


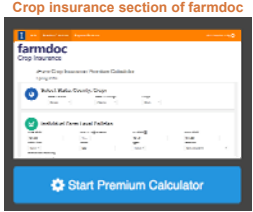
## Crop Insurance, ARC, and Risk Management Update

Gary Schnitkey, Nick Paulson,  
and Bruce Sherrick  
University of Illinois




### Topics

1. Risk Management and 2016 budgets
2. Crop insurance
  - Products
  - YA, YE, and TA
3. ARC
4. Summary




<http://farmdoc.illinois.edu/cropins/>



### Risk Management Tools

- Balance sheet reserves
  - Working capital
  - Credit reserves
- Crop insurance / marketing
- ARC – government programs




### Budgets

#### 2016 Costs

#### Corn

#### 200 bu/acre

	Total Costs
Cash Rent	270
Fertilizer	125
<b>Direct Costs</b>	<b>122</b>
Seed	122
Pesticides	60
Drying and storage	28
Crop Insurance	24
<b>Power Costs</b>	<b>64</b>
Machinery depreciation	64
Other power costs	61
<b>Overhead Costs</b>	<b>12</b>
Hired Labor	12
Building depreciation	3
Other overhead costs	53
<b>Total Costs</b>	<b>\$822</b>
2016 ARC	40
Costs - ARC-CO	\$782
Yield	200
Break-even price	\$3.91




### Budgets

#### 2016 Costs

#### Corn

#### 200 bu/acre

	Total Costs	No Depreciation
Cash Rent	270	270
Fertilizer	125	125
<b>Direct Costs</b>	<b>122</b>	<b>122</b>
Seed	122	122
Pesticides	60	60
Drying and storage	28	28
Crop Insurance	24	24
<b>Power Costs</b>	<b>64</b>	<b>61</b>
Machinery depreciation	64	61
Other power costs	61	61
<b>Overhead Costs</b>	<b>12</b>	<b>12</b>
Hired Labor	12	12
Building depreciation	3	
Other overhead costs	53	56
<b>Total Costs</b>	<b>\$822</b>	<b>\$758</b>
2016 ARC	40	40
Costs - ARC-CO	\$782	\$718
Yield	200	200
Break-even price	\$3.91	\$3.59




### Budgets

#### 2016 Costs

#### Corn

#### 200 bu/acre

	Total Costs	No Depreciation	No. Dep Overhead
Cash Rent	270	270	270
Fertilizer	125	125	125
<b>Direct Costs</b>	<b>122</b>	<b>122</b>	<b>122</b>
Seed	122	122	122
Pesticides	60	60	60
Drying and storage	28	28	28
Crop Insurance	24	24	24
<b>Power Costs</b>	<b>64</b>	<b>61</b>	<b>61</b>
Machinery depreciation	64	61	61
Other power costs	61	61	61
<b>Overhead Costs</b>	<b>12</b>	<b>12</b>	<b>12</b>
Hired Labor	12	12	12
Building depreciation	3		
Other overhead costs	53	56	56
<b>Total Costs</b>	<b>\$822</b>	<b>\$758</b>	<b>\$702</b>
2016 ARC	40	40	40
Costs - ARC-CO	\$782	\$718	\$662
Yield	200	200	200
Break-even price	\$3.91	\$3.59	\$3.31



Budgets		Total Costs	No Depreciation	No. Dep Overhead
<b>2016 Costs</b>	Cash Rent	270	270	270
	Fertilizer	32	32	32
	Seed	76	76	76
	Pesticides	41	41	41
	Drying and storage	5	5	5
	Crop Insurance	18	18	18
<b>Soybeans</b>	Machinery depreciation	59		
	Other power costs	58	58	58
	Hired Labor	12	12	12
	Building depreciation	5		
	Other overhead costs	46	46	
	<b>Total Costs</b>	<b>\$622</b>	<b>\$558</b>	<b>\$512</b>
	2016 ARC	40	40	40
	Costs - ARC-CO	\$582	\$518	\$472
	Yield	60	60	60
	Break-even price	\$9.70	\$8.63	\$7.87

**Projected and Harvest Prices (Midwest States)**

	2011	2012	2013	2014	2015	2016
<b>Corn</b>						
Projected Price	6.01	5.68	5.65	4.62	4.15	<b>\$3.87</b>
Harvest Price	6.32	7.50	4.39	3.49	3.82	
<b>Soybeans</b>						
Projected Price	13.49	12.55	12.87	11.36	9.74	<b>\$8.87</b>
Harvest Price	12.14	15.39	12.87	9.65	8.91	

- Projected price – average of Dec. (corn) of Nov. (beans) CME futures contract in February, used to set insurance guarantees.
- Harvest price – average of Dec. (corn) Nov. (beans) CME futures contract in October, used to calculate insurance revenue.

