

Setting up for a Profitable 2021 for Illinois and Midwest Farms

ECO and Crop Insurance

farmdocDAILY



Gary Schnitkey
Soybean Industry Chair
in Agricultural Strategy



Bruce J. Sherrick, Ph.D.
Director, TIAA Center for Farmland Research
Fruin Professor of Farmland Economics

Topics

- Risk Management Agency (RMA) Insurance Plans
- Premium increases and ECO Decisions
- Crop Insurance Tools on farmdoc

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Risk Management Agency (RMA) Insurance Plans



**United States Department of Agriculture
Risk Management Agency**

Are you going to change your commodity title choices (ARC/PLC)?

- Yes
- No
- Have not decided
- Not a decision

Risk Management Choices: **Farm Coverage**

2018 Farm Bill

Agriculture Risk Coverage (ARC)

TARC program provides revenue support

Price Loss Coverage (PLC)

PLC program provides price support



RMA Insurance Plans

- Revenue Protection (RP)
 - RP with harvest price exclusion (RPhpe)
 - Yield Protection (YP)
-
- Supplemental Coverage Option (SCO)
 - Enhanced Coverage Option (ECO)

Risk Management Choices: **Area Coverage**

2018 Farm Bill

Agriculture Risk Coverage (ARC)

TARC program provides revenue support

Price Loss Coverage (PLC)

PLC program provides price support



RMA Insurance Plans

- **Area Revenue Protection (ARP)**
 - **ARP with harvest price exclusion (ARPhpe)**
 - **Area Yield Plan (AYP)**
 - **Margin Protection (MP):** purchased in fall
-
- **Supplemental Coverage Option (SCO)**
 - **Enhanced Coverage Option (ECO)**

Note: If you want SCO you must have PLC

RMA Insurance Products (deadline is March 15)

Acronym	Name	Yields used	Insures	Guarantee Increase
RP	Revenue Protection	Farm (unit)	Revenue	Yes
RPhpe	RP with harvest price exclusion		Revenue	No
YP	Yield Protection		Yield	No
ARP	Area Revenue Protection	County	Revenue	Yes
ARPhpe	ARP with harvest price exclusion		Revenue	No
AYP	Area Yield Plan		Yield	No

Add-ons to Farm Level

(provides revenue/yield or guarantee increase like underlying RP, RPhpe, YP):

SCO (Supplemental Coverage Option): county coverage from 86% to coverage of underlying RP, RPhpe, YP

ECO (Enhanced Coverage Option): county coverage from [90% or 95%] to 86%

Percent Acres Insured, Illinois, Corn, 2020

Coverage Level	RP	RPhpe	YP	ARP	ARPhpe	AYP
50	0%	0%	1%			
55	0%	0%	0%			
60	0%	0%	0%			
65	0%	0%	0%			0%
70	3%	0%	0%	0%		0%
75	15%	0%	0%	0%		0%
80	33%	1%	0%	0%	1%	0%
85	41%	1%	0%	0%	1%	0%
90				1%	0%	0%
Total	93%	2%	2%	2%	2%	0%

1% of acres with Margin Protection

11% of acres in Supplemental Coverage Option

Risk Management Agency (RMA) Insurance Revenue Protection (RP)



Yields Used

Insures

Guarantee Increase

Most farmers are here and **should be here**

Pays in **all situations** RPhpe and YP will pay
(same coverage level)

Coverage Level	RP	RPhpe	YP	ARP	ARPhpe	AYP
50	0%	0%	1%			
55	0%	0%	0%			
60	0%	0%	0%			
65	0%	0%	0%			0%
70	3%	0%	0%	0%		0%
75	15%	0%	0%	0%		0%
80	33%	1%	0%	0%	1%	0%
85	41%	1%	0%	0%	1%	0%
90				1%	0%	0%
Total	93%	2%	2%	2%	2%	0%

Risk Management Agency (RMA) Insurance RP with harvest price exclusion (RP-hpe)



Yields Used

Insures

Guarantee Increase

Use When:

- Concerned about RP's premiums
- Do not do pre-harvest marketing
- Realize payments will be lower in a drought year

Risk Management Agency (RMA) Insurance Yield Protection (YP)



Yields Used

Insures

Guarantee Increase

Use When:

- Have all crop marketed in another manner
- Concerned about RP's Premium

Risk Management Agency (RMA) Insurance Area Revenue Protection (ARP)



Yields Used

Insures

Guarantee Increase

Use When:

- Need county coverage (low APH yield, but correlated with county) or
- Desire a higher payment rate (check out Insurance Evaluator)

Risk Management Agency (RMA) Insurance ARP with harvest price exclusion (ARP-hpe)



Yields Used

Insures

Guarantee Increase

Use When:

- Like county products but want a lower premium

Risk Management Agency (RMA) Insurance Area Yield Protection (AYP)



Yields Used



Insures



Guarantee Increase

Use When:

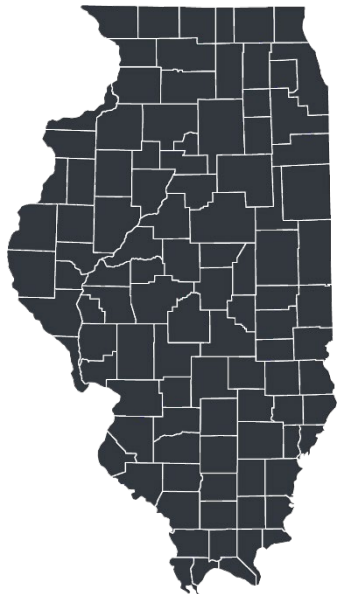
- Like county products but concerned with ARP premium

Risk Management Agency (RMA) Insurance Supplemental Coverage Option (SCO)



Add-ons to Farm Level

Provides revenue/yield or guarantee increase like underlying RP, RPhpe, YP



County coverage from 86% to coverage of underlying RP, RPhpe, YP

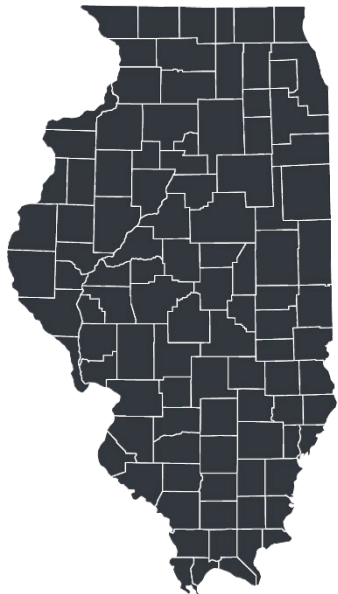
Have to choose PLC

Risk Management Agency (RMA) Insurance Enhanced Coverage Option (ECO)



Add-ons to Farm Level

Provides revenue/yield or guarantee increase like underlying RP, RPhpe, YP



County coverage from
[90% or 95%] to 86%

RMA Insurance Products

Acronym	Name	Yields used	Insures	Guarantee Increase
RP	Revenue Protection	Farm (unit)	Revenue	Yes
RPhpe	RP with harvest price exclusion		Revenue	No
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ARPhpe	ARP with harvest price exclusion		Revenue	No
AYP	Area Yield Plan		Yield	No

