

Crop Insurance, Disaster Insurance, Livestock Programs, etc.

ApEc 3811
Spring 2009

Please note that the example use data for 2008 but the points are still very valid.

Source for slides: Center for Farm Financial Management,
Department of Applied Economics, University of Minnesota
Updated for 2009 & Barnaby, Kansas State

Life Insurance

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

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Health Insurance

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



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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.

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Crop Insurance Subsidy

| Coverage Level | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|--------------------------------------|----|----|----|----|----|----|----|----|
| Gov't Subsidy% | 67 | 64 | 64 | 59 | 59 | 55 | 48 | 38 |
| You pay% | 33 | 36 | 36 | 41 | 41 | 45 | 52 | 62 |
| New Gov't subsidies for 2009 for ... | | | | | | | | |
| Enterprise units | | | 80 | 80 | 80 | 77 | 68 | 53 |
| Whole Farm units | | | | 80 | 80 | 80 | 71 | 56 |

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Federal Crop Insurance

- ✓ CAT Catastrophic Risk Protection
Lowest level of MPCI. Covers 50% of the crop yield only. Only cost is a small administrative fee per crop.
- ✓ MPCI Multi-peril Crop Insurance
Offers higher level of insurance coverage than CAT. Choices include 50 to 85% of yield in five percent increments. Covers losses of crop yield only.

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Federal Crop Insurance

✓CRC Crop Revenue Coverage

Includes the same levels of coverage choices as MPCl. However, CRC insures against losses of revenue caused by yield loss and/or price changes.

✓RA Revenue Assurance

RA is very similar to CRC when purchased with the "harvest price option." Insures against losses of revenue caused by yield loss and/or price changes.

Federal Crop Insurance

✓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. Adds a price component to GRP. GRIP compared to GRP is like comparing RA to MPCl.

MULTI-PERIL (MPCI)

- ✓ 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

MULTI-PERIL (MPCI)

| Market Price (MP) Elections | 2008 | 2009 |
|-----------------------------|--------|--------|
| Corn (includes seed corn) | \$4.75 | \$4.00 |
| Soybeans | 11.50 | 9.90 |
| Spring wheat | 4.90 | 7.35 |

MULTI-PERIL (MPCI)

- ✓ Coverage calculation
 - APH Yield x Coverage % = Guaranteed Bushels
 - Guaranteed Bushels x Market Price Election =
Coverage Level in \$/Acre

Crop Revenue Coverage (CRC)

- ✓ Protects against revenue loss due to yield loss and/or price changes. Converts your bushel guarantee to a dollar guarantee per acre.
- ✓ Similar to MPCl in these points
 - Uses APH or County T Yields
 - Coverage choices range from 50 to 85%
 - Premium subsidized, based on coverage
 - Replant & prevented planting included

Crop Revenue Coverage (CRC)

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

CRC Price Guarantees

| Crop | Contract | Base Price | Harvest Price |
|--------------|----------|------------|---------------|
| Corn | Dec CBOT | February | October |
| Soybean | Nov CBOT | February | October |
| Spring Wheat | Sept MGE | February | August |

CRC Price Guarantees

| Crop | Contract | Base Price | Harvest Price |
|--------------|----------|------------|---------------|
| Corn | Dec CBOT | February | October |
| Soybean | Nov CBOT | February | October |
| Spring Wheat | Sept MGE | February | August |

Base Price Announced early March. Used to calculate the minimum revenue guarantee.

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

CRC Price Guarantees

| Crop | Contract | Base Price | Harvest Price |
|--------------|----------|------------|---------------|
| Corn | Dec CBOT | February | October |
| Soybean | Nov CBOT | February | October |
| Spring Wheat | Sept MGE | February | August |

Harvest Price Announced early Nov.

If higher than base price, used to calculate a new higher revenue guarantee.

CRC Price Guarantees for 2009

- ✓ Harvest Price is limited to twice February price.
- ✓ No downward limit.

CRC Indemnity (Loss) Payments

- ✓ The Harvest 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

CRC 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 CRC that protects you if you have pre-harvest marketed grain

Revenue Assurance (RA)

- ✓ With the "harvest price option" RA is just like CRC except for:
 - Premiums are calculated differently
 - No limits on harvest price moves compared to base price
 - The harvest price for corn is the November average (Oct for CRC) of Dec CBOT
 - Minimum coverage level starts at 65%

Revenue Assurance (RA)

- ✓ Without the "harvest price option," the revenue guarantee does not increase if the Harvest Price increases.
- ✓ When using RA coupled with a pre-harvest marketing plan, you should strongly consider purchasing the "harvest price option."

Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
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Base Prices for 2008

MPCI \$11.50
RA/CRC \$12.70 ???

Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
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Minimum Revenue Guarantee

APH x % coverage x Base Price
40 bu x 75% x \$9.00 = \$270.00

Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|---------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|---------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | \$9.00 |
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Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|---------------|---------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | \$9.00 |
| New Guarantee | | ----- |
| | | |

Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|---------------|-----------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | \$9.00 |
| New Guarantee | | ----- |
| Indemnity | \$72.00/A | \$72.00/A |

Crop Insurance Comparison

| Same Price | MPCI | RA-HPO/CRC |
|---------------|-----------|------------|
| | | 40 bu/A |
| | | 75% |
| | | \$9.00 |
| | | \$270.00/A |
| | | 22 bu/A |
| | | \$9.00 |
| New Guarantee | | ----- |
| Indemnity | \$72.00/A | \$72.00/A |

Indemnity

Guarantee - Actual Production
x Harvest Price

$\$270.00 - (22 \text{ bu} \times \$9.00)$

$\$270.00 - \$198.00 = \$72.00$

Crop Insurance Comparison

| Price Decrease | MPCI | RA-HPO/CRC |
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Crop Insurance Comparison

| Price Decrease | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | |
| New Guarantee | | |
| Indemnity | \$72.00/A | |

Crop Insurance Comparison

| Price Decrease | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | \$6.00 |
| New Guarantee | | ----- |
| Indemnity | \$72.00/A | \$138.00 |

Crop Insurance Comparison

| Price Decrease | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| | | 40 bu/A |
| | | 75% |
| | | \$9.00 |
| | | \$270.00/A |
| | | 22 bu/A |
| | | \$6.00 |
| New Guarantee | | ----- |
| Indemnity | \$72.00/A | \$138.00 |

Indemnity
 Guarantee - Actual Production
 x Harvest Price
 $\$270.00 - (22 \text{ bu} \times \$6.00)$
 $\$270.00 - \$132.00 = \$138.00$

Crop Insurance Comparison

| Price Increase | MPCI | RA-HPO/CRC |
|----------------|------|------------|
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Crop Insurance Comparison

| Price Increase | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | |
| New Guarantee | | |
| Indemnity | \$72.00/A | |

Crop Insurance Comparison

| Price Increase | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | \$12.00 |
| New Guarantee | | |
| Indemnity | \$72.00/A | |

Crop Insurance Comparison

| Price Increase | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| APH | 40 bu/A | 40 bu/A |
| Coverage | 75% | 75% |
| Base Price | \$9.00 | \$9.00 |
| Guarantee | 30 bu/A | \$270.00/A |
| Harvest Yield | 22 bu/A | 22 bu/A |
| Harvest Price | | \$12.00 |
| New Guarantee | | \$360.00/A |
| Indemnity | \$72.00/A | |

Crop Insurance Comparison

| Price Increase | MPCI | RA-HPO/CRC |
|----------------|-----------|------------|
| | | 40 bu/A |
| | | 75% |
| | | \$9.00 |
| | | \$270.00/A |
| | | 22 bu/A |
| | | \$12.00 |
| New Guarantee | | \$360.00/A |
| Indemnity | \$72.00/A | |

Final Guarantee
 With a higher harvest price, a new
 Guarantee is calculated.
 APH x % cover x Harvest Price
 $40 \text{ bu} \times 75\% \times \$12.00 = \$360.0$

Crop Insurance Comparison

| Price Increase | MPCI | RA-HPO/CRC |
|--|-----------|------------|
| <u>Indemnity</u> Guarantee - Actual Production x Harvest Price $\$360.00 - (22 \text{ bu} \times \$12.00)$ $\$360.00 - \$264.00 = \$96.00$ | | 40 bu/A |
| | | 75% |
| | | \$9.00 |
| | | \$270.00/A |
| | | 22 bu/A |
| | | \$12.00 |
| New Guarantee | | \$360.00/A |
| Indemnity | \$72.00/A | \$96.00/A |

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Revenue-Based Insurance Advantages

- ✓ May have larger indemnities than yield-based crop insurance
- ✓ 3-way coverage means a greater chance of indemnity payment
- ✓ May be competitively priced with yield-based crop insurance
- ✓ Can use it as an integral part of your marketing strategy!

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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

- MPCI, RA & CRC 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?

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Fact or Fiction # 2

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

✓ FICTION, Yes You Can

- In 2004, the base price in February was \$2.83. The harvest price was \$1.99.
- Your minimum revenue guarantee was \$318 (150 bpa x 75% X \$2.83). Your harvest of 155 bpa x \$1.99 is only \$308. You have a \$10 indemnity coming.

