Crop Risk Management for 2023

Prices, Budgets, and Risk Management Decisions

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ILLINOIS
Agricultural &
Consumer Economics
COLLEGE OF AGRICULTURAL, CONSUMER
& ENVIRONMENTAL SCIENCES

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Topics

- Background – Gary
- Commodity Title choices – Nick
- Crop Insurance - Bruce

2023 and 2024 decisions

2023 Decisions

Pre-harvest market more
particularly when buying products

Make a commodity title choice
Make a choice

Choose RP at high coverage
Maybe add SCO/ECO

Summer 2023

In August 2023,
Look at harvest time bids for 2024

Marketing

Typical Amounts of Pre-Harvest Hedging by Date Prior to Harvest

Date Prior to Harvest	None	Percent of Expected Corn Production[1]					Average Percent Hedged[2]
		1 to 10%	11 to 25%	25 to 50%	50 to 75%	Over 75%	
January 1	29%	33%	34%	3%	1%	0%	10%
April 1	16%	15%	34%	28%	5%	2%	22%
July 1	9%	2%	14%	38%	33%	4%	41%

[1] Farmers were asked how much of 2018 expected production was forward priced using forward of futures contract.
[2] Average percent hedged weight responses to arrive at an average percent hedged.

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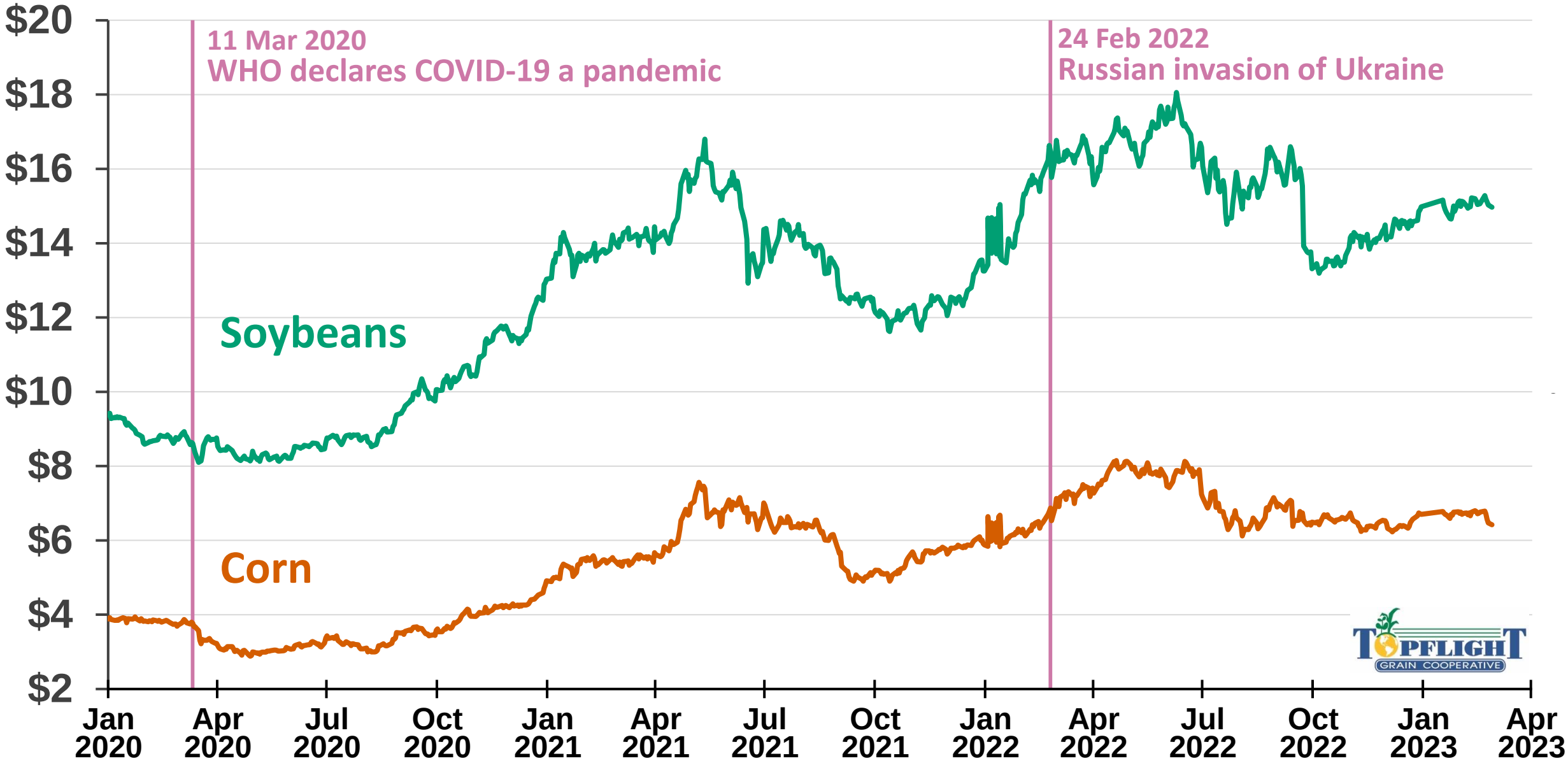
From farmdoc Daily, May 15, 2018
https://farmdocdaily.illinois.edu/2018/05/pre-harvest-hedging-revenue-protection.html

I would be higher
That is not a price projection, but a risk management suggestion

Corn and Soybean Cash Prices, Central Illinois



U.S. Prices by Marketing Year

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Corn	3.36	3.61	3.56	4.53	5.95	6.70	5.30
Soybeans	9.33	8.47	8.57	10.80	13.60	14.30	13.10
Wheat	4.72	5.16	4.58	5.05	7.63	9.00	7.30
						PROJECTED	

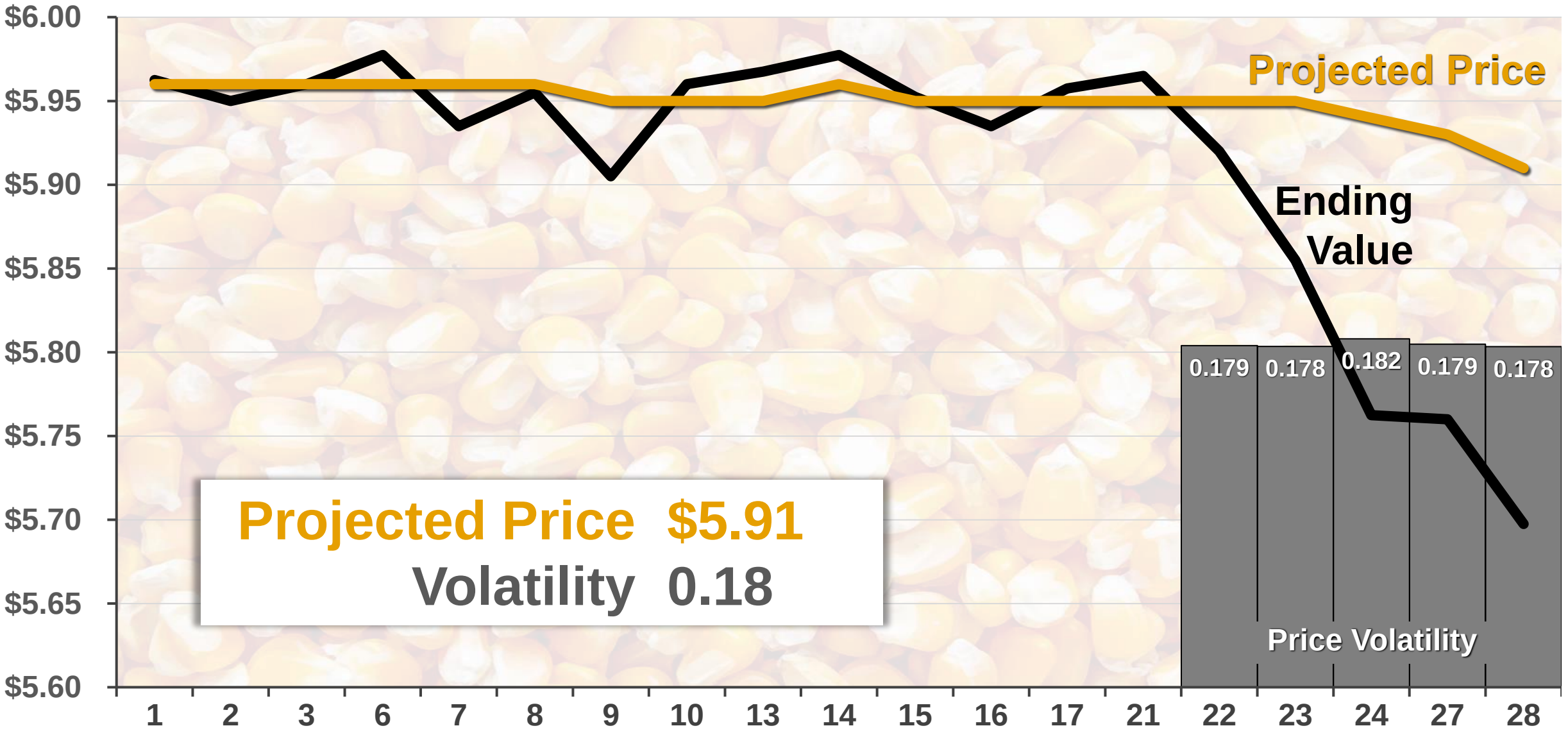
National Market Year Average (MYA) price by year

- September to August for corn and soybeans
- June to May for wheat

Calculated by NASS

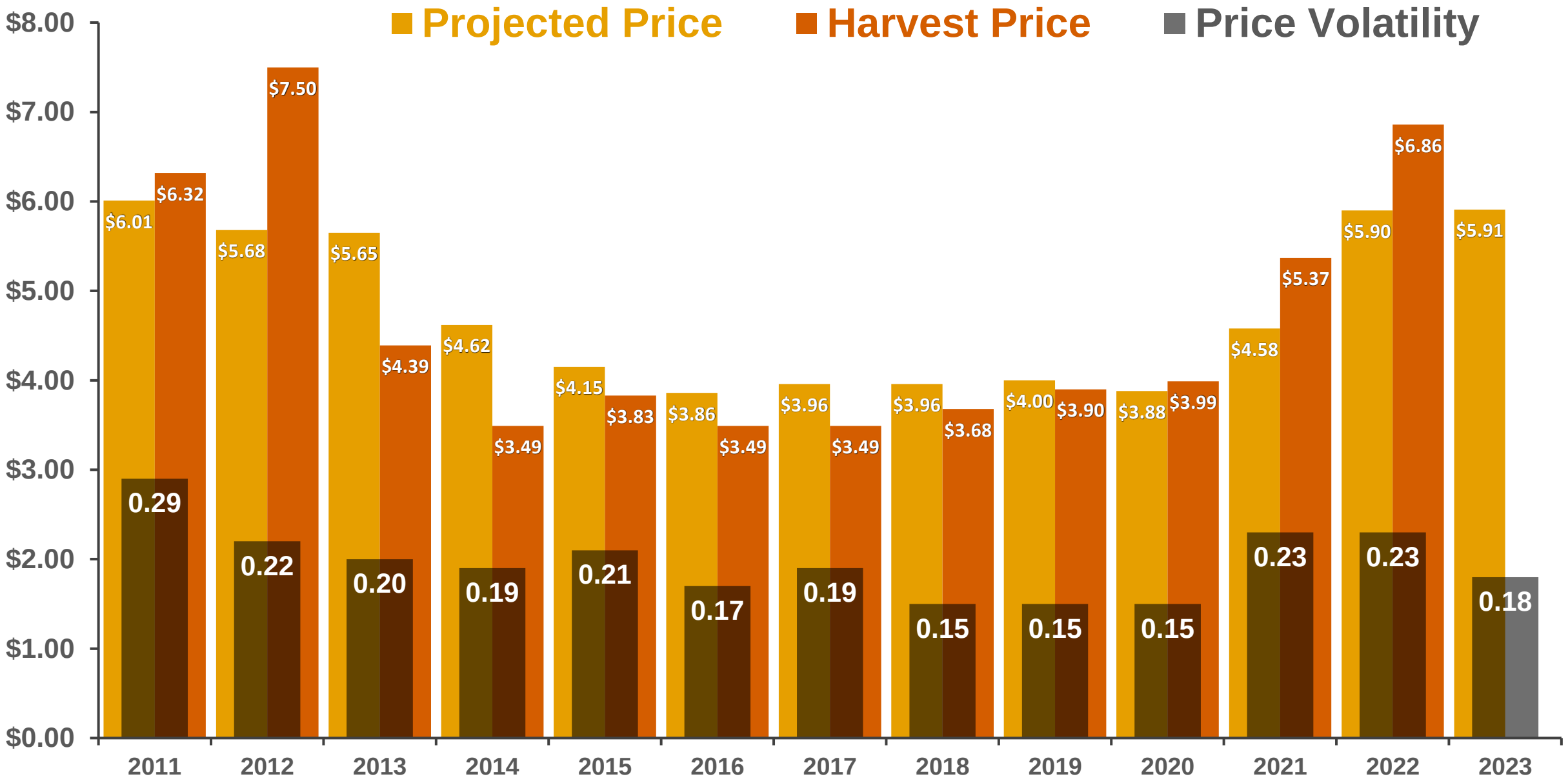
- 2022-23 is projection in WASDE report
- 2023-24 is our projection