**Expected Revenue / Guarantees, Corn**

Expected Revenue:  $(\$3.87 - .25) \times 200.0 \text{ bu} = \$724 \text{ per acre}$

85% RP guarantee  $(\$3.87 \times 200 \times .85) = \$657 \text{ per acre}$

Above example: Expected yield = TA-APH yield = 200 bu/acre

Total costs – ARC-CO = \$737 per acre

**Expected Revenue / Guarantees, Soybeans**

Expected Revenue:  $(\$8.87 - .20) \times 60 \text{ bu} = \$520 \text{ per acre}$

85% RP guarantee  $(\$8.87 \times 60 \times .85) = \$452 \text{ per acre}$

Above example: Expected yield = TA-APH yield = 60 bu/acre

Total costs – ARC-CO = \$582 per acre

**Use of Farm-Level Revenue Products, Illinois, Corn, As a Percent of Insured Acres**



**Percent Acres Insured, Illinois, Corn, 2015**

Coverage Level	RP	RPwHPE	YP	ARP	ARPwHPE	AYP
50	0.3%	0.0%	1.2%			
55	0.1%	0.0%	0.0%			
60	0.2%	0.0%	0.1%			
65	0.5%	0.0%	0.2%			0.0%
70	2.9%	0.1%	0.2%	0.0%		0.0%
75	9.9%	0.2%	0.5%	0.0%		0.0%
80	24.9%	0.4%	0.4%	0.0%	0.0%	0.0%
85	37.6%	0.7%	0.4%	0.1%	0.0%	0.0%
90				5.5%	0.1%	0.2%
Total	76.3%	1.5%	2.9%	5.7%	0.2%	0.2%

86% of planted corn acres were insured

# Crop Insurance, ARC, and Risk Management Update

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23 Feb 2016

## Choices

### 1. RP

- 75% or higher (likely 80 or 85%)
- TA and Yield exclusion (if available)
- Enterprise Units

### 2. RP with exclusion

- Same as above

### 3. ARP (Area Risk Plan) or ARP with exclusion

- 90% coverage level



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Crop Insurance Tools: Spring 2016

**iFarm Premium Calculator**

This 2016 iFarm Crop Insurance Premium Calculator allows users to develop highly customized estimates of their crop insurance premiums, and compare revenue and yield guarantees across all available crop insurance products and elections for their actual farm case. This on-line calculator allows a quick but detailed comparison between farm-level and area-level insurance products in terms of cost and guarantee values. Specific case details are accommodated along with a tool to calculate your TA-Adjusted APH. This tool also uses current price and volatility conditions and will track current market conditions through the first release by FMA of 2016 Projected Prices and Volatility. This tool targets users interested in a quick means to compare insurance premiums for all possible products and election levels in a simple to interpret format.

**iFarm Payment Evaluator**

This web-based tool has been completely updated for 2016. The Insurance Payment Evaluator develops a case farm for most counties in the major corn and soybean production regions, and then provides estimates of premiums for all available crop insurance products for basic and enterprise units by coverage level, along with the expected frequency of payments, average payment per acre, net cost per acre, and risk reductions associated with alternative crop insurance products and election levels in an easily understood format. A summary graph shows the impact on likelihood of low revenues across alternative crop insurance decisions and compares these to a "no insurance" case. The tool uses current price and volatility estimates and will be updated periodically until the final values are established. The tool provides helpful information to producers comparing costs and risk reductions across their available crop insurance alternatives in 2016.

