

2013 Crop Insurance Decisions March 4, 2013

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Today's Topics



- 1. Crop Insurance Basics Review**
- 2. Corn & Soybean Price Outlook**
- 3. Re-Evaluate ACRE**
- 4. Review Past Insurance and ACRE Prices**
- 5. Review Trend-Adjusted Actual Production History (TA-APH) Yield Endorsement**
- 6. Crop decision point summary**

Life Insurance

- ✓ How many of you have life insurance?
- ✓ Do you hope to collect on your insurance this year?

Health Insurance

- ✓ Do you have the best insurance money can buy?
- ✓ What if the government paid part of the premium?



Crop Insurance

- ✓ Crop insurance is like health insurance for your crops.
- ✓ The better the policy coverage, the lower the deductible, the higher the premium.
- ✓ Unlike health insurance, the government pays a portion of your crop insurance premium.

Crop Insurance Subsidies

Year: 2013 Commodity: Corn (0041) State: Michigan (26)
 Data: Released Plan: Revenue Protection (02) County: Ingham (065)

Subsidy Factors

Coverage Level		0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85
Subsidy Factor	Basic Unit	0.670	0.640	0.640	0.590	0.590	0.550	0.480	0.380
	Optional Unit	0.670	0.640	0.640	0.590	0.590	0.550	0.480	0.380
	Enterprise Unit	0.800	0.800	0.800	0.800	0.800	0.770	0.680	0.530
	Whole Farm Unit	0.800	0.800	0.800	0.800	0.800	0.800	0.710	0.560

USA Crop Insurance Performance, All Contracts

Year	Pol Earn Prem (000)	Net Acres (000)	Liabilities (000)	Total Premium (000)	Subsidy (000)	Indemnity (000)	Loss/Gain (000)	Ratio (000)	% of Prem-ium Paid by Farm-ers	Farm-er Loss Ratio (000)
1988 ²	333	45,475	4,423,961	294,957	74,723	797,178	(502,221)	2.70	74.7%	3.62
1989	949	101,632	13,535,807	814,302	204,965	1,212,235	(397,933)	1.49	74.8%	1.99
1990	895	101,361	12,828,368	836,468	215,308	973,032	(136,563)	1.16	74.3%	1.57
1991	707	82,357	11,215,994	737,049	190,066	955,289	(218,240)	1.30	74.2%	1.75
1992	663	83,107	11,334,059	758,789	196,721	918,215	(159,426)	1.21	74.1%	1.63
1993	679	83,725	11,353,421	755,739	200,009	1,655,479	(899,740)	2.19	73.5%	2.98
1994	801	99,640	13,608,387	949,396	254,876	601,146	348,250	0.63	73.2%	0.87
1995	2,034	220,511	23,728,454	1,543,350	889,372	1,567,732	(24,382)	1.02	42.4%	2.40
1996	1,615	204,864	26,876,813	1,838,559	982,063	1,492,663	345,896	0.81	46.6%	1.74
1997	1,320	182,189	25,458,851	1,775,368	902,794	993,551	781,817	0.56	49.1%	1.14
1998	1,243	181,835	27,921,436	1,875,927	946,312	1,677,542	198,385	0.89	49.6%	1.80
1999	1,289	196,918	30,939,450	2,310,133	954,872	2,434,715	(124,582)	1.05	58.7%	1.80
2000	1,323	206,467	34,443,753	2,540,164	951,192	2,594,834	(54,671)	1.02	62.6%	1.63
2001	1,298	211,329	36,728,587	2,961,848	1,771,322	2,960,125	1,723	1.00	40.2%	2.49
2002	1,259	214,865	37,299,303	2,915,944	1,741,028	4,066,732	(1,150,788)	1.39	40.3%	3.46
2003	1,241	217,409	40,620,507	3,431,359	2,041,658	3,260,806	170,553	0.95	40.5%	2.35
2004	1,229	221,020	46,602,280	4,186,133	2,472,282	3,209,723	976,409	0.77	40.9%	1.87
2005	1,191	245,856	44,258,915	3,949,230	2,337,101	2,367,323	1,581,907	0.60	40.8%	1.47
2006	1,148	242,082	49,919,480	4,579,539	2,682,006	3,503,536	1,076,003	0.77	41.4%	1.85
2007	1,138	271,634	67,339,911	6,562,118	3,823,353	3,547,569	3,014,549	0.54	41.7%	1.30
2008	1,149	272,250	89,892,360	9,850,879	5,690,668	8,677,910	1,172,969	0.88	42.2%	2.09
2009	1,172	264,776	79,575,187	8,950,746	5,426,886	5,228,924	3,721,822	0.58	39.4%	1.48
2010	1,141	256,268	78,104,325	7,594,397	4,711,271	4,251,436	3,342,960	0.56	38.0%	1.47
2011	1,152	265,609	114,112,377	11,955,219	7,452,814	10,826,308	1,128,911	0.91	37.7%	2.40
2012 ³	1,172	282,119	116,820,459	11,071,254	6,950,022	16,000,000	(4,928,746)	1.45	37.2%	3.88
1988 to 2011	4,473,177	4,473,177	932,121,987	83,967,611	47,113,662	69,774,003	14,193,608	0.83	43.9%	1.89
Est 2012 + History	4,755,296	4,755,296	1,048,942,445	95,038,865	54,063,685	85,774,003	9,264,862	0.90	43.1%	2.09

Structure for Corn, Soybeans, and Wheat Policies for Individual Coverage

✓ Combo

- Yield option (general design goes back to the mid-80's)
- Pure revenue insurance option (adaptation of the original RA policy)
- Revenue with harvest price option (adaptation of the original CRC policy)

Structure for Corn, Soybeans, and Wheat Policies for Area Coverage

- ✓ Trigger is on county values, not farm values
- ✓ Do not transfer comparable risk to an individual policy unless farm yield and revenue is highly correlated with farm yield and revenue.
- ✓ Requires organizing farm data against county data to check relationship.

Structure for Corn, Soybeans, and Wheat Policies for Area Coverage

- ✓ Rule of thumb has been correlation needs to be 0.85 to be worth considering.
- ✓ Risk transfer only works well for farms which are widely scattered across a county so their yield matches county yield and where they have many fields for which they do not have records to support accurate APH yields.

Federal Crop Insurance

Individual Producer Coverage

✓ CAT: Catastrophic Risk Protection

- Lowest level of MPCl.
- Enterprise unit.
- Covers 50% of the crop yield only.
- Losses are indemnified @ 55% of indemnity price.
- Cost is a per crop administrative fee.

✓ YP: Yield Protection

- Offers higher level of insurance coverage than CAT.
- Coverage choices include 50 to 85% of yield in five percent increments.
- Covers losses of crop yield only.

Federal Crop Insurance

Individual Producer Coverage

✓ RP: Revenue Protection

- Includes the same levels of coverage choices as YP (Yield Protection).
- However, RP insures against losses of revenue caused by both yield loss and/or price changes.

✓ **REVENUE = Yield X Price**

150 bu Yield X \$6.00 Price = \$900.00 Revenue

Revenue Protection addresses both Yield and Price

Federal Crop Insurance

County Level Coverage

✓ GRP: Group Risk Plan

- Insures against county level yield losses only.
- Based on an index of expected county yields for a given crop.
- Offers no farm level yield coverage.