2023 Corn Projected Price



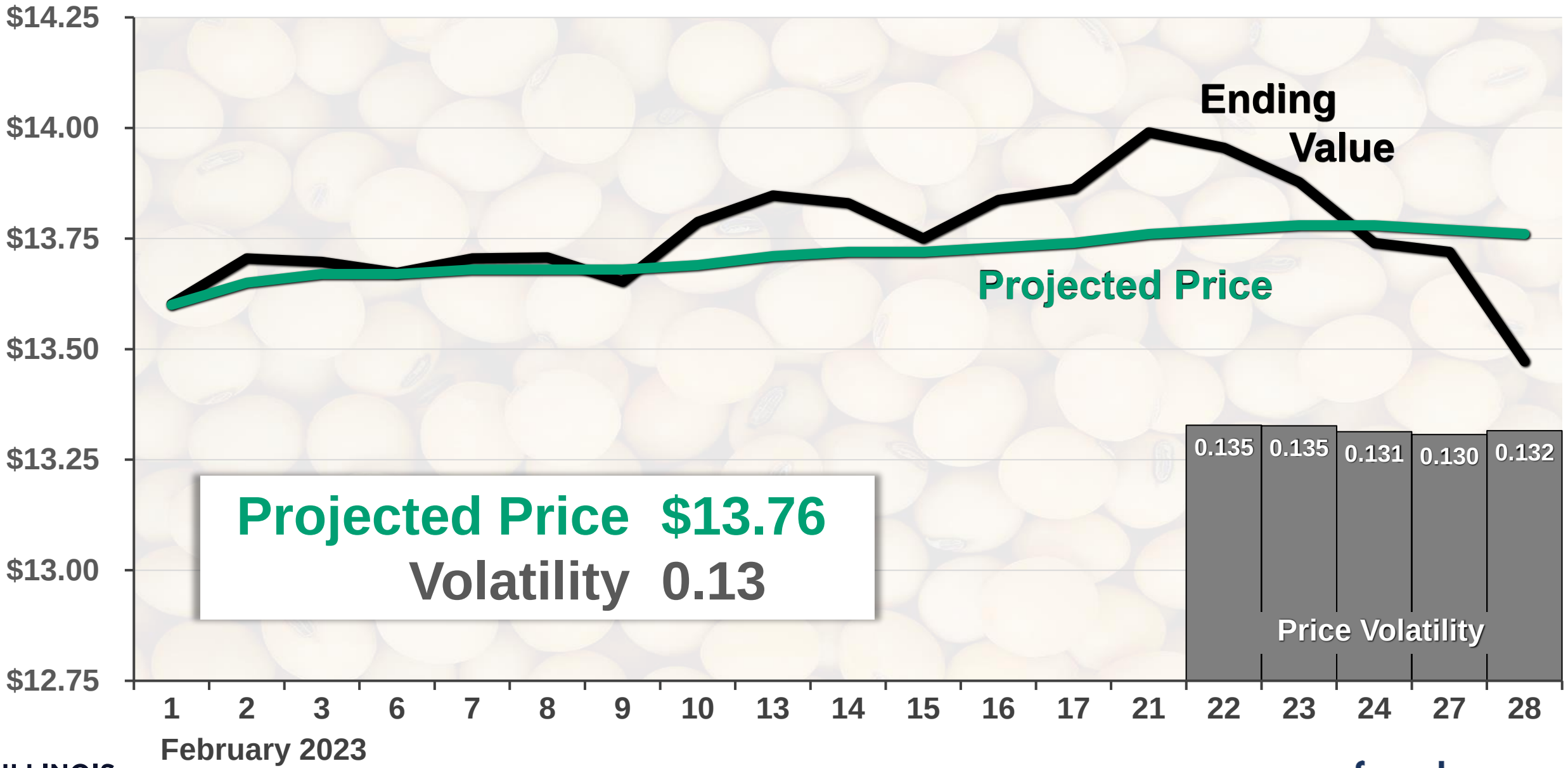
Source: USDA RMA https://prodwebnlb.rma.usda.gov/apps/PriceDiscovery/

Illinois Corn



Source: USDA RMA https://prodwebnlb.rma.usda.gov/apps/PriceDiscovery/

2023 Soybeans Projected Price



ILLINOIS

Source: USDA RMA https://prodwebnlb.rma.usda.gov/apps/PriceDiscovery/

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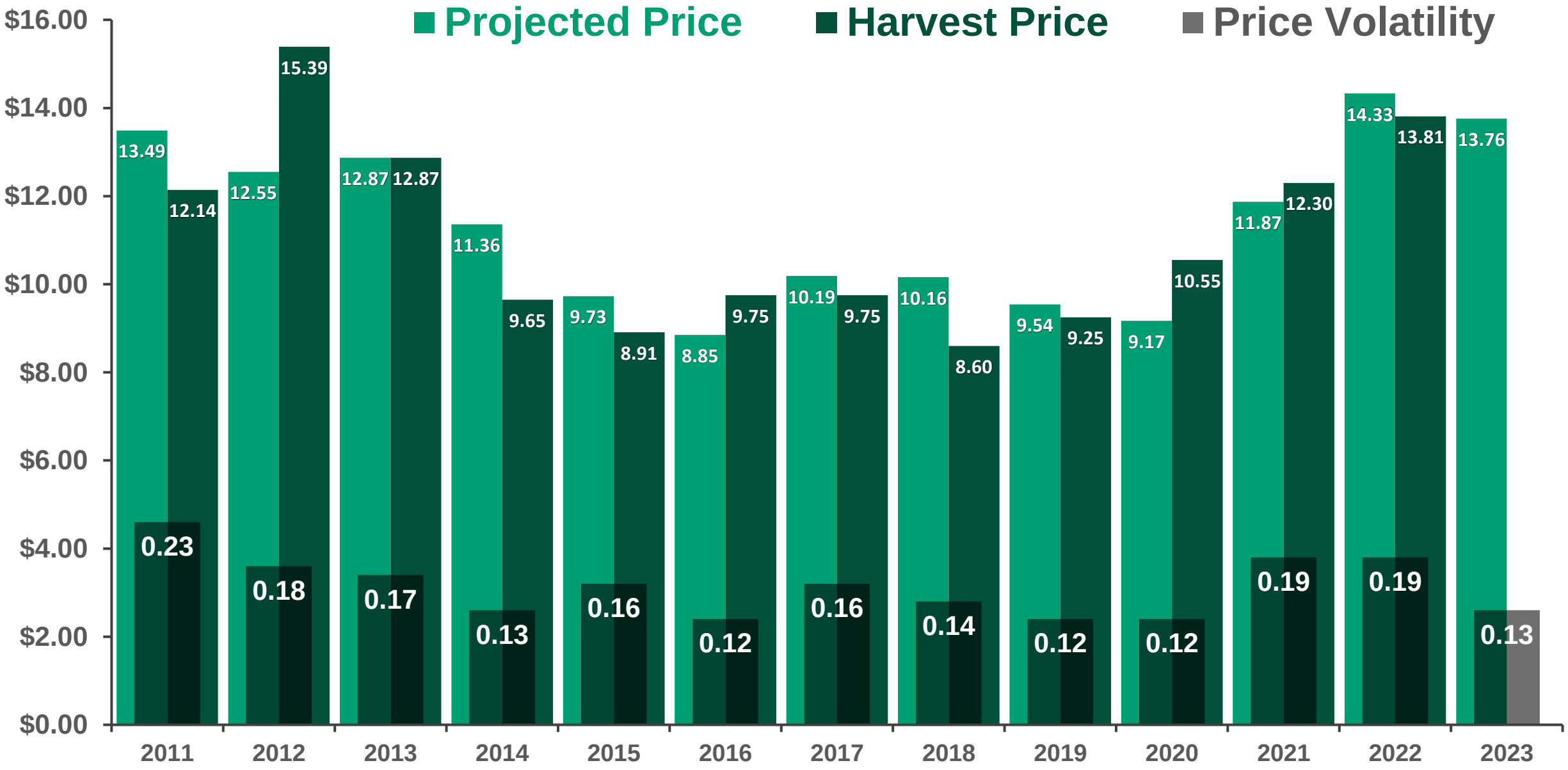
Illinois Soybeans



ILLINOIS

Source: USDA RMA https://prodwebnlb.rma.usda.gov/apps/PriceDiscovery/

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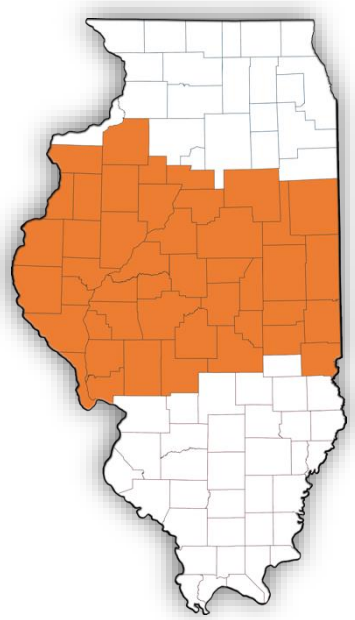
Total Costs of Producing Corn for Central Illinois in $ per acre



Year	Cash Rent	Non-land Costs	Total
2000	$132	$250	
2001	$137	$251	
2002	$137	$245	
2003	$140	$241	
2004	$143	$260	
2005	$147	$287	
2006	$150	$302	
2007	$166	$341	
2008	$197	$428	
2009	$209	$534	
2010	$215	$452	
2011	$248	$503	
2012	$270	$581	
2013	$290	$615	
2014	$293	$617	
2015	$278	$592	
2016	$273	$563	
2017	$267	$569	
2018	$274	$574	
2019	$275	$606	
2020	$279	$594	
2021	$311	$634	
2022P	$336	$761	$1,097
2022P	$341	$858	$1,199

PROJECTED

Source: Illinois Farm Business Farm Management

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Minimum Cash Guarantees with RP Crop Insurance

	Corn	Soybeans
Non-land costs	$858	$532
Cash Rent	$341	$341
Total Costs	$1,199	$873
TA-APH yield	230	72
Projected price	$5.91	$13.76
Basis	-0.3	-0.3
Coverage level	Min Cash Guarantees ($ per acre)	
85%	$1,101	$861
80%	$1,036	$810
75%	$971	$760
70%	$906	$709
65%	$842	$658
60%	$777	$608

Can approach but not cover costs at highest coverage level with crop insurance

RMA Insurance Products

deadline is March 15

Acronym	Name	Yields used	Insures	Guarantee Increase
RP	**R**evenue **P**rotection	**Farm (unit)**	**Revenue**	**Yes**
RPhpe	**RP** with **h**arvest **p**rice **e**xclusion		**Revenue**	**No**
YP	**Y**ield **P**rotection		**Yield**	**No**
ARP	**A**rea **R**evenue **P**rotection	**County**	**Revenue**	**Yes**
ARPhpe	**ARP** with **h**arvest **p**rice **e**xclusion		**Revenue**	**No**
AYP	**A**rea **Y**ield **P**lan		**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, 2022

Coverage Level	RP	RPhpe	YP	ARP	ARPhpe	AYP
50	1%	0%	0%			
55	0%	0%	0%			
60	%	0%	0%			
65	1%	0%	0%			0%
70	4%	0%	0%	0%		0%
75	16%	1%	0%	0%		0%
80	38%	1%	1%	0%	0%	0%
85	34%	0%	1%	0%	0%	0%
90				1%	0%	0%
Total	94%	2%	2%	1%	0%	0%

3% of acres with Margin Protection

11% of acres in Supplemental Coverage Option

6% of acres in Enhanced Coverage Option

The preferred crop insurance policy of most farmers

Most Farmers:

- Revenue Protection (RP)
- With Trend Adjustment
  (and use Yield Exclusion if available)
- At high coverage level

Stay with the above program, perhaps add SCO/ECO

What do I give up by using SCO and ECO on Soybeans?