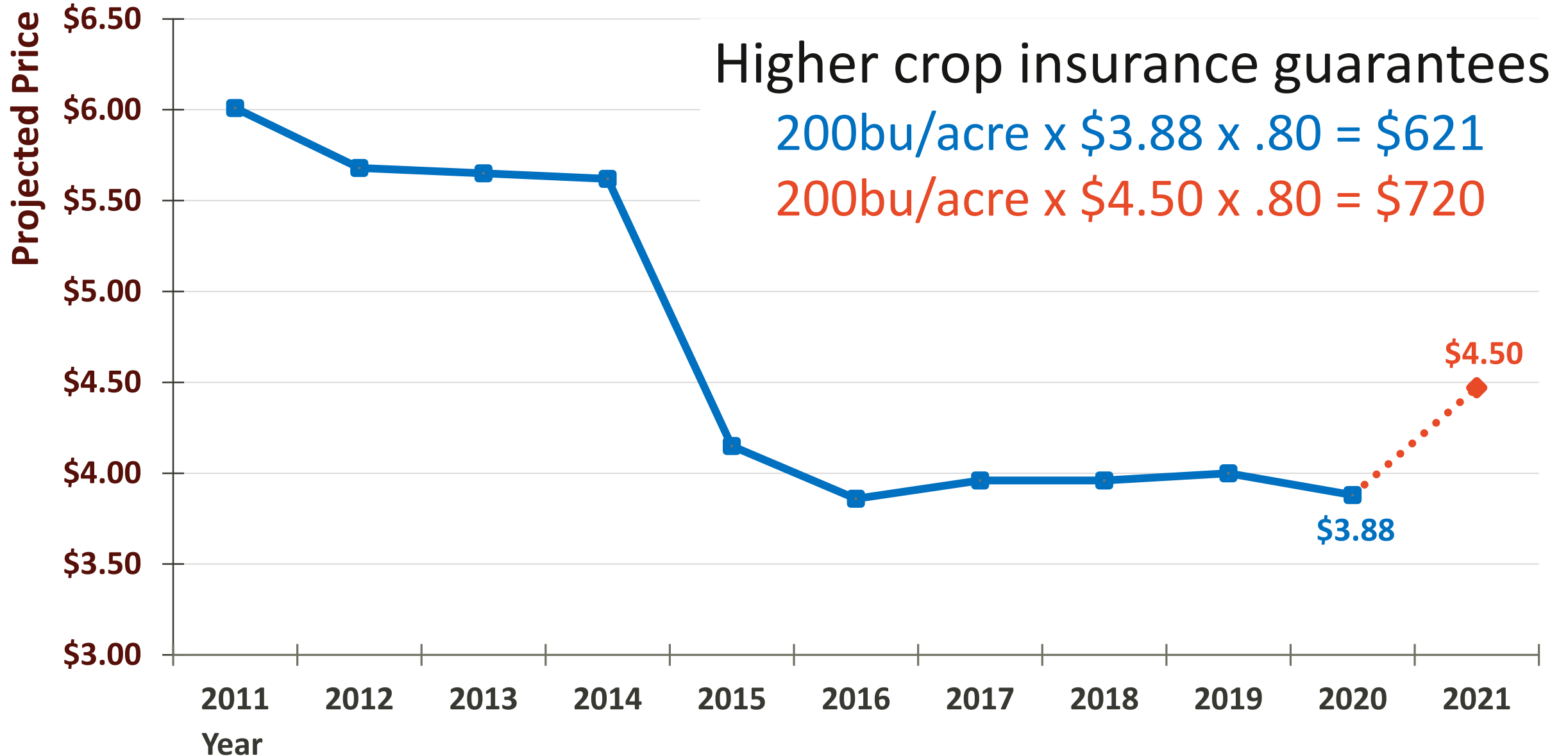
Add-ons to Farm Level

(provides revenue/yield or guarantee increase like underlying RP, RPhpe, YP):

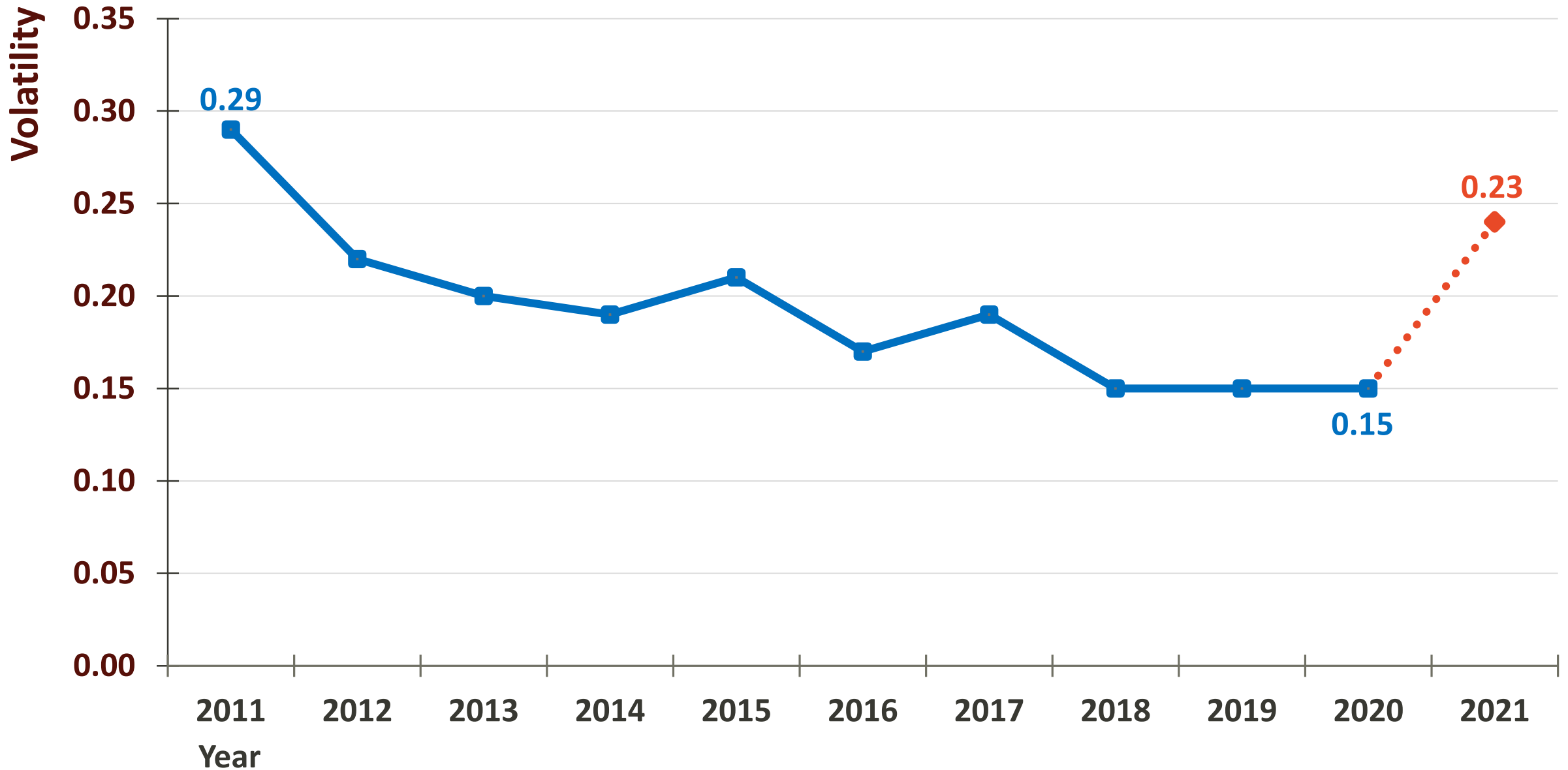
SCO (Supplemental Coverage Option): county coverage from 86% to coverage of underlying RP, RPhpe, YP

ECO (Enhanced Coverage Option): county coverage from [90% or 95%] to 86%

Increased Insurance Premium for Corn



Volatility Adds Significant Costs to Insurance Premium



The projected price for corn likely around \$4.50, What do you think the harvest price will be?