<http://farmdoc.illinois.edu/cropins/>

**iFarm Crop Insurance Premium Calculator**  
Spring 2016

Select State, County, Crop:  
 Select State:  Select County:  Crop:

Individual Farm Level Policies

APH Yield:  Use TA adjustment:  Yes  No  
 Risk Class:  Acres:  TA Yield:  Type:  Rate Yield:   Non-impacted  
 Prevented Planting:

Coverage Level	Revenue Protection			Revenue Protection With Harvest Price Exclusion			Yield Protection					
	Enterprise	Basic	Optional	Enterprise	Basic	Optional	Enterprise	Basic	Optional			
60%	0.80	0.81	1.00	387	0.43	0.71	0.89	387	0.44	0.73	1.07	300
65%	0.81	0.82	1.00	426	0.44	0.72	0.90	426	0.45	0.74	1.08	300
70%	1.14	2.20	2.85	464	0.84	1.30	1.69	464	0.87	1.37	2.15	300
75%	1.18	3.45	4.55	505	0.85	2.04	2.63	505	1.15	2.12	3.24	300
80%	2.10	5.50	6.48	542	1.28	2.94	3.48	542	1.71	3.31	4.28	300
85%	4.27	8.92	9.43	581	2.09	4.23	4.81	581	2.48	4.88	5.71	300
90%	8.35	15.38	16.74	629	4.28	6.82	7.24	629	5.30	8.38	8.85	300
95%	16.58	21.73	23.92	658	8.17	10.68	11.30	658	9.72	13.18	13.97	300

Projected Price: 3.87      Volatility Factor: 0.18      Price and Volatility data as of Feb 19, 2016

## RP Guarantee Example

	Corn	Soybeans
TA-APH yield	200	60
Projected price	3.87	8.87
Harvest price (avg during Oct)	> 3.87	> 8.87
RP uses higher of projected or harvest price in guarantee		
Coverage level	85%	85%
Guarantee (Corn 200 x 5.00 x .85)	\$850	\$510

Harvest price will not be known till end of October



## RP Guarantee Example

	Corn	Soybeans
TA-APH yield	200	60
Projected price	3.87	8.87
Harvest price (avg during Oct)	> 3.87	> 8.87
RP uses higher of projected or harvest price in guarantee		
Harvest price	\$5.00	\$10.00
Coverage level	85%	85%
Guarantee (Corn 200 x 5.00 x .85)	\$850	\$510
Yield below which payments occur	170	51

Harvest price will not be known till end of October



RP-HPE does not have the guarantee increase

## RP Per Acre Payments

(200 Bu TA-APH Yield, 85% Coverage Level)

Yield	----- Harvest Price -----			
	3.00	3.50	4.00	4.50
100	359	309	280	315
120	299	239	200	225
140	239	169	120	135
160	179	99	40	45
180	119	29	0	0
200	59	0	0	0
220	0	0	0	0



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23 Feb 2016

## RP Per Acre Payments

(200 Bu TA-APH Yield, 85% Coverage Level)

Yield	Harvest Price			
	3.00	3.50	4.00	4.50
100	359	309	280 259	315 210
120	299	239	200 180	225 120
140	239	169	120 100	135 29
160	179	99	40 20	45 0
180	119	29	0	0
200	59	0	0	0
220	0	0	0	0

RP-HPE premium in red



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Crop Insurance Tools: Spring 2016

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Case Farm Info	Est Premiums	Avg Payments	Freq Payment	Net Cost of Insurance	Avg Gross Rev	Target Probability
Value at Risk Information						
Estimated Net Average Cost of Insurance						
Coverage Election	YP	RP-HPE	RP	AYP	ARP-HPE	ARP
50%	\$0.02	\$0.37	\$-0.11			
55%	\$-0.21	\$0.29	\$-0.31			
60%	\$-0.75	\$-0.11	\$-1.39			
65%	\$-1.31	\$-0.60	\$-2.48			
70%	\$-2.98	\$-1.87	\$-5.02	\$-5.49	\$-2.78	\$-11.85
75%	\$-6.33	\$-5.68	\$-8.07	\$-10.37	\$-5.72	\$-19.34
80%	\$-8.53	\$-8.88	\$-11.64	\$-15.75	\$-9.49	\$-28.54
85%	\$-12.36	\$-9.92	\$-14.33	\$-22.90	\$-11.75	\$-37.00
90%				\$-29.54	\$-12.04	\$-42.08

The table above contains long run average net costs of insurance by product and election level. Net cost is defined as farmer-paid premium less average payment received. A negative value indicates that the product pays back more on average than the farmer-paid premium for the case farm considered.