✓ GRIP: Group Risk Income Protection

- Insures against losses of revenue at the county level.
- Adds a price component to GRP.
- GRIP compared to GRP is like comparing RP (Revenue Protection) to YP (Yield Protection) Offers no farm level yield coverage.



Federal Crop Insurance Individual Producer Coverage

Insurance units:



- Basic = all land owned or share leased from a landowner
- Optional = crop within each section
 - divides into smaller units
- Enterprise = all of a crop within the county
 - cheaper than optional, less variability

YP (Yield Protection)

- ✓ Protects against losses to crop yield only
- ✓ Based on actual production history (APH) or County T Yield
- ✓ Replant & prevented planting coverage included
- ✓ Coverage based on “Market Price Election,” APH, and percent coverage selected
- ✓ Premium payments subsidized

YP (Yield Protection)

Market Price (MP) Elections	2012	2013
Corn	\$5.68	\$5.65
Soybeans	\$12.55	\$12.87
Wheat	\$8.20	\$8.57

YP (Yield Protection)

✓ Coverage calculation

- APH Yield x Coverage % = Guaranteed Bushels
- Guaranteed Bushels x Futures Market Price Election =

Coverage Level in \$/Acre

- ## ✓ Losses are indemnified at Market price election

RP (Revenue Protection)

- ✓ Protects against revenue loss due to yield loss and/or price changes.
- ✓ Converts your bushel guarantee into a dollar guarantee per acre.
- ✓ Same as YP
 - Uses APH or County T Yields (60%)
 - Coverage choices range from 50 to 85%
 - Premium subsidized, based on coverage
 - Replant & prevented planting included

RP (Revenue Protection)

-continued-

- ✓ Offers 3-way protection
 - Coverage if yields are low
 - Coverage if prices fall
 - Coverage if a short crop and prices rise

Rev. Prot. Price Guarantees

Crop	Contract	Base Price	Harvest Price
Corn - Mich	Dec CBOT	February	November
Soybean	Nov CBOT	February	October
Winter Wheat	Sept CBOT	8/15 to 9/14	Sept. '13

2013 Corn

Exchange: CBOT
Discovery Period: 2/1/2013 to 2/28/2013

Date	Ending Value	Price	Volatility ²
02/01	5.9200	5.9200	
02/04	5.9375	5.9300	
02/05	5.9000	5.9200	
02/06	5.7875	5.8900	
02/07	5.6650	5.8400	
02/08	5.6325	5.8100	
02/11	5.5875	5.7800	
02/12	5.6300	5.7600	
02/13	5.6425	5.7400	
02/14	5.6375	5.7300	
02/15	5.6300	5.7200	
02/19	5.5775	5.7100	
02/20	5.6150	5.7000	
02/21	5.5400	5.6900	
02/22	5.5275	5.6800	0.2138
02/25	5.5025	5.6700	0.2152
02/26	5.5625	5.6600	0.2165
02/27	5.5375	5.6600	0.2160
02/28	5.5700	5.6500	0.2173

Wheat 2013

Approved Projected Price: \$8.57

Approved Volatility¹: 0.25

Daily Ending Market Values

Provided by Barchart.com

Exchange: CBOT

Discovery Period: 8/15/2012 to 9/14/2012

Date	Ending Value	Price	Volatility ¹
08/15	8.2225	8.2200	
08/16	8.3375	8.2800	
08/17	8.4350	8.3300	
08/20	8.5425	8.3800	
08/21	8.6150	8.4300	
08/22	8.6025	8.4600	
08/23	8.5225	8.4700	
08/24	8.5225	8.4800	
08/27	8.4825	8.4800	
08/28	8.4650	8.4700	
08/29	8.5775	8.4800	
08/30	8.5625	8.4900	
08/31	8.5675	8.5000	
09/04	8.6150	8.5100	
09/05	8.5250	8.5100	
09/06	8.6575	8.5200	
09/07	8.7075	8.5300	
09/10	8.6725	8.5400	0.2512
09/11	8.6450	8.5400	0.2508
09/12	8.6650	8.5500	0.2485
09/13	8.7625	8.5600	0.2426
09/14	8.9025	8.5700	0.2514

Rev. Prot. Price Guarantees

Crop	Contract	Base Price	Harvest Price
Corn-MI	Dec CBOT	February	November
Soybean	Nov CBOT	February	October
Winter Wheat	Sept '13 CBOT	8/15 to 9/14	Sept. '13

Base Price Announced early March or Sept. for wheat.
Used to calculate the minimum revenue guarantee.

$APH \times \% \text{ Coverage} \times \text{Base Price}$

Rev. Prot. Price Guarantees

Crop	Contract	Base Price	Harvest Price
Corn	Dec CBOT	February	November
Soybean	Nov CBOT	February	October
Winter Wheat	Sept '13 CBOT	8/15 to 9/14	Sept. '13

Harvest Price Announced early Nov/Dec. If higher than base price, used to calculate a new higher revenue guarantee.

Rev. Prot. Price Guarantees

- ✓ The maximum Harvest Price is limited two times the Base Price.
 - Example, base price \$6.00
 - Harvest price max is \$12.00
- ✓ No limit on the minimum price

R.P. Indemnity (Loss) Payments

- ✓ The Harvest Futures Price is used to value your production
- ✓ If the Harvest Price is lower than the initial Base Price, it's as though the amount of bushels covered by insurance increases.

RP Indemnity (Loss) Payments

- ✓ If the Harvest Price is higher than the initial Base Price, the revenue guarantee increases -- but so does the value of your harvested production
- ✓ This is the feature in RP that protects you if you have pre-harvest marketed grain (forward contract before harvest)

Crop Insurance Comparison

Same Price	2013 Yield Protection	2013 Revenue Protection
APH	40 bu/A	40 bu/A

Crop Insurance Comparison

Same Price	2013 Yield Protection	2013 Revenue Protection
APH	40 bu/A	40 bu/A
Coverage	75%	75%

Crop Insurance Comparison

Same Price	Y P	R P
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
<u>Base Prices for 2013</u>		
YP	\$12.87	
RP	\$12.87	

Crop Insurance Comparison

Same Price	Y Protection	R Protection
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A

Crop Insurance Comparison

Same Price	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A

Minimum Revenue Guarantee

APH x % coverage x Base Price

$$40 \text{ bu} \times 75\% \times \$12.87 = \$386.10$$

Crop Insurance Comparison

Same Price	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A

Crop Insurance Comparison

Same Price	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		\$12.87

Crop Insurance Comparison

Same Price	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		\$12.87
New Guarantee		-----

Crop Insurance Comparison

Same Price	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		\$12.87
New Guarantee		-----
Indemnity	\$102.96/A	\$102.96/A

Crop Insurance Comparison

Same Price	Yield Prot.	Revenue Prot.
<p><u>Indemnity</u></p> <p>Guarantee - Actual Production x Harvest Price</p> <p>\$386.10 - (22 bu x \$12.87)</p> <p>\$386.10 - \$283.14 = \$102.96</p>		40 bu/A
		75%
		\$12.87
		\$386.10/A
		22 bu/A
		\$12.87
	New Guarantee	
Indemnity	\$102.96/A	\$102.96/A

Crop Insurance Comparison

Price Decrease	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		
New Guarantee		
Indemnity	\$102.96	

Crop Insurance Comparison

Price Decrease	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		\$11.00
New Guarantee		-----
Indemnity	\$102.96/A	\$166.10

