

2020 Illinois Farm Economics Summit

Tuesday
December 1st

2021 Market
Outlook for Corn
and Soybeans

Friday
December 4th

2020 and 2021
Grain Farm Income
Outlook with Risk
and Rental
Implications

Tuesday
December 8th

Farm Program and
Crop Insurance
Decisions for 2021

Friday
December 11th

Straining the
alphabet soup:
Post-election farm
policy outlook after
three years of ad
hoc farm payments

Tuesday
December 15th

Farmland Markets
and Macro Markets

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Farm Program and Crop Insurance Decisions for 2021



Gary Schnitkey



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Nick Paulson

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Poll

Do you expect
another CFAP or
MFP program
next year?

- No
- Less than \$20 per acre
- Between \$20 and \$40 per acre
- Over \$40 per acre

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Outline

Commodity Programs (FSA)

Price Loss Coverage (PLC)
and Agricultural Risk
Coverage at the County Level
(ARC-CO)

Program payment review
and outlook for:

Corn, Soybeans, and Wheat

ARC-IC: whole FSA farm

Crop Insurance (RMA)

Individual Plans (RP, RP-HPE, YP)

Supplemental Coverage Option (SCO)

Enhanced Coverage Option (ECO)

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Commodity Programs



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Deadlines

	Decision
March 15, 2020	1. Make the choice between ARC and PLC for 2019 & 2020 year 2. Enroll for 2019 program year
June 30, 2020	Enrolling for 2020 program year
September 30, 2020	Deadline for updating farm PLC yields for 2020 and future program years (Can do this <u>now</u>)
March 15, 2021	Enroll and change ARC/PLC for 2021 year
March 15, 2022	Enroll and change ARC/PLC for 2022 year
March 15, 2023	Enroll and change ARC/PLC for 2023 year

ARC/PLC Choice

- On a FSA farm basis, allows a choice between:
 - Price Loss Coverage (PLC)
 - Agricultural Risk Coverage – County Level (ARC-CO)
 - ARC – Individual Coverage (ARC-IC) ← All FSA farm, whole farm guarantee
- Can vary decisions by FSA farm
- Initial choice made for 2019 and 2020
- Make a yearly choice after that: **2021 (March 15, 2021)**, 2022, 2023
- Base acres will not change, PLC and ARC-CO will pay on base acres

On a crop basis
on each FSA Farm

← All FSA farm, whole farm guarantee

PLC

PLC makes payments of

$$.85 \times \left(\begin{array}{l} \text{effective} \\ \text{reference price} \end{array} - \begin{array}{l} \text{higher of MYA} \\ \text{price or loan rate} \end{array} \right) \times \text{PLC yield}$$

(National loan rate: **Corn: \$2.20**, **SB: \$6.20**, **Wheat: \$3.38**)

MYA (market year average) price

- This is a national, cash price
- Sept to August for corn and soybeans
- June to May for wheat

Eligible for Supplemental Coverage Option (SCO) insurance

Effective Reference Price

Higher of

- 85% of 5-year Olympic moving average
- Reference price

Reference Prices	
Corn	\$3.70
Soybeans	\$8.40
Wheat	\$5.50

Addition of 85% of 5-year Olympic avg not relevant for 2021 decision

5-year Olympic average must be **above**

- \$4.35 for corn
- \$9.88 for soybeans
- \$6.47 for wheat

ARC-CO Payments

- ARC-CO payments occur when county revenue is below:

 .86 x benchmark revenue
- Benchmark revenue = benchmark yield x benchmark price
- **Not eligible for Supplemental Coverage Option (SCO) insurance**

Poll

What program
are you
considering for
corn?