Net Costs = Average Farmer-Paid premium - Average Insurance Payment

All have negative, ARP has the most negative.



VAR at 5%

Coverage Election	YP	RP-HPE	RP	AYP	ARP-HPE	ARP
50%	\$417.98	\$415.29	\$419.09			
55%	\$420.98	\$415.17	\$422.03			
60%	\$426.44	\$416.15	\$426.77			
65%	\$430.31	\$425.09	\$431.21			
70%	\$439.70	\$448.30	\$446.72	\$423.13	\$435.58	\$439.50
75%	\$446.36	\$475.00	\$470.99	\$425.98	\$440.38	\$432.30
80%	\$455.20	\$500.91	\$494.36	\$427.83	\$465.02	\$447.15
85%	\$463.05	\$524.54	\$513.64	\$433.94	\$475.58	\$478.45
90%				\$434.45	\$487.08	\$486.92

5% Value at risk with no insurance: 415.95

5% VAR – 5% of the time, gross revenue (Crop rev. + insure pay – insure prem) will be below this number  
Higher numbers are desired

Highest is at RP-HPE 85% followed by RP 85%  
ARP is much lower than RP and RP-HPE

YP does not reduce risk that much (i.e., does not increase 5% VAR)



## Decision

- RP at high coverage level**
  - Provides good protection
  - Pay more in years of drought
- RP-HPE at a high coverage level**
  - Lower premium costs than RP
  - As good of downside protection
  - Drought-year concern: **DO NOT HEDGE MUCH PRE-HARVEST**
- ARP (Area Risk Protection)**
  - County product
  - Some years, county will have good yields and farm will not
  - Higher coverage level



## ARP – Logan county

County Level Products

Type:  Practice:

Coverage Level	Area Revenue Protection			Minimum Revenue Guarantee
	Protection Factor	95	80%	
70%	5.24	4.15	3.49	514
75%	8.29	6.56	5.53	551
80%	14.01	11.09	9.34	588
85%	26.72	21.15	17.81	625
90%	47.66	37.73	31.77	661

Exp Yield: 190.90

- 90% protection level
- \$3.87 x .90 = \$3.48

New farmland in a county

Concerned about price risk more than yield risk

No prevented planting or replant provisions for ARP



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23 Feb 2016

## YA, YE, and TA

**FAST** Reset Form Print Print footnotes Return

**APH Yield Calculator for Trend-Adjustment, YE and YA**

Year of Calculations: 2016 Link to Premium Calculator Trend Adjustment Data  
 State: Illinois County Trend: 1.58  
 County: Saline County Trend: 100%  
 Crop: Corn Yearly Adjustment: 1.58  
 Type: Grain  
 Practice: Non-irrigated 2016 T-yield: 132  
 No of yields: 10 APH yield floor: 106

This spreadsheet calculates yields for premium generation under the following options:  
**Yield Adjustment (YA)** – 60% of applicable T-yield can be substituted for an actual yield  
**Yield Exclusion (YE)** – if allowed, the yield can be excluded from APH calculation.  
**Trend Adjustment (TA)** – if available and actual yields exist, a producer can elect to add a trend to yields for APH calculation.  
 This sheet works only for actual and transition yields. Calculations may not be correct for other yield types.

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## Yield Exclusion

- Allows specific years to be dropped from calculation of APH
- Years are determined by RMA
- In Illinois: 1995, 2002, 2005, 2012
- See farmdocDaily, January 13, 2015

Figure 1. Counties where Yield Exclusion Exists for 2012, Corn (Shaded Blue) counties have YE in 2012

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Eligible for Trend Adjustment:  yes  
 Use TA:  yes  
 Highest possible TA yield: 190

