### Farm Profitability and Risk Going Into 2022

# Post Application Coverage Endorsement (PACE)



**Ryan Batts** 

**farmdocDAILY** 

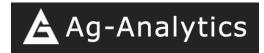
**Gary Schnitkey** 

### **Entities Involved with PACE**

**Developer** 

**Supporting Organizations** 

Sponsoring Crop Insurance Companies



















# What percent of nitrogen do you plan on applying after planting?

- **0%**
- Less than 25%
- 25% to 50%
- 50% to 75%
- **Over 75**%

















## **Topics**

- Product Description
- PACE Claims
- PACE FAST Tool



















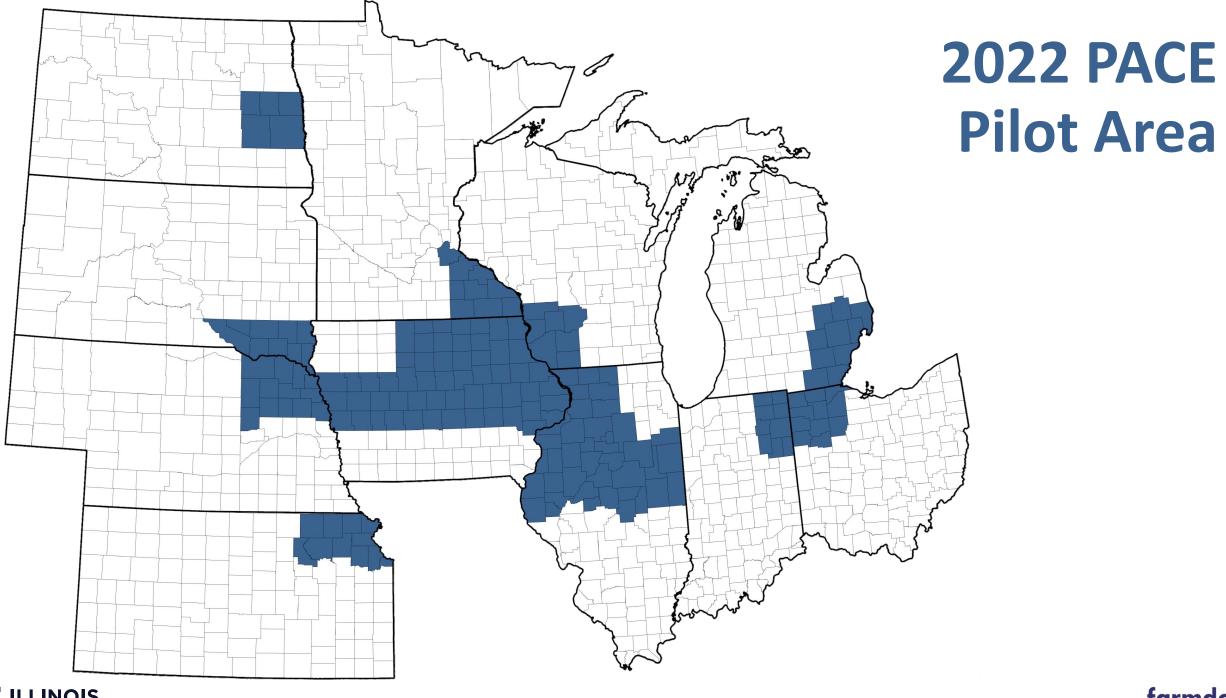
## Post Application Coverage Endorsement (PACE)

