

■ Farm Bill More than Just Farmers

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Crop Insurance Changes in House Bill

- 1. Increases the quota share from 5% to a minimum 12.5% (Administration could increase it to their proposed 22% quota share under this Bill with a 2% ceding commission).
- 2. 2.9 point cut in the Administration & Operating (A&O) reimbursement rate. Additional cuts in A&O after 2012.
- 3. Elimination of Premium Reduction Program (PRP) except for good farming experience and COOP purchased CAT policies in states with legal rebating.

Crop Insurance Changes in House Bill

- 4. Reduction in the RMA target loss ratio from 1.075 to 1.0 resulting in higher farmer paid premium rates appears to have been eliminated in the final Bill.
- 5. Supplement area based coverage was eliminated.
- 6. Increased catastrophic crop insurance (CAT) administration fees to \$200.
- 7. Adds a sesame insurance pilot.

Crop Insurance Changes in House Bill

- 8. Reduces subsidy and requires a new subsidy structure for the Group Risk Income Protection (GRIP) and Group Risk Plan (GRP).
- 9. Eliminated the additional 5% premium while retaining additional reporting and administrative cost on organic contracts.
- 10. Renegotiation of the Standard Reinsurance Agreement (SRA) beginning in the 2013 reinsurance year.
- 11. Funds were reauthorized for data mining.

Crop Insurance Changes in House Bill

- 12. A \$20 million cut in RMA's funding for R&D and contracted risk management education now budgeted for \$30 million.
- 13. Non-Insured Assistance Program (NAP) administrative fees doubled to \$200 per crop or \$600 per producer per county.
- 14. The timing on A & O, underwriting and farmers' payment of premiums would change.

Estimated Impact of the 2000 ARPA and House 2.9 Point A&O Reduction on the 15 Year Historical A&O

Year	Pure Premium ¹ (\$ Millions)	A&O ^{2,3} (\$ Millions)	Average % A&O paid on all contracts	A&O after 2000 ARPA Cuts (\$ Millions)	\$ Cut From ARPA (\$ Millions)	A&O after 2.9 Point Reduction (\$ Millions)	Average % A&O paid on all contracts after 2.9 Point Reduction	A&O contracts after 2.9 Point Reduction (\$ Millions)	A&O Reduction A&O (\$ Millions)	\$ Cut From House 2.9 Point Cut (\$ Millions)
1992	762.1	240.0	31.5%	161.1	78.9	139.04	18.2%	139.04	22.10	
1993	755.6	243.0	32.2%	159.8	83.2	137.85	18.2%	137.85	21.91	
1994	950.5	282.0	29.7%	201.0	81.0	173.41	18.2%	173.41	27.56	
1995	1,550.3	378.0	24.4%	327.8	50.2	282.84	18.2%	282.84	44.96	
1996	1,840.2	468.0	25.4%	389.1	78.9	335.73	18.2%	335.73	53.37	
1997	1,782.3	437.8	24.6%	376.8	61.0	325.16	18.2%	325.16	51.69	
1998	1,876.0	443.3	23.6%	396.7	46.6	342.26	18.2%	342.26	54.40	
1999	2,312.4	500.7	21.7%	488.9	11.8	421.87	18.2%	421.87	67.06	
2000	2,537.7	552.1	21.8%	536.6	15.5	462.98	18.2%	462.98	73.59	
2001	2,978.9	642.0	21.6%	642.0	0.0	555.61	18.7%	555.61	86.39	
2002	2,911.7	625.9	21.5%	625.9	0.0	541.46	18.6%	541.46	84.44	
2003	3,436.2	733.9	21.4%	733.9	0.0	634.25	18.5%	634.25	99.65	
2004	4,186.5	890.0	21.3%	890.0	0.0	768.59	18.4%	768.59	121.41	
2005	3,945.3	829.6	21.0%	829.6	0.0	715.19	18.1%	715.19	114.41	
2006	4,708.5	949.8	20.2%	949.8	0.0	813.25	17.3%	813.25	136.55	

15 Average A&O before & after cuts **24.1%** **18.2%** 1,059.5

¹Source: Risk Management Agency, USDA, Washington, D.C. WEB Page: <http://www.rma.usda.gov/data/>, for years 1992 to 2006. The 2006 losses are not complete.
²Source of data for 1992-1996: Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, Double Indemnity: Crop Insurance and the Failure of U.S. Agricultural Disaster Policy, paper prepared for American Enterprise Institute Project, Agricultural Policy for the 2007 Farm Bill and Beyond, directed by Bruce Gardner and Daniel A. Sumner.
³Source of data for 1997-2006: United States Government Accountability Office, Crop Insurance: Continuing Efforts Are Needed to Improve Program Integrity and Ensure Program Costs Are Reasonable, Statement of Robert A. Robinson, Managing Director Natural Resources and Environment, GAO-07-844T. A&O values include loss adjustment expense for CAT claims that was paid to companies.

Compare Crop Insurance Delivery Cost with Private P/C Insurance With and Without Crop Insurance Budget Cuts

Year	A&O ^{1,2} (\$ Millions)	Company Underwriting Gains ^{1,2} (\$ Millions)	A&O After 2.9 Point Reductions 2000 Law	Company Underwriting Gains after Reductions for USDA Quota Share	USDA Quota Share of Gain/Loss (\$ Millions)	2% Ceding Commission ³	Company Net Underwriting Gains + 2% Ceding Commission (\$ Millions)	Net Cut in Underwriting Gains for USDA Quota Share (\$ Millions)
1992	240.0	23.0	139.0	20.1	2.9	1.5	21.65	(1.35)
1993	243.0	-83.0	137.9	-72.6	-10.4	1.5	-71.11	(11.89)
1994	282.0	104.0	173.4	91.0	13.0	1.9	92.90	(11.10)
1995	378.0	131.0	282.8	114.6	16.4	3.1	117.73	(13.27)
1996	468.0	246.0	335.7	215.3	30.8	3.7	218.93	(27.07)
1997	437.8	352.1	325.2	308.1	44.0	3.6	311.65	(40.45)
1998	443.3	279.2	342.3	244.3	34.9	3.8	248.05	(31.15)
1999	500.7	271.8	421.9	237.8	34.0	4.6	242.45	(29.35)
2000	552.1	267.8	463.0	234.3	33.5	5.1	239.40	(28.40)
2001	642.0	345.9	555.6	302.7	43.2	6.0	308.62	(37.28)
2002	625.9	-47.5	541.5	-41.6	-5.9	5.8	-35.74	(11.76)
2003	733.9	377.9	634.3	330.7	47.2	6.9	337.53	(40.37)
2004	890.0	691.9	768.6	605.4	86.5	8.4	613.79	(78.11)
2005 ⁵	829.6	916.2	715.2	801.7	114.5	7.9	809.57	(106.63)
2006	949.8	885.9	813.3	775.2	110.7	9.4	784.58	(361.55)
Totals	8,216.1	4,762.2	6,649.5	4,166.9	595.3	73.1	4,240.0	(829.73)

¹Source of data for 1992-1996: Joseph W. Glauber, Deputy Chief Economist, U.S. Department of Agriculture, Double Indemnity: Crop Insurance and the Failure of U.S. Agricultural Disaster Policy, paper prepared for American Enterprise Institute Project, Agricultural Policy for the 2007 Farm Bill and Beyond, directed by Bruce Gardner and Daniel A. Sumner.
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³The ceding commission is based on retained premium. It was assumed companies retain 80% of their gross premium. RMA would pay a 2% ceding commission on the quota share retained by RMA.
⁴Source: Risk Management Agency, USDA, Washington, D.C. WEB Page: <http://www.rma.usda.gov/data/>, for years 1992 to 2006. The 2006 losses are not complete.
⁵The 5% Quota share was paid in 2005 and 2006. House quota share was applied to all years and includes the 5% reduction that is already being applied.