- ARC-CO
- PLC
- Don't know yet
- All acres in ARC-IC
- None

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Corn

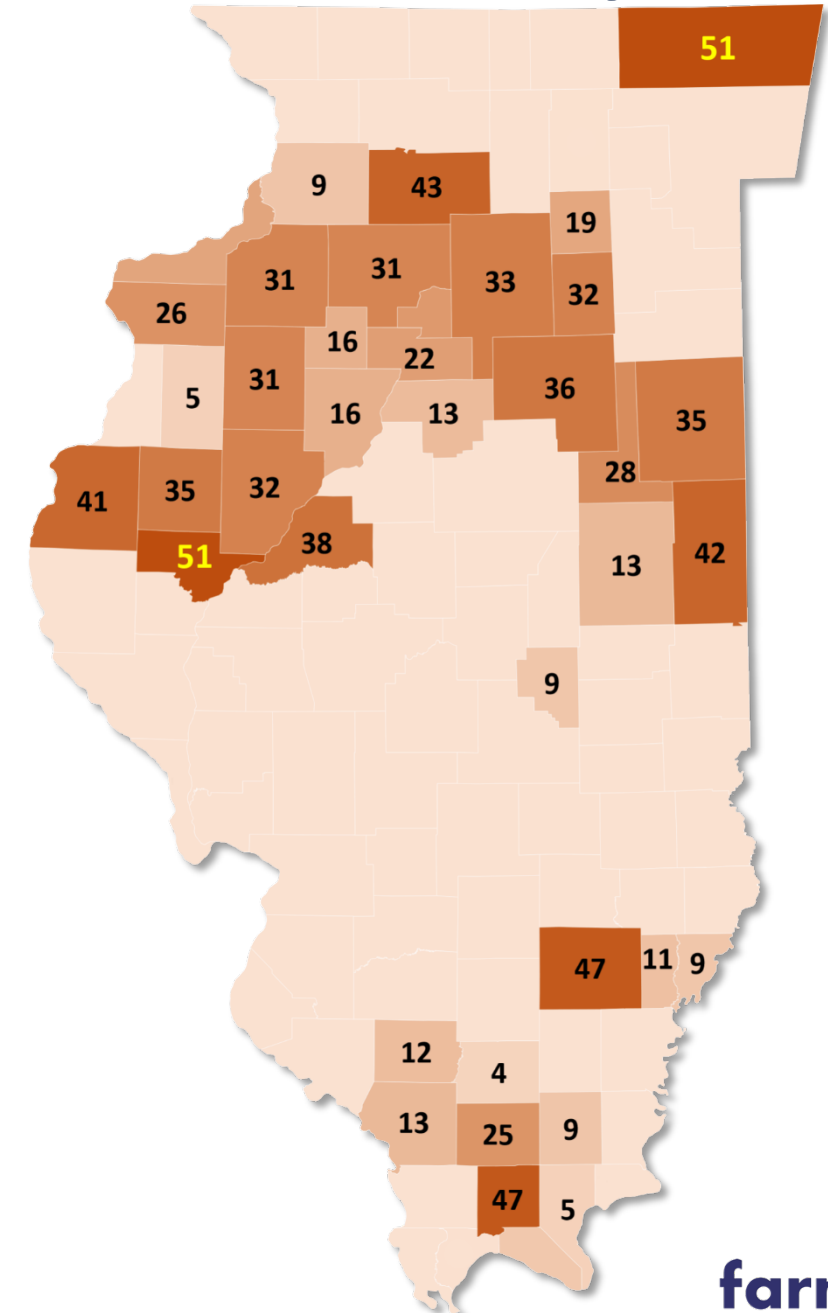


2019 PLC Payments

- 2019 MYA Price: \$3.56
- PLC Payment Rate: \$0.14/bu
 - $\$0.14 = \$3.70 - \$3.56$
- PLC Payments (\$/base acre)

PLC Yield	PLC Payment (\$/base acre)
120	\$14
150	\$18
180	\$21

2019 ARC-CO Payments



2020 PLC and ARC-CO Payments: Corn

- 2020 MYA price forecasts
 - \$4.00 (Nov. WASDE)
 - \$3.95 (ERS, futures-based)
- County yield losses would be needed to trigger ARC-CO
- Most likely outcome is no PLC or ARC-CO payments for 2020

Scenarios for Champaign County Corn, PLC yield of 170 bu/acre

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations				
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸	
					Yield ⁵ Bu	Price ⁶ \$/Bu			
2018	238								
2019	192	3.56	\$20	\$13		219.5	3.70	698.48	683.02
2020	225	3.95	\$0	\$0		229.3	3.70	729.76	888.75

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations				
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸	
					Yield ⁵ Bu	Price ⁶ \$/Bu			
2018	238								
2019	192	3.56	\$20	\$13		219.5	3.70	698.48	683.02
2020	184	3.95	\$0	\$3		229.3	3.70	729.76	726.80

2021 PLC and ARC-CO Payments: Corn

- 2021 MYA forecast **\$3.65 (Nov. USDA Baseline)**
- Small PLC payment would be expected
- ARC-CO payment would require county yield loss

Scenarios for Champaign County Corn, PLC yield of 170 bu/acre

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵ Bu	Price ⁶ \$/Bu		
2018	238							
2019	192	3.56	\$20	\$13	219.5	3.70	698.48	683.02
2020	225	3.95	\$0	\$0	229.3	3.70	729.76	888.75
2021	227	3.65	\$7	\$0	222.9	3.70	709.33	828.55

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵ Bu	Price ⁶ \$/Bu		
2018	238							
2019	192	3.56	\$20	\$13	219.5	3.70	698.48	683.02
2020	225	3.95	\$0	\$0	229.3	3.70	729.76	888.75
2021	192	3.65	\$7	\$7	222.9	3.70	709.33	700.80

Poll

What program
are you
considering for
soybeans?

- PLC
- ARC-CO
- Don't know
- All acres in ARC-IC
- None

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Soybeans

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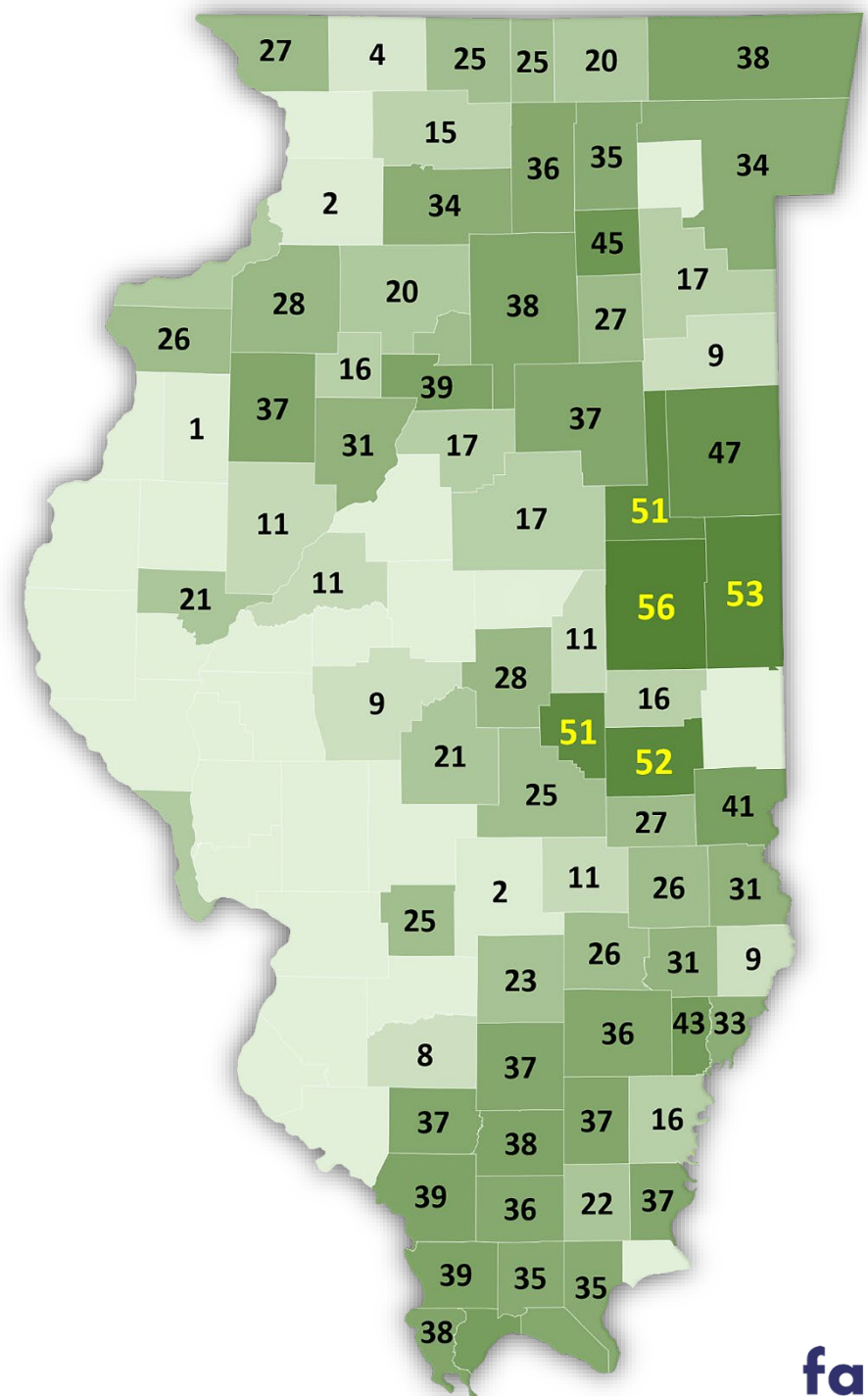
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2019 ARC-CO Payments