- Above \$5
- Between \$4 and \$5
- Below \$3 and \$4
- Below \$3
- Who knows (you are suppose to be telling me)

2021 Revenue Protection Premium in \$ per acre

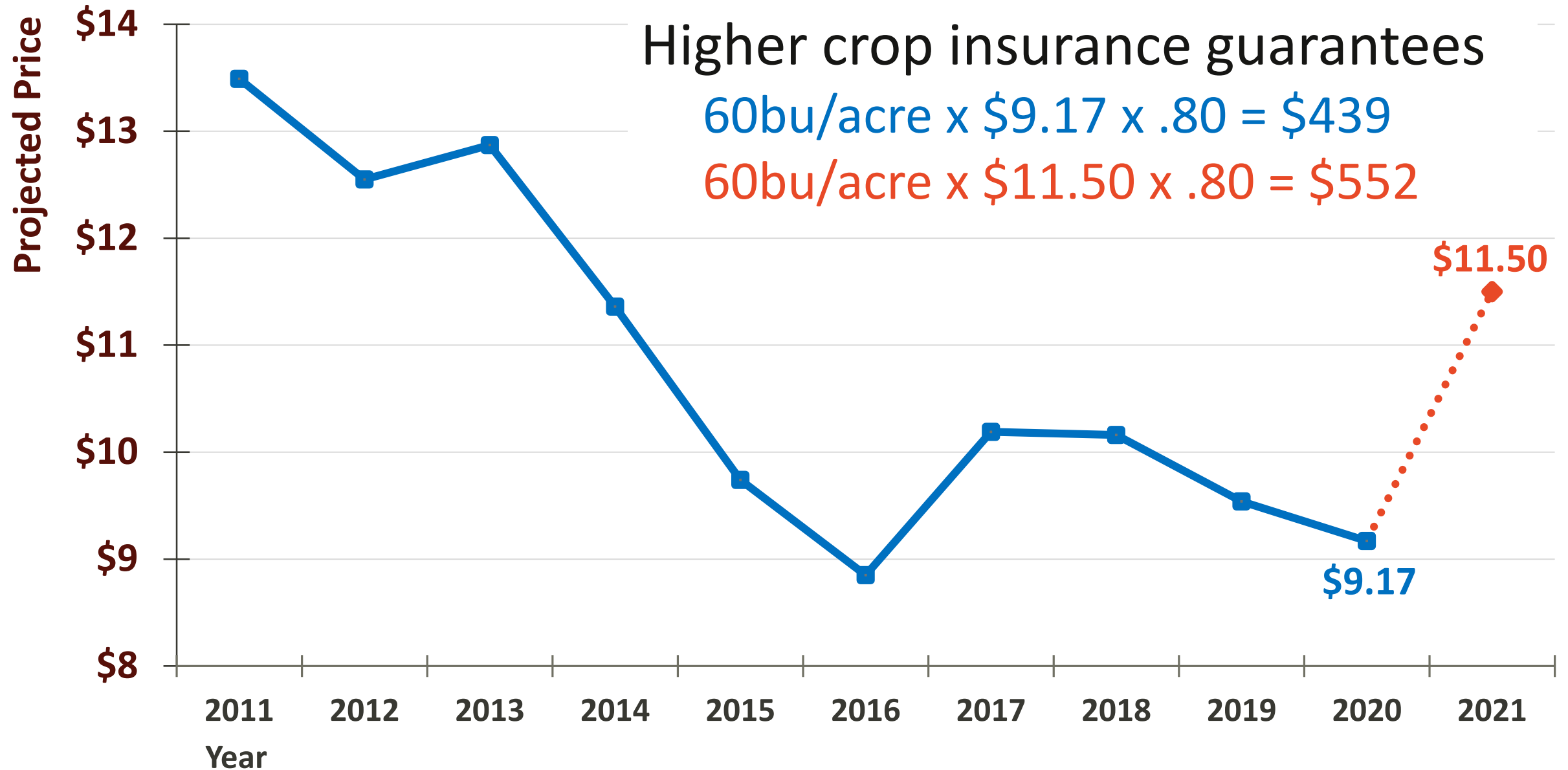
Enterprise Units, Corn, McLean County

Projected Price		\$3.88	\$4.50	
Volatility		.15	.23	Change
Coverage Level	50%	\$0.35	\$0.48	\$.13
	55%	\$0.51	\$0.76	\$.25
	60%	\$0.76	\$1.18	\$.42
	65%	\$1.10	\$1.82	\$.72
	70%	\$1.63	\$3.04	\$1.41
	75%	\$2.74	\$5.25	\$2.51
	80%	\$5.91	\$11.07	\$5.16
	85%	\$12.70	\$23.01	\$10.31