Year	Substitute Yield <sup>1</sup>	Availability YA <sup>2</sup>	YE <sup>3</sup>	Actual Yield Available	Actual Yield	Use YA/YE <sup>4</sup>	Use T-yield	Rate Yield	Adjusted Yield	Yield	Approved Yield TAYE
2006	60	no	no	yes	150	none	no	150	150	106	
2007	67	no	no	yes	126	none	no	126	126	140	
2008	67	no	no	yes	153	none	no	153	153	106	
2009	67	no	no	yes	163	none	no	163	163	174	
2010	75	no	no	yes	133	none	no	133	133	142	
2011	75	no	no	yes	132	none	no	132	132	140	
2012	75	yes	yes	yes	50	no	no	50	50	56	
2013	79	no	no	yes	171	none	no	171	171	176	
2014	79	no	no	yes	188	none	no	188	188	191	
2015	79	no	no	yes	187	none	no	187	187	189	

Rate Yield<sup>11</sup>: 145  
 Adjusted Yield (or APH without YE and TA)<sup>12</sup>: 145  
 Approved Yield for TAYE (or APH with YE and TA)<sup>13</sup>: 154

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 Use TA:  yes  
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2006	60	no	no	yes	150	none	no	150	150	166	
2007	67	no	no	yes	126	none	no	126	126	140	
2008	67	no	no	yes	153	none	no	153	153	166	
2009	67	no	no	yes	163	none	no	163	163	174	
2010	75	no	no	yes	133	none	no	133	133	142	
2011	75	no	no	yes	132	none	no	132	132	140	
2012	75	yes	yes	yes	50	YA	no	50	75	81	
2013	79	no	no	yes	171	none	no	171	171	176	
2014	79	no	no	yes	188	none	no	188	188	191	
2015	79	no	no	yes	187	none	no	187	187	189	

Rate Yield<sup>11</sup>: 145  
 Adjusted Yield (or APH without YE and TA)<sup>12</sup>: 148  
 Approved Yield for TAYE (or APH with YE and TA)<sup>13</sup>: 157

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Eligible for Trend Adjustment:  yes  
 Use TA:  yes  
 Highest possible TA yield: 190

Year	Substitute Yield <sup>1</sup>	Availability YA <sup>2</sup>	YE <sup>3</sup>	Actual Yield Available	Actual Yield	Use YA/YE <sup>4</sup>	Use T-yield	Rate Yield	Adjusted Yield	Yield	Approved Yield TAYE
2006	60	no	no	yes	150	none	no	150	150	166	
2007	67	no	no	yes	126	none	no	126	126	140	
2008	67	no	no	yes	153	none	no	153	153	166	
2009	67	no	no	yes	163	none	no	163	163	174	
2010	75	no	no	yes	133	none	no	133	133	142	
2011	75	no	no	yes	132	none	no	132	132	140	
2012	75	yes	yes	yes	50	YE	no	50	50	56	
2013	79	no	no	yes	171	none	no	171	171	176	
2014	79	no	no	yes	188	none	no	188	188	191	
2015	79	no	no	yes	187	none	no	187	187	189	

Rate Yield<sup>11</sup>: 145  
 Adjusted Yield (or APH without YE and TA)<sup>12</sup>: 145  
 Approved Yield for TAYE (or APH with YE and TA)<sup>13</sup>: 165

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2015 IFARM Premium Calculator  
 Date Priced: 12/24/2015

Individual Farm Level Policies

Coverage Level	Enterprise	Basic	Optional Guarantee	Minimum Revenue	Revenue	Area Revenue Protection	Harvest Price Exclusion	Revenue	Yield Protection	Yield		
55%	0.55	0.91	1.30	387	0.43	0.71	0.99	387	0.44	0.73	1.07	100.0
55%	0.81	1.47	2.02	426	0.56	1.00	1.33	426	0.62	1.11	1.56	110.0
60%	1.14	2.20	2.85	464	0.64	1.30	1.69	464	0.67	1.57	2.11	120.0
65%	1.59	3.65	4.63	503	0.81	2.04	2.63	503	1.23	2.52	3.24	130.0
70%	2.50	5.60	6.49	542	1.26	2.94	3.49	542	1.71	3.61	4.28	140.0
75%	4.27	8.50	9.63	581	2.09	4.23	4.81	581	2.49	4.86	5.71	150.0
80%	8.35	13.68	14.74	619	4.06	6.62	7.24	619	4.30	6.98	7.88	160.0
85%	16.56	21.72	22.86	658	8.17	10.66	11.10	658	7.72	10.16	11.07	170.0

Parameters: Projected Price: \$3.87, Volatility (revenue): 0.18, Volatility (pre with exclusion): 0.18