- 2019 MYA Price: \$8.57
- No PLC for soybeans in 2019



2020 PLC and ARC-CO Payments: Soybeans

- 2020 MYA price forecasts
 - \$10.40 (Nov. WASDE)
 - \$10.68 (ERS, futures-based)
- County yield losses needed to trigger ARC-CO payment
- Most likely outcome is no PLC or ARC-CO payments for 2020

Scenarios for Champaign County Soybeans, PLC yield of 60 bu/acre

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵	Price ⁶		
2018	73				Bu	\$/Bu	\$ per base acre	
2019	57	8.57	\$0	\$56	67.9	9.63	562.00	491.06
2020	68	10.40	\$0	\$0	69.9	9.25	555.90	706.58

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵	Price ⁶		
2018	73				Bu	\$/Bu	\$ per base acre	
2019	57	8.57	\$0	\$56	67.9	9.63	562.00	491.06
2020	53	10.40	\$0	\$4	69.9	9.25	555.90	551.20

2021 PLC and ARC-CO Payments: Soybeans

- 2021 MYA price forecasts
 - \$10.00 (Nov. USDA Baseline)
- Most likely outcome is no PLC or ARC-CO payments for 2021
- Significantly lower prices required to trigger payments from PLC or ARC-CO
 - Or relatively large yield losses required for ARC-CO payments

Scenarios for Champaign County Soybeans, PLC yield of 60 bu/acre

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵	Price ⁶		
2018	73				Bu	\$/Bu	\$ per base acre	
2019	57	8.57	\$0	\$56	67.9	9.63	562.00	490.98
2020	68	10.40	\$0	\$0	69.9	9.25	555.90	707.20
2021	70	10.00	\$0	\$0	69.9	8.95	538.17	700.00

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵	Price ⁶		
2018	73				Bu	\$/Bu	\$ per base acre	
2019	57	8.57	\$0	\$56	67.9	9.63	562.00	490.98
2020	68	10.40	\$0	\$0	69.9	9.25	555.90	707.20
2021	53	10.00	\$0	\$7	69.9	8.95	538.17	530.00



Wheat

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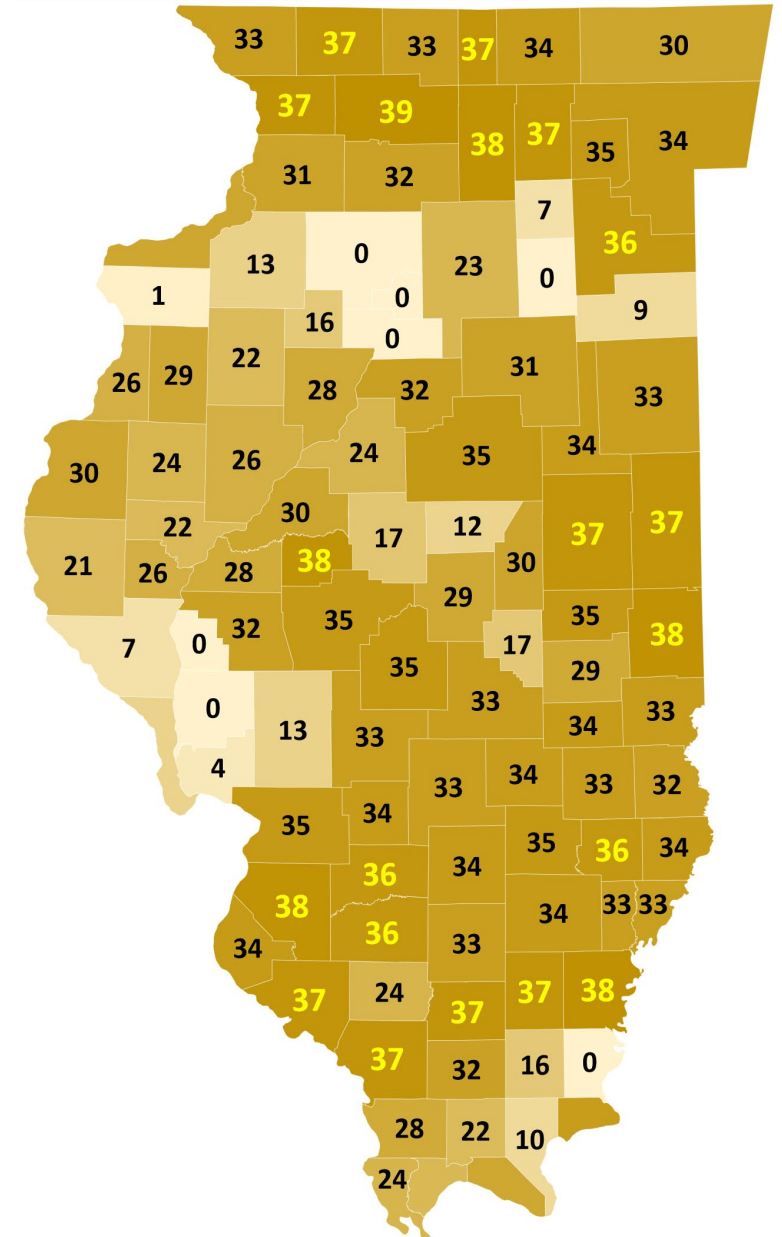
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2019 PLC Payments