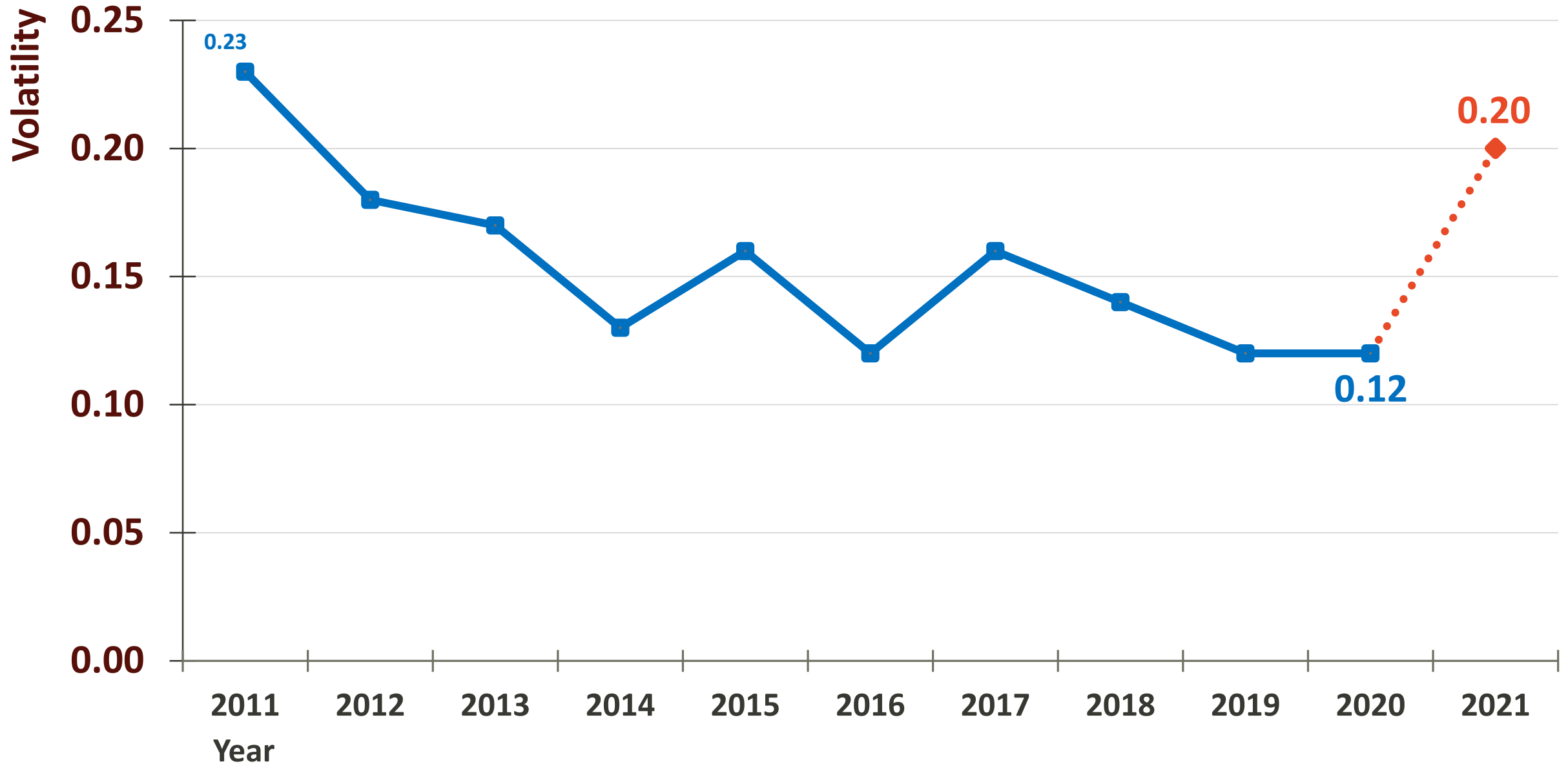


198 TA Yield

Increased Insurance Premium for Soybeans



Soybean Volatility Adds Significantly to Insurance Premium



2021 Revenue Protection Premium in \$ per acre

Enterprise Units, Soybeans, McLean County

Projected Price		\$9.17	\$11.50	
Volatility		.12	.20	Change
Coverage Level	50%	\$0.12	\$0.17	\$0.05
	55%	\$0.19	\$0.30	\$0.11
	60%	\$0.31	\$0.53	\$0.22
	65%	\$0.48	\$0.89	\$0.41
	70%	\$0.83	\$1.56	\$0.73
	75%	\$1.47	\$2.80	\$1.33
	80%	\$2.94	\$5.83	\$2.89
	85%	\$6.11	\$12.48	\$6.37



62 TA Yield

Will the higher premiums cause you to lower coverage or change plans?

Yes

No

To early to tell

Not a decision

Enhanced Coverage Option (ECO)

- **County** coverage available in:
 - 95% to 86%
 - 90% to 86%
- Can be used with or without SCO
(County coverage from 85% to RP, RPhpe, or YP coverage)
- Can be used regardless of Commodity title choice (ARC and PLC)
- Eligible for RP, RPhpe, YP (not ARP, ARPhpe, AYP)
- Coverage of ECO minics that of the underlying RP, RPhpe, YP

Thinking about ECO and SCO

- Think about two policies: a county policy and a farm policy
- Example: RP 80%, SCO (86% to 80%), ECO (90% to 86%)
 - Do not have coverage from 90% down to 0%
 - **County coverage** from 90% to 80%
and **farm coverage** from 80% to 0%
- County coverage is good for “general” economics:
 - but it does not provide farm coverage
 - does not provide prevent plant payments

ECO example, Corn

McLean County farm

\$4.50 projected price, **0.24 volatility**

200 TA-APH yield (this will influence ECO payments, higher ECO with higher guarantee yields)

ECO (with 1.0 protection level)

212 bushels/acre expected yield for McLean County

\$10.74 per acre premium (90% to 86%)

\$28.69 per acre premium (95% to 86%)

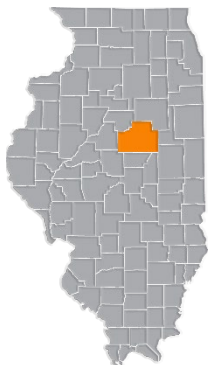


ECO Payment, \$ per acre (90%, McLean County, Corn)

County Yield	Harvest Price										
	\$3.50	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50
250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
240	\$18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
230	\$36	\$7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
220	\$36	\$36	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
210	\$36	\$36	\$36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
200	\$36	\$36	\$36	\$36	\$0	\$0	\$0	\$0	\$0	\$0	\$0
190	\$36	\$36	\$36	\$36	\$36	\$3	\$4	\$4	\$4	\$4	\$4
180	\$36	\$36	\$36	\$36	\$36	\$36	\$38	\$39	\$41	\$42	\$44
170	\$36	\$36	\$36	\$36	\$36	\$36	\$38	\$39	\$41	\$42	\$44
160	\$36	\$36	\$36	\$36	\$36	\$36	\$38	\$39	\$41	\$42	\$44
150	\$36	\$36	\$36	\$36	\$36	\$36	\$38	\$39	\$41	\$42	\$44

Notes

- When harvest price is below projected price (\$4.50) highest payment is **\$36 per acre**
- Payments can go up when harvest price is above projected price
- About **50% of time** this trigger payment (see farmdoc daily, December 10, 2020)
- **\$10.74 farmer-paid premium** (44% premium support), Expect an **average payment of \$22.00**



ECO Payment, \$ per acre (95%, McLean County, Corn)

County Yield	Harvest Price										
	\$3.50	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50
250	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
240	\$63	\$17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
230	\$81	\$52	\$9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
220	\$81	\$81	\$46	\$4	\$0	\$0	\$0	\$0	\$0	\$0	\$0
210	\$81	\$81	\$81	\$43	\$3	\$0	\$0	\$0	\$0	\$0	\$0
200	\$81	\$81	\$81	\$81	\$44	\$6	\$6	\$6	\$7	\$7	\$7
190	\$81	\$81	\$81	\$81	\$81	\$48	\$51	\$53	\$55	\$57	\$59
180	\$81	\$81	\$81	\$81	\$81	\$81	\$85	\$88	\$92	\$95	\$99
170	\$81	\$81	\$81	\$81	\$81	\$81	\$85	\$88	\$92	\$95	\$99
160	\$81	\$81	\$81	\$81	\$81	\$81	\$85	\$88	\$92	\$95	\$99
150	\$81	\$81	\$81	\$81	\$81	\$81	\$85	\$88	\$92	\$95	\$99

Notes

- When harvest price is below projected price (\$4.50) highest payment is **\$81 per acre**
- Payments can go up when harvest price is above projected price
- About **67% of time** this trigger payment (see farmdoc daily, December 10, 2020)
- **\$28.69 farmer-paid premium** (44% premium support), Expect an **average payment of \$58.21**