Compare Crop Insurance Delivery Cost with Private P/C Insurance With and Without Crop Insurance Budget Cuts

Year	Net Cut in Underwriting Gains for USDA Quota Share (\$ Millions)	Premium Subsidy ⁴ (\$ Millions)	Farmer Paid Premium ⁴ (\$ Millions)	Total Premium = A&O + "Net Gain" + Premium Subsidy + Farmer Paid Premium ⁴ (\$ Millions)	Total Dollars Paid Out in Indemnities ⁴ (\$ Millions)	Percent of "Total Premium" Paid Out in Indemnities Assuming A&O & Gain cuts	Percent of "Total Premium" Paid Out in Indemnities Assuming No Cuts
1992	(1.35)	197.7	564.4	922.8	917.9	99.5%	89.9%
1993	(11.89)	199.9	555.7	822.3	1,654.0	201.1%	180.7%
1994	(11.10)	258.5	692.0	1,216.8	571.4	47.0%	45.0%
1995	(13.27)	891.3	659.0	1,950.9	1,598.8	82.0%	76.4%
1996	(27.07)	982.3	857.9	2,394.9	1,492.4	62.3%	58.5%
1997	(40.45)	910.9	871.4	2,419.1	993.3	41.1%	38.7%
1998	(31.15)	946.2	929.8	2,466.3	1,735.4	70.4%	64.5%
1999	(29.35)	955.0	1,357.4	2,976.7	2,392.6	80.4%	79.0%
2000	(28.40)	951.6	1,586.1	3,240.1	2,584.6	79.8%	76.8%
2001	(37.28)	1,781.2	1,197.7	3,843.1	2,968.0	77.2%	75.0%
2002	(11.76)	1,737.9	1,173.8	3,417.4	4,062.2	118.9%	116.4%
2003	(40.37)	2,044.9	1,391.3	4,408.0	3,261.5	74.0%	71.6%
2004	(78.11)	2,477.4	1,709.1	5,568.9	3,292.4	59.1%	55.7%
2005 ⁵	(106.63)	2,341.3	1,604.0	5,470.1	2,334.8	42.7%	41.3%
2006	(361.55)	2,779.0	1,929.5	6,306.3	3,445.7	54.6%	55.2%
Totals	(829.73)	19,455.1	17,079.1	47,423.7	33,305.0	79.3%	75.0%

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GAO Analysis Vs. KSU

- GAO data was slightly different. Data reported on calendar year, reinsurance year, fiscal year so KSU accepted GAO data.
- **GAO assumed A&O covered all cost therefore the underwriting gain was pure profit.**
- **Without an audit of each companies books there is no way to estimate the operating cost and profit.**

GAO Analysis Vs. KSU

- GAO analysis considered only the most recent 5 year period. They later considered 10 years.
- **KSU does not believe even 15 years is sufficient data because it only included one major loss year in the Corn Belt, 1993 and ignores 1988 and 1983.**

GAO Analysis Vs. KSU

- KSU did not estimate the profit level for the industry.
- **KSU estimated the percent of each total dollar (includes farmer and government) paid in to the program that is paid in claims.**
- **After claims are paid the remaining amount is used to cover loss adjustment expense, reinsurance expense, operating expenses of the company, **agent commissions**, and profit.**

GAO Analysis Vs. KSU

- Amount of total premium remaining after claims are paid was compared with property casualty insurance.
- **The premium margins were equal to or smaller than for other similar lines of insurance.**
- **The crop insurance industry is at least as efficient as other lines of private property-casualty insurance.**

Cost of Risk Reduction with Insurance: 1995-1997 (% of total premium paid in claims)

- accident and health (1997 only) 83
- commercial auto 67
- passenger auto 66
- homeowners 67
- product liability 72
- medical malpractice 57
- workers' compensation 63
- private crop hail 60-70
- federal crop insurance 74
- federal crop insurance¹ 79+

¹Includes House Proposed Crop Insurance Cuts

Additional Cuts?

- The House Bill says a minimum of 12.5% quota share "ceded" to RMA.
- The administration is asking for 22% quota share after imposing a 5% quota share in 2005.
- **What is the impact of a 22% quota share?**

So where do these cuts land?

- The \$20 million cut in RMA's funding for R&D will not effect Barnaby because there was little chance of any work be contracted with 4B Ag Consultants.
- Expect downward pressure on commission rates and other services provided to agents.
- **Especially in states that have underwriting losses.**
- **There is no Free Lunch!**

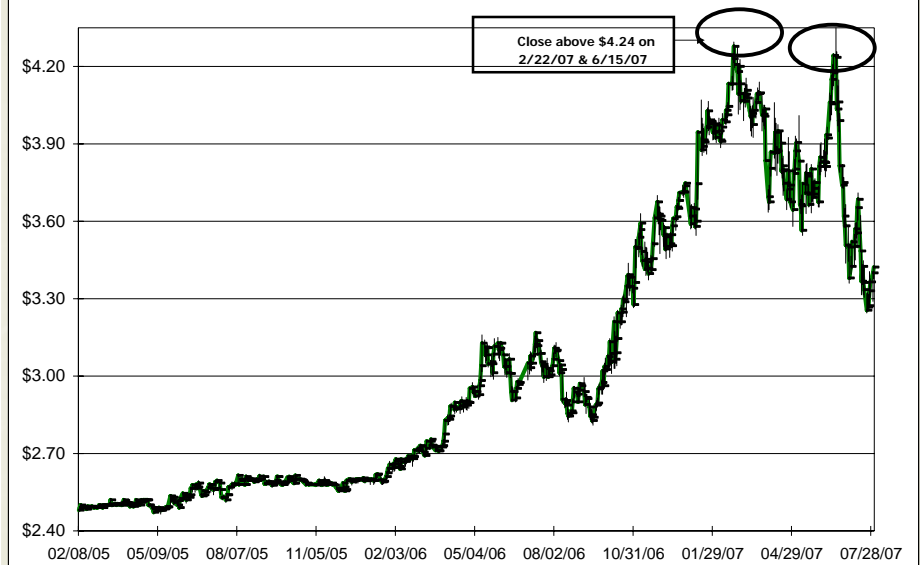
Has the risk to insurance companies increased because of higher coverage and premiums?

- **Most risk in 30 years!**
- **Reductions in A&O**
- **Increase in quota share**
- **Overstated expected yields on GRIP/GRP**
- **RA-HPO is preferred by farmers over CRC because of unlimited coverage.**

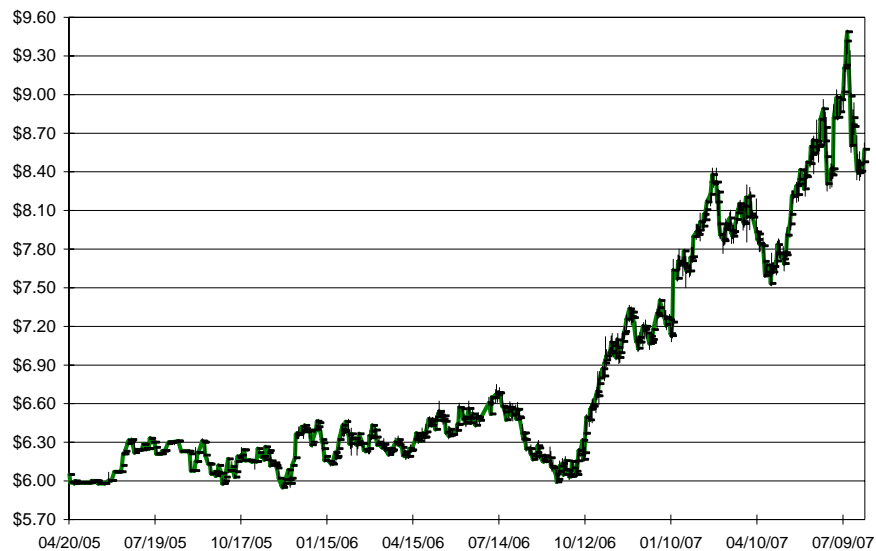
Have Reached a New Price Plateau in the Grain Markets?

- Have We Reached a New Demand/Usage Plateau?
- Have We Reached a New **Price** Plateau?

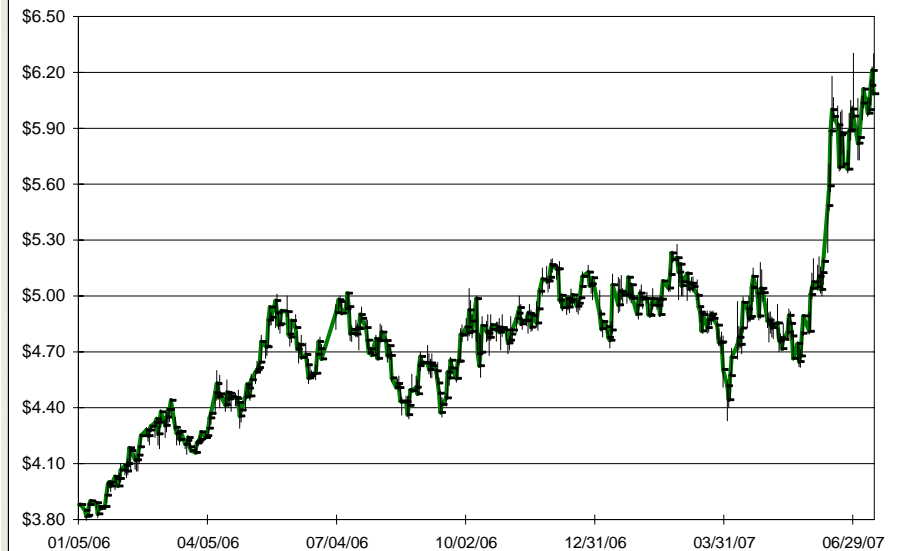
2007 December Corn Futures (High, Low, Close)