- 2019 MYA Price: \$4.58
- PLC Payment Rate: \$0.92/bu
 $\$0.92 = \$5.50 - \$4.58$
- PLC Payments (\$/base acre)

PLC Yield	PLC Payment (\$/base acre)
40	\$31
50	\$39
60	\$47

2019 ARC-CO Payments



2020 PLC and ARC-CO Payments: Wheat

- 2020 MYA price forecasts
 - \$4.70 (Nov. WASDE)
 - \$5.00 (ERS, futures-based)
- Yields around county benchmark could trigger ARC-CO payments
- PLC payments very likely, potentially larger than ARC-CO max payments

Scenarios for Champaign County Wheat, PLC yield of 60 bu/acre

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵	Price ⁶		
2018	77		\$/base acre		Bu	\$/Bu	\$ per base acre	
2019	48	4.58	\$47	\$37	76.6	5.66	372.61	217.55
2020	78	4.70	\$41	\$4	78.5	5.50	371.31	366.60

Year	County Yield ¹ Bu	MYA Price ² \$/Bu	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
					Yield ⁵	Price ⁶		
2018	77		\$/base acre		Bu	\$/Bu	\$ per base acre	
2019	48	4.58	\$47	\$37	76.6	5.66	372.61	217.55
2020	69	4.70	\$41	\$37	78.5	5.50	371.31	324.30

2021 PLC and ARC-CO Payments: Wheat

- 2021 MYA price forecasts
 - \$4.90 (Nov. USDA Baseline)
- Yields around county benchmark could trigger ARC-CO payments
- PLC payments very likely, potentially larger than ARC-CO max payments

Scenarios for Champaign County Wheat, PLC yield of 60 bu/acre

Year	County Yield ¹	MYA Price ²	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
	Bu	\$/Bu			Yield ⁵	Price ⁶		
2018	77				Bu	\$/Bu	\$ per base acre	
2019	48	4.58	\$47	\$37	76.6	5.66	372.61	219.84
2020	78	4.70	\$41	\$4	78.5	5.50	371.31	366.60
2021	79	4.90	\$31	\$0	78.5	5.50	371.31	387.10

Year	County Yield ¹	MYA Price ²	Payment ^{3,4}		ARC-CO Calculations			
			PLC	ARC-CO	Benchmark		Guarantee ⁷	County ⁸
	Bu	\$/Bu			Yield ⁵	Price ⁶		
2018	77				Bu	\$/Bu	\$ per base acre	
2019	48	4.58	\$47	\$37	76.6	5.66	372.61	219.84
2020	78	4.70	\$41	\$4	78.5	5.50	371.31	366.60
2021	67	4.90	\$31	\$37	78.5	5.50	371.31	328.30

ARC-IC

- Is a FSA farm-by-farm choice
- ARC-IC farm equals the sum of a producer's share in all FSA farms enrolled in ARC-IC in a state
- Combines all program crops
- Based on farm yields
- **Pays on 65% of base acres rather than 85%**
- **Will pay maximum payment (10% of benchmark) if all acres on FSA farm are prevent plant**
 - **Was important for 2019, unique situation with late enrollment decision, not the case for 2021 decision**

2021 ARC/PLC Choice: Summary

- Be aware of deadline, but there is time
- **Early** advice for 2021:
 - More information will become available prior to enrollment deadline, but this is different than last year's enrollment:
 - Best expectation for 2021 yields are for normal conditions, trend levels
 - 2021 MYA price will still very much be a forecast
 - **Corn: Small PLC payment at forecasted MYA price. Lean towards PLC.**
Soybeans: Unlikely PLC or ARC-CO will trigger payments based on MYA price forecast. Potential rationale for either choice.
 - **Wheat: Both likely to trigger payments, PLC larger in most cases**
 - **ARC-IC: consider on case-by-case basis, different than 2019 and 2020 decision**

2018 Farm Bill Resources

- **FSA Website**

https://www.fsa.usda.gov/programs-and-services/arcplc_program/

- **Farm Bill Toolbox (Including 2018 Farm Bill What if Tool)**

<https://farmdoc.illinois.edu/2018-farm-bill>

- **Gardner ARC/PLC tool**

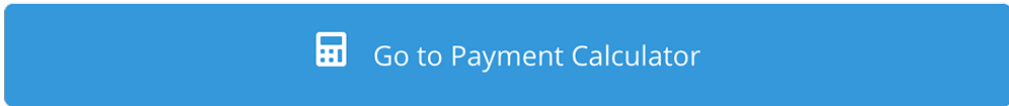
<https://fd-tools.ncsa.illinois.edu/>

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Gardner Program Payment Calculator (ARC/PLC)

The Gardner Payment Calculator provides estimates of expected payemnts and likelihood of payments for ARC-CO and PLC. Payment estimates are provide for the program years from 2019 to 2023. Users can select the state, coutny, and crop combination that they wish to consider.

If you are having trouble registering please [view the faq](#) or watch the video below.



State
 Illinois ?

County
 Champaign ?

Crop Reference Price
 Corn \$ 3.7

Forecast Model
 Forecast ?

PLC Payment Yield*
 105 bushels/acre ?

ARC Trend Yield*
 1.73 bushels/acre ?