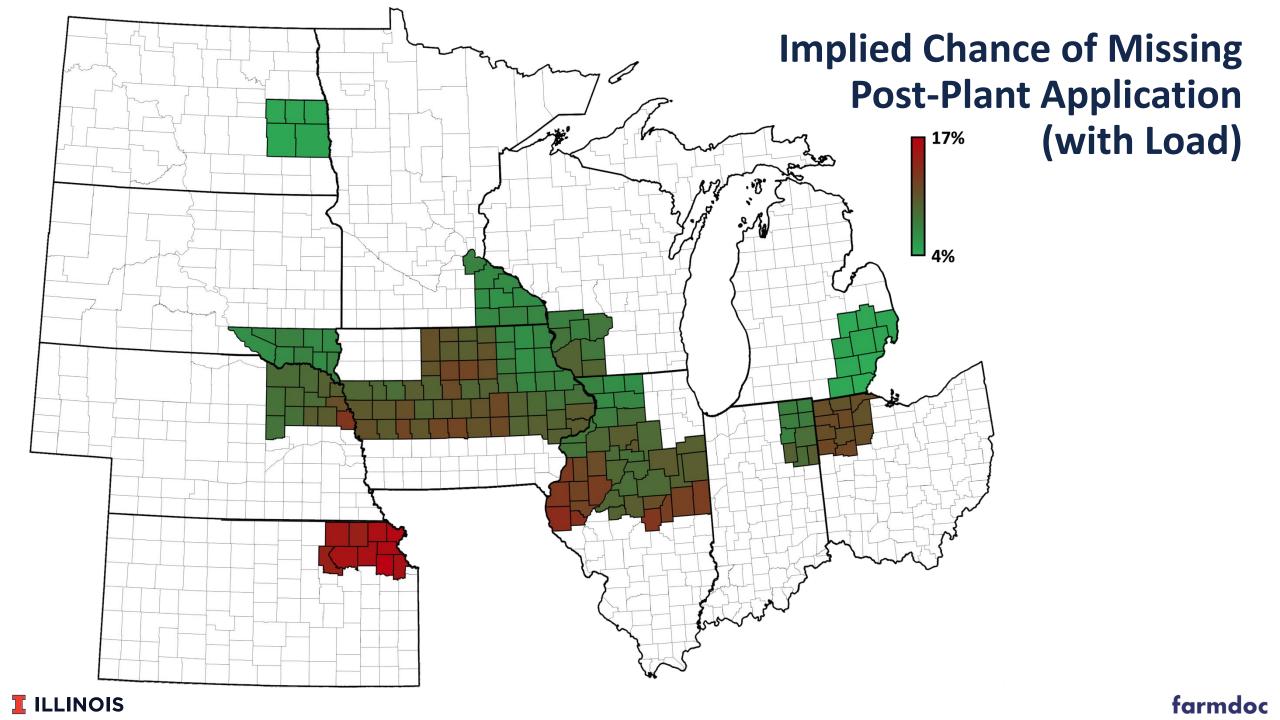
Provides payments if you can not apply nitrogen after planting because of weather-related reasons

PACE is an event insurance (like hail), final yield does not matter

#### **Available for**

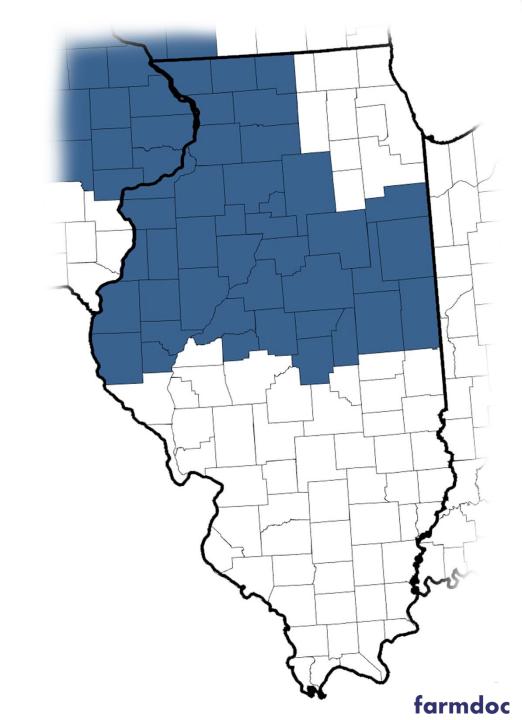
- Revenue Protection (RP)
- Revenue Protection with Harvest Price Exclusion (RPHPE)
- Yield Protection (YP)





## 2022 Example

• LaSalle County, Illinois \$5.80 Projected Price 220 bushel/acre yield





### 2022 Example

- LaSalle County, Illinois
   \$5.80 Projected Price
   220 bushel/acre yield
- Farmer decides by March 15
  - Total N to be applied for the year
  - Post-application percent: 40%
  - PACE coverage level election: 90%
  - Unit (Enterprise, Basic, Optional)
- Farmer-paid premium: \$2.82 per acre
- Payments if post application
   can not be made = \$69 per acre
   Can go up if harvest price greater than
   Projected price, RP