Combined Policy Premiums

Coverage Level	RP	RP SCO	RP SCO ECO-90%	RP SCO ECO-95%
			$ per acre	
50%	0.23	4.89	11.67	25.16
55%	0.35	5.02	11.80	25.29
60%	0.51	5.17	11.95	25.44
65%	0.78	5.44	12.22	25.71
70%	1.29	5.89	12.67	26.16
75%	2.30	6.67	13.45	26.94
80%	4.65	7.94	14.72	28.21
85%	9.75	10.52	17.30	30.79

Soybeans

Piatt County, Illinois

Enterprise Units

100 acres

TA-APH = 73 bu.

APH = 71 bu.

Supplemental Coverage Option (SCO) – county coverage from 86% to RP coverage level

Enhanced Coverage Option (ECO) – county coverage from 95% and 90% to 86%

Supplement Coverage Option (SCO)

- **County** coverage available in 86% to coverage level of RP policy
- Can only be used if commodity title choice is Price Loss Coverage
- Eligible for RP, RPhpe, YP (not ARP, ARPhpe, AYP)
- Coverage of SCO mimics that of the underlying RP, RPhpe, YP

Enhanced Coverage Option (ECO)

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

Drop from RP-85% to RP-80%+SCO+ECO-90%

Advantage

- County coverage from 90% to 80%
  - Harvest price < projected price:
    - 13.76 x 72.5 expected yield x .90 = $898
    - 13.76 projected price x72.5 expected yield x .80 = $798
- Higher chance of payment and payout

Disadvantage

- Farm coverage from 85% to 80%
- Reduce prevent plant payments (60% of guarantee)
- Farmer-paid premium costs $4.97 = ($14.72 - $9.75)

WHIP, WHIP+, ERP – Disaster Assistance Programs

- The program increased the coverage level on crop insurance and Noninsured Crop Disaster Assistance Program (NAP) policies
- Note that the disaster program shrinks the range of coverage from **0% - 85%** to **75% - 95%**

Factors Used to Increase Coverage Levels on Crop Insurance Policies

Coverage Level	WHIP+	ERP
CAT	75.0%	75.0%
50%	77.5%	80.0%
55%	80.0%	82.5%
60%	82.5%	85.0%
65%	85.0%	87.5%
70%	87.5%	90.0%
75%	92.5%	92.5%
80 and 85%	95.0%	95.0%
SCO	95.0%	

Commodity Title

2023 Commodity Title Choices

ARC-CO and PLC

have till

March 15th

to make decision

Commodity Title Choice

- Payments not likely on corn, soybean, or wheat base from PLC or ARC-CO given current prices.
  → Don't sweat this decision

- ARC-CO more likely to trigger payments
  (caveat: 1% chance vs less than 1% for PLC)

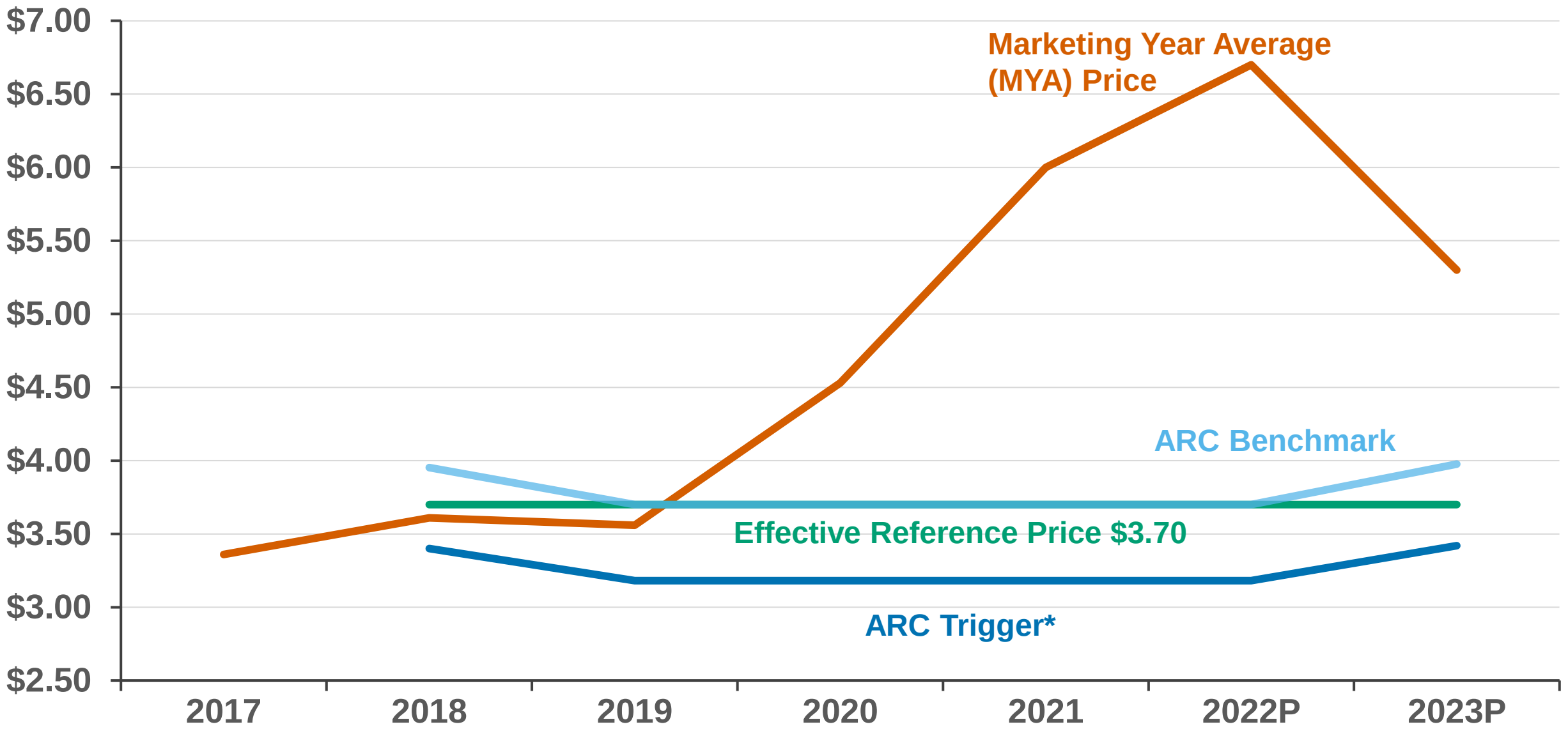
- Considerations:
  - What type of risk concerns you most?
  - Crop insurance choices/options (use of SCO requires PLC)

The Decision

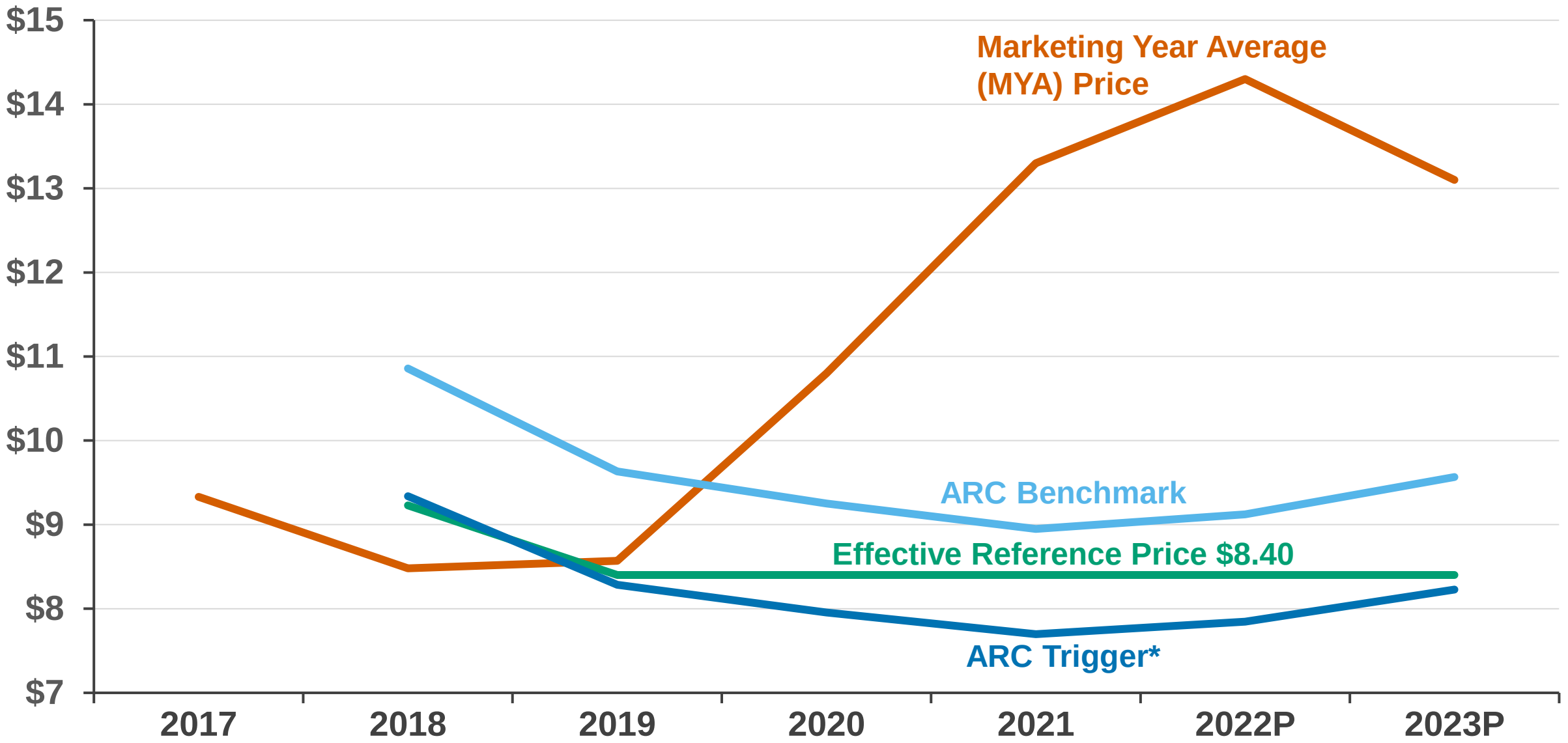
Have until March 15

Farm	Program Crop	Crop Choice	OR
FSA Farm 1	Corn	PLC/ARC-CO	ARC-IC
	Soybeans	PLC/ARC-CO	
FSA Farm 2	Corn	PLC/ARC-CO	ARC-IC
	Soybeans	PLC/ARC-CO	