2007 November Soybean Futures (High, Low, Close)



2007 KC Wheat Futures (High, Low, Close)



2007 Minneapolis Spring Wheat Futures (High, Low, Close)



Supply/Demand Soybeans

Year Beginning Sept. 1	2003/04	2004/05	2005/06	2006/07	2007/08
Acres Planted (1000 acres)	73,404	75,208	72,032	75,522	64,081
Acres Harvested (1000 acres)	72,476	73,958	71,251	74,602	63,285
Yield Per Acre (Bushels)	33.9	42.2	43.0	42.7	41.5
Production (Million Bushels)	2,454	3,124	3,063	3,188	2,625
Beginning Stocks (Million Bushels)	178	112	256	449	600
Total Supply (Million Bushels)	2,638	3,242	3,322	3,642	3,229
Exports (Million Bushels)	887	1,097	947	1,090	1,020
Feed, Seed, and Residual Use (Million Bushels)	109	192	187	171	164
Crush (Million Bushels)	1,530	1,696	1,739	1,780	1,800
Total Consumption (Million bushels)	2,526	2,986	2,873	3,041	2,985
Ending Stocks (Million Bushels)	112	256	449	600	245
Average Farm Prices (\$/bu)	7.34	5.74	5.66	6.35	7.75
Stock to Use	4.43%	8.57%	15.63%	19.73%	8.21%

Supply/Demand Corn

Year Beginning Sept. 1	2004/05	2005/06	2006/07	2007/08
Acres Planted (1000 acres)	80,929	81,779	78,327	92,888
Acres Harvested (1000 acres)	73,631	75,117	70,648	85,418
Yield Per Acre (Bushels)	160.4	148.0	149.1	150.3
Production (Million Bushels)	11,807	11,114	10,535	12,840
Beginning Stocks (Million Bushels)	958	2,114	1,967	1,137
Total Supply (Million Bushels)	12,776	13,237	12,512	13,992
Exports (Million Bushels)	1,818	2,147	2,100	2,000
Feed and Residual Use (Million Bushels) ¹	6,158	6,141	5,750	5,700
Food, Seed, Ind. (Million Bushels)	2,686	2,981	3,525	4,790
Ethanol for Fuel ²		1,603	2,150	3,400
Total Consumption (Million bushels)	10,662	11,270	11,375	12,490
Ending Stocks (Million Bushels)	2,114	1,967	1,137	1,502
Average Farm Prices (\$/bu)	2.06	2.00	3.05	3.10
Stock to Use	19.83%	17.45%	10.00%	12.03%

Source for historical data: USDA data on <http://www.farmdoc.uiuc.edu> (Updated 8/08/07).

¹Assumes DDGS retain 30% of the feed value of corn and are included in the feed and residual category by the USDA..

²Assumes 32 ethanol plants now under construction will come online Feb. 1 - Aug. 31, 2007 and 52 more plants also under construction, will come online Sept. 2007 - Aug. 2008.

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Production (Million Bushels)	11,807	11,114	10,535	12,840	13,325
Beginning Stocks (Million Bushels)	958	2,114	1,967	1,137	1,137
Total Supply (Million Bushels)	12,776	13,237	12,512	13,992	14,462
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Ethanol for Fuel²		1,603	2,150	3,400	3,400
Total Consumption (Million bushels)	10,662	11,270	11,375	12,490	12,490
Ending Stocks (Million Bushels)	2,114	1,967	1,137	1,502	1,972
Average Farm Prices (\$/bu)	2.06	2.00	3.05	3.10	2.90
Stock to Use	19.83%	17.45%	10.00%	12.03%	15.8%

Source for historical data: USDA data on <http://www.farmdoc.uiuc.edu> (Updated 8/08/07).

¹Assumes DDGS retain 30% of the feed value of corn and are included in the feed and residual category by the USDA..

²Assumes 32 ethanol plants now under construction will come online Feb. 1 - Aug. 31, 2007 and 52 more plants also under construction, will come online Sept. 2007 - Aug. 2008.



28

Supply/Demand Corn

Year Beginning Sept. 1	2004/05	2005/06	2006/07	2007/08	High
Acres Planted (1000 acres)	80,929	81,779	78,327	92,888	92,888
Acres Harvested (1000 acres)	73,631	75,117	70,648	85,418	85,418
Yield Per Acre (Bushels)	160.4	148.0	149.1	150.3	156.0
Production (Million Bushels)	11,807	11,114	10,535	12,840	13,325
Beginning Stocks (Million Bushels)	958	2,114	1,967	1,137	1,137
Total Supply (Million Bushels)	12,776	13,237	12,512	13,992	14,462
Exports (Million Bushels)	1,818	2,147	2,100	2,000	2,000
Feed and Residual Use (Million Bushels) ¹	6,158	6,141	5,750	5,700	5,700
Food, Seed, Ind. (Million Bushels)	2,686	2,981	3,525	4,790	4,790
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30

Supply/Demand Corn

Year Beginning Sept. 1	2004/05	2005/06	2006/07	2007/08	High	Low
Acres Planted (1000 acres)	80,929	81,779	78,327	92,888	92,888	92,888
Acres Harvested (1000 acres)	73,631	75,117	70,648	85,418	85,418	85,418
Yield Per Acre (Bushels)	160.4	148.0	149.1	150.3	156.0	148.0
Production (Million Bushels)	11,807	11,114	10,535	12,840	13,325	12,642
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Total Supply (Million Bushels)	12,776	13,237	12,512	13,992	14,462	13,779
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Average Farm Prices (\$/bu)	2.06	2.00	3.05	3.10	2.90	3.50
Stock to Use	19.83%	17.45%	10.00%	12.03%	15.8%	10.3%

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31

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32

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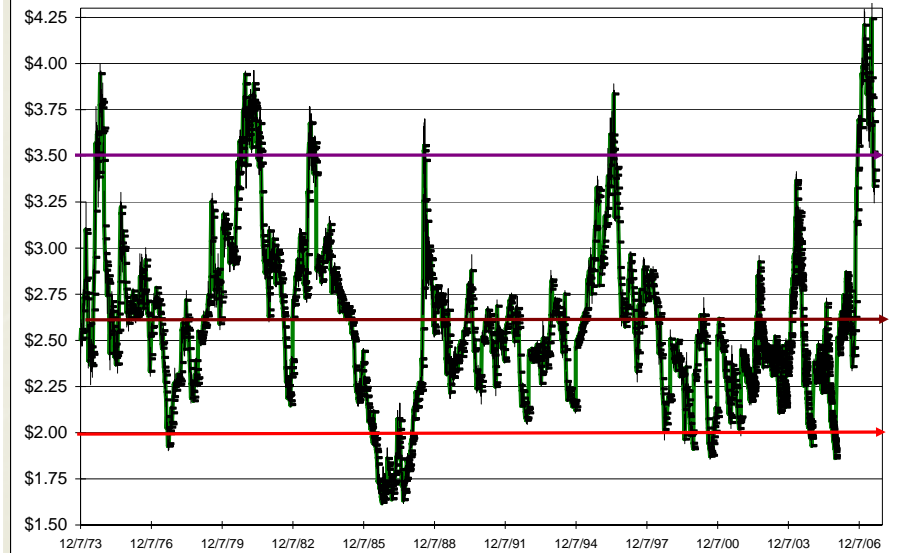
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1974-2007 December Corn Futures (High, Low, Close)



Have Reached a New Plateau in the Grain Markets?

- What is different with this price spike?
- Most past price spikes have been caused by supply shocks.
- This price spike was caused by a demand shock.

Without Yield There is No Revenue!

- All farm market plans assume production.
- Requires bushels to offset hedge, forward contract, or on farm feeding.
- There is little risk protection in the FSA farm program with current higher market prices.

Have Reached a New Plateau in the Grain Markets?

- The 1973 price spike was caused by a demand shock with the Russian grain deal.
- Before 1973 farmers delivered their grain to the elevators under loan. They would then forfeit the grain to the government.
- Now the USA is in an international grain market and we can import grain as well as export grain.

Have Reached a New Plateau in the Grain Markets?

- Other places in the world can increase their production.
- USA could shift other crop acres to corn.
- The only large amount of land left for crops is CRP. Will it be released?

GRIP Price Risk

- The yield distribution is likely normal and the standard error of the mean smaller than for most farms in the county.
- Because it is a normal distribution the expected yield and average yield are the same.
- The yields have been adjusted for trend.

GRIP Price Risk

- Claims start with only a 10% price decline with a county yield equal to the trend adjusted expected yield.
- Little chance in the Corn Belt for county yield to equal zero so the call has all ready lost value because yield cuts the payment.