County Level Products

Coverage Level	Enterprise	Basic	Optional Guarantee	Minimum Revenue	Revenue	Area Revenue Protection	Harvest Price Exclusion	Revenue	Yield Protection	Yield		
70%	5.24	4.15	3.23	517	2.29	1.81	1.53	517	4.58	3.63	3.05	113.4
75%	8.22	6.51	5.48	554	3.99	3.16	2.66	554	5.38	4.26	3.59	143.2
80%	13.89	10.36	8.73	591	7.42	5.87	4.95	591	8.10	6.41	5.40	152.7
85%	24.96	19.76	16.64	628	16.24	12.06	10.16	628	13.05	9.84	8.03	162.3
90%	44.78	35.41	29.85	665	28.35	22.44	18.90	665	20.16	15.96	13.44	171.8

Parameters: Exp. Yield: 180.9, Proj. Price: \$3.87, Vol: 0.16

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**ARC and PLC**

- **2015 Payment Estimates based on:**
  - Midpoint of February WASDE report for MYA prices
    - Still in the marketing year for corn, beans, and wheat; final prices not yet known
  - NASS county yields released Feb 18<sup>th</sup>
    - Not all ARC counties/practices are covered by the NASS yields
    - Note actual FSA yields used for ARC will differ



**PLC - Expected 2015/16MYA Prices**

- **February WASDE report:**

	Corn	Soybeans	Wheat
Feb. WASDE Range	\$3.35 to \$3.85	\$8.05 to \$9.55	\$4.90 to \$5.10
Feb. WASDE Midpoint	\$3.60	\$8.80	\$5.00
PLC Reference Price	\$3.70	\$8.40	\$5.50
PLC Payment Rate	\$0.10	\$0.00	\$0.50



**ARC – 2014 Benchmark Prices**

	Corn	Soybeans	Wheat
2009	\$3.55	\$9.59	\$4.87
2010	\$5.18	\$11.30	\$5.70
2011	\$6.22	\$12.50	\$7.24
2012	\$6.89	\$14.40	\$7.77
2013	\$4.46	\$13.00	\$6.87
2014	\$3.70	\$10.10	\$5.99
<b>2014 ARC Benchmark Price</b>	<b>\$5.29</b>	<b>\$12.27</b>	<b>\$6.60</b>

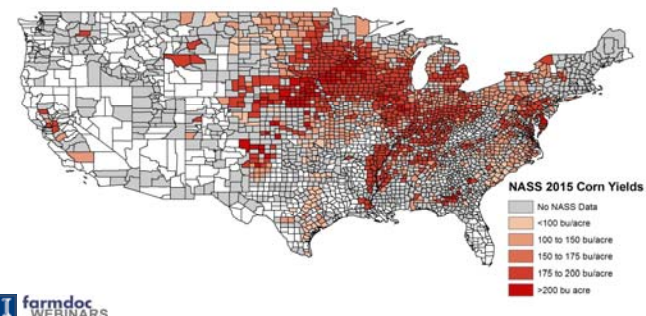


**ARC – 2015 Benchmark Prices**

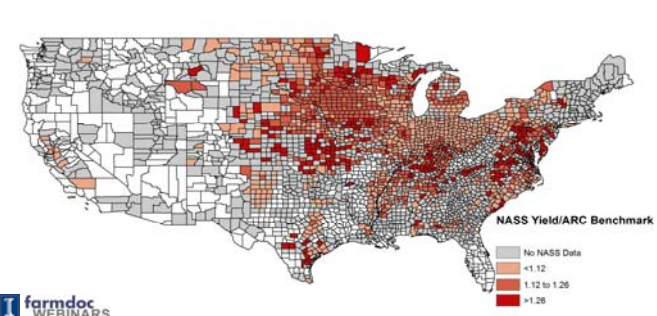
	Corn	Soybeans	Wheat
2009	\$3.55	\$9.59	\$4.87
2010	\$5.18	\$11.30	\$5.70
2011	\$6.22	\$12.50	\$7.24
2012	\$6.89	\$14.40	\$7.77
2013	\$4.46	\$13.00	\$6.87
2014	\$3.70	\$10.10	\$5.99
<b>2015 ARC Benchmark Price</b>	<b>\$5.29</b>	<b>\$12.27</b>	<b>\$6.70</b>