Crop Insurance Comparison

Price Decrease	Yield Prot.	Revenue Prot.
		40 bu/A
		75%
		\$12.87
		\$386.10/A
		22 bu/A
		\$11.00

		\$166.10
New Guarantee		
Indemnity	\$102.96/A	

Indemnity

Guarantee - Actual Production
x Harvest Price

$$\$386.10 - (22 \text{ bu} \times \$11.00)$$

$$\$386.10 - \$220.00 = \$166.10$$

Crop Insurance Comparison

Price Increase	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		
New Guarantee		-----
Indemnity	\$102.96/A	

Crop Insurance Comparison

Price Increase	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		\$14.00
New Guarantee		
Indemnity	\$102.96/A	

Crop Insurance Comparison

Price Increase	Yield Prot.	Revenue Prot.
APH	40 bu/A	40 bu/A
Coverage	75%	75%
Base Price '13	\$12.87	\$12.87
Guarantee	30 bu/A	\$386.10/A
Harvest Yield	22 bu/A	22 bu/A
Harvest Price		\$14.00
New Guarantee		\$420.00
Indemnity	\$102.96/A	

Crop Insurance Comparison

Price Increase	Yield Prot.	Revenue Prot.	
<p><u>Final Guarantee</u></p> <p>With a higher harvest price, a new Guarantee is calculated.</p> <p>APH x % cover x Harvest Price</p> <p>40 bu x 75% x \$14.00 = \$420.0</p>		40 bu/A	
		75%	
		\$12.87	
		\$386.10/A	
		22 bu/A	
		\$14.00	
	New Guarantee		\$420.00
	Indemnity	\$102.96/A	

Crop Insurance Comparison

Price Increase	Yield Prot.	Revenue Prot.
<p><u>Indemnity</u></p> <p>Guarantee - Actual Production x Harvest Price</p> <p>\$420.00 - (22 bu x \$14.00)</p> <p>\$420.00 - \$308.00 = \$112.00</p>		40 bu/A
		75%
		\$12.87
		\$386.10/A
		22 bu/A
		\$14.00
		\$420.00
		Indemnity

Market Year Average Price

	Red = Projected					
<u>Crop Prices</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
<u>CORN</u>						
Base -CRC, RA, GRIP, RevProt	\$ 5.40	\$ 4.04	\$ 3.99	\$ 6.01	\$ 5.68	\$ 5.65
APH Mult Peril Crop Insuran	\$ 4.75	\$ 4.00	\$ 3.90	\$ 6.01	\$ 5.68	\$ 5.65
Harvest - CRC, GRIP	\$ 4.13	\$ 3.72	\$ 5.46	\$ 6.27	\$ 7.50	\$ 5.57
Harvest RA	\$ 3.74	\$ 3.90	\$ 5.52	\$ 6.27	\$ 7.40	\$ 5.57
MYA Producer Price	\$ 4.06	\$ 3.55	\$ 5.18	\$ 6.22	\$ 7.40	\$ 5.20

	Red = Projected					
<u>Crop Prices</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
<u>Soybeans</u>	<u>2008</u>					
Base -CRC, RA, GRIP, RevProt	\$ 13.36	\$ 8.80	\$ 9.23	\$ 13.49	\$ 12.55	\$ 12.87
APH Mult Peril Crop Insuran	\$ 11.50	\$ 9.90	\$ 9.15	\$ 13.49	\$ 12.55	\$ 12.87
Harvest - CRC, GRIP	\$ 10.36	\$ 9.66	\$ 11.63	\$ 12.14	\$ 15.39	\$ 12.61
Harvest RA	\$ 9.22	\$ 9.66	\$ 11.63	\$ 12.14	\$ 15.39	\$ 12.61
MYA Producer Price	\$ 9.97	\$ 9.59	\$ 11.30	\$ 12.50	\$ 14.25	\$ 12.50

RP - Revenue-Based Insurance Advantages

- ✓ May have larger indemnities than yield-based crop insurance
- ✓ 3-way coverage means a greater chance of indemnity payment
- ✓ Is competitively priced with yield-based crop insurance. Premium adjusted for additional price risk contribution to revenue risk.
- ✓ Can use it as an integral part of your marketing strategy!

Fact or Fiction # 1

"It's February - I don't dare forward price 40% of next fall's crop now - I might not get it planted!"

✓ FICTION

- YP and RP automatically include prevented planting coverage at 60% of your coverage level. For example, at the 75% level, you have 45% coverage if you don't get the crop planted
- What are the odds that you won't get some of the crop planted?

Fact or Fiction # 2

"My APH is 150, I have 75% Rev. Prot., and I just harvested 155 bushels per acre. I can't have a crop insurance loss."

✓ FICTION, Yes You Can

- In 2008, the base price in February was \$5.40. The harvest price was \$3.74.
- Your minimum revenue guarantee was \$608 (150 bpa x 75% X \$5.40). Your harvest of 155 bpa x \$3.74 is only \$580. You have a \$28 indemnity coming.

Fact or Fiction # 3

"My spouse went to a meeting & tells me I am wasting my money if I buy Rev. Prot. and don't have a plan to pre-harvest market my grain."

✓ FACT??

- RP has the feature that increases the revenue guarantee if the harvest price is higher than the spring base price. In most cases, you pay for this feature.
- The intent of these tools was to allow you to pre-harvest market your grain. (up to coverage level)

Fact or Fiction # 4

"I have RP & forward priced 75% of my APH on 600 ac soybeans. Yields are bad, prices have skyrocketed, I can't deliver on my contracts - I am going to lose my shirt"

✓ FICTION, You Are Covered

- The final revenue guarantee with RP is re-calculated using the harvest price if it is higher than the base price. The insurance increase will offset the cost of buying the higher priced grain to fill your contracts.
- Let's look at an example

I can't deliver, I'm going to lose... Fiction!

- ✓ 600 acres of soybeans
- ✓ 40 bu/acre APH
- ✓ 75% coverage revenue-based insurance
- ✓ $600 \times 40 \times 75\% = 18,000$ bushels --
insured amount to pre-harvest market
- ✓ You get it sold and August turns dry

I can't deliver, I'm going to lose... Fiction!

- ✓ Marketed 18,000 bu pre-harvest
(75% of APH) at \$11.50 = \$207,000
- ✓ Only produced 13,200 bu.
Buy back 4,800 bu. at \$14.90 - \$71,520
 - (price includes extra \$.10 for purchase) \$14.80 local cash price
- ✓ Crop insurance indemnity + \$72,000
Based off of Futures at \$15.00
- ✓ Gross Return = \$207,480
 - There is basis opportunity/risk

I can't deliver,
I'm going to lose... Fiction!

Optional Unit	YP	RP	RPwHPE
Premium per acre	\$9.52	\$13.43	\$11.05

I can't deliver,
I'm going to lose... Fiction!

Optional Units 600Ac	YP	RP	RPwHPE
Premium per acre	\$9.52	\$13.43	\$11.05
18,000 bu at \$11.50	\$207,000	\$207,000	\$207,000
Repurchase beans (-)	- \$71,250	- \$71,250	- \$71,250
Total Indemnity (+)	+\$61,776	+ \$72,000	+\$15,660
Total premium (-)	- \$5,712	- \$8,058	- \$6,630
Net result	\$191,814	\$199,692	\$144,780

I'm **can't deliver** **ction!**

RP with the Harvest Price Exclusion is a bad choice if you plan to pre-harvest market grain. The spring minimum guarantee is also the final guarantee - but it uses the harvest price to value

Optional U			RPWHPE
Premium		3	\$11.05
18,000 bu		00	\$207,000
Repurchase		50	- \$71,250
Total Indemnity (production)	+\$61,776	+ \$72,000	+\$15,660
Total premium (-)	- \$5,712	- \$8,058	- \$6,630
Net result	\$191,814	\$199,692	\$144,780

Fact or Fiction # 5

"There is a possibility I could get soybean rust in my fields this summer. I don't need to worry -- my crop insurance will cover the loss."