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Fact or Fiction # 3

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

✓ FACT

- CRC & RA-HPO have 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.

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Fact or Fiction # 4

"I have RA-HPO & forward priced 75% of my APH. 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 RA-HPO and CRC are 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

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

- ✓ 600 acres of soybeans
- ✓ 40 bu/acre APH
- ✓ 75% coverage revenue-based insurance
- ✓ 600 x 40 x 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 \$9.00 = \$162,000
- ✓ Only produced 13,200 bu.
Buy back 4,800 bu. at \$11.80 -\$56,640
 - (price includes extra \$.10 for purchase)
- ✓ Crop insurance indemnity +\$57,600
- ✓ Gross Return =\$162,960

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

| | MPCI | RA-HPO | RA only |
|----------------------|-----------|-----------|-----------|
| Premium per acre | \$6.63 | \$9.96 | \$8.02 |
| 18,000 bu at \$9.00 | \$162,000 | \$162,000 | \$162,000 |
| Repurchase beans (-) | -56,640 | -56,640 | -56,640 |
| Total Indemnity (+) | +43,200 | +57,600 | +3,600 |
| Total premium (-) | -3,978 | -5,976 | -4,812 |
| Net result | \$144,582 | \$156,984 | \$104,148 |

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

| | MPCI | RA-HPO | RA only |
|----------------------|-----------|-----------|-----------|
| Premium per acre | \$6.63 | \$9.96 | \$8.02 |
| 18,000 bu at \$9.00 | \$162,000 | \$162,000 | \$162,000 |
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| Net result | \$144,582 | \$156,984 | \$104,148 |

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

| | MPCI | RA-HPO | RA only |
|----------------------|-----------|-----------|-----------|
| Premium | \$6.63 | \$9.96 | \$8.02 |
| 18,000 bu at \$9.00 | \$162,000 | \$162,000 | \$162,000 |
| Repurchase beans (-) | -56,640 | -56,640 | -56,640 |
| Total Indemnity (+) | +43,200 | +57,600 | +3,600 |
| Total premium (-) | -3,978 | -5,976 | -4,812 |
| Net result | \$144,582 | \$156,984 | \$104,148 |

RA without the Harvest Price option 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 production.

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

- MPCI, CRC & RA 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 |

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The Facts of Revenue-Based Crop Insurance

| | | |
|------------|-----------|------------|
| High Yield | Covered | |
| Low Yield | Covered | |
| | Low Price | High Price |

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The Facts of Revenue-Based Crop Insurance

| | | |
|------------|-----------|------------|
| High Yield | Covered | |
| Low Yield | Covered | Covered |
| | Low Price | High Price |

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The Facts of Revenue-Based Crop Insurance

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

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Bio-Tech Yield Endorsement (BYE)

- ✓ 2008 States: Minnesota, Iowa, Indiana, & Illinois.
- ✓ Hybrids must contain Monsanto-based technology:
 - Roundup Ready® Corn2, YieldGard® Corn Borer, and YieldGard® Rootworm
- ✓ Discount available with MPCI, CRC or RA only.
- ✓ At least 75% of acres in unit to biotech hybrids:
 - If qualified, all acres in unit qualify & get discount.
 - Must be non-irrigated corn grain hybrids.

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Supplemental Disaster Programs

- Supplemental Revenue Assistance Payments (SURE)
- Livestock Forage Disaster Program (LFP)
 - Covers forage and grazing losses U.S. Drought Monitor
 - Payment rate for drought is 60% of monthly feed cost.
 - Covers fire on public grazing
 - Payment rate for fire is 50% of monthly feed costs.
- Livestock Indemnity Program (LIP)
 - Covers death loss
 - Pays 75% of market value the day before the death.
- Tree Assistance Program (TAP)
- Emergency Assistance for Livestock, Honey Bees & Farm Raised Fish (EALHF) Program

Supplemental Revenue Assistance (SURE)

Qualifying requires CAT or higher and NAP be purchased.

County requires a Secretary disaster declaration (include contiguous counties) or the whole farm must have a 50% Loss.

Coverage is whole farm and includes all crops in all counties (crosses state lines??).

Supplemental Revenue Assistance (SURE)

SURE guarantee = planted acres x % crop insurance coverage x APH/program yield x CI price election x 115%

SURE cap = 90% of expected revenue for each crop.
Planted acres x APH/proven yield x insurance price guarantee

Supplemental Revenue Assistance (SURE)

Revenue to count = indemnities, prevented planting, 15% of direct payments, CC, ACRE, marketing loan gains, crop values (harvested acres x yield x MYA price)

SURE Payment = SURE Guarantee less the Revenue to count X 60%

Questions?