	75% PACE Coverage		90% PACE	Coverage
Post- Application	Farmer- Paid	PACE Indemnity	Farmer- Paid	PACE Indemnity
25%	\$0.58	\$29	\$1.41	\$34
30%	\$0.77	\$38	\$1.88	\$46
35%	\$0.96	\$48	\$2.35	\$57
40%	\$1.15	\$57	\$2.82	\$69
45%	\$1.34	\$67	\$3.29	\$80
50%	\$1.53	\$77	\$3.76	\$92
55%	\$1.73	\$86	\$4.23	\$103
60%	\$2.11	\$105	\$5.17	\$126
65%	\$2.49	\$124	\$6.11	\$149
70%	\$2.68	\$134	\$6.58	\$161
75%	\$3.07	\$153	\$7.52	\$184
80%	\$3.45	\$172	\$8.36	\$207

- Post application percent
  - Farmer reports total N budget
  - Amount applied post plant
- Example
  - 200 pounds actual N120 pounds in Fall80 pounds post-plant
  - Post application percent is 80/200 = 40%

	75% PACE Coverage		90% PACE	Coverage
Post- Application	Farmer- Paid	PACE Indemnity	Farmer- Paid	PACE Indemnity
25%	\$0.58	\$29	\$1.41	\$34
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70%	\$2.68	\$134	\$6.58	\$161
75%	\$3.07	\$153	\$7.52	\$184
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- PACE Coverage
  - Range from 75% to 90%
- Influences:
  - Premium
  - Indemnity

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80%	\$3.45	\$172	\$8.36	\$207

- PACE Unit (not the same as RP unit)
  - **Enterprise units:** can choose basic or optional units
  - Basic units: can choose basic or optional units
  - Optional units: optional units
- Do not have to insure all basic or optional units
- If you have enterprise units in two counties,
   can insure one and not the other
- Must insure all units that majority (50%) is post-applied

### **Unit Impact on Premiums**

	Enter	Enterprise		Basic		onal
Post- Application	Farmer- Paid	PACE Indemnity	Farmer- Paid	PACE Indemnity	Farmer- Paid	PACE Indemnity
25%	\$1.41	\$34	\$1.86	\$34	\$1.86	\$34
30%	\$1.88	\$46	\$2.48	\$46	\$2.48	\$46
35%	\$2.35	\$57	\$3.10	\$57	\$3.10	\$57
40%	\$2.82	\$69	\$3.72	\$69	\$3.72	\$69
45%	\$3.29	\$80	\$4.34	\$80	\$4.34	\$80
50%	\$3.76	\$92	\$4.96	\$92	\$4.96	\$92
55%	\$4.23	\$103	\$5.58	\$103	\$5.58	\$103
60%	\$5.17	\$126	\$6.82	\$126	\$6.82	\$126
65%	\$6.11	\$149	\$8.06	\$149	\$8.06	\$149
70%	\$6.58	\$161	\$8.68	\$161	\$8.68	\$161
75%	\$7.52	\$184	\$9.92	\$184	\$9.92	\$184
80%	\$8.36	\$207	\$11.02	\$207	\$11.02	\$207

Basic and optional units have higher premiums than enterprise units

Difference in premiums are due to higher subsidy for enterprise units

The unit choice <u>will not</u> influence per acre payments.

### Making a claim

- Farmer initiates the claim process
- There is a window listed in actuarial documents for making post application that depends on planting date. (Can vary by county)
  - May 1 between June 1 and June 22
- Farmers can apply before and after those dates. Crop insurance companies will be provided weather analytics between those dates
- The claim will receive scrutiny if weather analytics indicate that adverse weather did not exist. PACE will be somewhat like prevent plant in its application

## Making a claim

- Claim has to be because weather related causes (can not be because of supply issues)
- Farmer indicates to crop insurance agent that application can not be made on 10 of the PACE insured acres
- Payment would be (LaSalle County, 40% application rate)
   10 acres x \$69 = \$690