✓ FACT & FICTION

- YP & RP will cover losses from soybean diseases if you use good agronomic practices. If you scout & treat the field if needed – you are covered!

The Facts of Revenue-Based Crop Insurance

High Yield		
Low Yield	Covered	
	Low Price	High Price

The Facts of Revenue-Based Crop Insurance

High Yield	Covered	
Low Yield	Covered	
	Low Price	High Price

The Facts of Revenue-Based Crop Insurance

High Yield	Covered	
Low Yield	Covered	Covered
	Low Price	High Price

The Facts of Revenue-Based Crop Insurance

High Yield	Covered	Tax Problem!
Low Yield	Covered	Covered
	Low Price	High Price

Purchase Decision.
Trend Yield Adjustment
Option
March 4, 2013

Roger Betz

Senior District Extension Farm
Management Agent

MICHIGAN STATE
UNIVERSITY
EXTENSION



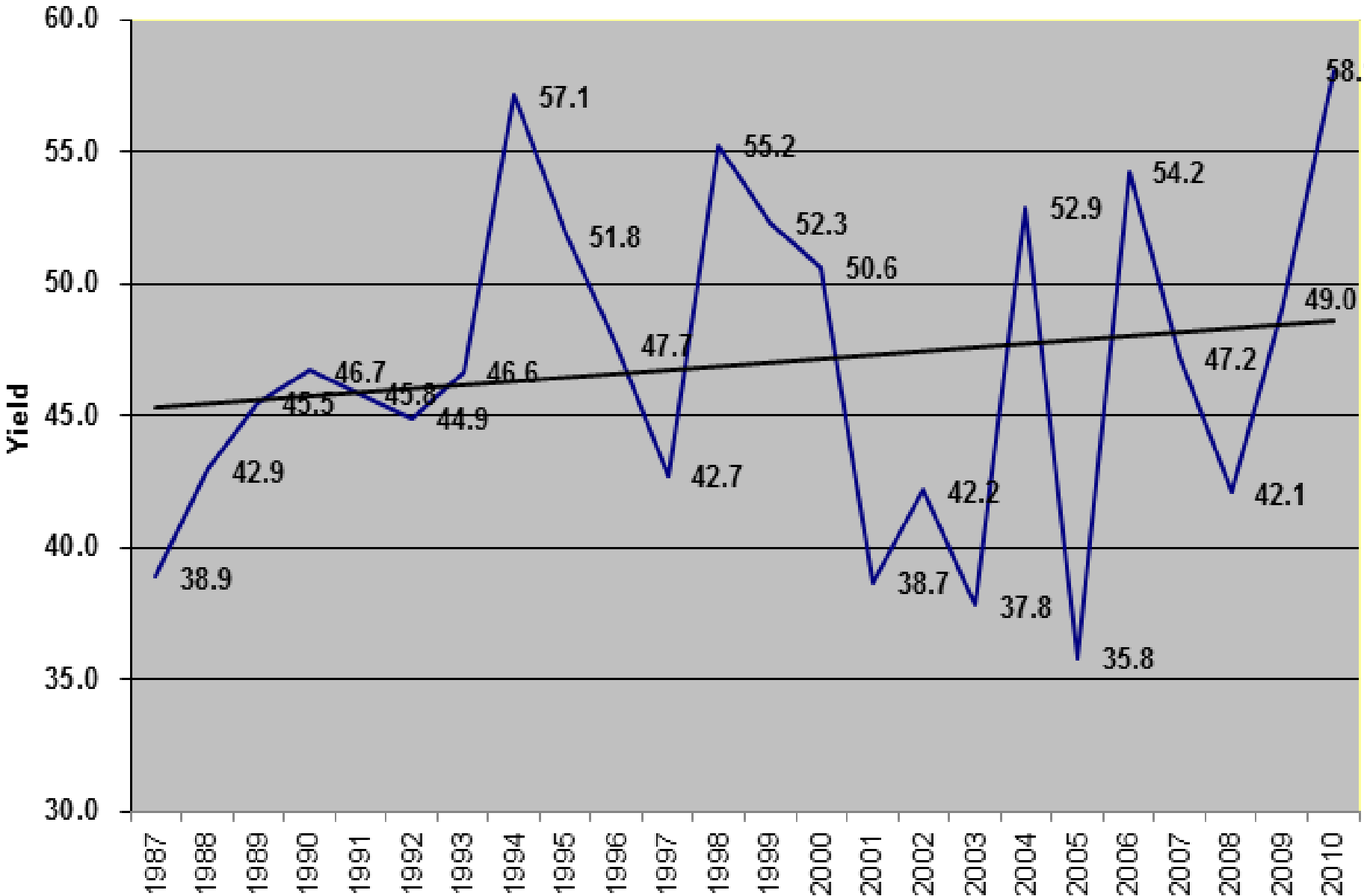
Copyright © 2008 Center for Farm Financial Management,