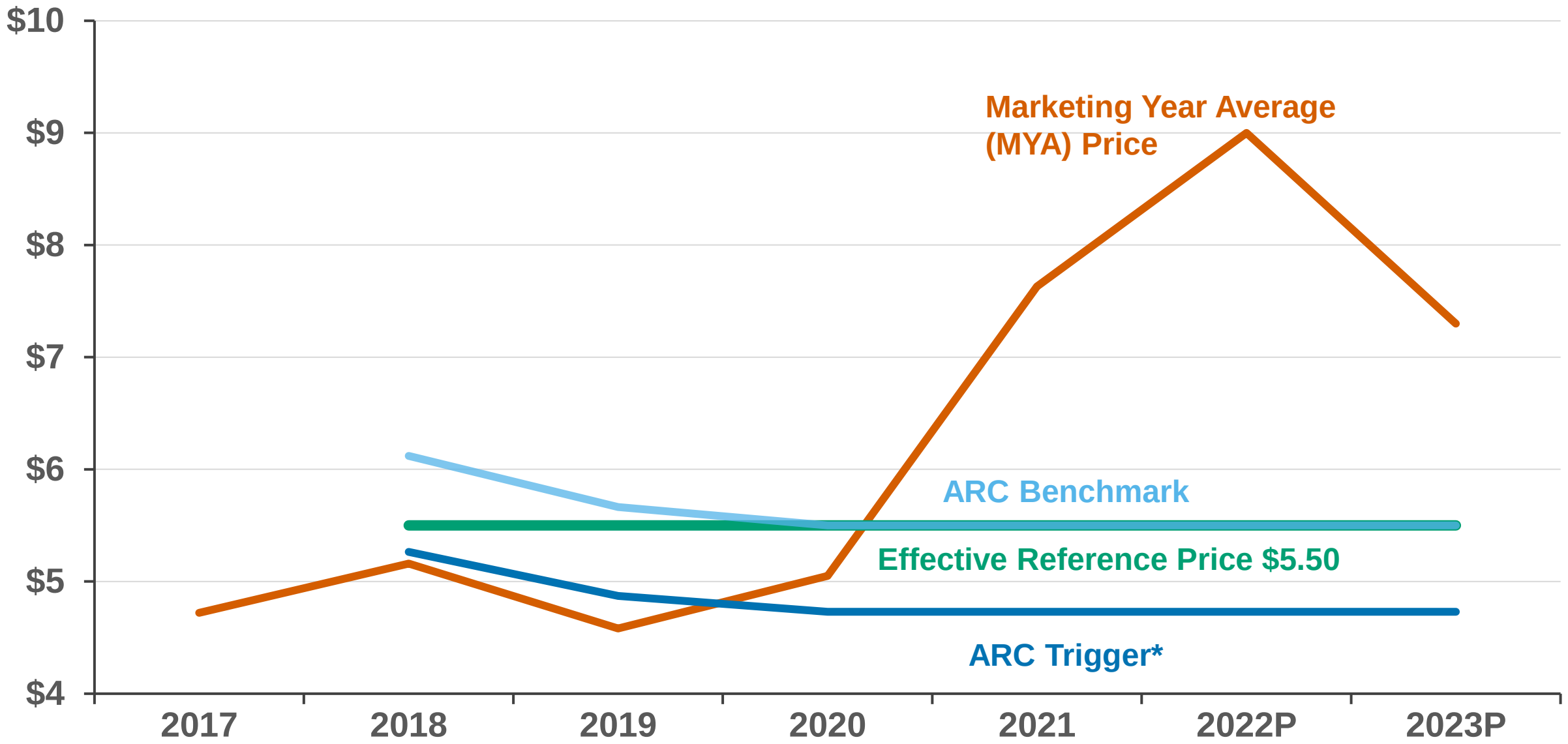
Corn Prices for PLC and ARC



Soybean Prices for PLC and ARC



Wheat Prices for PLC and ARC



Corn, from Farm Bill What If Tool

Program Selection	PLC minus ARC-CO
Price Change	$ 0.25
Yield Change	10

State = Illinois, County = Champaign, Crop = Corn, Year = 2023
ARC-CO Benchmark Yield = 222.65, Benchmark Price = $3.98, Guarantee $762.0
PLC Yield = 179, Effective Reference Price = $3.70

-2023 County Yield	2023 Market Year Average Price										
	$3.25	$3.50	$3.75	$4.00	$4.25	**$4.50**	$4.75	$5.00	$5.25	$5.50	$5.75
270	68	30	0	0	0	0	0	0	0	0	0
260	68	30	0	0	0	0	0	0	0	0	0
250	68	30	0	0	0	0	0	0	0	0	0
240	68	30	0	0	0	0	0	0	0	0	0
230	56	30	0	0	0	0	0	0	0	0	0
220	28	30	0	0	0	0	0	0	0	0	0
210	1	7	0	0	0	0	0	0	0	0	0
200	-7	-22	-10	0	0	0	0	0	0	0	0
190	-7	-45	-42	-2	0	0	0	0	0	0	0
180	-7	-45	-74	-36	0	0	0	0	0	0	0
170	-7	-45	-75	-70	-34	0	0	0	0	0	0

* A positive value indicates that PLC will pay more, a negative value indicates that ARC-CO will pay more.

State: Illinois

County: Champaign

Crop: Corn

Reference Price: $ 3.7

Practice Type *: Irrigated / Non-Irrigated

Forecast Model: Forecast

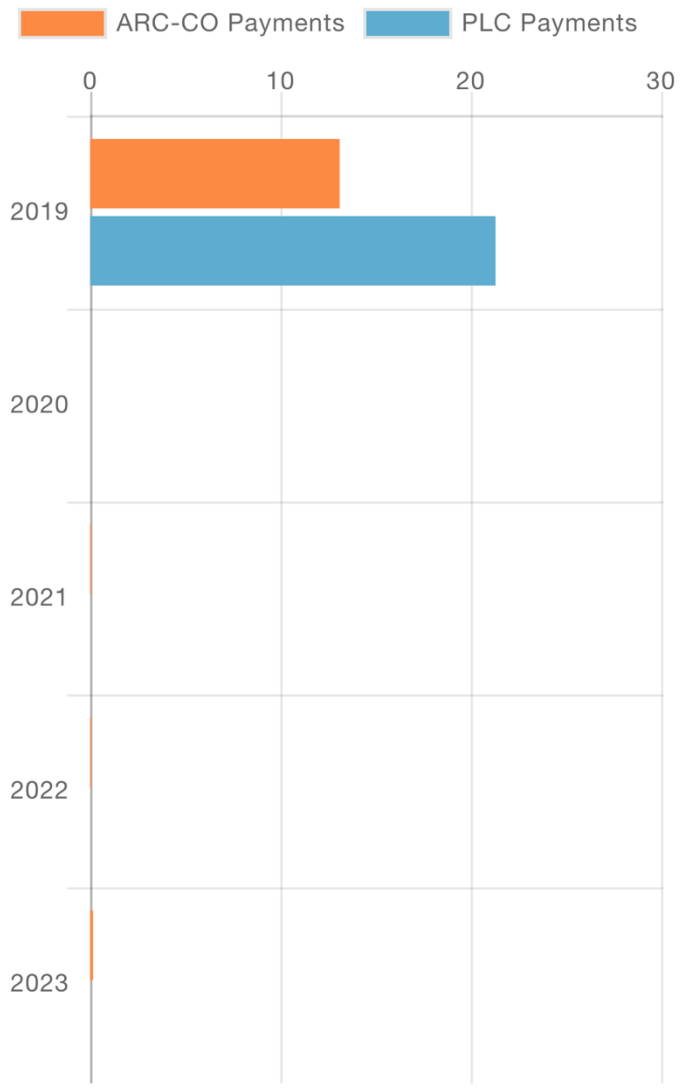
PLC Payment Yield *: 179 bu/acre

ARC Trend Yield *: 1.71 bu/acre

ARC/PLC Program Inputs

ARC Coverage Level	86 %
ARC Coverage Range	10 %
Payment Acres	85 %

RUN MODEL



Expected Payment ($)	Likelihood of Payment (avg)	Payment Distributions	MYA Price ($)	Expected Yield (bushel/acre)
$13.11 $21.30	100% 100%		$3.56	191.9
$0.00 $0.00	0% 0%		$4.53	204.4
$0.05 $0.00	0% 0%		$5.95	216.0
$0.06 $0.00	0% 0%		$5.80	219.5
$0.15 $0.00	0% 0%		$5.40	219.4

Model data last updated: Jan 18, 2022

2019 and 2020 numbers are actual values of ARC/PLC payments. All 2019 and 2020 yields and prices are final.

Soybeans, from Farm Bill What If Tool

Program Selection	PLC minus ARC-CO
Price Change	$ 0.50
Yield Change	5

State = Illinois, County = Champaign, Crop = Soybeans, Year = 2023
ARC-CO Benchmark Yield = 69.81, Benchmark Price = $9.57, Guarantee $574.55
PLC Yield = 55, Effective Reference Price = $8.40

-2023 County Yield	2023 Market Year Average Price										
	$7.50	$8.00	$8.50	$9.00	$9.50	**$10.00**	$10.50	$11.00	$11.50	$12.00	$12.50
95	42	19	0	0	0	0	0	0	0	0	0
90	42	19	0	0	0	0	0	0	0	0	0
85	42	19	0	0	0	0	0	0	0	0	0
80	42	19	0	0	0	0	0	0	0	0	0
75	32	19	0	0	0	0	0	0	0	0	0
70	0	6	0	0	0	0	0	0	0	0	0
65	-15	-28	-19	0	0	0	0	0	0	0	0
60	-15	-38	-55	-29	-4	0	0	0	0	0	0
55	-15	-38	-57	-57	-44	-21	0	0	0	0	0
50	-15	-38	-57	-57	-57	-57	-42	-21	0	0	0
45	-15	-38	-57	-57	-57	-57	-57	-57	-48	-29	-10

* A positive value indicates that PLC will pay more, a negative value indicates that ARC-CO will pay more.

Wheat, from Farm Bill What If Tool

Program Selection	PLC minus ARC-CO
Price Change	$ 0.25
Yield Change	5

State = Illinois, County = Champaign, Crop = Wheat, Year = 2023
ARC-CO Benchmark Yield = 78.99, Benchmark Price = $5.50, Guarantee $373.62
PLC Yield = 64, Effective Reference Price = $5.50

-2023 County Yield	2023 Market Year Average Price										
	$5.00	$5.25	$5.50	$5.75	$6.00	**$6.25**	$6.50	$6.75	$7.00	$7.25	$7.50
105	27	14	0	0	0	0	0	0	0	0	0
100	27	14	0	0	0	0	0	0	0	0	0
95	27	14	0	0	0	0	0	0	0	0	0
90	27	14	0	0	0	0	0	0	0	0	0
85	27	14	0	0	0	0	0	0	0	0	0
80	27	14	0	0	0	0	0	0	0	0	0
75	27	14	0	0	0	0	0	0	0	0	0
70	7	8	0	0	0	0	0	0	0	0	0
65	-10	-14	-14	0	0	0	0	0	0	0	0
60	-10	-23	-37	-24	-12	0	0	0	0	0	0
55	-10	-23	-37	-37	-37	-25	-14	-2	0	0	0

* A positive value indicates that PLC will pay more, a negative value indicates that ARC-CO will pay more.

Crop Insurance

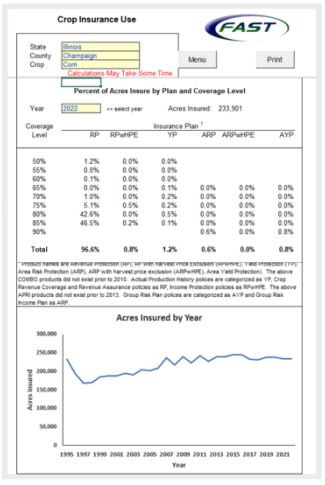
Crop Insurance Decisions - 2023

Crop Insurance Summary of Business Tool

Crop Insurance Summary of Business Tool

Last Updated: February 24, 2023

This program calculates crop insurance historical use and performance back to 1996...



Decision Tool

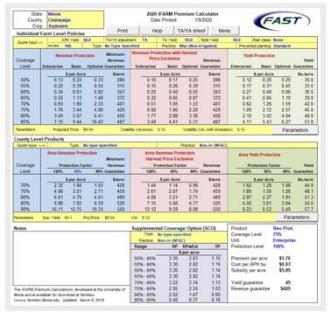
Crop Insurance Decision Tool – Spring 2023

Last Updated: February 21, 2023

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. Learn more on the *farmdoc Daily* crop insurance archive.

Catch up with the *farmdoc* Daily Article

View our Youtube Guide here.



PACE Tool

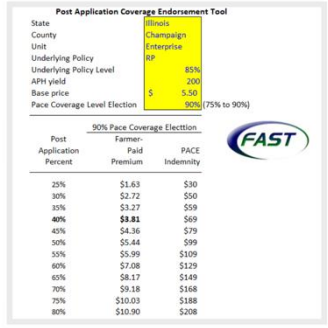
Post Application Coverage Endorsement Tool

Last Updated: February 16, 2023

This program calculates premiums for PACE: Post Application Coverage Endorsement Insurance.