Define Yield for GRIP/GRP

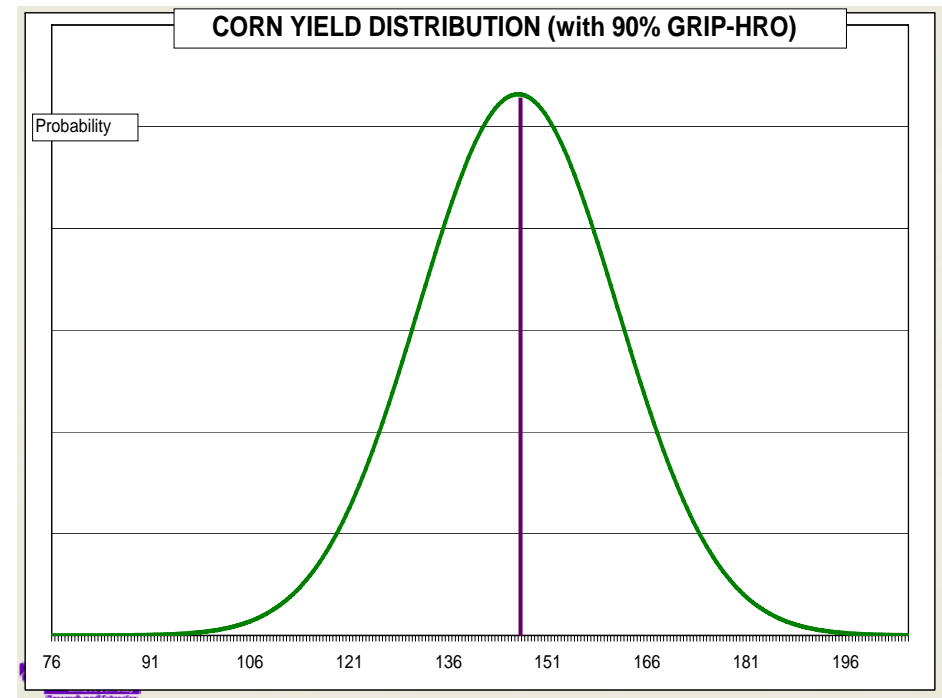
- <http://www.rma.usda.gov/FTP/Policies/2005/ra/PDF/05102co.pdf>
- **“Expected county yield - The yield contained in the actuarial documents, on which your coverage for the crop year is based. This yield is determined using historical NASS county average yields, as adjusted by FCIC.”**
- **“Payment yield - The yield determined by FCIC based on NASS yields for each insurable crop’s type and practice, as adjusted by FCIC, and used to determine whether an indemnity will be due.”**

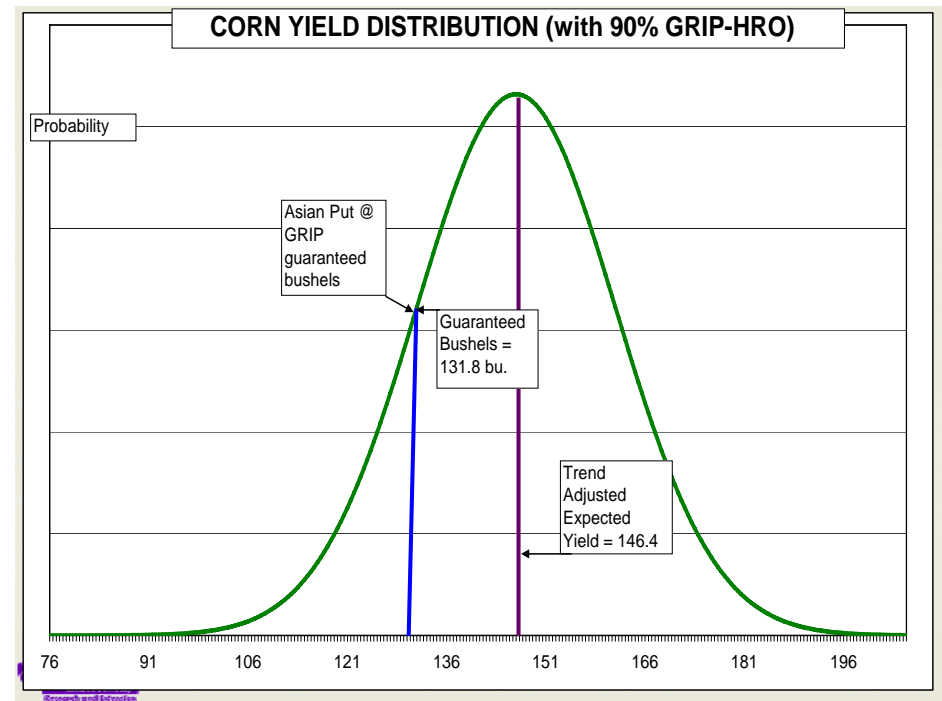
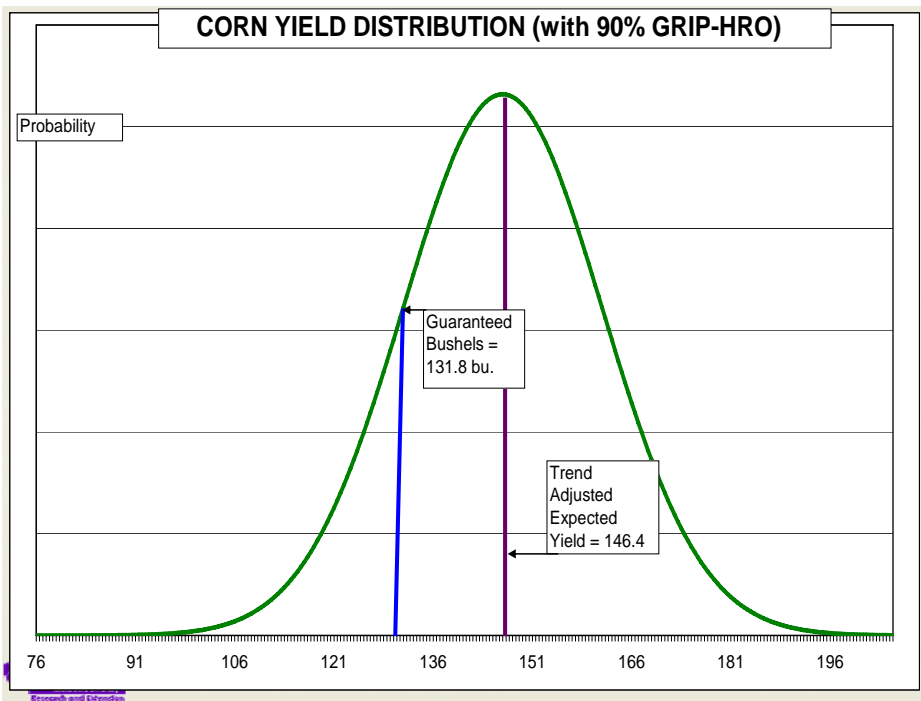
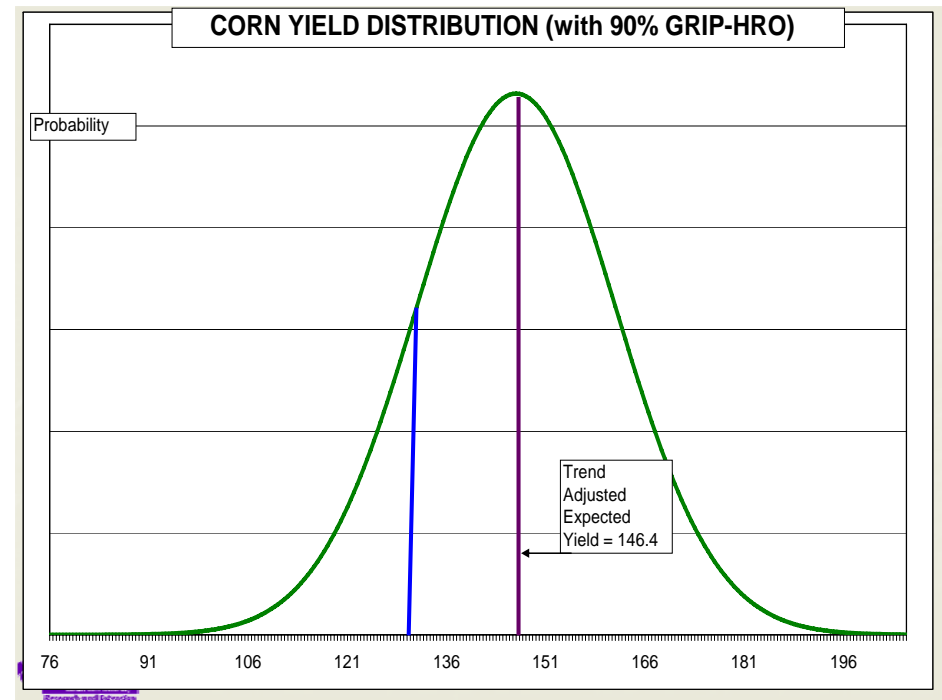
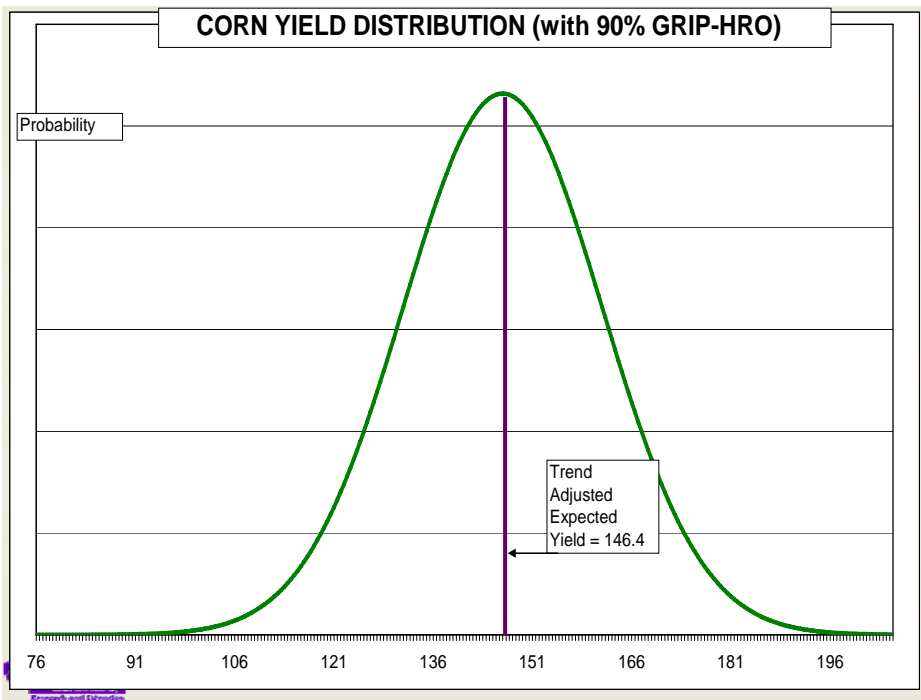
Revenue Insurance, Yield Adjusted Options