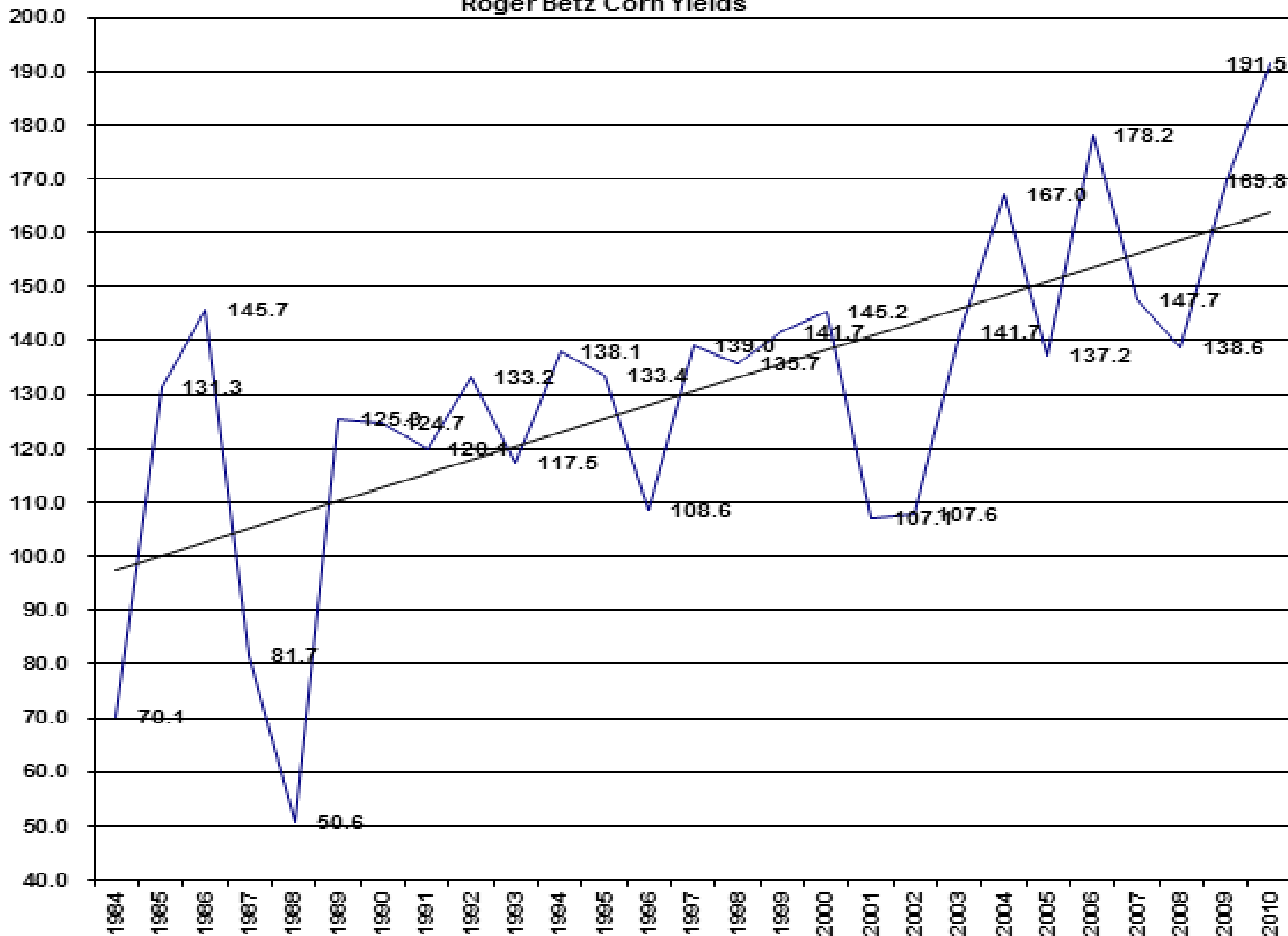
Trend Adjusted Yield TA

- ✓ Michigan Corn Yields
- ✓ Yields increase 1.5 to 2 bu./yr
- ✓ 10-year average of actual yield underestimates next year's corn yield by about 9 bushels
- ✓ % coverage level is over stated