**NASS 2015 County Corn Yields**



**2015 NASS Corn Yield / ARC Benchmark**



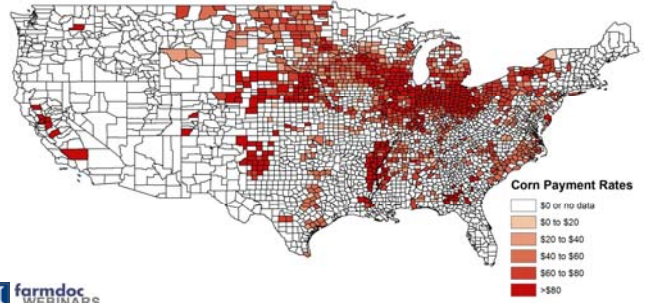
**Estimated ARC-CO Corn Payments**

State	NASS Data Available <sup>1</sup>	ARC Payment <sup>2</sup>	Max ARC Payment <sup>2</sup>
Iowa	97%	84%	9%
<b>Illinois</b>	<b>90%</b>	<b>94%</b>	<b>66%</b>
Nebraska	76%	85%	37%
Minnesota	75%	71%	14%
<b>Indiana</b>	<b>89%</b>	<b>94%</b>	<b>71%</b>
South Dakota	61%	79%	21%
Kansas	49%	23%	5%
Wisconsin	79%	76%	32%
<b>Ohio</b>	<b>93%</b>	<b>98%</b>	<b>94%</b>

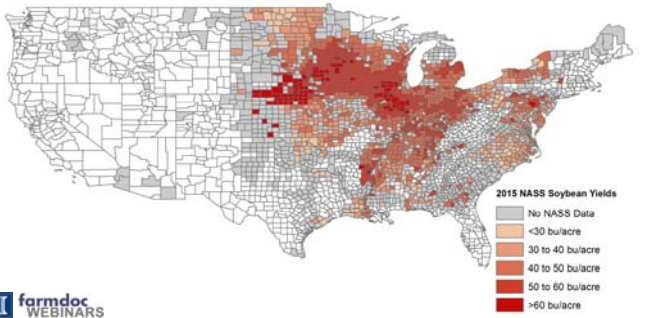
<sup>1</sup>Percentage of all counties with ARC-CO in 2014  
<sup>2</sup>Percentage of all counties where NASS is reporting 2015 yields



**Estimated ARC-CO Corn Payments**



**NASS 2015 County Soybean Yields**



**Summary**

- **Low profit / loss year**
- **Suggest high coverage levels:**
  - **RP or ARP**
  - **Enterprise units**
- **ARC likely to provide payments in 2015**



**EXTRA SLIDES –  
 ARP EXAMPLE**



**Logan County, Corn, Example**

**Guarantee**

Expected yield (1)	190.9 bu.
x Higher of projected or harvest price (2)	\$3.87
x Coverage level (3)	90%
<b>Guarantee</b>	<b>\$665</b>

(1) Set by RMA for each year  
 (2) ARP with harvest price exclusion does not have the higher of provision  
 (3) Coverage level ranges from 70 to 90% in 5% increments



**Logan County, Corn, Example**

**Policy Protection**

Expected yield	190.9 bu.
x Higher of projected or harvest price (1)	\$3.87
x Farmer choice of protection factor (2)	1.2
Protection level	\$887

- (1) ARP with harvest price exclusion does not have higher of provision
- (2) Ranges from .8 to 1.2, under GRIP was the Protection Level



**Logan County, Corn, Example**

**Shortfall**

	High Yield Low Price	Avg Yield Avg Price	Drought
County yield	210	190	120
x Harvest price	\$3.00	\$4.00	\$5.00
Harvest revenue	\$630	\$760	\$660
Guarantee	\$665	\$665	\$859
Shortfall (1)	.066	.000	.356

- (1) Shortfall = (guarantee – harvest revenue) / (guarantee - .18 x projected price x exp yield)  
 when harvest revenue < guarantee



**Logan County, Corn, Example**

**Payment**

	High Yield Low Price	Avg Yield Avg Price	Drought
Protection level	887	887	1,145
x Shortfall	.066	.000	.356
Payment	\$58	\$0	\$407