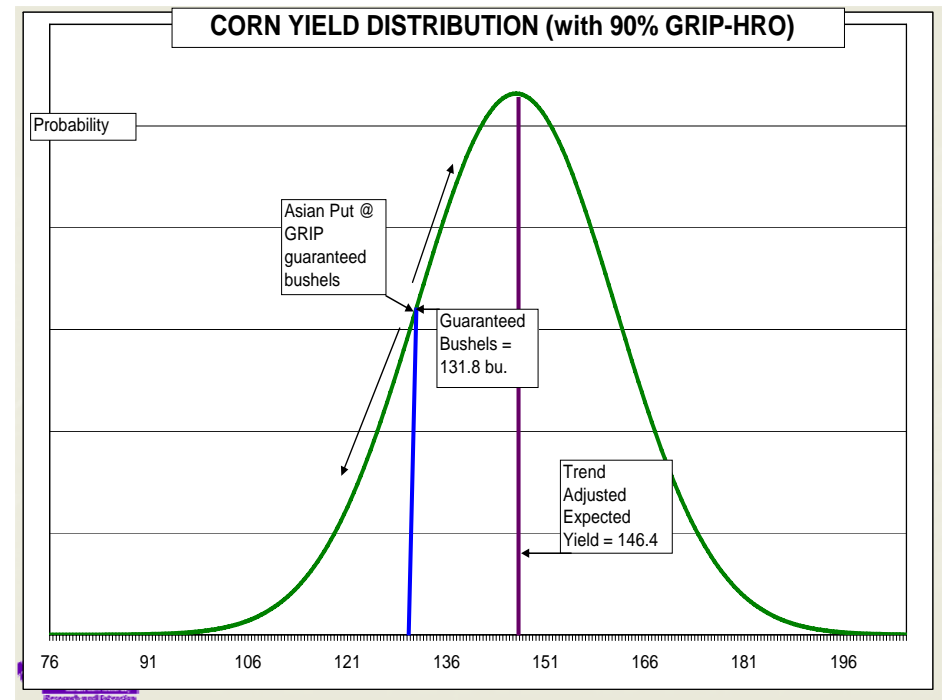
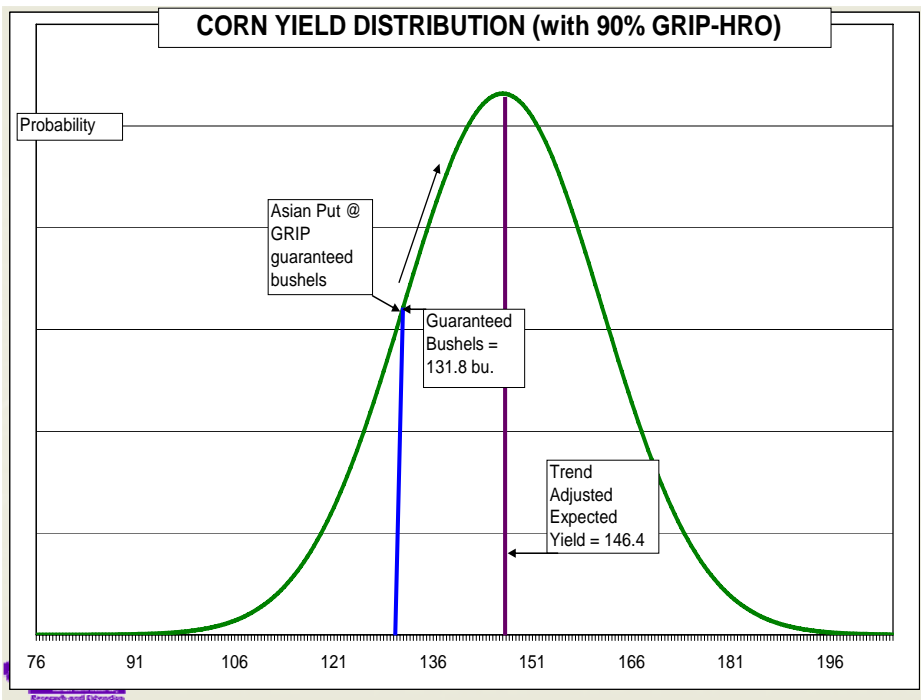
- **American options can be exercised; European/Asian options can not be exercised.**
- **American options are settled on a spot market; Asian options are settled on an average price.**
- **American, European, and Asian options are based on fixed yields; in CRC/RA yield adjusted options lose value with change in yield.**
- **Most of the CRC & RA risk is yield. Price risk is probably a greater share of the revenue risk in GRIP than in RA/CRC because of the aggregate yield is less variable.**

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Yield Adjusted Asian Put vs. American Put In GRIP

Set GRP and GRIP Price Election equal at: \$4.06
 American Put Option Strike set a: \$4.06
 Harvest Price Declines by \$1.00 \$3.06
 Expected County Yield 146.4
 90% Crop Insurance Coverage Trigger Yield 131.8

(All values are Gross with no premium deduction and no basis adjustment for cash price)

County	Yield	Sales	Price Adjusted GRP Indemnity	American Put Gain	Combined Revenue	Yield Indemnity	Adjusted Asian Put	Combined Yield & Put GRIP Indemnity	American Put Gain per Bu.	Asian Put Gain per Guaranteed Bu.
132	403.31	0.00	146.40	549.71	0.00	146.40	146.40	549.71	1.00	1.00