Catch up with the *farmdoc* Daily Article

View our Youtube Guide here.

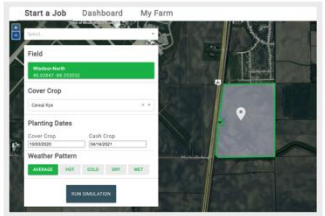


Cover Crop Analyzer

Cover Crop Analyzer

Last Updated: February 4, 2021

The cover crop project seeks to provide farmers with a practical web-based decision support tool designed to help manage cover crops in their fields. The project makes use of existing research to demonstrate the potential for cover crops, as well as providing useful information for decision making and management of this practice. It will also seek to apply future research on cover crops as results are incorporated into updates and new iterations of the tool. This remains a work in progress with a goal towards adapting with the science.



Premium Calculator

Crop Insurance Premium Calculator

Last Updated: February 3, 2022

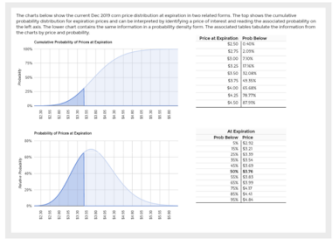
The 2022 *iFarm* Crop insurance Premium Calculator allows users to develop highly customized estimates of their crop insurance premiums, and compare revenue and yield guarantees across all available crop insurance products and elections for their actual farm case.

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.



farmdoc.illinois.edu/crop-insurance

The farmdoc Crop Insurance section offers iFARM online tools including the Premium Calculator, Payment Evaluator and Price Distribution Tool. These tools are updated annually during the Spring crop insurance election period.

Margin Protection Tool

Margin Protection Tool

Last Updated: September 22, 2022

With this program, a user can examine the performance of margin protection insurance.

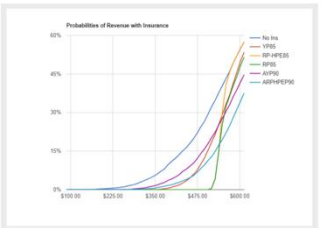
Catch up with the *farmdoc* Daily Article

Payment Evaluator

Crop Insurance Payment Evaluator

Last Updated: March 2, 2023

The 2022 *iFarm* Crop Insurance Payment Evaluator provides helpful information to producers comparing costs and risk reductions across their available crop insurance alternatives.

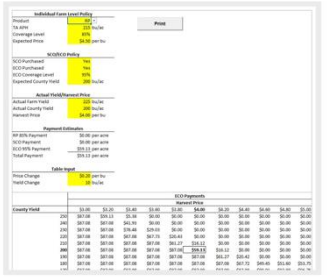


ECO/SCO Payment Estimator

ECO/SCO Payment Estimator

Last Updated: October 4, 2022

With this program, a user can estimate payments for individual farm level crop insurance products in addition to SCO and ECO.



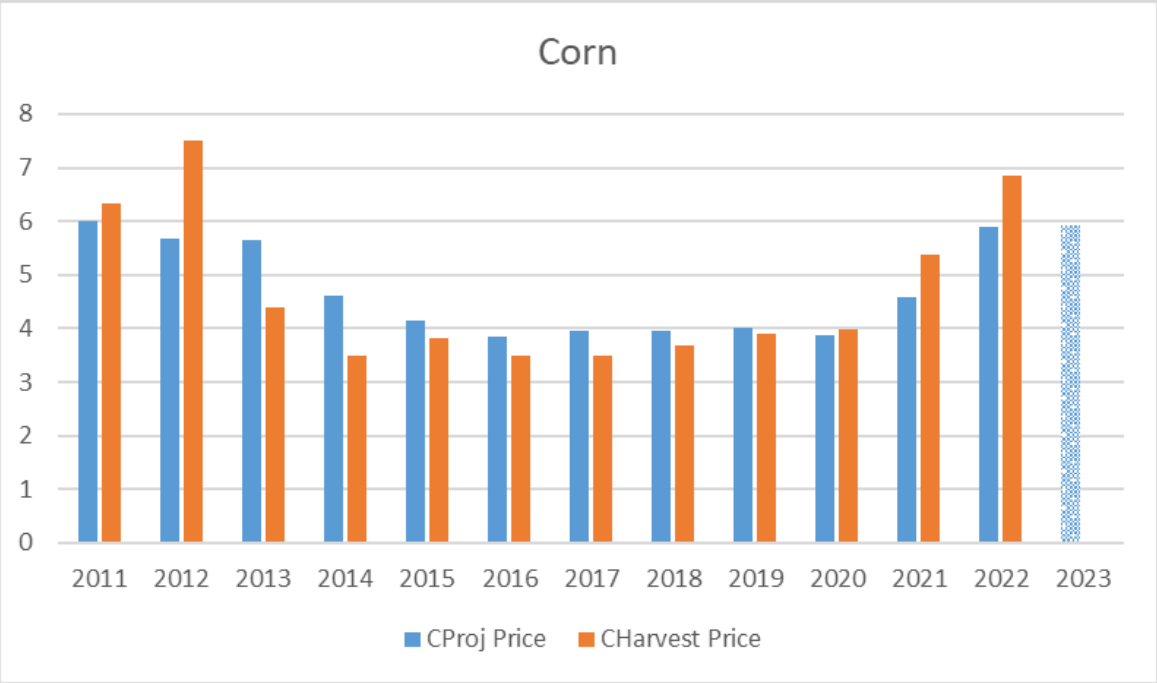
2023 Crop Insurance Prices and Volatilities

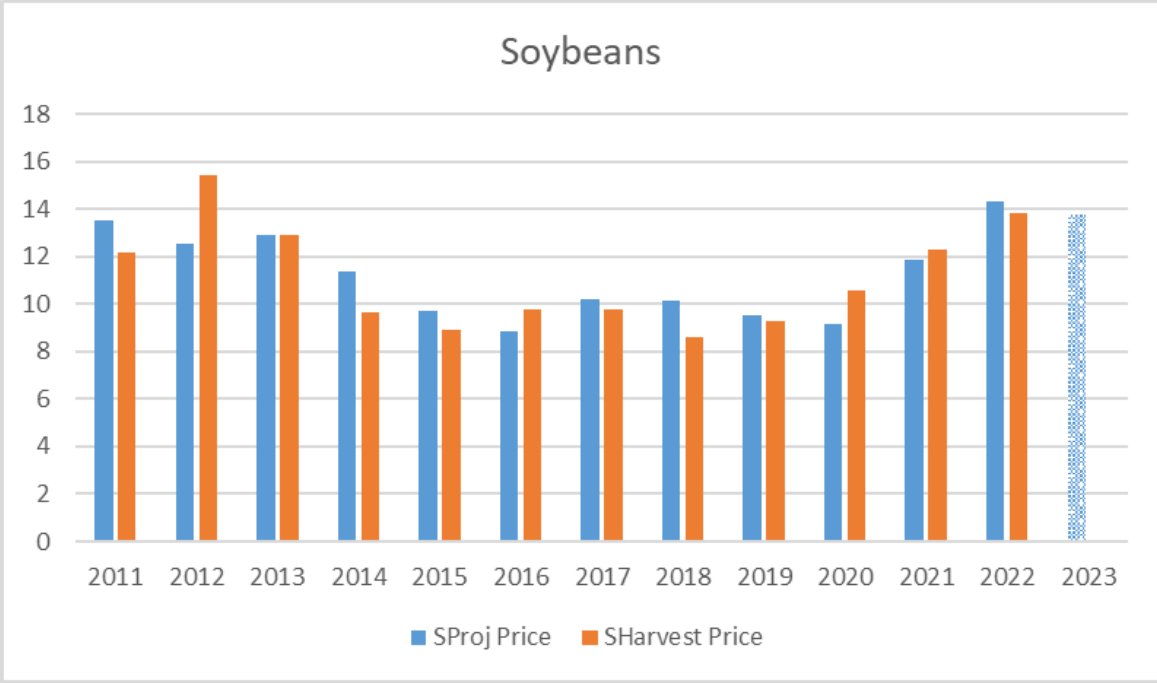
Projected Prices, Harvest Prices, and Volatilies, Corn and Soybeans, SCD 3/15 (RMA)

Corn	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	*2022*	*2023*
Proj Price	6.01	5.68	**5.65**	**4.62**	**4.15**	**3.86**	**3.96**	**3.96**	**4.00**	3.88	4.58	5.90	*5.91*
Harvest Price	**6.32**	**7.50**	4.39	3.49	3.83	3.49	3.49	3.68	3.90	**3.99**	**5.37**	**6.86**	
Volatility	0.29	0.22	0.20	0.19	0.21	0.17	0.19	0.15	0.15	0.15	0.23	0.23	*0.18*
Soybeans													
Proj Price	**13.49**	12.55	12.87	**11.36**	**9.73**	8.85	**10.19**	**10.16**	**9.54**	9.17	11.87	**14.33**	*13.76*
Harvest Price	12.14	**15.39**	12.87	9.65	8.91	**9.75**	9.75	8.60	9.25	**10.55**	**12.30**	13.81	
Volatility	0.23	0.18	0.17	0.13	0.16	0.12	0.16	0.14	0.12	0.12	0.19	0.19	*0.13*