ARC/PLC Program Inputs	
ARC Coverage Level	86 %
ARC Coverage Range	10 %
Payment Acres	85 %

▶ RUN MODEL

2018 Farm Bill What if Tool

This program calculates Agricultural Risk Coverage for County Coverage (ARC-CO), Price Loss Coverage (PLC) payments, and ARC at the Individual Level (ARC-IC). County yields and market year average (MYA) prices are brought in for a user-specified state-county-crop combination. Users then can change 2018 through 2020 county yields and prices to see ARC-CO and PLC payments under those yields and prices.

As an alternative to the executable tool you can [download the spreadsheet here](#).



2018 Farm Bill What-If Tool

Updated 1/6/2020

Continue

This program calculates Agricultural Risk Coverage for County Coverage (ARC-CO) and Price Loss Coverage (PLC) payments. County yields and market year average (MYA) prices are brought in for a user-specified state-county-crop combination. Users then can change 2018 through 2020 county yields and prices to see ARC-CO and PLC payments under those yields and prices.

[For recent updates on this tool and other FAST tools, visit us at \[www.farmdoc.uiuc.edu\]\(http://www.farmdoc.uiuc.edu\).](#)

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Crop Insurance Programs

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Poll

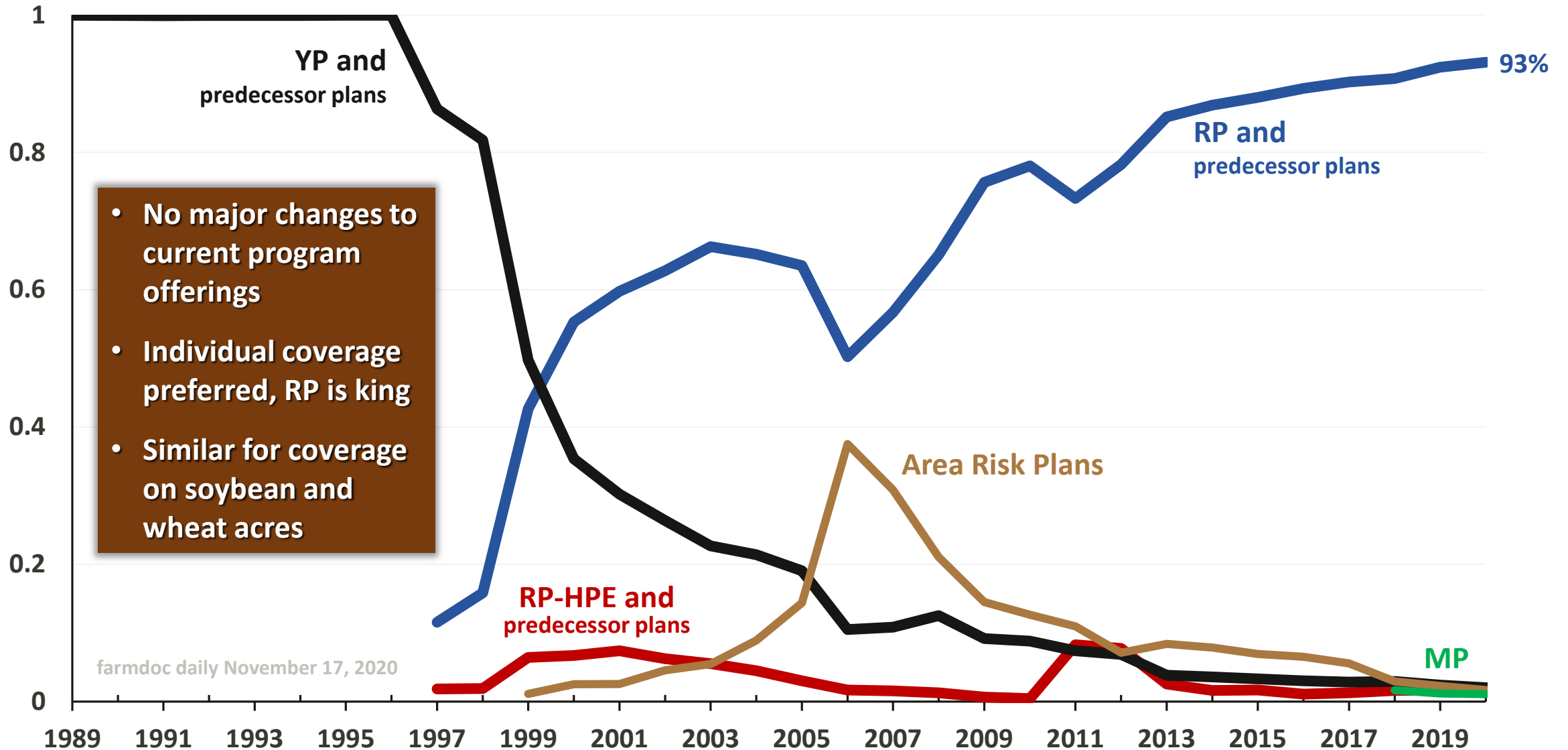
Will you
consider
Enhanced
Coverage
Option?