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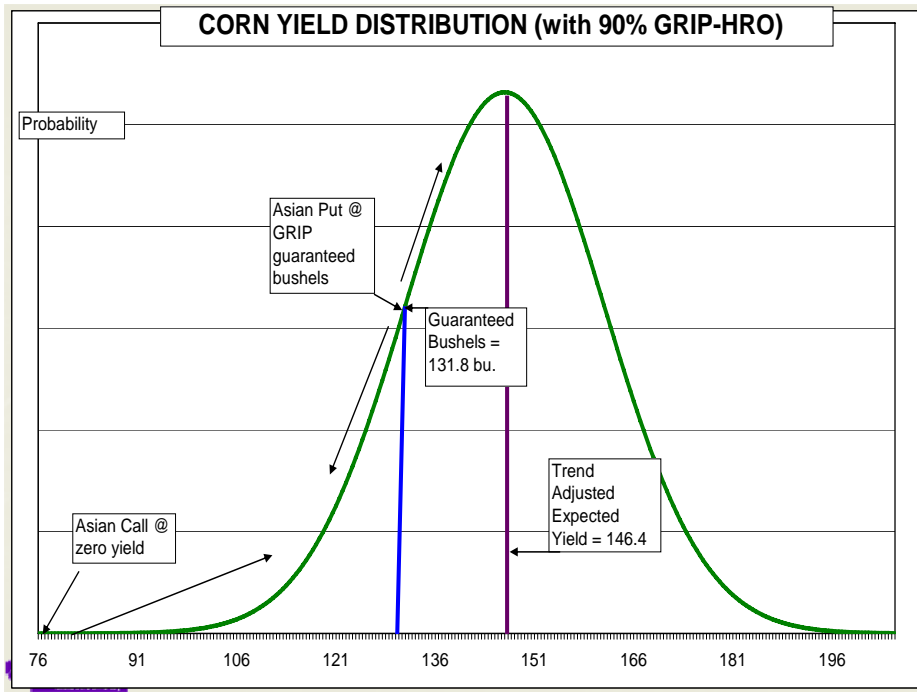
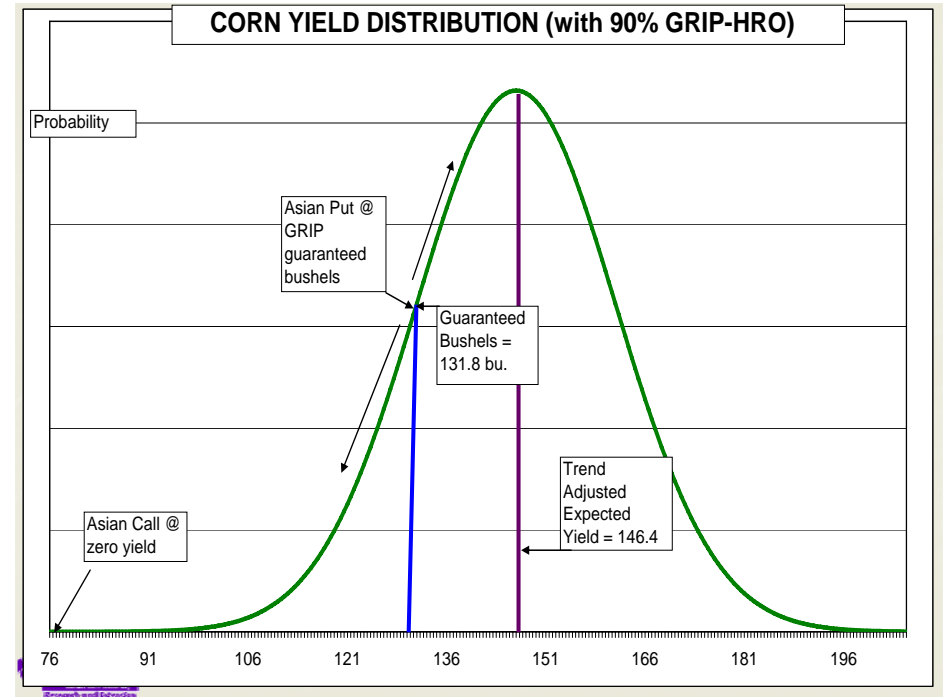
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172	\$525.71	\$0.00	\$146.40	\$672.11	\$0.00	\$10.44	\$10.44	\$536.15	\$1.00	\$0.07
162	495.11	0.00	146.40	641.51	0.00	44.43	44.43	539.54	1.00	0.30
152	464.51	0.00	146.40	610.91	0.00	78.42	78.42	542.93	1.00	0.54
142	433.91	0.00	146.40	580.31	0.00	112.41	112.41	546.32	1.00	0.77
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	Sales	GRP Indemnity	American Put Gain				Yield Indemnity	Yield Adjusted Asian Put			
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152	464.51	0.00	146.40	610.91	0.00	78.42	78.42	542.93	1.00	0.54	
142	433.91	0.00	146.40	580.31	0.00	112.41	112.41	546.32	1.00	0.77	
132	403.31	0.00	146.40	549.71	0.00	146.40	146.40	549.71	1.00	1.00	
122	372.71	45.10	146.40	564.21	45.10	135.29	180.39	553.10	1.00	1.03	
112	342.11	90.19	146.40	578.70	90.19	124.18	214.38	556.49	1.00	0.94	
102	311.51	135.29	146.40	593.20	135.29	113.08	248.37	559.88	1.00	0.86	
91.8	280.91	180.39	146.40	607.70	180.39	101.97	282.36	563.27	1.00	0.77	
81.8	250.31	225.49	146.40	622.20	225.49	90.86	316.35	566.66	1.00	0.69	
71.8	219.71	270.58	146.40	636.69	270.58	79.75	350.34	570.05	1.00	0.61	
61.8	189.11	315.68	146.40	651.19	315.68	68.65	384.33	573.44	1.00	0.52	
51.8	158.51	360.78	146.40	665.69	360.78	57.54	418.32	576.83	1.00	0.44	
41.8	127.91	405.88	146.40	680.18	405.88	46.43	452.31	580.22	1.00	0.35	
31.8	97.31	450.97	146.40	694.68	450.97	35.32	486.30	583.60	1.00	0.27	
21.8	66.71	496.07	146.40	709.18	496.07	24.21	520.29	586.99	1.00	0.18	
11.8	36.11	541.17	146.40	723.68	541.17	13.11	554.28	590.38	1.00	0.10	
0	0.00	594.38	146.40	740.78	594.38	0.00	594.38	594.38	1.00	0.00	



Yield Adjusted Asian Call vs. American Call In GRIP

Set GRP and GRIP Price Election equal at: \$4.06
 American Call Option Strike set a: \$4.06
 Harvest Price Increases by \$1.00 \$5.06
 HRO Adjustment Factor 1.25
 Expected County Yield 146.4
 90% Crop Insurance Coverage Insurable Yield 131.8
 (All values are Gross with no premium deduction and no basis adjustment for cash price)

County Yield	Price Adjusted			Combined Revenue	Yield Indemnity	Yield Adjusted Asian Call	Combined Yield & Call GRIP		Combined Revenue	American Call Gain per Guaranteed Bu.	Asian Call Gain per Guaranteed Bu.
	Sales	GRP Indemnity	American Call Gain				Yield Indemnity	Yield Adjusted Asian Call			
0	0.00	594.38	\$146.40	740.78	594.38	\$146.40	\$740.78	740.78	1.00	1.00	

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County	Yield	Sales	Price Adjusted GRP Indemnity	American Call Gain	Combined Revenue	Yield Indemnity	Yield Adjusted Asian Call	Combined Yield & Call GRIP Indemnity	Combined Revenue	American Call Gain per anteed Bu.	Yield Adjusted Asian Call Gain per anteed Bu.
172	\$869.31	\$0.00	\$146.40	\$1,015.71	\$0.00	\$0.00	\$0.00	\$869.31	\$1.00	\$0.00	
162	818.71	0.00	\$146.40	965.11	0.00	\$0.00	\$0.00	818.71	1.00	0.00	
152	768.11	0.00	\$146.40	914.51	0.00	\$0.00	\$0.00	768.11	1.00	0.00	
142	717.51	0.00	\$146.40	863.91	0.00	\$0.00	\$0.00	717.51	1.00	0.00	
132	666.91	0.00	\$146.40	813.31	0.00	\$0.00	\$0.00	666.91	1.00	0.00	
122	616.31	45.10	\$146.40	807.81	45.10	\$11.11	\$56.21	672.51	1.00	0.08	
112	565.71	90.19	\$146.40	802.30	90.19	\$22.22	\$112.41	678.12	1.00	0.15	
102	515.11	135.29	\$146.40	796.80	135.29	\$33.32	\$168.62	683.72	1.00	0.23	
91.8	464.51	180.39	\$146.40	791.30	180.39	\$44.43	\$224.82	689.33	1.00	0.30	
81.8	413.91	225.49	\$146.40	785.80	225.49	\$55.54	\$281.03	694.93	1.00	0.38	
71.8	363.31	270.58	\$146.40	780.29	270.58	\$66.65	\$337.23	700.54	1.00	0.46	
61.8	312.71	315.68	\$146.40	774.79	315.68	\$77.75	\$393.44	706.14	1.00	0.53	
51.8	262.11	360.78	\$146.40	769.29	360.78	\$88.86	\$449.64	711.75	1.00	0.61	
41.8	211.51	405.88	\$146.40	763.78	405.88	\$99.97	\$505.85	717.35	1.00	0.68	
31.8	160.91	450.97	\$146.40	758.28	450.97	\$111.08	\$562.05	722.96	1.00	0.76	
21.8	110.31	496.07	\$146.40	752.78	496.07	\$122.19	\$618.26	728.56	1.00	0.83	
11.8	59.71	541.17	\$146.40	747.28	541.17	\$133.29	\$674.46	734.17	1.00	0.91	
0	0.00	594.38	\$146.40	740.78	594.38	\$146.40	\$740.78	740.78	1.00	1.00	

GRIP & Multiple Year Losses

- In a recent CARD paper, Dr. Babcock states; "Also, because GRIP bases its guarantee levels on long-term trend yields, two or three consecutive years of low yields in a county have no impact on a farmer's guarantees."

- Is that true?

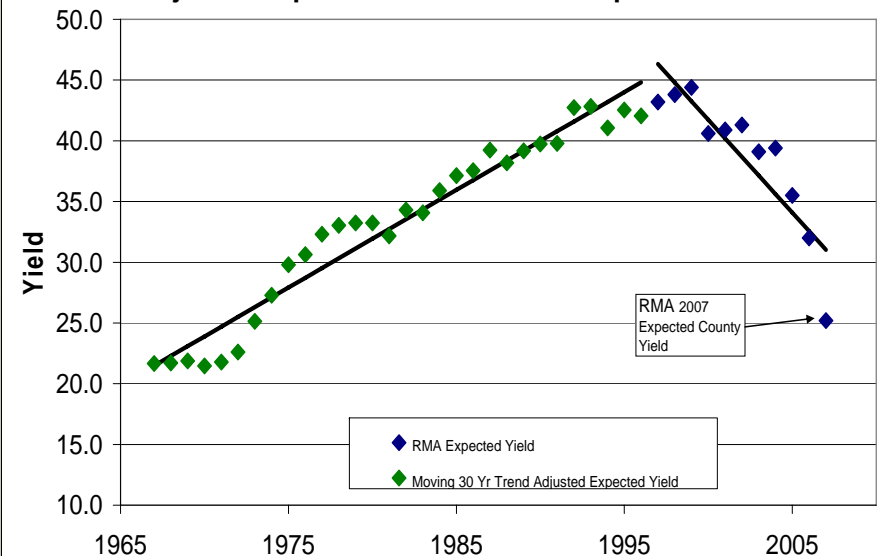
Source: Bruce Babcock, "Farm Policy Amid High Prices: Which Direction Will We Take?", Iowa State University, http://www.card.iastate.edu/iowa_ag_review/fall_06/article1.aspx



