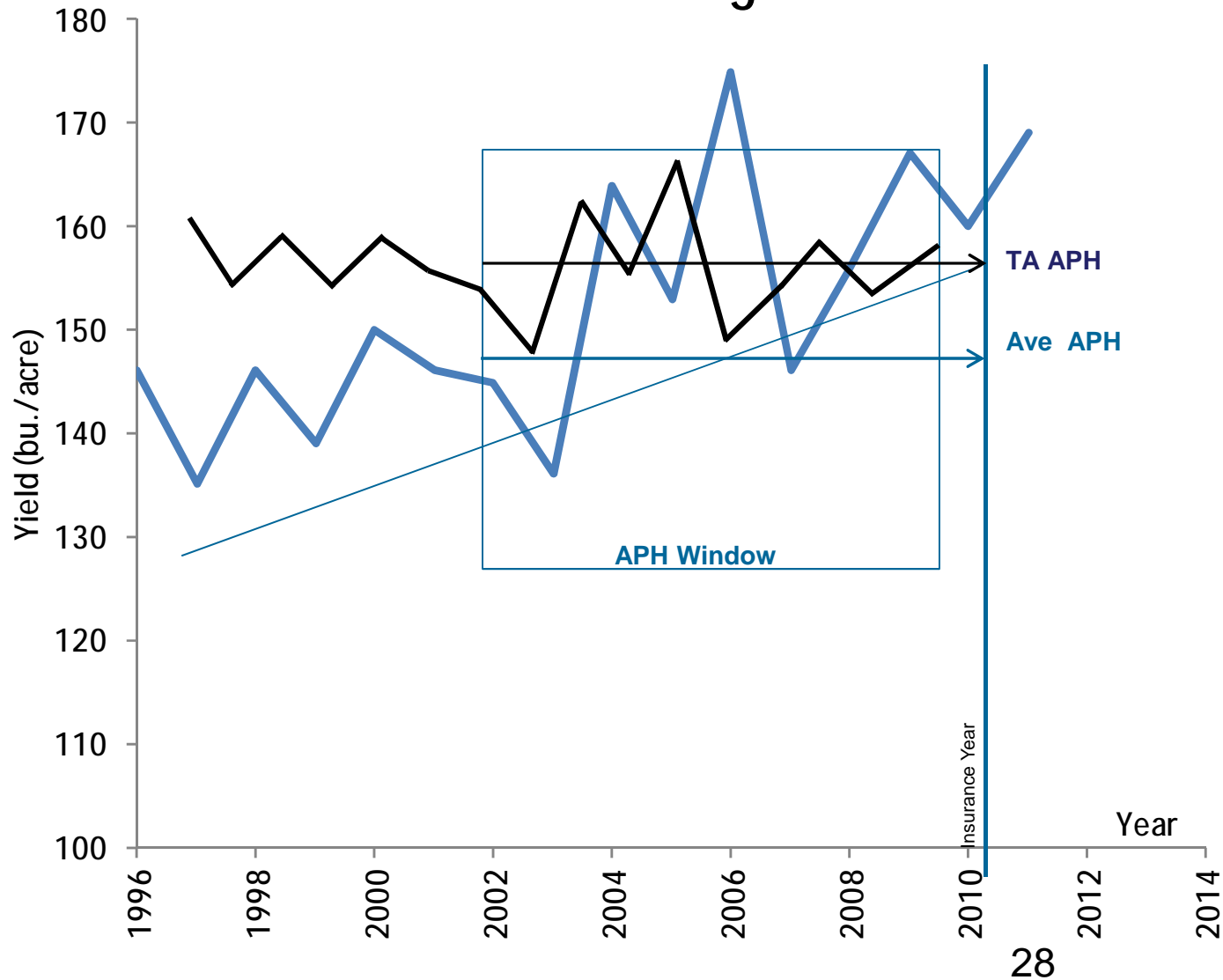
Results of Analysis with Probability Assumptions									
	<u>Coverage</u>	<u>Prem</u>	<u>Avg. Clai</u>	<u>Price Pro</u>	<u>Expected</u>	<u>Net Prem</u>	<u>Total Loss</u>	<u>1/2 Loss</u>	<u>Suggest</u>
50%	\$ 588.00	\$ 5.07	\$ -	30%	\$ -	\$ 5.07	116	-	
55%	\$ 646.80	\$ 6.65	\$ -	30%	\$ -	\$ 6.65	97	9	
60%	\$ 705.60	\$ 8.37	\$ -	30%	\$ -	\$ 8.37	84	14	
65%	\$ 764.40	\$ 10.47	\$ 4.01	30%	\$ 1.20	\$ 9.27	82	19	
70%	\$ 823.20	\$ 13.46	\$ 9.27	30%	\$ 2.78	\$ 10.68	77	22	
75%	\$ 882.00	\$ 19.57	\$ 23.19	30%	\$ 6.96	\$ 12.61	70	23	<==
80%	\$ 940.80	\$ 33.34	\$ 48.29	30%	\$ 14.49	\$ 18.85	50	19	
85%	\$ 999.60	\$ 60.92	\$ 86.53	30%	\$ 25.96	\$ 34.96	29	12	