ECO Example, Soybean

Piatt County farm

\$11.50 projected price, .20 volatility

64 TA-APH yield (this will influence ECO payments, higher ECO with higher guarantee)

ECO (with 1.0 protection level)

69.0 bushels/acre expected yield for county

\$6.56 per acre premium (90% to 86%)

\$18.19 per acre premium (95% to 86%)



ECO Payment, \$ per acre (90%, Piatt County, Soybeans)

County Yield	Harvest Price											
	\$9.00	\$9.50	\$10.00	\$10.50	\$11.00	\$11.50	\$12.00	\$12.50	\$13.00	\$13.50	\$14.00	
119	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
109	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
99	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
89	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
79	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
69	\$29	\$29	\$22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
59	\$29	\$29	\$29	\$29	\$29	\$29	\$29	\$31	\$32	\$33	\$35	\$36
49	\$29	\$29	\$29	\$29	\$29	\$29	\$29	\$31	\$32	\$33	\$35	\$36
39	\$29	\$29	\$29	\$29	\$29	\$29	\$29	\$31	\$32	\$33	\$35	\$36
29	\$29	\$29	\$29	\$29	\$29	\$29	\$29	\$31	\$32	\$33	\$35	\$36
19	\$29	\$29	\$29	\$29	\$29	\$29	\$29	\$31	\$32	\$33	\$35	\$36

Notes

- When harvest price is below projected price (\$11.50) highest payment is **\$29 per acre**
- Payments can go up when harvest price is above projected price
- About **27% of time** this trigger payment (see farmdoc daily, December 10, 2020)
- **\$6.56 farmer-paid premium** (44% premium support), Expect an **average payment of \$13.30**



ECO Payment, \$ per acre (95%, Piatt County, Soybeans)

County Yield	Harvest Price											
	\$9.00	\$9.50	\$10.00	\$10.50	\$11.00	\$11.50	\$12.00	\$12.50	\$13.00	\$13.50	\$14.00	
119	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
109	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
99	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
89	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
79	\$40	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
69	\$66	\$66	\$59	\$27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
59	\$66	\$66	\$66	\$66	\$66	\$66	\$66	\$69	\$72	\$75	\$78	\$81
49	\$66	\$66	\$66	\$66	\$66	\$66	\$66	\$69	\$72	\$75	\$78	\$81
39	\$66	\$66	\$66	\$66	\$66	\$66	\$66	\$69	\$72	\$75	\$78	\$81
29	\$66	\$66	\$66	\$66	\$66	\$66	\$66	\$69	\$72	\$75	\$78	\$81
19	\$66	\$66	\$66	\$66	\$66	\$66	\$66	\$69	\$72	\$75	\$78	\$81

Notes

- When harvest price is below projected price (\$11.50) highest payment is **\$66 per acre**
- Payments can go up when harvest price is above projected price
- About **50% of time** this trigger payment (see farmdoc daily, December 10, 2020)
- **\$18.19 farmer-paid premium** (44% premium support), Expect an **average payment of \$36.91**



Are you interested in ECO?

- Yes (on corn)
- Yes (on soybeans)
- Yes (on both)
- No
- Not a decision

Thoughts/Observations/Questions

- All policies will go up in costs, but guarantees will go up as well, suggests keeping the same coverage level as last year
- ECO and SCO are not “game” changers, they will provide useful coverage, are worth considering, largely a matter of cost
- If you are an options’ strategy person, consider ECO and SCO
- Should I move from 85% to 80% and get SCO and ECO?

2021 Revenue Protection Premium in \$ per acre

Enterprise Units, Corn, McLean County



		RP	SCO	RP and SCO
Coverage Level	50%	\$0.48	\$11.37	\$.11.85
	55%	\$0.76	\$11.37	\$12.13
	60%	\$1.18	\$11.12	\$12.30
	65%	\$1.82	\$10.92	\$12.74
	70%	\$3.04	\$10.47	\$13.51
	75%	\$5.25	\$9.13	\$14.38
	80%	\$11.07	\$6.33	\$17.40
	85%	\$23.10	\$1.34	\$24.35

Earlier McLean example

ECO

- 90% to 86% for \$10.74 per acre
- 95% to 86% for \$28.69 per acre

Run numbers for ECO
Before selecting SCO

+ \$10.74 = \$28.14 per acre

	County Yield	Harvest Price				
		\$3.70	\$4.10	\$4.50	\$4.90	\$5.30
ECO Payments (90 to 86%) \$10.60 Premium	240	\$0	\$0	\$0	\$0	\$0
	220	\$36	\$0	\$0	\$0	\$0
	200	\$36	\$36	\$0	\$0	\$0
	180	\$36	\$36	\$36	\$39	\$42
	160	\$36	\$36	\$36	\$39	\$42
SCO Payments (86 to 80%) \$6.33 Premium	240	\$0	\$0	\$0	\$0	\$0
	220	\$6	\$0	\$0	\$0	\$0
	200	\$54	\$0	\$0	\$0	\$0
	180	\$54	\$54	\$10	\$11	\$12
	160	\$54	\$54	\$54	\$59	\$64

Crop Insurance

Crop Insurance Tools

Premium Calculator

Crop Insurance Premium Calculator

Last Updated: February 8, 2021

The 2021 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.

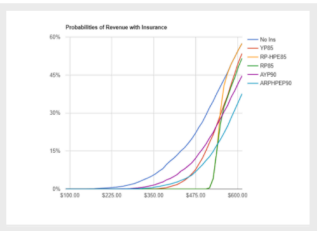


Payment Evaluator

Crop Insurance Payment Evaluator

Last Updated: February 8, 2021

The 2021 iFarm Crop Insurance Payment Evaluator provides helpful information to producers comparing costs and risk reductions across their available crop insurance alternatives.

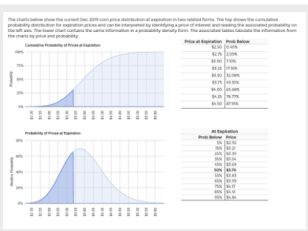


Price Distribution

Price Distribution Tool

Last Updated: Always Live

The iFARM Price Distribution Tool uses current option market prices to derive estimates of the probability distribution of prices at the expiration of an underlying corn and soybean futures contracts.



Decision Tool

Crop Insurance Decision Tool

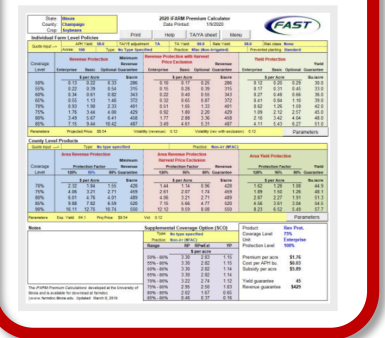
Last Updated: January 27, 2021

This program calculates premiums, evaluates insurance payments, and provides historical data useful when making crop insurance decisions for multiple crops. Estimates are for crops in midwest and southeast states that are harvested in 2020.

As an alternative to the executable tool you can download the zip file here.

Catch up with the farmdoc Daily Article

View our Youtube Guide here.