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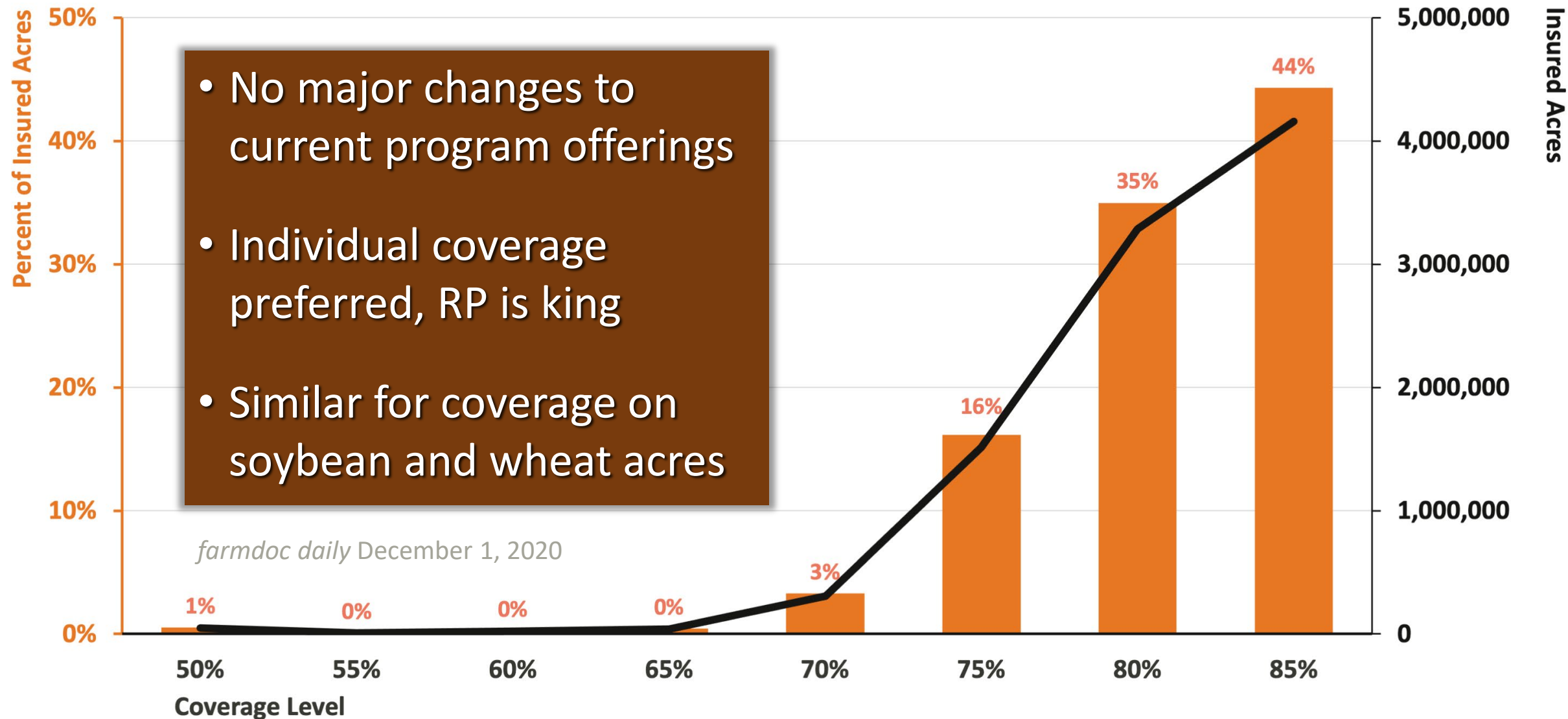
- Yes
- No
- What is ECO?



Historical Insurance Use in Illinois



Historical Insurance Use in Illinois



Supplemental Area Coverage Programs

SCO: Supplemental Coverage Option (introduced in 2014)

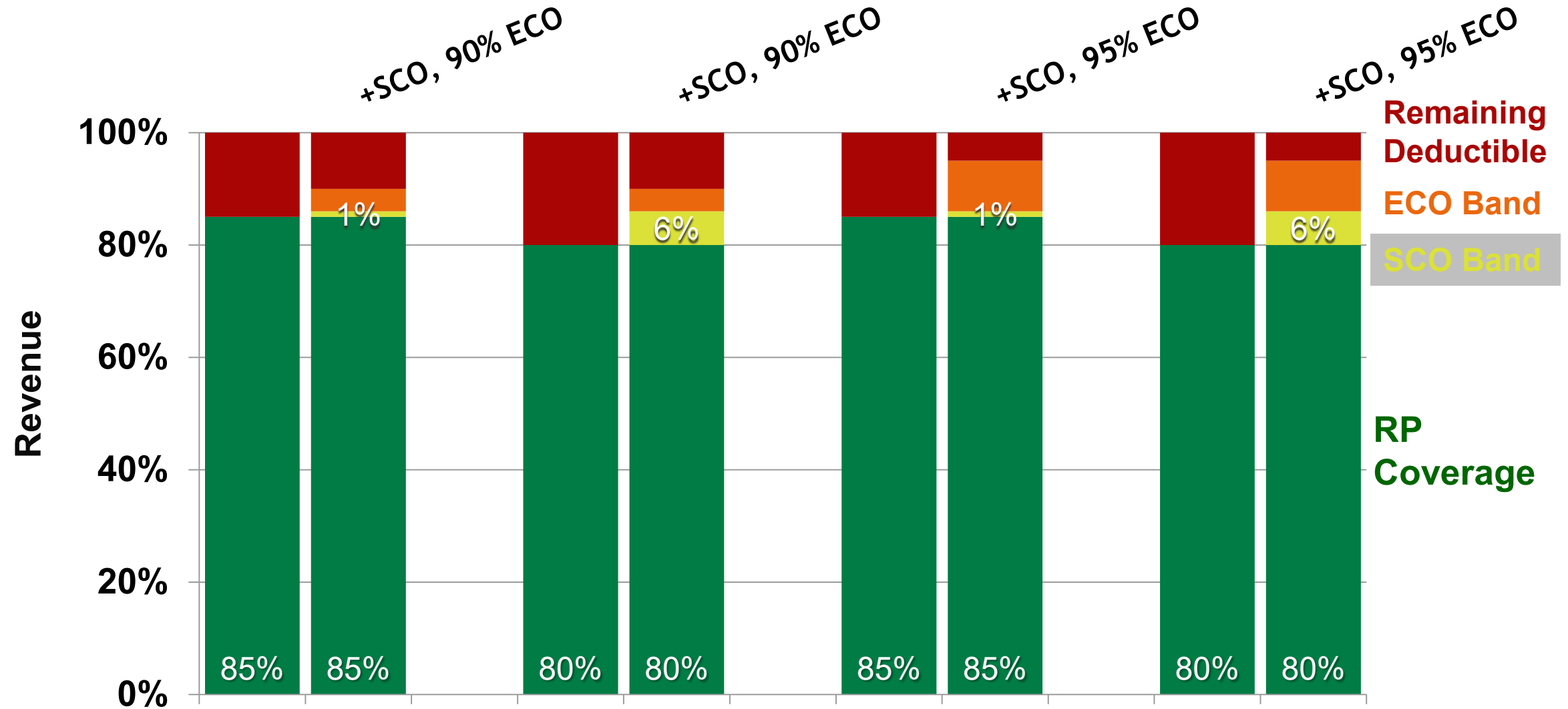
- County-based revenue
- Coverage mimics underlying individual plan (must carry individual coverage)
- Coverage from 86% down to individual coverage level
- Can only be used on PLC acres
- 65% subsidy rate