High Projected Prices (PP) and Low Volatility Factors

Lower Futures Prices – impact on HP prospects

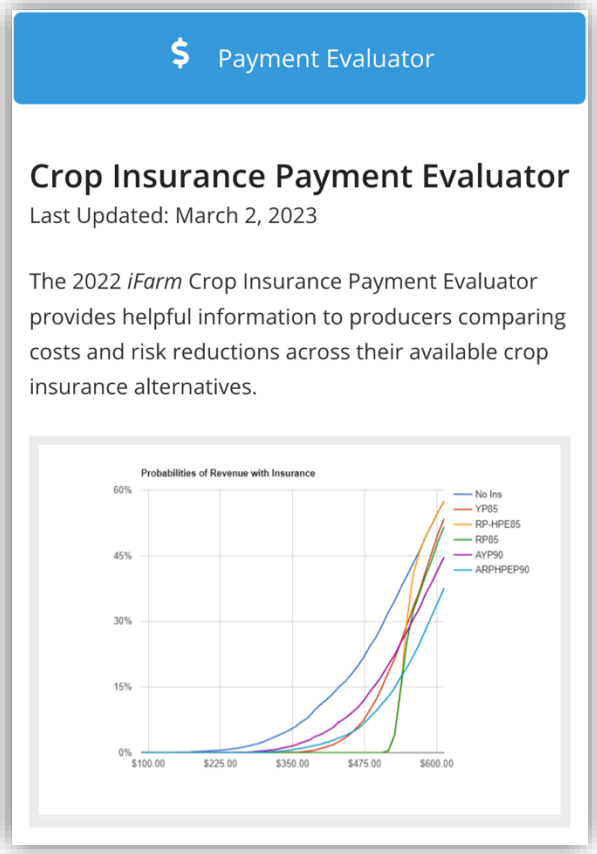


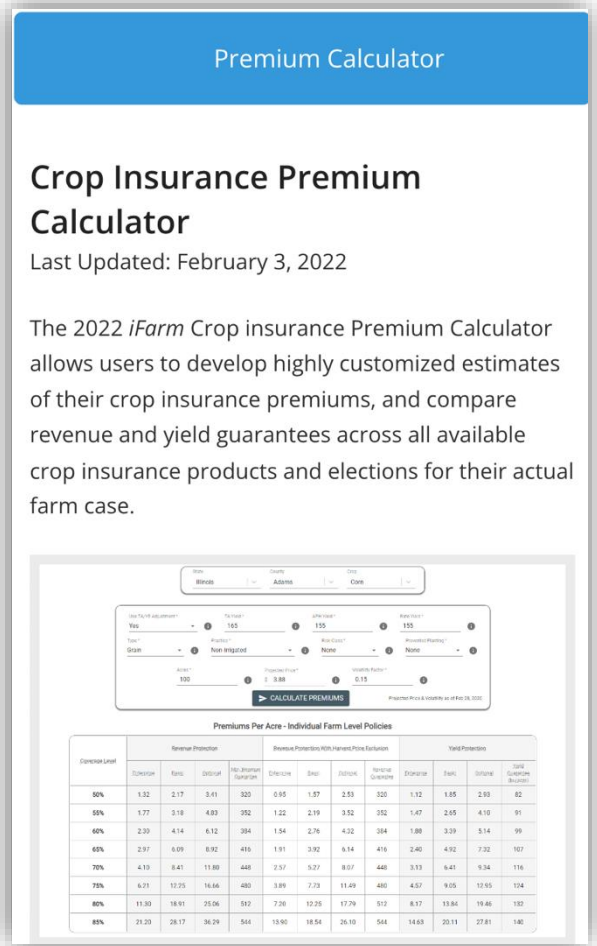


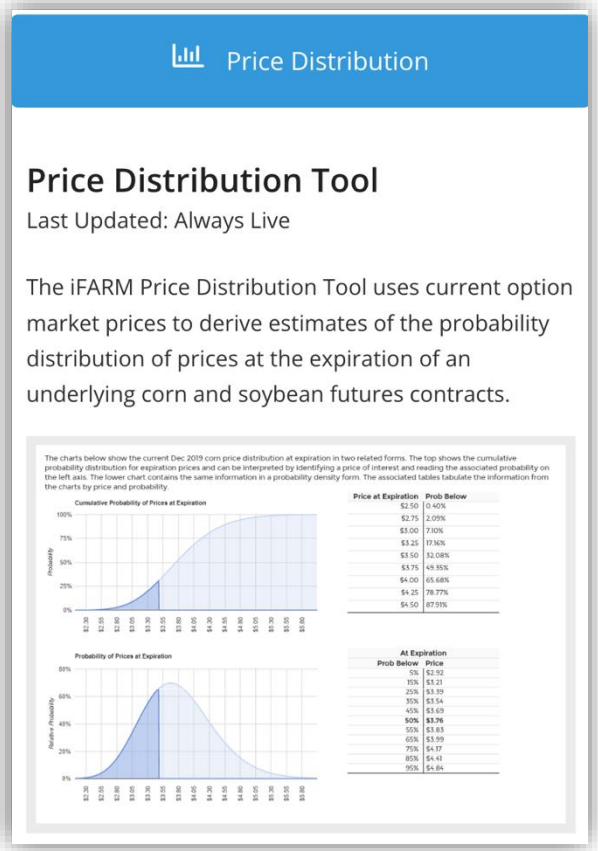
Crop Insurance Decisions - 2023

farmdoc.illinois.edu/crop-insurance

Suite of free tools at **farmdoc** and **farmdocDAILY** to allow users to calculate crop insurance premiums, probabilities of payment, degree of risk reduction, future price information, and policy decisions related to ECO/SCO, cover crops, PACE, and other crop-risk management information.







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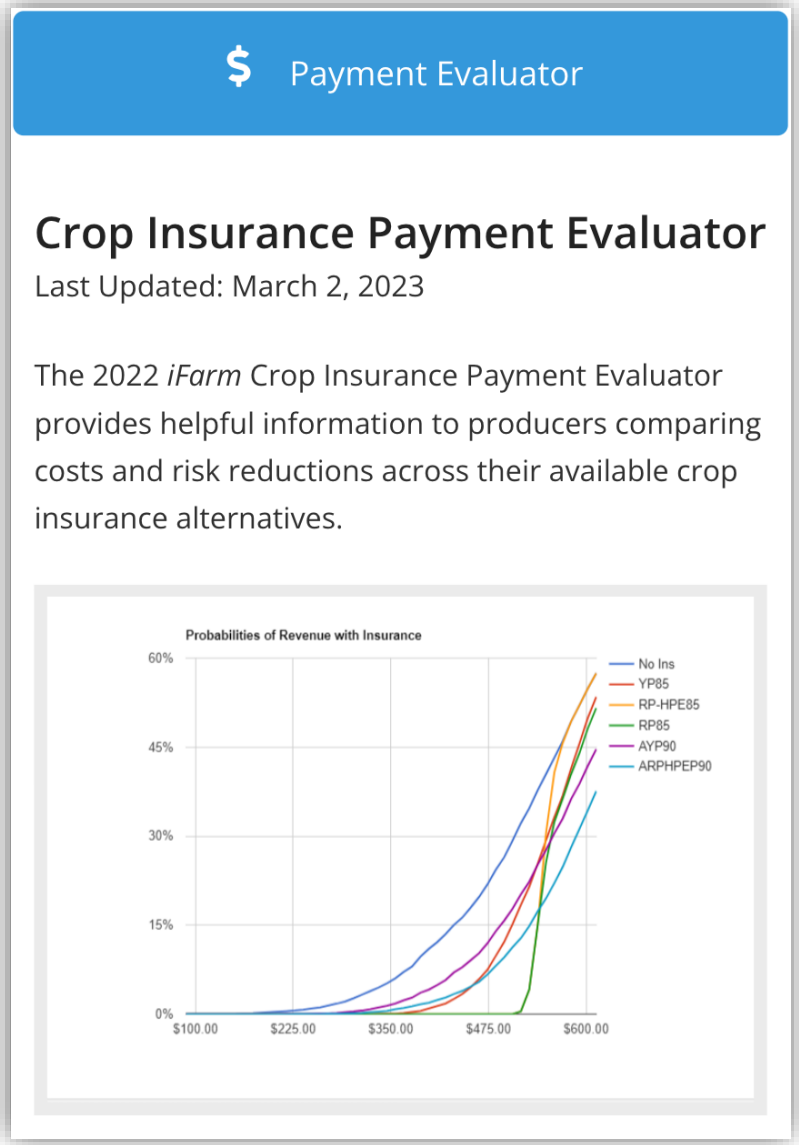
2023 Crop Insurance Payment Evaluator



- Evaluates expected payments, frequency of payments, net cost of insurance, risk reduction, and likelihood of revenue for corn and soybean producers under actual current conditions
- 11 States, all counties, representative case farm by county
- Example county used to demonstrate - note that insurance offering rates can vary widely within a small geographic region – important to consult qualified insurance agent

Evaluator - Enter your farm information to evaluate crop insurance options for 2023

State: Illinois | County: Champaign | 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.

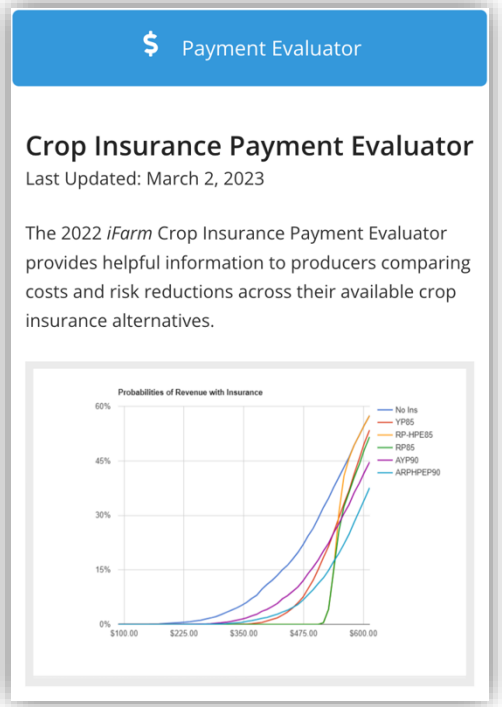
Case Farm Info | Insurance Evaluator | Revenue Risk Info

Farm Average Yield	197.00 bu/acre
Farm Std Dev of Yield	38.20 bu/acre
County Average Yield	197.00 bu/acre
County Std Dev of Yield	30.56 bu/acre
Current Futures Price	$5.69 /bu
Std Dev of Price	1.11 /bu
Average Harvest Cash Basis	0.35 /bu
Average Gross Crop Rev	$1036 /acre

	Farm Yield (bu/acre)	County Yield (bu/acre)
30% of years yields below	178.82	183.17
20% of years yields below	165.36	172.25
10% of years yields below	145.91	156.11
5% of years yields below	129.41	142.06

Farm Trend-Adjusted APH	197.00 bu/acre
County TA Rate	1.85 bu/acre/year
Farm APH (ref)	187.75 bu/acre

Farm TA Yield (bu/acre): **197.00**
Dec. 23 Futures Price: **$5.69**
RMA 2023 Projected Price: **$5.91**



RMA 2023 Projected Price is $5.91 with Volatility Factor of 0.18. Last Updated on Feb 28, 2023.

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

Farm TA Yield (bu/acre): **197.00**

Dec. 23 Futures Price: **$5.69**

RMA 2023 Projected Price: **$5.91**

Individual Farm Level Policies using Basic Unit

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%	1.44	1.06	1.2%	0.38	1035	1.16	0.61	0.9%	0.55	1035	1.18	0.68	0.8%	0.50	1035
55%	2.37	2.23	2.4%	0.14	1036	1.64	1.39	1.8%	0.25	1036	1.81	1.34	1.6%	0.47	1035
60%	3.46	4.65	5.1%	-1.19	1037	2.06	3.12	3.9%	-1.06	1037	2.49	2.55	2.6%	-0.06	1036
65%	5.61	8.81	8.6%	-3.20	1039	3.13	6.14	6.8%	-3.01	1039	3.88	4.54	4.4%	-0.66	1037
70%	8.15	15.58	13.4%	-7.43	1043	4.49	11.20	10.8%	-6.71	1043	5.36	7.80	7.1%	-2.44	1038
75%	14.16	25.80	19.9%	-11.64	1048	7.63	19.13	16.6%	-11.50	1047	8.64	12.87	10.6%	-4.23	1040
80%	23.71	40.66	28.7%	-16.95	1053	13.12	30.79	23.9%	-17.67	1054	13.73	20.41	15.5%	-6.68	1043
85%	38.44	61.48	39.4%	-23.04	1059	21.66	47.20	33.1%	-25.54	1061	21.03	31.08	21.6%	-10.05	1046

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

Farm TA Yield (bu/acre): **197.00**

Dec. 23 Futures Price: **$5.69**

RMA 2023 Projected Price: **$5.91**

County Level Products using Basic Unit

Coverage Level	Area Revenue Protection (ARP)					Area Revenue Protection With Harvest Price Exclusion (ARP-HPE)					Area Yield Protection (AYP)				
	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)
70%	4.89	54.22	18.1%	-49.33	1068	4.26	36.78	22.5%	-32.52	1086	4.58	24.23	9.6%	-19.65	1056
75%	8.94	91.48	28.5%	-82.54	1092	6.74	65.37	35.2%	-58.63	1121	6.26	39.38	15.8%	-33.12	1069
80%	17.73	141.72	41.7%	-123.99	1122	12.99	104.35	50.5%	-91.36	1165	11.26	61.45	24.5%	-50.19	1086
85%	33.11	203.49	54.7%	-170.38	1156	22.90	153.03	65.9%	-130.13	1216	15.93	92.10	36.0%	-76.17	1112
90%	55.78	273.79	67.4%	-218.01	1189	36.53	209.30	79.2%	-172.77	1273	23.98	132.42	49.8%	-108.44	1144

RMA 2023 Projected Price is $5.91 with Volatility Factor of 0.18. Last Updated on Feb 28, 2023.