Crop Insurance Decision Tool

Excel tool gives SCO and ECO Premium (PC computers only)

Crop Insurance

Crop Insurance Tools

Premium Calculator

Crop Insurance Premium Calculator

Last Updated: February 8, 2021

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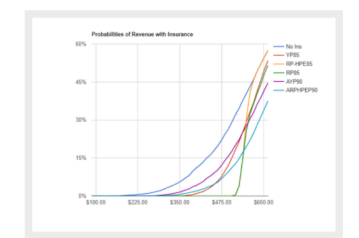


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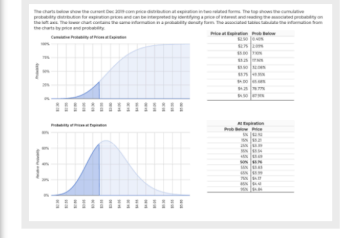


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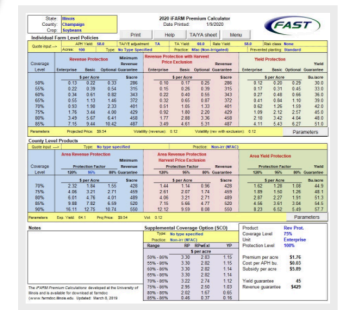
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Price Distribution Tool

Online tool that allows near real-time evaluation of future price outcomes. Critical to crop insurance decisions to understand likelihood of payments.

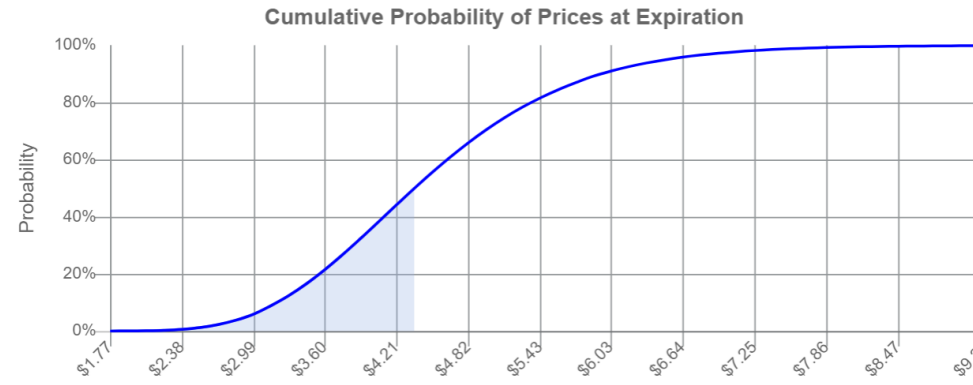
User Choice: Crop and Contract Month

- Retrieves currently traded futures and options market data
- Estimates the price distribution for the expiration date of that contract – akin to a Black-Scholes approach
- Allows evaluation of the Projected Price, or Insurance prices which may differ from current prices
- Federal Crop insurance in Midwest bases PP, HP, and revenue for corn on Dec Futures, Soybeans on Nov Futures.
- Allows test of any price being “in the money” throughout season as well.

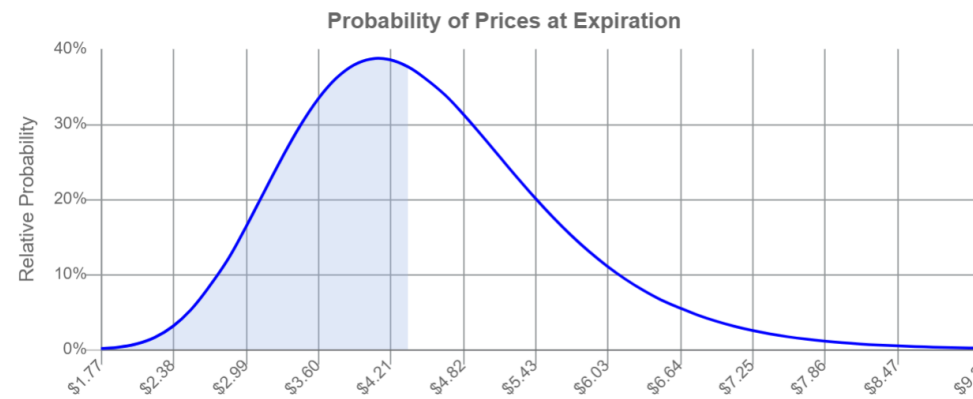
Select crop and month of futures date

Crop: Contract Month:

The charts below show the corn price distribution at expiration in two related forms. The top shows the cumulative probability distribution for expiration prices and can be interpreted by identifying a price of interest and reading the associated probability on the left axis. The lower chart contains the same information in a probability density form. The associated tables tabulate the information from the charts by price and probability.



Price at Expiration	Probability Below
\$3.50	18.30%
\$3.75	26.77%
\$4.00	36.16%
\$4.25	45.83%
\$4.50	55.19%
\$4.75	63.80%
\$5.00	71.37%
\$5.25	77.79%
\$5.50	83.06%



Probability Below	Price at Expiration
5%	\$2.92
15%	\$3.39
25%	\$3.70
35%	\$3.97
45%	\$4.23
50%	\$4.36
55%	\$4.49
65%	\$4.79
75%	\$5.14
85%	\$5.61
95%	\$6.50

Enter Price to Evaluate: \$ 4.48

The implied distribution indicates that there is a 54.46% probability that the price will be below \$4.48 at expiration.

Crop Insurance

Crop Insurance Tools

Premium Calculator

Crop Insurance Premium Calculator

Last Updated: February 8, 2021

The 2021 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.

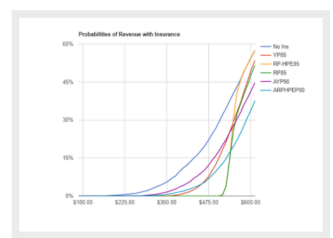


Payment Evaluator

Crop Insurance Payment Evaluator

Last Updated: February 8, 2021

The 2021 iFarm Crop Insurance Payment Evaluator provides helpful information to producers comparing costs and risk reductions across their available crop insurance alternatives.

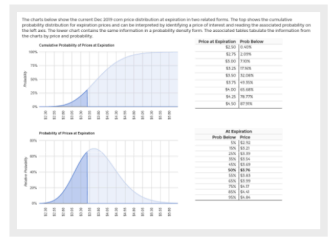


Price Distribution

Price Distribution Tool

Last Updated: Always Live

The iFARM Price Distribution Tool uses current option market prices to derive estimates of the probability distribution of prices at the expiration of an underlying corn and soybean futures contracts.



Decision Tool

Crop Insurance Decision Tool

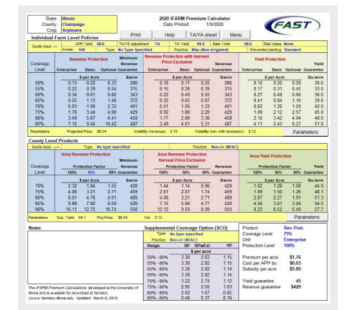
Last Updated: January 27, 2021

This program calculates premiums, evaluates insurance payments, and provides historical data useful when making crop insurance decisions for multiple crops. Estimates are for crops in midwest and southeast states that are harvested in 2020.

As an alternative to the executable tool you can download the zip file here.

Catch up with the farmdoc Daily Article

View our Youtube Guide here.