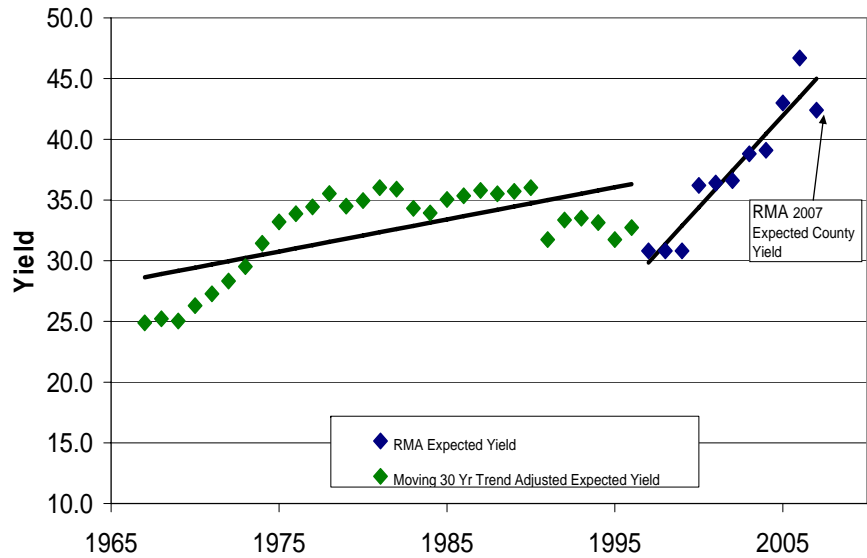
Compare Cheyenne & Ottawa

	Cheyenne	Ottawa
RMA Expected County Yield	25.2	42.4
Year with Largest Yield loss	2004	1989
Largest Disaster County Yield Loss	7.8	2.1
5 Year Average Percent of Planted Wheat Acres under Irrigation	5.1%	<1%
NASS 30 Years Simple Average Planted Yield	33.3	35.3
NASS 30 Yr Standard Deviation of Planted Yield	10.7	11.5
NASS 30Yr Coefficient of Variation	32.2%	32.5%
GRP Rate	8.1%	6.6%
GRIP Rate	14.6%	9.8%
GRIP-HPO Rate	16.1%	10.7%

Cheyenne County KS 30 Year Moving Linear Trend Adjusted Expected Yield vs. RMA Expected Yield



Ottawa County KS 30 Year Moving Linear Trend Adjusted Expected Yield vs. RMA Expected Yield



Supplemental Area Based Coverage

- Farmers could add GRP, GRIP, or GRIP-HPO to their aph based product equal to their deductible.
- For example, a 70% CRC insured farmer could add a 30% GRP coverage.
- If there is a GRP claim they would be paid 30% of the calculated payment.
- Farmers would pay 30% of the current premium

House Cut GRIP & GRP Subsidy

- 70% & 75% GRIP/GRP Subsidy set at 59%
- 80% GRIP/GRP Subsidy set at 55%
- 90% GRIP/GRP Subsidy set at 51%

Summary

- Trend yield method that sets expected county yield is the key for GRP and GRIP.
- Yield basis risk, high correlation with farm yield reduces basis risk.
- A farm level yield variance that is less than county level yield variance reduces basis risk.
- Purchase of the 1.5 GRIP/GRP scalar reduces basis risk.

Combo Policy

- Combo will be a base “yield” (APH) product. Farmers will then add the revenue endorsement. If they add the revenue endorsement, then they may also add the replacement endorsement.
- Why doesn't the policy allow farmers to buy only the replacement endorsement without first buying the revenue endorsement?
- Downside price protection is unnecessary if the crop has already been forward priced or if covered by FSA commodity programs.
- The revenue endorsement is the most expensive endorsement and may be a duplication of risk protection.

Combo Policy

- The \$1.50 limit was set in 1990 with the first crop insurance contract that included price risk and replaced inventory at current market value.
- The limit was necessary because few insurance professionals had any experience with price risk and the product was privately reinsured.
- Price limit set at 160% of base price; if the market has reached a new price plateau then Combo may not replace inventory.

Price Limits

- New for 2007 is the price limit (\$1.50 corn, \$3.00 soybeans, \$2.00 wheat, and \$0.70 cotton) has been added to GRIP. CRC has always had the limit while RA allows unlimited price change.
- The price limit also applies to the downside price risk. In the past farmers would have been covered by the FSA loan if prices fell more than the limit.
- Agents selling CRC and GRIP should be careful making the claim that yields will be replaced at the higher market value because the market could exceed the limit.

Durbin-Brown

- DB is a “free” GRIP contract based on state yield, and insurance prices.
- DB eliminates the CC and non-recourse loans.
- DB is based on the crop and acres planted, not historical base acres.
- Paid on 90% of acres planted not 85% of base acres.
- DB revenue guarantee floats with the market.
- Guarantee is based on 27 year trend adjusted expected state yield.

Durbin-Brown Wheat Revenue Payment based on KS Yields

Slope = 0.256445 Draft¹

Payment Allocated to Farm

Durbin-Brown House

Year	State Plant Yield Per Acre	Observed Yd Adj Trend	CRC Strike Price (\$/bu)	Harvt Prices (\$/bu)	Durbin-Brown Strike Price	Durbin-Brown Cov-erage	Rev-enu to Count	State Durbin-Brown Pymt	Durbin-Brown Pymt	Durbin-Brown Pymt	Yield Loss Share of Yd ²	Price Loss Share of Yd ²	90% X Ratio Farm Prgm			NASS National Avg Price	CC X base on effective Strike ³	Est. LDP based on NASS Price & Loan ⁴
													37.0	35.6	35.6			
1980/81	32.3	39.2	4.25	4.09	3.27	107.86	160.31	0.00	0.00	0.00	0.00	0.00	0.00	3.99	0.00	0.00	0.00	
1981/82	21.8	28.4	4.88	4.22	3.76	124.04	119.98	4.06	0.00	0.00	0.00	0.00	0.00	3.79	3.69	0.00	0.00	
1982/83	32.5	38.9	4.56	3.64	4.32	142.64	141.74	0.91	0.00	0.91	0.85	3.45	5.66	3.51	3.77	0.00	0.00	
1983/84	34.0	40.1	3.92	3.58	4.45	146.96	143.64	3.32	0.00	3.32	3.10	3.51	3.77	3.51	3.77	0.00	0.00	
1984/85	32.4	38.3	4.05	3.65	4.18	137.84	139.84	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.39	7.55	0.00	
1985/86	34.9	40.6	3.54	3.20	3.84	126.64	130.00	0.00	0.00	0.00	0.00	0.00	0.00	3.08	17.30	0.00	0.00	
1986/87	29.3	34.7	2.74	2.44	3.44	113.62	84.39	29.23	6.91	22.32	27.34	2.42	21.70	19.24	3.14	3.14	13.69	0.00
1987/88	34.2	39.4	2.39	2.64	2.93	96.58	103.85	0.00	0.00	0.00	0.00	0.00	0.00	2.57	21.70	13.69	0.00	
1988/89	31.7	36.5	2.78	3.79	2.64	86.99	138.56	0.00	0.00	0.00	0.00	0.00	0.00	3.72	0.00	0.00	0.00	
1989/90	17.2	21.8	3.65	4.14	2.94	96.95	90.42	6.53	6.53	0.00	6.11	3.72	0.00	0.00	0.00	0.00	0.00	
1990/91	38.1	42.4	3.69	3.29	3.37	111.25	139.49	0.00	0.00	0.00	0.00	2.61	21.70	12.21	3.00	19.81	0.00	
1991/92	30.8	34.9	3.07	2.86	3.47	114.46	99.65	14.81	6.23	8.57	13.85	3.00	19.81	0.00	0.00	0.00	0.00	
1992/93	30.3	34.2	3.05	3.59	3.27	107.88	122.75	0.00	0.00	0.00	0.00	3.24	12.27	0.00	0.00	0.00	0.00	
1993/94	32.1	35.7	3.20	2.87	3.11	102.50	102.51	0.00	0.00	0.00	0.00	3.26	11.64	0.00	0.00	0.00	0.00	
1994/95	36.4	39.7	3.00	3.37	3.08	101.77	133.72	0.00	0.00	0.00	0.00	3.45	5.66	0.00	0.00	0.00	0.00	
1995/96	24.4	27.5	3.52	4.24	3.24	106.99	116.75	0.00	0.00	0.00	0.00	4.55	0.00	0.00	0.00	0.00	0.00	
1996/97	21.6	24.4	3.91	5.76	3.48	114.77	140.80	0.00	0.00	0.00	0.00	4.30	0.00	0.00	0.00	0.00	0.00	