Roger Betz Soybean Yields



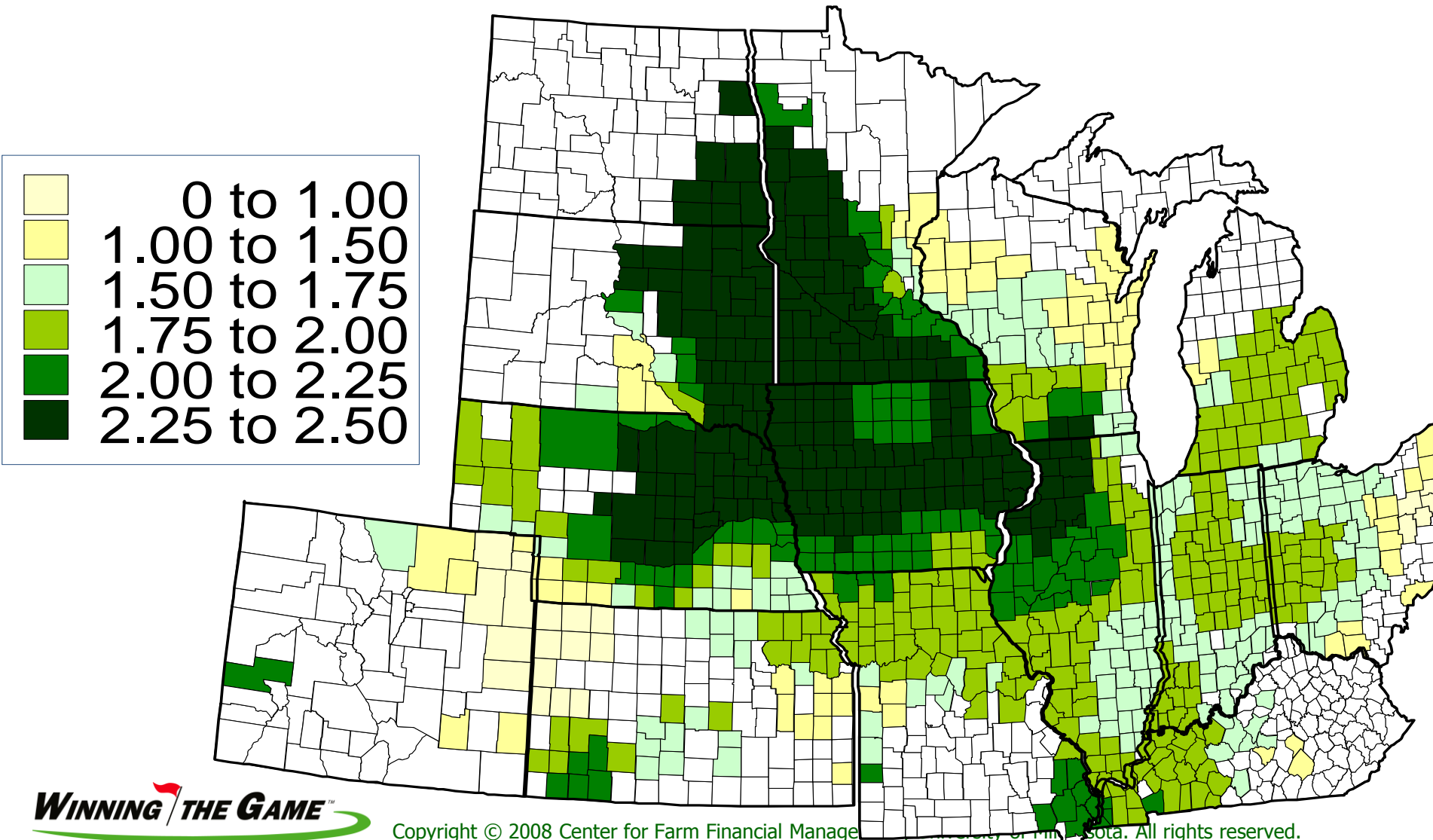
Roger Betz Corn Yields



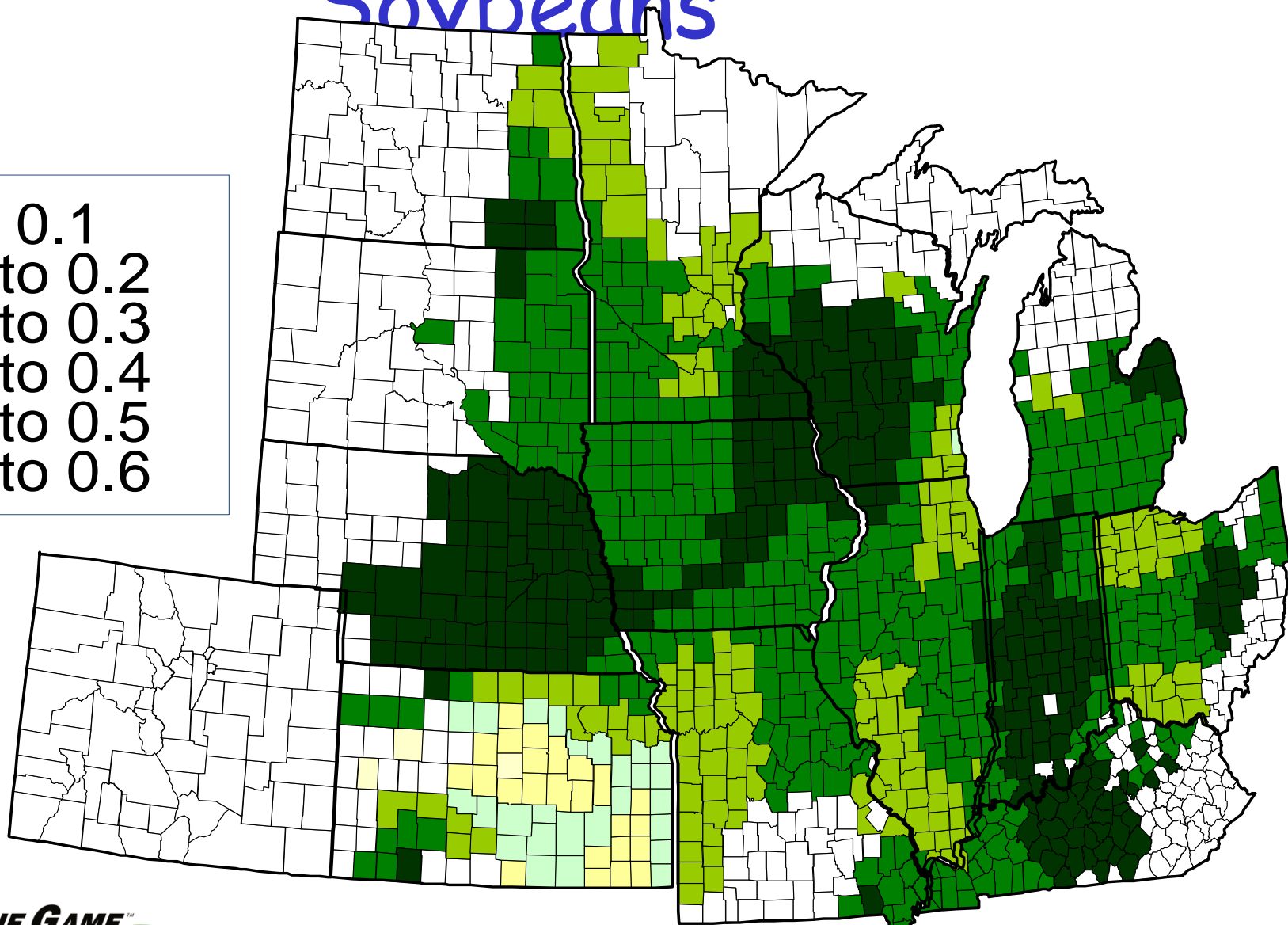
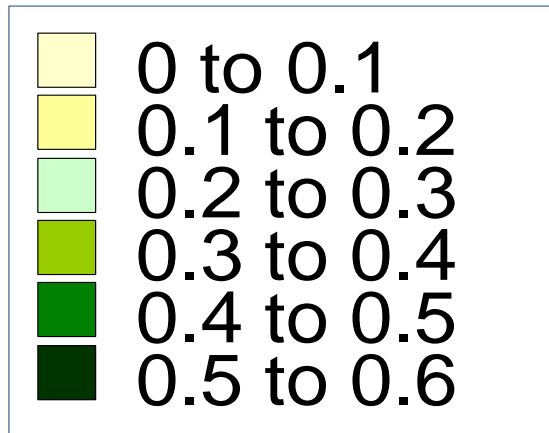
TA Yield Determination

Year	Actual Yield	Yield Adjustment	TA Yield
2005	144	2 X 7 = 14	158
2006	158	2 X 6 = 12	170
2007	168	2 X 5 = 10	178
2008	183	2 X 4 = 8	191
2009	164	2 X 3 = 6	170
2010	194	2 X 2 = 4	198
2011	183	2 X 1 = 2	185
Average	170.0		178.0
	Increase in APH	8 bu. or 4.7%	

Trend Rates 2012 - Corn



Trend Rates 2012 - Soybeans



2012 Corn Trend Yield Adjustment (TA)

Allegan	1.81		Jackson	1.78
Barry	1.76		Kalamazoo	1.86
Berrien	1.9		Kent	1.64
Branch	1.77		Lenawee	1.72
Calhoun	1.79		Livingston	1.81
Cass	1.91		Monroe	1.76
Clinton	1.8		Ottawa	1.58
Eaton	1.87		Saginaw	1.86
Gratiot	1.87		St Joeseph	1.82
Hillsdale	1.72		Sanilac	1.81
Huron	1.8		Shiawassee	1.85
Ingham	1.85		Tuscola	1.82
Ionia	1.83		Van Buren	1.89

Washtenaw **1.77**

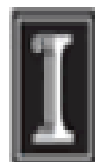
Strategies:

Many individuals take

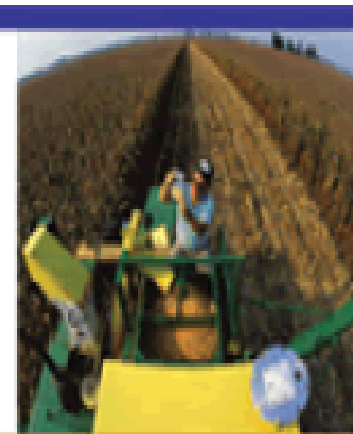
1. Revenue Protection (RP) COMBO
2. 75 to 85% coverage level
3. Enterprise units
4. Add TA-APH yield endorsement
5. GRIP (90% coverage level, lower protection level to adjust payment)

FARM ECONOMICS: *Facts & Opinions*

FARM BUSINESS MANAGEMENT



Department of Agricultural and Consumer Economics
University of Illinois at Urbana-Champaign



FEFO 13-03
February 12, 2013

GRIP-HR: A GOOD PRODUCT FOR 2013

Group Risk Income Plan with the Harvest Revenue Option (GRIP-HR) has features that make it an attractive crop insurance product this year. GRIP-HR will make large payments in a drought year, a concern of many farmers as dryness extends across much of the western corn-belt and Great Plains. GRIP-HR also will make large payments if prices decline, a distinct possibility given large projected plantings of corn. Large planting, combined with normal yields, would lead to large supplies and potentially large price declines. Under the price decline scenario, GRIP-HR will make larger payments than Revenue Protection (RP), the most popular crop insurance product. Herein, payments of GRIP-HR and RP are compared under different yield and price scenarios.

What Questions Do You Have?

- ✓ Email: betz@msu.edu
- ✓ Roger Betz
Sr. Dist. Extension Farm Management
315 West Green Street
Marshall MI 49068
Fax 269 781 0768
- ✓ Program Support: Janice Wright (269) 781-0780
- ✓ MSU Farm Management and Outlook WWW site
(new) <http://firm.msue.msu.edu>

U of Illinois On-Line Calculator

iFARM Tools

2013 Spring-Deadline Crops (Corn, Soybeans)

Online Tools (Corn & Soybeans)

[Premium Calculator](#)

Last Update: 2/4/2013

[Payment Simulator](#)

Last Update: 1/17/2013

FAST Spreadsheet

[Crop Insurance Decision Tool](#)

Last Update: 1/31/2013

Crop Insurance Premium Calculator Spring 2013 Deadline Crops

Describe insurance policy:

[Clear All](#)

Select State

Select County

Select Crop

Select APH level

[Calculate](#)

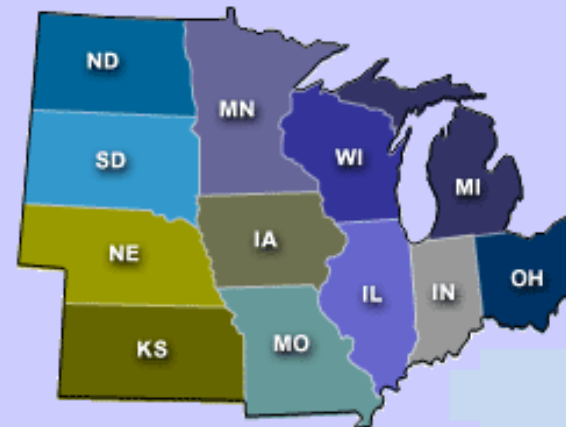
The information in this evaluator is updated until March 1, 2013. Check back frequently for updates.