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

Farm TA Yield (bu/acre): **197.00**

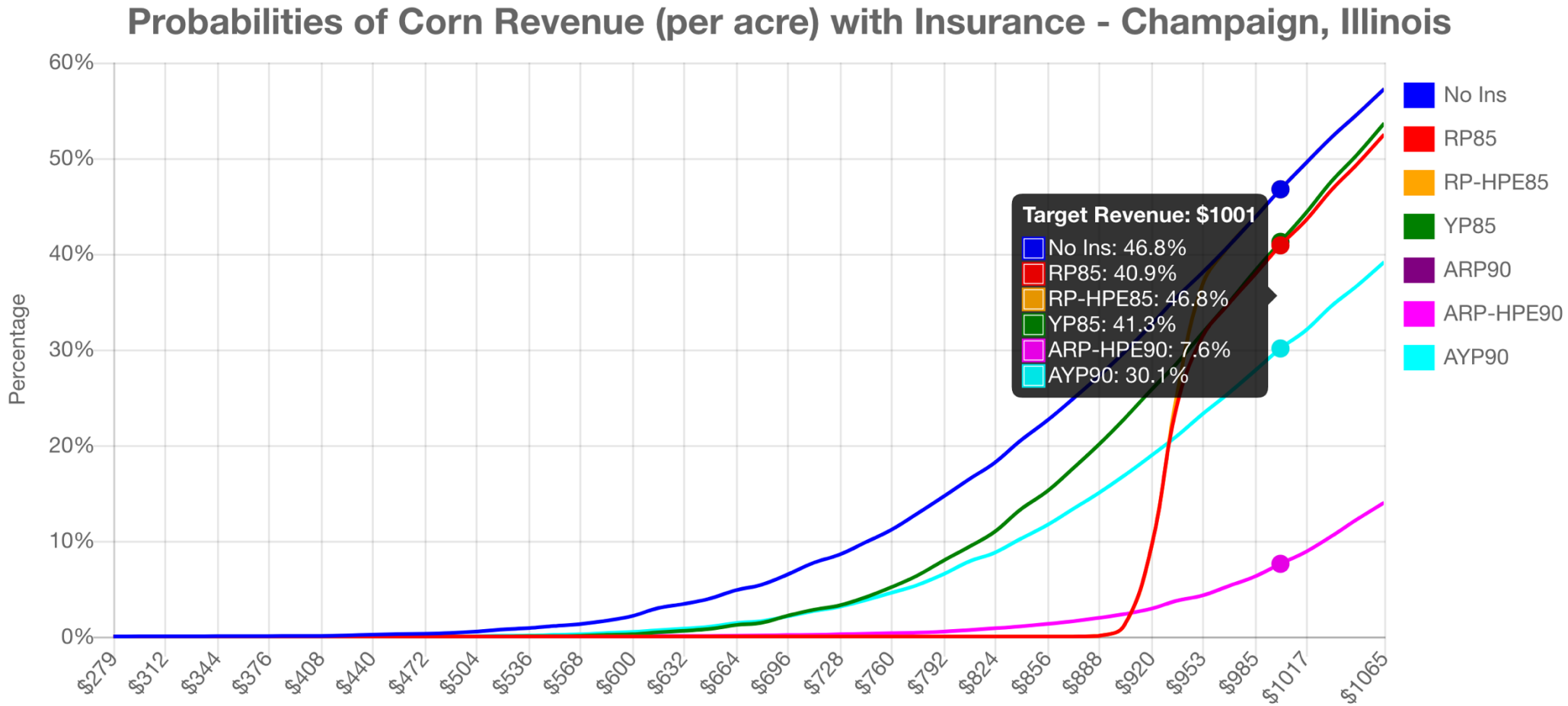
Dec. 23 Futures Price: **$5.69**

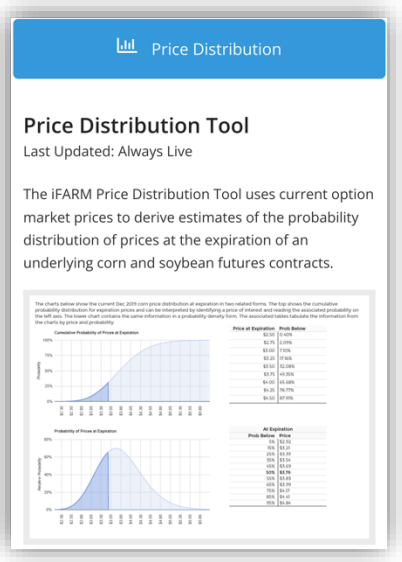
RMA 2023 Projected Price: **$5.91**

Revenue Risk Info

Revenue Risk compared across insurance alternatives:

Graph features interactive feature to compare and contrast probability of achieving different revenue levels with and without insurance coverage.





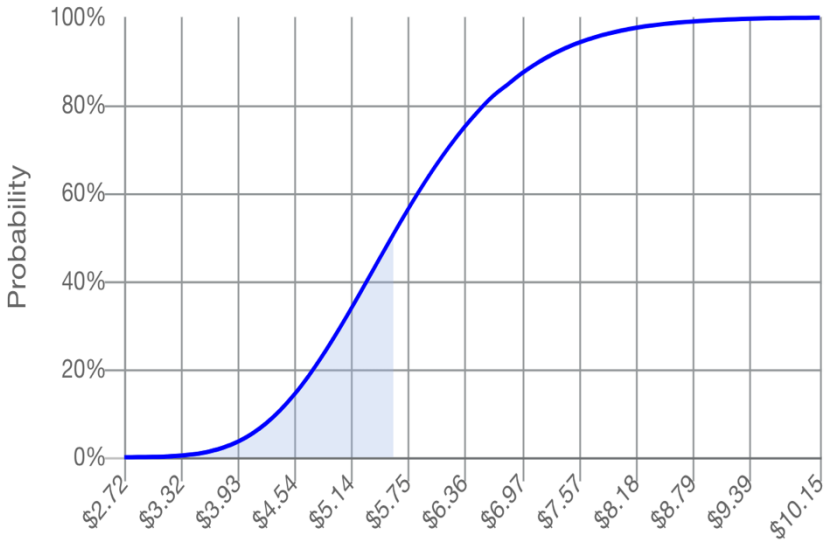
Price Distribution Tool

What do the markets say prices are likely to be?

Near real time tool that uses market data to assess the **probabilities** of price movements from current date to expiration of the underlying contract. Corn & Soybeans, major traded contract months with volume.

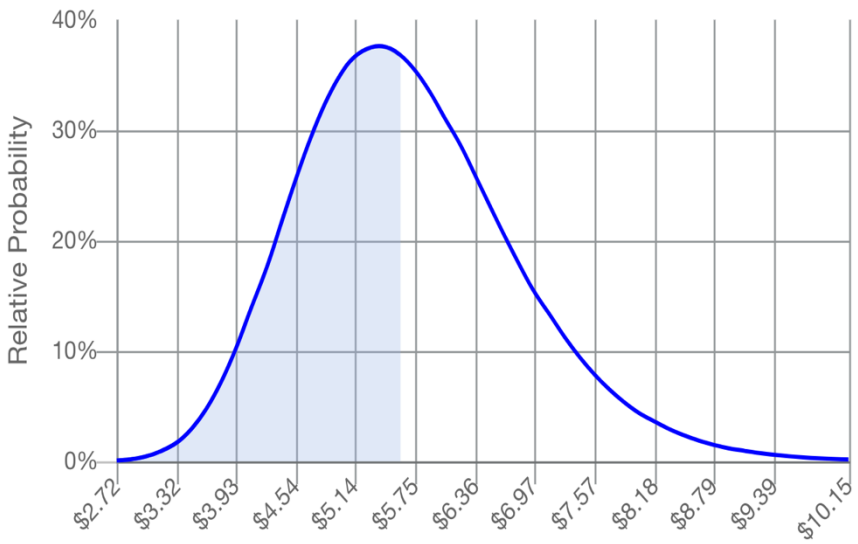
Crop: Corn | Contract Month: Dec 2023

Cumulative Probability of Prices at Expiration



Price at Expiration	Probability Below
$4.75	20.21%
$5.00	28.47%
$5.25	37.57%
$5.50	46.95%
$5.75	56.09%
$6.00	64.55%
$6.25	72.04%
$6.50	78.43%
$6.75	83.69%

Probability of Prices at Expiration



Probability Below	Price at Expiration
5%	$4.06
15%	$4.57
25%	$4.90
35%	$5.18
45%	$5.45
50%	**$5.58**
55%	$5.72
65%	$6.01
75%	$6.36
85%	$6.82
95%	$7.67

Enter Price to Evaluate: $5.69

The implied distribution indicates that there is a 53.94% probability that the price will be below $5.69 at expiration.

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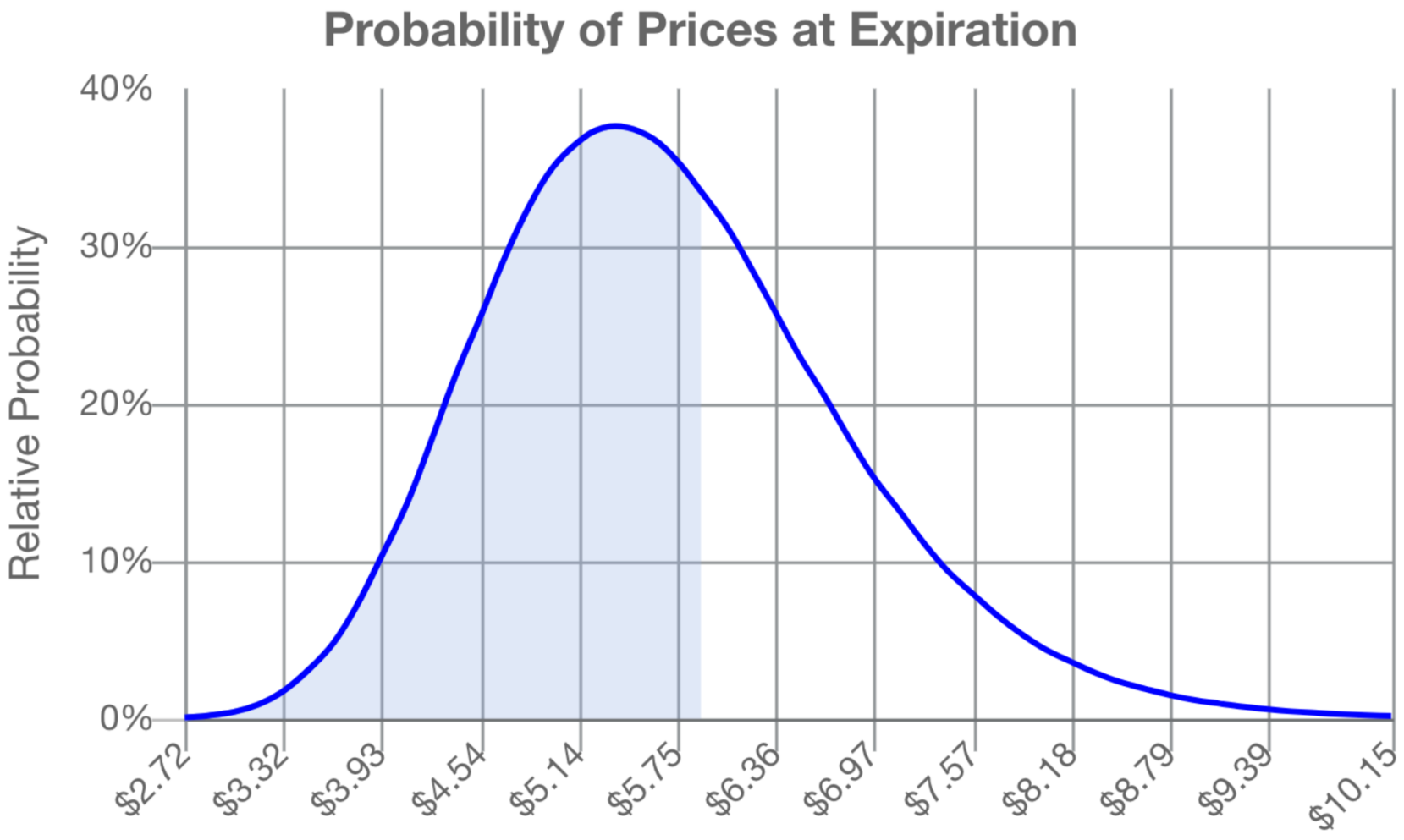
Crop: Corn | Contract Month: Dec 2023

Select Crop and Contract Month
Returns Market's Current Implied Price Probabilities