Durbin-Brown Wheat Revenue Payment based on KS Yields

Slope = 0.256445 Draft¹

Payment Allocated to Farm

Durbin-Brown House

Year	State Plant Yield Per Acre	Observed Yd Adj Trend	CRC Strike Price (\$/bu)	Harvt Prices (\$/bu)	Durbin-Brown Strike Price	Durbin-Brown Cov-erage	Rev-enu to Count	State Durbin-Brown Pymt	Durbin-Brown Pymt	Durbin-Brown Pymt	Yield Loss Share of Yd ²	Price Loss Share of Yd ²	90% X Ratio Farm Prgm			NASS National Avg Price	CC X base on effective Strike ³	Est. LDP based on NASS Price & Loan ⁴
													37.0	35.6	35.6			
1997/98	44.0	46.5	4.13	3.64	3.85	127.10	169.59	0.00	0.00	0.00	0.00	0.00	0.00	3.38	7.86	0.00	0.00	
1998/99	46.3	48.6	3.95	3.04	3.99	131.80	147.57	0.00	0.00	0.00	0.00	0.00	0.00	2.65	21.70	10.73	0.00	
1999/00	43.2	45.3	3.16	2.84	3.74	123.54	128.47	0.00	0.00	0.00	0.00	0.00	0.00	2.48	21.70	17.02	0.00	
2000/01	35.5	37.3	3.34	3.02	3.48	114.92	112.60	2.32	0.00	2.32	2.17	2.62	21.70	11.84	2.62	21.70	11.84	
2001/02	33.5	35.0	3.31	3.07	3.27	107.88	107.47	0.41	0.41	0.00	0.38	2.78	21.70	5.92	3.56	2.20	0.00	
2002/03	27.9	29.2	3.34	3.09	3.33	109.90	90.16	19.74	19.74	0.00	18.46	3.56	2.20	0.00	3.40	7.23	0.00	
2003/04	45.7	46.7	3.73	3.14	3.46	114.17	146.76	0.00	0.00	0.00	0.00	3.40	7.23	0.00	0.00	0.00	0.00	
2004/05	31.5	32.2	3.40	3.77	3.49	115.16	121.47	0.00	0.00	0.00	0.00	3.40	7.23	0.00	0.00	0.00	0.00	
2005/06	38.0	38.5	3.56	3.28	3.56	117.58	126.32	0.00	0.00	0.00	0.00	3.42	6.60	0.00	0.00	0.00	0.00	
2007/08		36.7	4.52		3.87	127.59												
5 Yr Olympic Avg Yield																		
Average Payment								\$3.01	\$1.63	\$1.39	\$2.82			\$9.88	\$3.36			
Frequency of Claim								33.3%	22.2%	18.5%	33.3%			74.1%	25.9%			
Average Paid Payment								\$9.03	\$7.31	\$7.49	\$8.45			\$13.33	\$12.95			



Durbin-Brown Wheat Revenue Payment based on TX Yields

Slope = (0.209947) Draft¹

Payment Allocated to Farm

Durbin-Brown House

Year	State Plant Yield Per Acre	Observed Yd Adj Trend	CRC Strike Price (\$/bu)	Harvt Prices (\$/bu)	Durbin-Brown Strike Price	Durbin-Brown Cov-erage	Rev-enu to Count	State Durbin-Brown Pymt	Durbin-Brown Pymt	Durbin-Brown Pymt	Yield Loss Share of Yd ²	Price Loss Share of Yd ²	90% X Ratio Farm Prgm			NASS National Avg Price	CC X base on effective Strike ³	Est. LDP based on NASS Price & Loan ⁴
													37.0	28.6	28.6			
1980/81	19.1	13.4	4.25	4.09	3.27	48.88	78.12	0.00	0.00	0.00	0.00	0.00	0.00	3.99	0.00	0.00	0.00	
1981/82	23.5	18.1	4.88	4.22	3.76	56.22	99.23	0.00	0.00	0.00	0.00	0.00	0.00	3.69	0.00	0.00	0.00	
1982/83	17.6	12.3	4.56	3.64	4.32	64.65	63.94	0.71	0.00	0.71	0.83	3.45	5.66	3.51	3.77	0.00	0.00	
1983/84	20.8	15.7	3.92	3.58	4.45	66.60	74.40	0.00	0.00	0.00	0.00	0.00	0.00	3.51	3.77	0.00	0.00	
1984/85	20.3	15.4	4.05	3.65	4.18	62.47	73.97	0.00	0.00	0.00	0.00	0.00	0.00	3.39	7.55	0.00	0.00	
1985/86	23.1	18.5	3.54	3.20	3.84	57.39	74.04	0.00	0.00	0.00	0.00	0.00	0.00	3.08	17.30	0.00	0.00	
1986/87	14.8	10.4	2.74	2.44	3.44	51.50	36.08	15.42	6.20	9.22	17.95	2.42	21.70	19.24	3.14	3.14	13.69	0.00
1987/88	14.8	10.6	2.39	2.64	2.93	43.77	39.11	4.66	4.66	0.00	5.43	2.57	21.70	13.69	0.00	0.00	0.00	
1988/89	14.2	10.2	2.78	3.79	2.64	39.43	53.93	0.00	0.00	0.00	0.00	3.72	0.00	0.00	0.00	0.00	0.00	
1989/90	9.0	5.2	3.65	4.14	2.94	43.94	37.07	6.87	6.87	0.00	7.99	3.72	0.00	0.00	0.00	0.00	0.00	
1990/91	19.4	15.9	3.69	3.29	3.37	50.42	63.89	0.00	0.00	0.00	0.00	2.61	21.70	12.21	3.00	19.81	0.00	
1991/92	13.5	10.2	3.07	2.86	3.47	51.87	38.72	13.15	10.64	2.51	15.31	3.00	19.81	0.00	0.00	0.00	0.00	
1992/93	21.9	18.7	3.05	3.59	3.27	48.89	78.68	0.00	0.00	0.00	0.00	3.24	12.27	0.00	0.00	0.00	0.00	
1993/94	19.4	16.5	3.20	2.87	3.11	46.45	55.74	0.00	0.00	0.00	0.00	3.26	11.64	0.00	0.00	0.00	0.00	
1994/95	12.6	9.8	3.00	3.37	3.08	46.12	42.29	3.84	3.84	0.00	4.47	3.45	5.66	0.00	0.00	0.00	0.00	
1995/96	13.0	10.5	3.52	4.24	3.24	48.49	55.30	0.00	0.00	0.00	0.00	4.55	0.00	0.00	0.00	0.00	0.00	
1996/97	12.6	10.3	3.91	5.76	3.48	52.01	72.37	0.00	0.00	0.00	0.00	4.30	0.00	0.00	0.00	0.00	0.00	



Durbin-Brown Wheat Revenue Payment based on TX Yields

Slope = (0.209947) Draft¹

Payment Allocated to Farm

Durbin-Brown House

Year	State Plant Yield Per Acre	Observed Yd Adj Trend	CRC Strike Price (\$/bu)	Harvt Prices (\$/bu)	Durbin-Brown Strike Price	Durbin-Brown Cov-erage	Rev-enu to Count	State Durbin-Brown Pymt	Durbin-Brown Pymt	Durbin-Brown Pymt	Yield Loss Share of Yd ²	Price Loss Share of Yd ²	90% X Ratio Farm Prgm			NASS National Avg Price	CC X base on effective Strike ³	Est. LDP based on NASS Price & Loan ⁴
													37.0	28.6	28.6			
1997/98	18.9	16.8	4.13	3.64	3.85	57.60	68.76	0.00	0.00	0.00	0.00	0.00	0.00	3.38	7.86	0.00	0.00	
1998/99	22.4	20.5	3.95	3.04	3.99	59.73	68.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	21.70	10.73	0.00	
1999/00	19.7	18.1	3.16	2.84	3.74	55.99	56.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48	21.70	17.02	0.00	
2000/01	11.0	9.5	3.34	3.02	3.48	52.08	33.22	18.86	18.86	0.00	21.97	2.62	21.70	11.84	2.62	21.70	11.84	
2001/02	19.4	18.2	3.31	3.07	3.27	48.89	59.65	0.00	0.00	0.00	0.00	2.78	21.70	5.92	3.56	2.20	0.00	
2002/03	12.2	11.2	3.34	3.09	3.33	49.81	37.80	12.00	12.00	0.00	13.98	3.56	2.20	0.00	3.40	7.23	0.00	
2003/04	14.6	13.8	3.73	3.14	3.46	51.74	45.96	5.79	5.79	0.00	6.74	3.40	7.23	0.00	0.00	0.00	0.00	
2004/05	17.2	16.6	3.40	3.77	3.49	52.19	64.93	0.00	0.00	0.00	0.00	3.40	7.23	0.00	0.00	0.00	0.00	
2005/06	17.5	17.0	3.56	3.28	3.56	53.29	57.25	0.00	0.00	0.00	0.00	3.42	6.60	0.00	0.00	0.00	0.00	
2006/07	6.1	5.8	3.52	4.81	3.49	52.24	29.12	23.12	23.12	0.00	26.92	4.25	0.00	0.00	0.00	0.00	0.00	
2007/08		13.6	4.52		3.87	57.82	</											

Durbin-Brown

- If CBO price 5 year price forecast is correct, then DB will be preferred over the House Bill because the House strike prices are so far out of the money.
- If price return to long run average, then House will be preferred but with only a small advantage unless prices fall below loan rate.
- DB will preferred for increasing yield crops, i.e. corn.

Thank You

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