2015 Crop Insurance Decisions

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Outline of Presentation

- Crop Revenue Risk
- Crop Insurance Products
- Yield and Revenue Guarantees
- Example
Crop Revenue Risk

- Crop revenue risk can result from:
  - Price variability
  - Yield variability
  - Relationships between price and yield
Annual Deviations from Trend Yields
White County, Indiana

[Graph showing annual deviations from trend yields for corn and soybeans in White County, Indiana, from 1996 to 2014.]
Ratio of Harvested to Projected Crop Insurance Prices

- Corn
- Soybeans
- 0.80
Crop Revenue Risk

• In the Corn Belt, price and yield tend to move in opposite directions (i.e., negatively correlated)

• This effect is referred to as the “natural hedge”

• The negative correlation between price & yield reduces revenue risk on Corn Belt farms
Deviations in White County, IN Corn Prices and Yields

\[ r = -0.65 \]
Crop Insurance Products
Definitions

- **Basic Units**
  - All of one crop in a county for a specific share of production
  - All owned and cash rent land for one crop in one county is a basic unit
  - Each share rent landowner arrangement would be a separate basic unit

- **Optional Units**
  - Divisions of basic units based on township section

- **Enterprise Units**
  - Addition of all basic units in one county for a single crop
Potential Products

• **Yield Policies**
  - **AYP = area yield protection**
    - Insures against county-wide production loss (based on county yield)
    - Policy protection = dollar amount of protection per acre x net acres
    - 70 to 90% coverage levels
  - **YP = yield protection**
    - Insures against production loss (based on individual farm yield)
    - Yield protection guarantee =
      - \( \text{APH approved yield x coverage level x projected price} \)
    - 50 to 85% coverage levels
Potential Products

- **Revenue Policies**
  - ARPwHPE = area revenue with harvest price exclusion
    - Insures against county-wide revenue loss (based on county revenue)
    - Policy protection = county yield x coverage level x projected price
    - 70 to 90% coverage levels
  - RP-HPE = revenue protection with harvest price exclusion
    - Insures against revenue loss due to decrease in price, low yield, or combination of these (based on individual farm revenue)
    - Revenue protection guarantee = APH approved yield x coverage level x projected price
    - 50 to 85% coverage levels
Potential Products

- **Revenue Policies - continued**
  - **ARP** = area revenue protection
    - Insures against county-wide revenue loss (based on county revenue)
    - Policy protection = county yield x coverage level x greater of projected price or harvest price
    - 70 to 90% coverage levels
  - **RP** = revenue protection
    - Insures against revenue loss due to increase or decrease in price, low yield, or combination of these (based on individual farm revenue)
    - Revenue protection guarantee = APH approved yield x coverage level x greater of projected price or harvest price
    - 50 to 85% coverage levels
Definitions

- **Projected Price**
  - Based on settlement prices for futures contracts during February
  - 2013: Corn = $5.65 and Soybeans = $12.87
  - 2014: Corn = $4.62 and Soybeans = $11.36
  - **2015:** Corn = approx. $4.20 and Soybeans = approx. $9.85

- **Harvest Price**
  - Based on settlement prices for futures contracts during October
  - 2013: Corn = $4.39 and Soybeans = $12.87
  - 2014: Corn = $3.49 and Soybeans = $9.65
Yield and Revenue Guarantees
Crop Insurance Guarantees

• **Yield Protection**
  – Trend Adjusted Yield = 178
  – Yield Guarantee = 178 x 0.80 = 142.4

• **Revenue Protection**
  – Projected Price = $4.20
  – Revenue Guarantee = 178 x 4.20 x 0.80 = $598
Crop Insurance Example
White County, IN
University of Illinois Web Site

• FAST Tools – farmdoc
  – www.farmdoc.illinois.edu/fasttools
Projected and Harvest U.S. Corn Prices, Revenue Protection Products

Projected Price  Harvest Price

$0.00  $1.00  $2.00  $3.00  $4.00  $5.00  $6.00  $7.00  $8.00

96  97  98  99  00  01  02  03  04  05  06  07  08  09  10  11  12  13  14  15
Revenue Protection Guarantees, 80% Coverage
Corn in White County, IN

RP-HPE  RP

2015 Crop Insurance Decisions Webinar, March 2, 2015
2015 Crop Insurance Premiums, Various Products
Corn in White County, IN

RP and YP Products - 80% Coverage Level

- RP-E: $9.58
- RP-B: $16.01
- RP-O: $17.15
- YP-E: $4.27
- YP-B: $6.94
- YP-O: $7.83
- ARP-90%: $41.89
- AYP-90%: $18.09
2015 Crop Insurance Premiums, Revenue Protection Coverage Levels
Basic Units, Corn in White County, IN

- 50%: $1.16
- 55%: $1.92
- 60%: $2.91
- 65%: $4.79
- 70%: $7.05
- 75%: $10.33
- 80%: $16.01
- 85%: $24.90
Estimated Payouts, Revenue Protection Products, White County, IN Corn

- RP-75%
- RP-80%
- RP-85%

iFarm Crop Insurance Payment Evaluator

• **Case Farm Information**
  – Average Yield = 178 & 10% of years with yields below 151

• **Frequency of Payment**
  – YP at 80% Coverage Level = 8.9%
  – RP at 80% Coverage Level = 19.5%

• **Estimated Net Average Cost of Insurance**
  – YP at 80% Coverage Level = (1.66)
  – RP at 80% Coverage Level = (3.59)