Crop Insurance Payment Evaluator

Online tool that allows overlay of actual market condition with crop insurance choices. Evaluator allows user to gauge probability and magnitude of payments, and risk reduction with alternative crop insurance policies and coverage. Most states in corn belt, all counties, all products.

Choose: State, Co., Crop, enter Acres

- **Case Farm Info** provides example representative farm per county.
- Farm Yield, price distribution, and county relative yields provided.
- Futures prices, projected price, revenue, and farm and county yield risk measures.

Evaluator - Enter your farm information to evaluate crop insurance options for 2021

State	County	Crop	Acres *
Illinois	McLean	Corn	100
> RUN INSURANCE EVALUATOR			

This tool develops a case farm for most counties in the major corn and soybean production regions, and provides estimates of premiums for all available crop insurance products, along with the expected frequency of payments, average payment per acre, net cost per acre, and risk reductions associated with alternative crop insurance products

Case Farm Info

Insurance Evaluator

Revenue Risk Info

	Farm Average Yield	211.54 bu/acre	Farm Yield (bu/acre)	County Yield (bu/acre)
Farm Std Dev of Yield	40.94 bu/acre		30% of years yields below	192.05
County Average Yield	211.54 bu/acre		20% of years yields below	177.63
County Std Dev of Yield	32.75 bu/acre		10% of years yields below	156.77
Current Futures Price	\$4.25 /bu		5% of years yields below	139.07
Std Dev of Price	0.24 /bu		Farm Trend-Adjusted APH	211.54 bu/acre
Average Harvest Cash Basis	0.35 /bu		County TA Rate	2.06 bu/acre/year
Average Gross Crop Rev	\$822 /acre		Farm APH (ref)	201.70 bu/acre

RMA 2021 Projected Price is \$4.47 with Volatility Factor of 0.24. Last Updated on Feb 03, 2021.

Insurance Evaluator Information by Unit:

- Presented in Sections for RP, RP-HPE, YP and County Level Products (*lower section, not shown here*)
- Premiums, Payment, Likelihood of payment, Net Cost, and Ave Gross with insurance; by coverage level
- Negative net cost pays back more than premium on average due to subsidy
- Much higher premiums than previous years due to price level and volatility factor = more valuable insurance

farmdoc Insurance Evaluator Documentation About

Evaluator - Enter your farm information to evaluate crop insurance options for 2021

State: Illinois County: McLean Crop: Corn Acres*: 100

RUN INSURANCE EVALUATOR

This tool develops a case farm for most counties in the major corn and soybean production regions, and provides estimates of premiums for all available crop insurance products, along with the expected frequency of payments, average payment per acre, net cost per acre, and risk reductions associated with alternative crop insurance products.

Case Farm Info **Insurance Evaluator** Revenue Risk Info

Individual Farm Level Policies
Unit: Enterprise

Coverage Level	Revenue Protection (RP)					Revenue Protection With Harvest Price Exclusion (RP-HPE)					Yield Protection (YP)				
	Est. Premium (\$/acre)	Avg. Payment (\$/acre)	Payment Frequency (%)	Net Cost (\$/acre)	Avg. Gross Rev (\$/acre)	Est. Premium (\$/acre)	Avg. Payment (\$/acre)	Payment Frequency (%)	Net Cost (\$/acre)	Avg. Gross Rev (\$/acre)	Est. Premium (\$/acre)	Avg. Payment (\$/acre)	Payment Frequency (%)	Net Cost (\$/acre)	Avg. Gross Rev (\$/acre)
50%	0.49	0.74	1.2%	-0.25	822	0.45	0.67	1.0%	-0.22	822	0.33	0.63	0.8%	-0.30	822
55%	0.76	1.47	2.0%	-0.71	823	0.60	1.32	1.8%	-0.72	823	0.45	1.24	1.6%	-0.79	823
60%	1.16	2.78	3.5%	-1.62	824	0.79	2.51	3.3%	-1.72	824	0.63	2.31	2.6%	-1.68	824
65%	1.85	5.06	6.1%	-3.21	825	1.11	4.64	5.8%	-3.53	826	0.86	4.08	4.4%	-3.22	825
70%	3.15	8.77	9.5%	-5.62	828	1.81	8.14	9.1%	-6.33	828	1.23	6.94	7.2%	-5.71	828
75%	5.45	14.40	14.3%	-8.95	831	3.02	13.51	13.7%	-10.49	833	1.91	11.32	10.7%	-9.41	832
80%	11.48	22.62	20.4%	-11.14	833	6.34	21.31	19.8%	-14.97	837	3.59	17.76	15.7%	-14.17	836
85%	24.05	34.16	28.6%	-10.11	832	13.24	32.38	27.7%	-19.14	841	6.77	26.78	21.9%	-20.01	842

County Level Products

Revenue Risk Info: Compare revenue levels by insurance choice

- Prefer higher revenue with higher probability - no insurance line is the base for comparison (blue line) and impact of insurance to “shift” probability to higher revenue levels shown for each insurance product
- RP products tend to limit downside risk most, County Products tend to pay most over time, but not necessarily when needed.

Evaluator - Enter your farm information to evaluate crop insurance options for 2021

State: | County: | Crop: | Acres*:

> RUN INSURANCE EVALUATOR

This tool develops a case farm for most counties in the major corn and soybean production regions, and provides estimates of premiums for all available crop insurance products, along with the expected frequency of payments, average payment per acre, net cost per acre, and risk reductions associated with alternative crop insurance products.

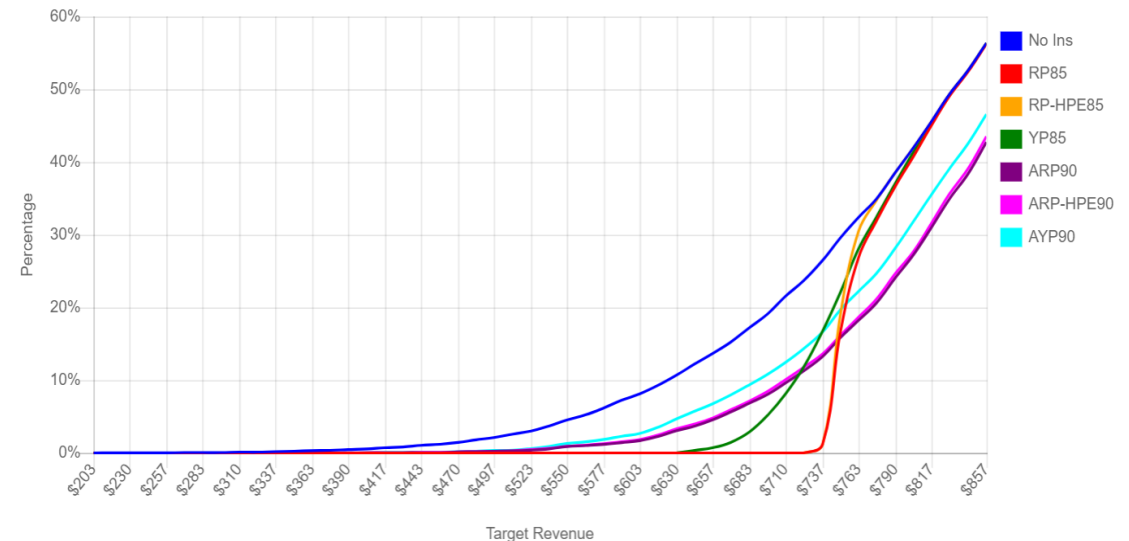
Case Farm Info | Insurance Evaluator | **Revenue Risk Info**

Change Gross Target Revenue To Run Again: \$ 737 /acre ⓘ

Probability of not reaching above target with no insurance: 27.2%

- 1% Value at risk with no insurance: \$440
- 5% Value at risk with no insurance: \$561
- 10% Value at risk with no insurance: \$623
- 25% Value at risk with no insurance: \$730

Probabilities of Revenue with Insurance



This graph shows the impact of alternative crop insurance products, associating the likelihood of revenue outcomes with their levels. It is generally better to have a higher likelihood of higher revenue, so lines that are below and to the right are preferable. Often, group products, if offered in a county, will have lower net costs and improve average revenue but do less to mitigate the likelihood for very low outcomes, for example. The "No Ins" line shows the revenues and their associated probabilities with no insurance.