Risk Protection Grid

John Doe	Yields	Level: 75%	Premium	\$ 19.57			
Price	50	75	100	125	150	175	200
\$ 3.500	\$ 707.00	\$ 619.50	\$ 532.00	\$ 444.50	\$ 357.00	\$ 269.50	\$ 182.00
\$ 3.600	\$ 702.00	\$ 612.00	\$ 522.00	\$ 432.00	\$ 342.00	\$ 252.00	\$ 162.00
\$ 3.700	\$ 697.00	\$ 604.50	\$ 512.00	\$ 419.50	\$ 327.00	\$ 234.50	\$ 142.00
\$ 3.800	\$ 692.00	\$ 597.00	\$ 502.00	\$ 407.00	\$ 312.00	\$ 217.00	\$ 122.00
\$ 3.900	\$ 687.00	\$ 589.50	\$ 492.00	\$ 394.50	\$ 297.00	\$ 199.50	\$ 102.00
\$ 4.000	\$ 682.00	\$ 582.00	\$ 482.00	\$ 382.00	\$ 282.00	\$ 182.00	\$ 82.00
\$ 4.100	\$ 677.00	\$ 574.50	\$ 472.00	\$ 369.50	\$ 267.00	\$ 164.50	\$ 62.00
\$ 4.200	\$ 672.00	\$ 567.00	\$ 462.00	\$ 357.00	\$ 252.00	\$ 147.00	\$ 42.00
\$ 4.300	\$ 667.00	\$ 559.50	\$ 452.00	\$ 344.50	\$ 237.00	\$ 129.50	\$ 22.00
\$ 4.400	\$ 662.00	\$ 552.00	\$ 442.00	\$ 332.00	\$ 222.00	\$ 112.00	\$ 2.00
\$ 4.500	\$ 657.00	\$ 544.50	\$ 432.00	\$ 319.50	\$ 207.00	\$ 94.50	\$ -
\$ 4.600	\$ 652.00	\$ 537.00	\$ 422.00	\$ 307.00	\$ 192.00	\$ 77.00	\$ -
\$ 4.700	\$ 647.00	\$ 529.50	\$ 412.00	\$ 294.50	\$ 177.00	\$ 59.50	\$ -
\$ 4.800	\$ 642.00	\$ 522.00	\$ 402.00	\$ 282.00	\$ 162.00	\$ 42.00	\$ -
\$ 4.900	\$ 637.00	\$ 514.50	\$ 392.00	\$ 269.50	\$ 147.00	\$ 24.50	\$ -
\$ 5.000	\$ 632.00	\$ 507.00	\$ 382.00	\$ 257.00	\$ 132.00	\$ 7.00	\$ -
\$ 5.100	\$ 627.00	\$ 499.50	\$ 372.00	\$ 244.50	\$ 117.00	\$ -	\$ -

Trend Adjusted APH: *Main Idea*

Yields through time



The Crop Insurance Solution with Trend Adjusted Yield

Results of Analysis with Probability Assumptions									
	<u>Coverage</u>	<u>Prem</u>	<u>Avg. Claim</u>	<u>Price Prob</u>	<u>Expected</u>	<u>Net Prem</u>	<u>Total Loss</u>	<u>1/2 Loss</u>	<u>Suggest</u>
50%	\$ 615.48	\$ 5.64	\$ -	30%	\$ -	\$ 5.64	109	-	
55%	\$ 677.02	\$ 7.32	\$ -	30%	\$ -	\$ 7.32	92	8	
60%	\$ 738.57	\$ 9.19	\$ 1.98	30%	\$ 0.60	\$ 8.59	86	14	
65%	\$ 800.12	\$ 11.69	\$ 7.24	30%	\$ 2.17	\$ 9.52	84	19	
70%	\$ 861.67	\$ 15.44	\$ 16.69	30%	\$ 5.01	\$ 10.43	83	24	
75%	\$ 923.21	\$ 22.06	\$ 39.17	30%	\$ 11.75	\$ 10.31	90	30	←==
80%	\$ 984.76	\$ 38.07	\$ 76.84	30%	\$ 23.05	\$ 15.02	66	25	
85%	\$ 1,046.31	\$ 68.29	\$ 122.21	30%	\$ 36.66	\$ 31.63	33	14	

Customized Risk Profile

	Corn	Cotton	Soybeans	Milo	Rice
Futures	\$ 6.20	\$ 0.79	\$ 13.30	\$ 5.90	\$ 0.154
Basis	<u>\$ (0.250)</u>	<u>\$ (0.100)</u>	<u>\$ (0.300)</u>	<u>\$ (0.600)</u>	<u>\$ (0.010)</u>
First Booking Price	\$ 5.95	\$ 0.69	\$ 13.00	\$ 5.30	\$ 0.144
Total Expense	\$ 666.12	\$ 742.37	\$ 441.20	\$ 430.15	\$ 820.69
Break-Even Yield	112.0	1,075.9	33.9	81.2	5,699.2
30% Return Yield	145.5	1,398.7	44.1	105.5	7,409.0
High Yield	220.0	1,555.0	76.0	108.0	8,100.0
Expected Yield (APH)	189.7	1,203.3	40.9	92.0	6,500.0
Low Yield	115.0	832.0	10.0	30.0	5,250.0
High Profit	\$ 642.88	\$ 330.58	\$ 546.80	\$ 142.25	\$ 345.71
Expected Profit	\$ 462.46	\$ 87.88	\$ 90.72	\$ 57.45	\$ 115.31
Low Profit	\$ 18.13	\$ (168.29)	\$ (311.20)	\$ (271.15)	\$ (64.69)
Insurance Base	\$6.06	\$0.81	\$13.07	\$5.71	\$ 0.156
Insurance Level	75%	75%	75%	75%	75%
Net Margin / (Risk)	\$ 266.39	\$ 53.07	\$ 33.45	\$ 19.90	\$ 11.73
Premium per Unit	\$ 0.103	\$ 0.021	\$ 0.402	\$ 0.369	\$ 0.003

AG RESOURCE
ARM
MANAGEMENT

bterral@lansingtradegroup.com

(318) 282-4037

jmajure@armlend.com

(318) 381-1279