ECO: Enhanced Coverage Option (new for 2021)

- County-based revenue
- Coverage mimics underlying individual plan (must carry individual coverage)
- Coverage from 95% or 90% down to 86%
- All acres eligible, farm program choice does not matter
- **44%** subsidy if used with revenue coverage, **51%** if used with yield coverage

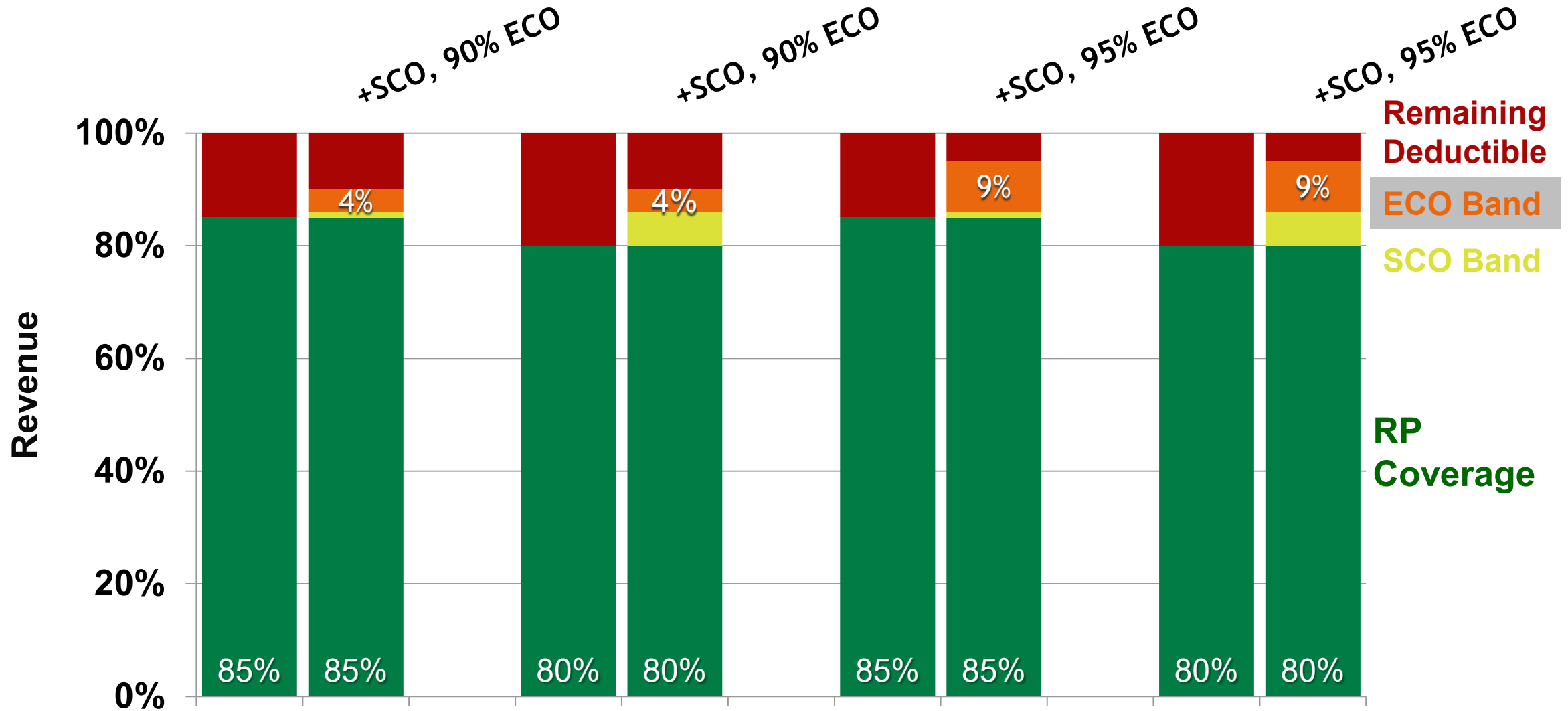
RP, SCO, and ECO at Various Coverage Levels