Revenue Risk Info: Compare revenue levels by insurance choice

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- RP products tend to limit downside risk most, County Products tend to pay most over time, but not necessarily when needed.
- **Live target revenue calculation – example of \$737 in this example**

Evaluator - Enter your farm information to evaluate crop insurance options for 2021

State: Illinois | County: McLean | Crop: Corn | Acres*: 100

RUN INSURANCE EVALUATOR

This tool develops a case farm for most counties in the major corn and soybean production regions, and provides estimates of premiums for all available crop insurance products, along with the expected frequency of payments, average payment per acre, net cost per acre, and risk reductions associated with alternative crop insurance products.

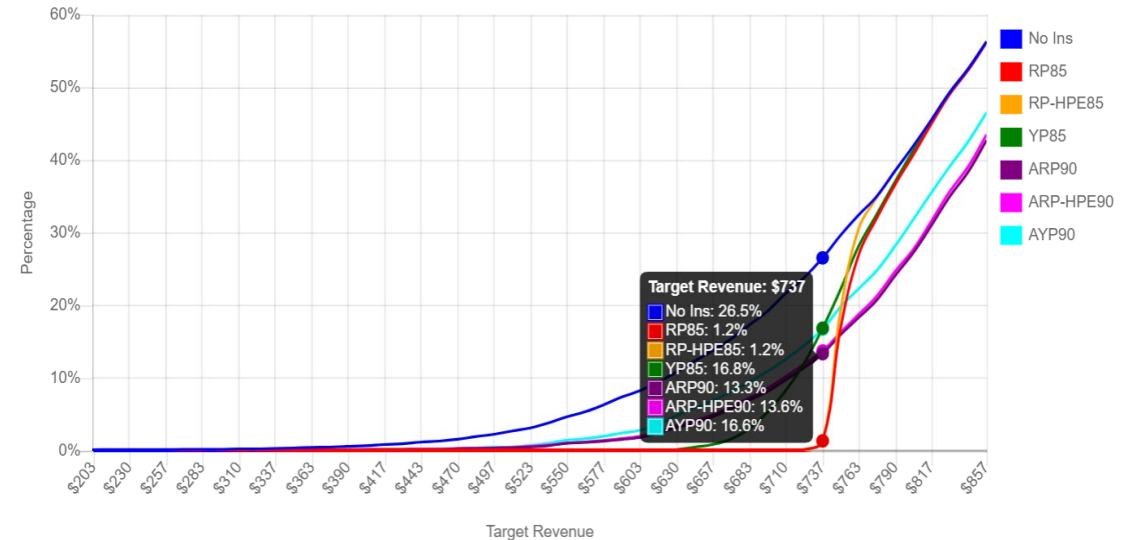
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Revenue Risk by likelihood provided:

- Coverage Level and probability grid by product returns \$/Acre
- Higher coverage levels virtually always reduce revenue gradient – best for limiting extreme downside.
- Lower coverage can be beneficial for maximizing average revenue
- County products less correlated with crop revenue, but can increase average revenue over the long run.

Individual Farm Level Policies

Unit: Enterprise ▾

Coverage Level	Revenue Protection (RP)				Revenue Protection With Harvest Price Exclusion (RP-HPE)				Yield Protection (YP)			
	Value.At.Risk.(VAR)				Value.At.Risk.(VAR)				Value.At.Risk.(VAR)			
	1% (\$/acre)	5% (\$/acre)	10% (\$/acre)	25% (\$/acre)	1% (\$/acre)	5% (\$/acre)	10% (\$/acre)	25% (\$/acre)	1% (\$/acre)	5% (\$/acre)	10% (\$/acre)	25% (\$/acre)
50%	451	554	618	727	446	554	618	727	451	554	618	727
55%	485	554	617	727	483	554	617	727	478	554	618	727
60%	524	559	617	726	524	554	617	727	510	558	617	727
65%	565	577	619	726	565	575	617	726	534	576	619	727
70%	606	613	631	724	607	613	625	726	564	605	633	726
75%	646	652	659	723	649	654	659	725	598	631	657	726
80%	682	687	692	725	687	693	696	722	627	661	683	731
85%	712	717	720	736	723	728	731	742	656	689	711	750

County Level Products

Coverage Level	Area Revenue Protection (ARP)				Area Revenue Protection With Harvest Price Exclusion (ARP-HPE)				Area Yield Protection (AYP)			
	Value.At.Risk.(VAR)				Value.At.Risk.(VAR)				Value.At.Risk.(VAR)			
	1% (\$/acre)	5% (\$/acre)	10% (\$/acre)	25% (\$/acre)	1% (\$/acre)	5% (\$/acre)	10% (\$/acre)	25% (\$/acre)	1% (\$/acre)	5% (\$/acre)	10% (\$/acre)	25% (\$/acre)
70%	475	574	630	729	482	579	636	734	474	574	632	731
75%	485	583	636	730	493	589	644	737	486	581	638	736
80%	499	593	647	736	510	601	655	743	502	593	647	740
85%	508	600	654	740	519	614	665	753	512	604	659	748
90%	505	607	657	738	526	628	678	759	523	616	673	761

Summary and keys to watch going forward

- Projected Prices are set end of February, but actual market prices often diverge – final PPs and vols. on 2/28 \neq market values
 - If Futures > PP, then price portion of **revenue** guarantee is less valuable, and less likely to pay, but options to lock in higher values, and HP options increase in value.
 - If Futures < PP, then guarantee includes “in-the-money” put option and insurance is more valuable, and locked in higher values but HP options less valuable.
- Will update tools throughout Feb and finalize early March, but futures price components will remain live.

-- *Final 2021 **farmdoc** Crop Insurance Webinar on March 4th*

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Upcoming Webinars

Acresage Decisions in 2021

11:00 to noon CT, Thursday February 18th

Corn and soybean decisions have changed greatly Since August. This webinar will discuss implications of those decisions for planting decisions in 2021.

Last Financial Issues Before Planting

11:00 to noon CT, Thursday February 25th

A recap of the financial position of Illinois farms will be provided. We will go over budgeting and pro forma cash flow planning for 2021.

Thank You for joining us!

Please submit your questions



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February 9, 2021

Gary Schnitkey, Krista Swanson, Carl Zulauf, and Nick Paulson
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