Last Updated: 02/04/2013



[Credits](#)

Making the following selections and clicking on "Calculate" will provide estimated insurance premiums per acre. These are not quotes. A number of assumptions had to be made to estimate the following per acre premiums. These assumptions will not be applicable to all farms. Actual quotes must be obtained from qualified insurance agents.



U of Illinois Spreadsheet

- ✓ Facilitates more detail than the online version.

U of Illinois Crop Insurance Calculator:

<http://www.farmdoc.illinois.edu/cropins/index.asp>

Crop Insurance

iFarm Tools: 2013 Spring-Deadline Crops

iFarm
Crop Insurance
Payment Evaluator

Click Here



Status: Available This tool returns estimates of premiums for available insurance products at each coverage election, and then calculates the expected frequency of payments, average payments, net costs, and risk reductions associated with alternative crop insurance products and election levels in an easily understood format. A graphical summary of the probability of achieving various levels of revenue with each product is also provided along with a tabulation of guarantee levels provided for each product and election combination. The tool presents a case farm with the Trend-Adjusted APH in counties where offered, and a standard base case in other counties. This tool will be updated periodically throughout the signup period to reflect the most current price environment during which crop insurance purchase decisions are made.



Crop Insurance Evaluation Model



Case Farm Information

County: Sangamon	Crop: Corn		Farm Yield	County Yield
Farm Average Yield	187.3 bu./acre		bu./acre	bu./acre
Farm St. Dev. of yield	23.50 bu./acre	30% of years yields below:	177.10	179.33
County Average Yield	187.3 bu./acre	20% of years yields below:	168.63	172.44
County St. Dev. of yield	19.02 bu./acre	10% of years yields below:	155.91	161.95
Average Futures Price	\$5.57 /bu	5% of years yields below:	144.61	152.49
St. Dev. of Price	\$1.27 /bu	Farm Trend Adjusted-APH	187	bu./acre
Ave. Harvest Cash Basis	\$0.35 /bu	County TA Rate	1.88	bu./acre/yr
Average Gross Crop Rev.	\$967 /acre	Farm APH (ref)	179	bu./acre

- case: Enterprise unit on 320 acres. Projected price of 5.65

as of date: 2/28/2013



Sangamon Co. Premiums (\$/Acre)

Coverage	Revenue Protection (RP)			RP- Harvest Price Excl.			Yield Protection (YP)			Area Coverage Products		
	Opt	Basic	Enterp.	Opt	Basic	Enterp.	Opt	Basic	Enterp.	GRP	GRIP	GRIPHPO
50%	\$1.80	\$1.17	\$0.71	\$1.36	\$0.92	\$0.56	\$1.46	\$0.91	\$0.55			
55%	\$2.87	\$1.93	\$1.03	\$1.90	\$1.35	\$0.71	\$2.17	\$1.42	\$0.79			
60%	\$4.33	\$3.16	\$1.55	\$2.56	\$1.88	\$0.84	\$3.09	\$2.14	\$1.19			
65%	\$6.79	\$5.19	\$2.19	\$3.90	\$2.85	\$1.04	\$4.64	\$3.36	\$1.62			
70%	\$9.55	\$7.65	\$3.23	\$5.32	\$4.20	\$1.55	\$6.14	\$4.66	\$2.20	\$4.15	\$4.60	\$4.85
75%	\$14.93	\$12.56	\$5.57	\$8.11	\$6.81	\$2.63	\$8.88	\$7.04	\$3.40	\$4.75	\$6.36	\$8.30
80%	\$24.91	\$22.15	\$11.79	\$13.71	\$12.08	\$5.59	\$13.72	\$11.43	\$6.45	\$7.09	\$10.44	\$13.35
85%	\$38.61	\$35.68	\$23.78	\$21.27	\$19.56	\$11.56	\$19.73	\$17.11	\$11.85	\$11.29	\$22.11	\$27.36
90%										\$20.33	\$42.96	\$52.34

Com - Enterprise on 320 Acres

Projected Price of 5.65 and vol. factor of 0.20 used.

Guarantees

Coverage	RP Indem.	YP Indem.	GRP Yield	GRIP Revenue
	Revenue	Yield		
50%	\$528	93.5		
55%	\$581	102.9		
60%	\$634	112.2		
65%	\$687	121.6		
70%	\$740	130.9	127.0	\$717
75%	\$792	140.3	136.0	\$769
80%	\$845	149.6	145.1	\$820
85%	\$898	159.0	154.2	\$871
90%			163.3	\$922

These tables allow a quick comparison of the costs and coverages available across alternative products, coverage levels, and unit designations. The farmer -paid premiums and Guarantee levels are based on the case farm and location presented for available products. A qualified insurance agent should be contacted for final values.

Average Insurance Payments/Acre

Coverage Election	YP	RP-HPE	RP	GRP	GRIP	GRIP-HPO
50%	\$0.03	\$0.03	\$0.04			
55%	\$0.09	\$0.23	\$0.27			
60%	\$0.23	\$0.80	\$0.93			
65%	\$0.52	\$2.28	\$2.59			
70%	\$1.16	\$5.38	\$5.96	\$0.71	\$4.71	\$5.28
75%	\$2.47	\$10.95	\$12.12	\$1.62	\$10.44	\$11.77
80%	\$5.03	\$19.86	\$22.12	\$3.49	\$20.15	\$22.96
85%	\$9.80	\$32.95	\$37.04	\$7.15	\$35.45	\$40.76
90%				\$13.97	\$56.87	\$66.35

Frequency of payment

Coverage Election	YP	RP-HPE	RP	GRP	GRIP	GRIP-HPO
50%	0.1%	0.1%	0.2%			
55%	0.2%	0.6%	0.7%			
60%	0.4%	1.7%	1.9%			
65%	0.8%	3.9%	4.2%			
70%	1.8%	8.1%	8.7%	0.6%	4.2%	4.7%
75%	3.4%	13.4%	14.6%	1.3%	8.0%	9.1%
80%	6.7%	20.6%	22.6%	2.8%	14.1%	16.3%
85%	11.9%	29.4%	32.6%	5.7%	22.5%	26.4%
90%				11.0%	32.3%	39.2%