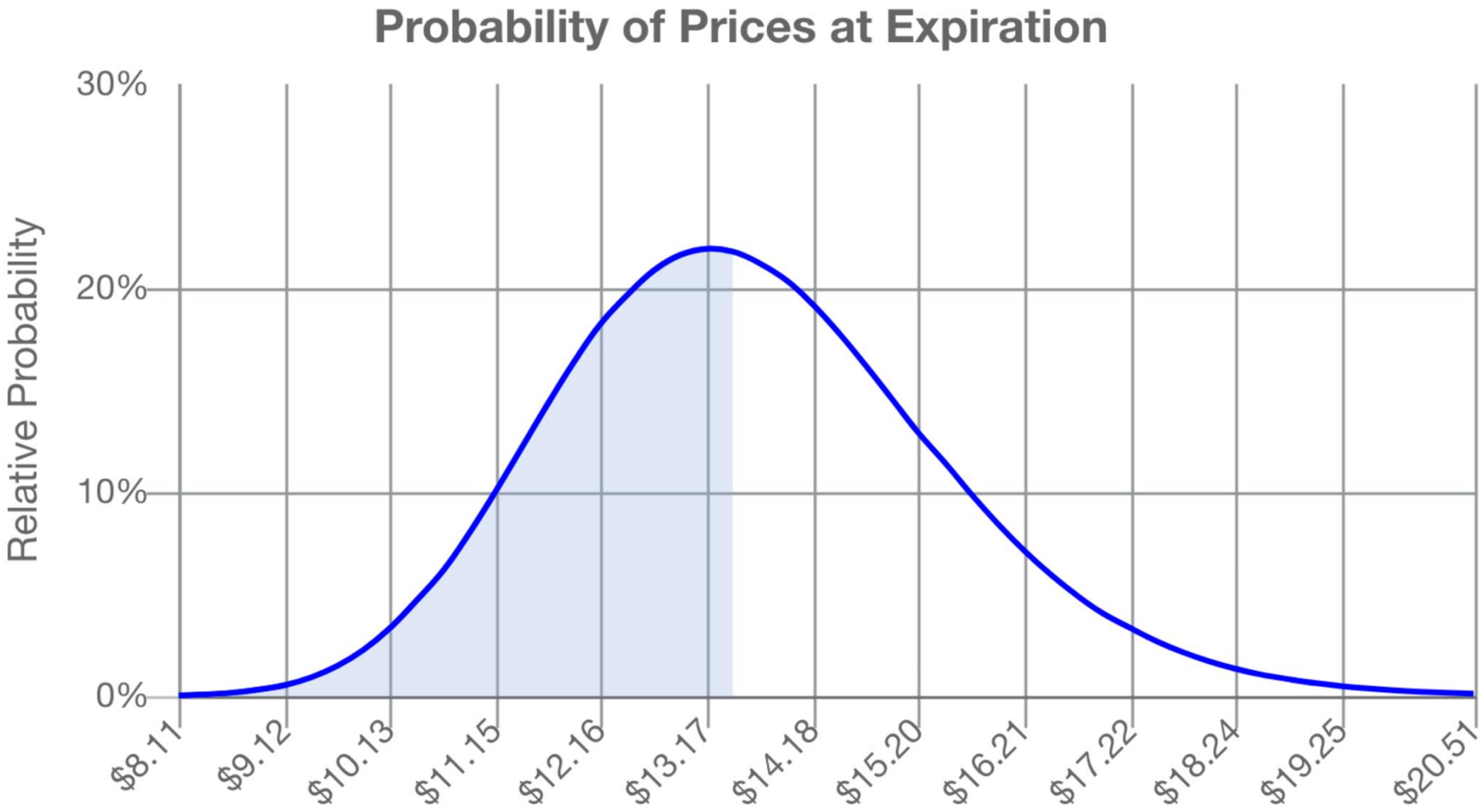
Probability Below	Price at Expiration
5%	$4.06
15%	$4.57
25%	$4.90
35%	$5.18
45%	$5.45
50%	**$5.58**
55%	$5.72
65%	$6.01
75%	$6.36
85%	$6.82
95%	$7.67

Enter Price to Evaluate: $5.91

The implied distribution indicates that there is a 61.60% probability that the price will be below $5.91 at expiration.

Crop: Soybeans | Contract Month: Nov 2023

Select Crop and Contract Month
Returns Market's Current Implied Price Probabilities



Probability Below	Price at Expiration
5%	$10.76
15%	$11.69
25%	$12.28
35%	$12.77
45%	$13.23
50%	**$13.46**
55%	$13.69
65%	$14.19
75%	$14.76
85%	$15.50
95%	$16.84

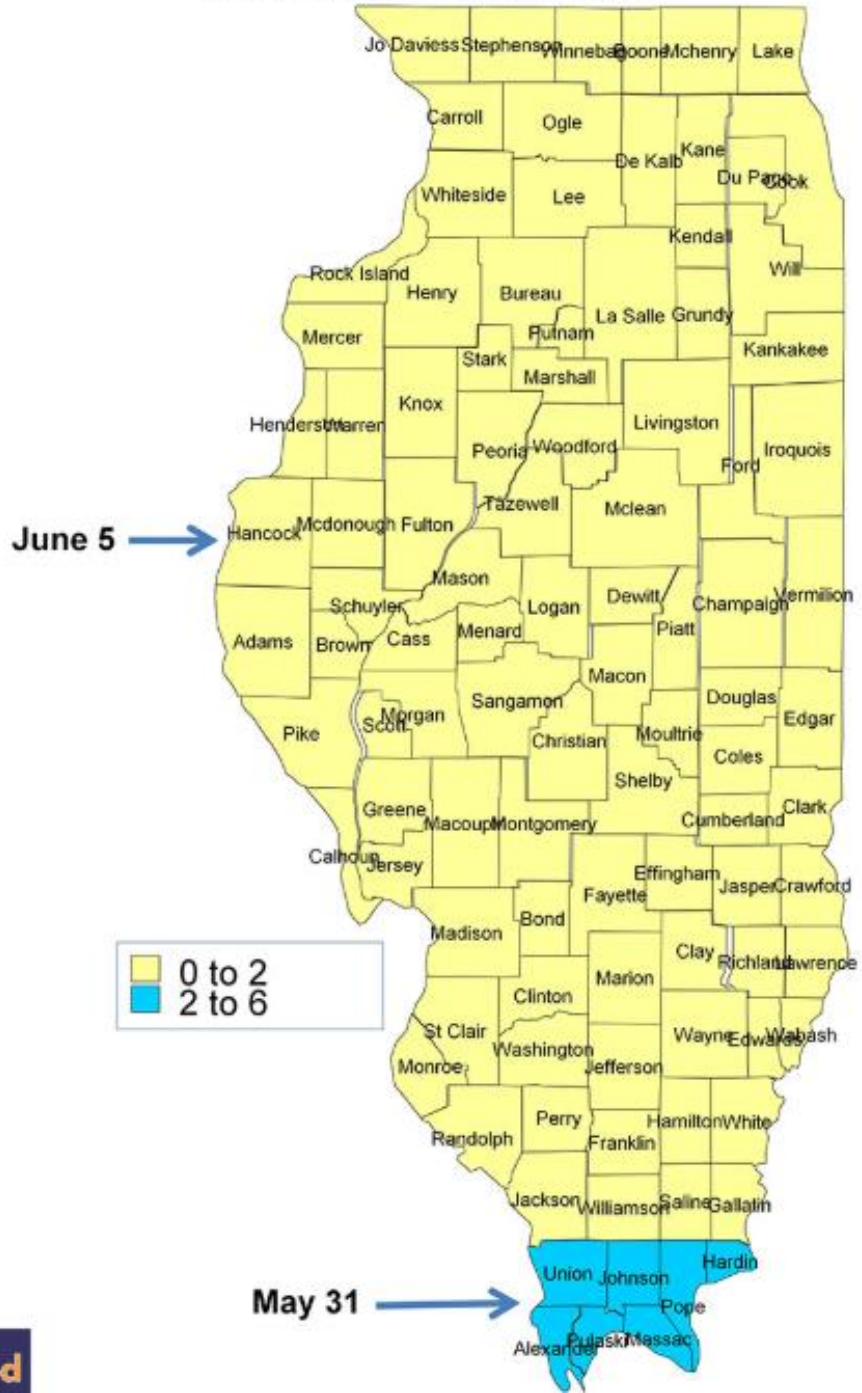
Enter Price to Evaluate: $13.59

The implied distribution indicates that there is a 52.80% probability that the price will be below $13.59 at expiration.

Crop Insurance Dates and Guarantee

- Final planting date:
  - Date after which you can claim prevented planting
- Late planting period:
  - 20 day after final planting period for corn, 25 days for soybeans
  - Can plant, but crop insurance guarantee goes down 1% per day
- After late planting period:
  - Insurance guarantee is 60% of original
  - Can plant another crop for harvest, but prevented planting payment is 35% of original amount

Figure 2. Final Planting Date, Corn

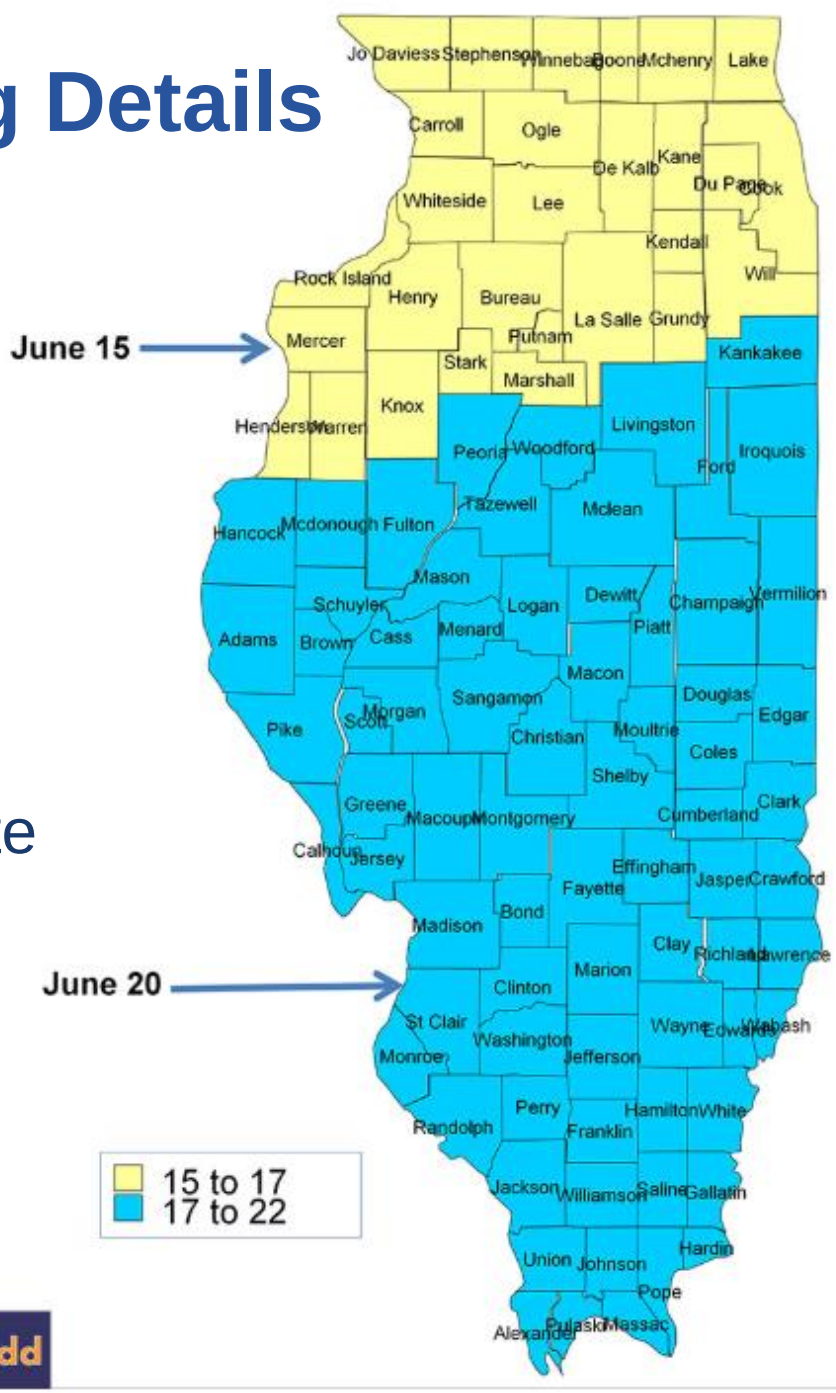


Prevented Planting Details

Final Planting Dates

- Date you can take a prevented planting payment for crop
- Can plant after, but guarantee is reduced
  - 1% per day during late planting period
  - 60% of initial guarantee after late planting period

Figure 3. Final Planting Date, Soybeans



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