**SCO and ECO coverage is area (county) based coverage*



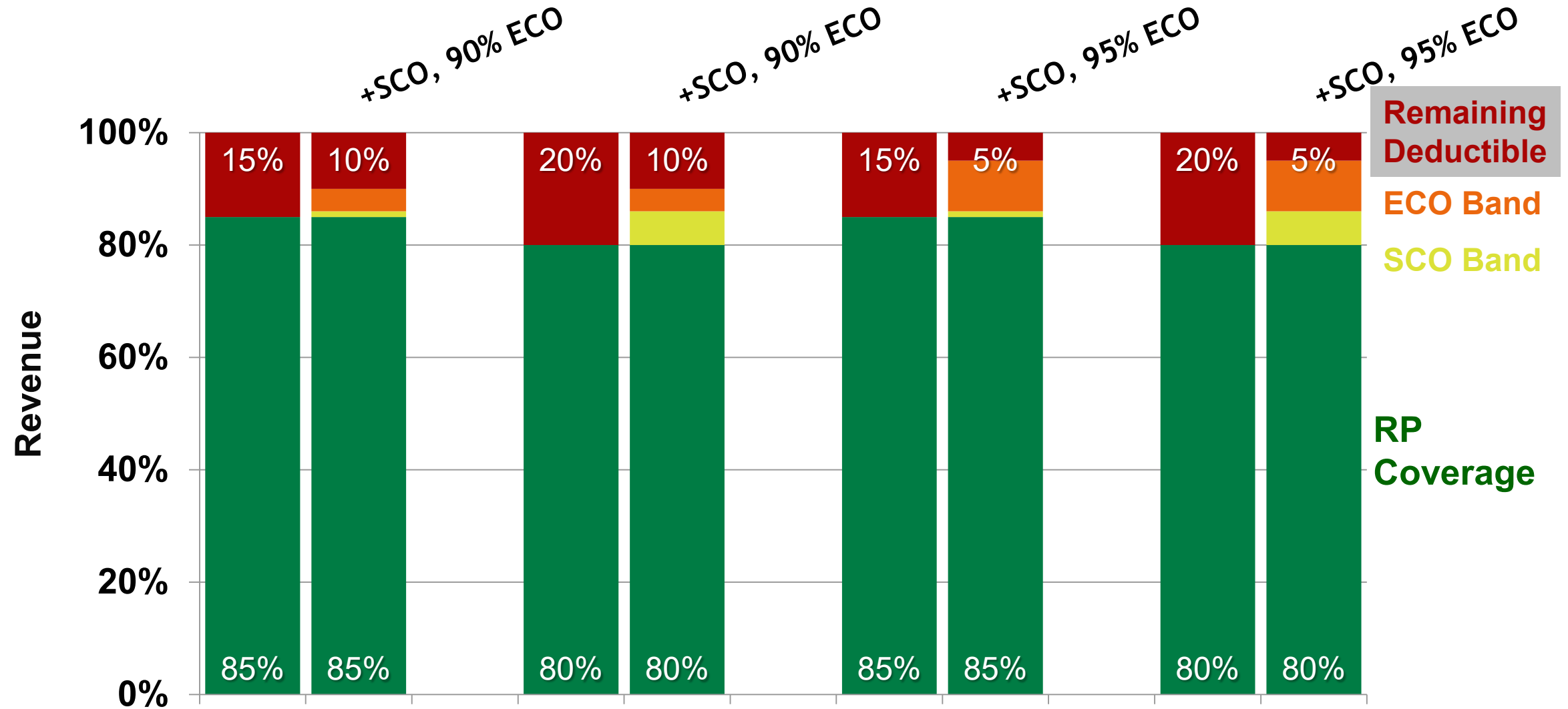
RP, SCO, and ECO at Various Coverage Levels

**SCO and ECO coverage is area (county) based coverage*



RP, SCO, and ECO at Various Coverage Levels

**SCO and ECO coverage is area (county) based coverage*



Example Premium Quotes

Champaign County, IL
Enterprise units

Corn:

200 bu TA-APH
\$4.00 projected price
0.15 volatility factor

Soybeans:

60 bu TA-APH
\$10.40 projected price
0.12 volatility factor

Coverage	Corn			Soybeans		
	RP	SCO	ECO	RP	SCO	ECO
50%	0.58	7.53		0.12	4.67	
55%	0.80	7.51		0.18	4.68	
60%	1.08	7.46		0.27	4.68	
65%	1.47	6.99		0.42	4.65	
70%	2.18	6.38		0.72	4.52	
75%	3.64	5.56		1.45	4.00	
80%	7.21	4.03		2.96	2.70	
85%	14.52	0.90		6.23	0.59	
90%			7.18			4.95
95%			19.90			13.96

Bought RP-80%

RP-80% \$7.21

RP-80% + SCO (86% to 80%) \$7.21 + \$4.03 = \$11.24

RP-80% + ECO (86% to 90%) \$7.21 + \$7.18 = \$14.39

Might consider this over SCO

RP-80% + SCO + ECO (80% to 90%) \$7.21 + \$4.02 + \$7.18 = \$18.41

Other Considerations for SCO and ECO

County based coverage

- Basis risk: County vs farm yields
- Not popular in Illinois crop insurance usage

Illinois farmers use high coverage levels for individual plans

- Limits SCO band
- ECO provides flexibility for higher

Premium cost

- High coverage for ECO increases premium costs
- Subsidized, but less than SCO and individual coverage with enterprise units

No AGI limitations or payment limits

Overall Summary

- 2021 outlook: higher corn and soybean prices, but ad hoc support highly uncertain
- ARC/PLC support looks limited for corn and soybeans
- Crop insurance may be main/only safety net
 - Projected prices?
 - Individual revenue, high coverage
 - SCO, and now ECO, options for supplemental county-based coverage. Cost justified?

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Upcoming IFES Webinars

Straining the alphabet soup: Post-election farm policy outlook after three years of ad hoc farm payments **11 to Noon CT, Friday December 11th**

We consider both the short- and medium-run outlook for US farm policy following the 2020 election. We provide an updated review of three years and four rounds of ad hoc farm payments, including an analysis of payment distribution and program design for the Market Facilitation Program (MFP) and Coronavirus Food Assistance Programs (CFAP). We discuss what the perceived need for ad hoc assistance says about standing farm programs such as Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) and the implications for future coronavirus-related relief and the prospective 2023 Farm Bill.

Farmland Markets and Macro Markets **11:00 to noon CT, Tuesday December 15th**

Farmland is receiving significantly increased attention by owners and investors seeking to make sense out of the scrambled economic signals of the recent past. Historically, the conventional narrative around farmland as a financial asset is that the returns are positively correlated with inflation, have low or negative correlation with equities, and have positive portfolio benefits in well-diversified holdings due to the relative lack of response to short-term broad market movements. The Fed has signaled an intent to target higher inflation, and the changing posture on trade and world demand could drive commodity prices, though perhaps not as clearly linked to dollar prices. This session examines the relative returns to farmland over differing macro-environment periods of the past, and suggests the strength of relationship to expect in the future to financial assets, interest rate indexes, and inflation.

Thank You for joining us!

Please submit your questions



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Latest Article

Weekly Farm Economics
Coverage Levels on RP: Relationship to Premium Levels
December 1, 2020
Gary Schnitkey, Nick Paulson, Carl Zulauf, and Krista Swanson
In 2020, Revenue Protection (RP) was used on 93% of insured acres in Illinois, making it by far the most popular crop insurance product. Herein, we examine coverage levels while insuring with RP. Average coverage levels were high. Most farmers...

[Read the Article](#)

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