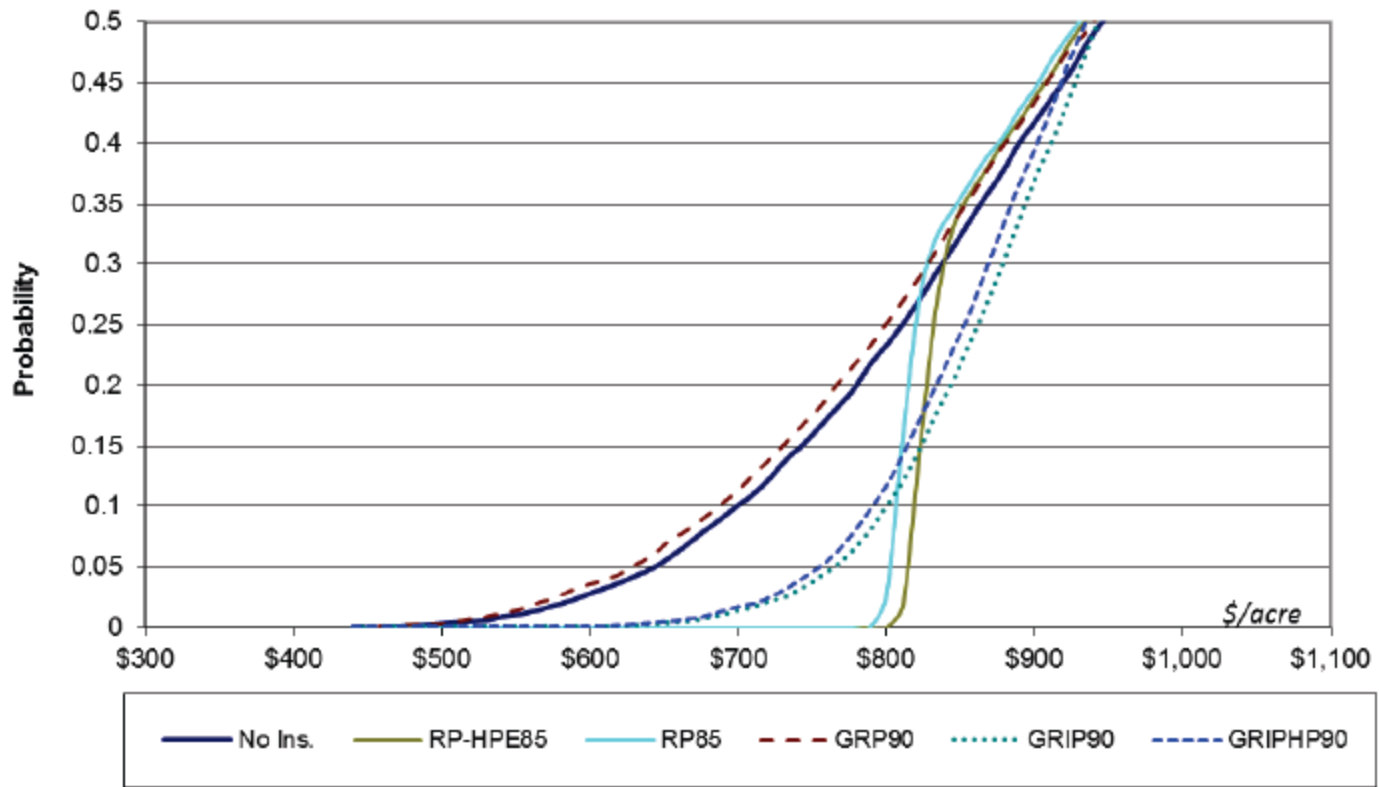
Estimated Net Average Cost of Insurance

Coverage Election	YP	RP-HPE	RP	GRP	GRIP	GRIP-HPO
50%	0.52	0.53	0.67			
55%	0.70	0.48	0.76			
60%	0.96	0.04	0.62			
65%	1.10	(1.24)	(0.40)			
70%	1.04	(3.83)	(2.73)	3.44	(0.11)	(0.43)
75%	0.93	(8.32)	(6.55)	3.13	(4.08)	(3.47)
80%	1.42	(14.27)	(10.33)	3.60	(9.71)	(9.61)
85%	2.05	(21.39)	(13.26)	4.14	(13.34)	(13.40)
90%				6.36	(13.91)	(14.01)

VAR at 0.05

Coverage Election	YP	RP-HPE	RP	GRP	GRIP	GRIP-HPO
50%	\$642.70	\$641.86	\$641.71			
55%	\$642.68	\$641.71	\$641.39			
60%	\$642.39	\$641.58	\$641.30			
65%	\$643.44	\$644.45	\$643.30			
70%	\$643.36	\$679.16	\$677.48	639.54	665.26	666.12
75%	\$644.35	\$723.47	\$720.53	638.94	690.94	690.14
80%	\$644.48	\$770.60	\$764.40	636.78	718.16	716.24
85%	\$644.95	\$815.03	\$802.81	634.27	741.91	739.17
90%				627.36	763.39	759.38
5% Value at risk without insurance			643.25			

Probabilities of Revenue With Insurance



Common Crop Insurance Policy (CCIP)

- YP** **Yield Protection (YP); replaces APH, Multi-Peril, MP and MPCl**
- RP** **Revenue Protection (RP); replaces Crop Revenue Coverage (CRC) and Revenue Assurance with Harvest Price Option (RA-HPO) This is the preferred product on crops with the offer.**
- RP-HPE** **Revenue Protection with Harvest Price Exclusion (RP-HPE); replaces Revenue Assurance without Harvest Price Option (RA) and Income Protection (IP)**

Crop Insurance Basics

Calculating APH Yield

Year	Yield		Yield
2003	214		214
2004	2	60% of T Yield	96
2005	151		151
2006	190		190
2007	180		180
2008	163		163
2009	189		189
2010	195		195
2011	200		200
2012	152		152

Crop Insurance Basics

Calculating Yield Protection (YP) Coverage

Actual Production History (10 year average farm yield)	173
Coverage Level (50% 55% 65% 70% 75% 80% 85%)	80%
Bushels per Acre Yield Guarantee	138.40
Harvested/Appraised Yield per Planted Acre	100.00
Bushel Loss per Acre (bu.)	38.40
Price Election/Expected Price	6.00
Indemnity Payment per Acre	<u>230.40</u>
Less Premium (Farmer Paid)	38.52

Crop Insurance Basics

Calculating Revenue Protection, With & Without Harvest Price Excluded & Price Increase

	RP-HPE	RP
Actual Production History (10 year average farm yield)	173	173
Coverage Level (50% 55% 65% 70% 75% 80% 85%)	80%	80%
Base Price	6.00	6.00
Minimum Revenue Guarantee	830.40	830.40
Harvested/Appraised Yield per Planted Acre	100.00	100.00
Harvest Market Price	8.50	8.50
Final Rev. Guarantee	830.40	1,176.40
Less Revenue to Count	850.00	850.00
Indemnity Payment per Acre	<u>0.00</u>	<u>326.40</u>
Less Premium (Farmer Paid)	40.00	56.00

Crop Insurance Basics

Calculating Revenue Protection, With & Without Harvest Price Excluded & Price Decrease

	RP-HPE	RP
Actual Production History (10 year average farm yield)	173	173
Coverage Level (50% 55% 65% 70% 75% 80% 85%)	80%	80%
Base Price	6.00	6.00
Minimum Revenue Guarantee	830.40	830.40
Harvested/Appraised Yield per Planted Acre	138.40	138.40
Harvest Market Price	4.00	4.00
Final Rev. Guarantee	830.40	830.40
Less Revenue to Count	553.60	553.60
Indemnity Payment per Acre	<u>276.80</u>	<u>276.80</u>
Less Premium (Farmer Paid)	40.00	56.00