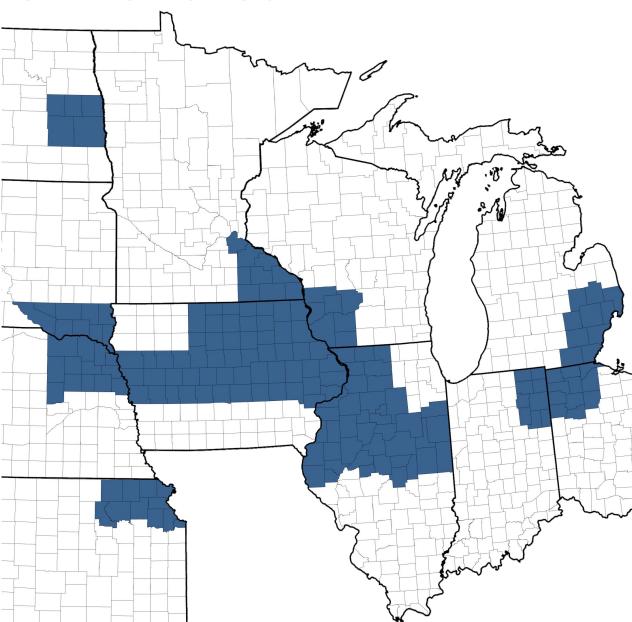
## Two checks on payments

- Check post-application percent to see if before applications cause a lower post-application percent
- 2. Coverage does not exceed deductible when RP (Rphpe, YP) make a payment

Are you in the Pilot area?

O Yes

O No

















### Post application percent

#### Farmer reports by March 15:

- Total N application
- Declared post application percent

Final percent will be lower if pre-applications exceed:

Approved yield x 1.2 x (1 - declared post application percent)

If exceeded, post application percent is lowered to:

### **Example**

#### Reported by March 15:

- 200 pounds of B expected (120 pounds/ 80 pounds post applications)
- 40% declared post-application percent
- 220 TA-APH
- Applied 120 pounds pre-plant and have a claim. Calculate 220 approved yield x 1.2 x (1 .4) = 158
- In this example, pre-applications do not exceed the limit, so no adjustment

### **Deductible limit**

If RP (or Rphpe, YP) pays,

PACE payment can not exceed the deductible:

(1- RP coverage level) x guarantee x acres

### **Example**

**RP-85%**,

220 guarantee yield, \$5.70 projected price

Total payments can not exceed

.15 x 220 x \$5.70

= \$188 x insured PACE acres

	75% PACE Coverage		Coverage 90% PACE Cover	
Post- Application	Farmer- Paid	PACE Indemnity	Farmer- Paid	PACE Indemnity
25%	\$0.58	\$29	\$1.41	\$34
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80%	\$3.45	\$172	\$8.36	\$207

The 80% post-application percent at 90% coverage level may face a limit.

In this case, can not have all acres making a PACE claim and receive the entire \$207 per acre



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### Post Application Coverage Endorsement Tool

#### **About This Tool**

Last Updated: February 16, 2022 This program calculates premiums for PACE: Post Application Coverage Endorsement Insurance.

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



Download this FAST Tool

# Are you interested in using PACE

O Yes, most definitely

O Yes, thinking about it



















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#### PACE: Post Application Coverage Endorsement Tool

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**Updated 2/16/2022** 

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

For recent updates on this tool and other FAST tools, visit us at www.farmdoc.uiuc.edu.









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#### **Post Application Coverage Endorsement Tool** Illinois

State County Champaign Unit **Enterprise** Underlying Policy **Underlying Policy Level** 85% 200 APH yield Base price 90% (75% to 90%)

Pace Coverage Level Election
------------------------------

60%

65%

70% 75%

	90% Pace Coverage Electtic		
Post	Farmer-		
Application	Paid	PACE	
Percent	Premium	Indemnity	
25%	\$1.63	\$30	
30%	\$2.72	\$50	
35%	\$3.27	\$59	
40%	\$3.81	\$69	
45%	\$4.36	\$79	
50%	\$5.44	\$99	
55%	\$5.99	\$109	

\$7.08

\$8.17

\$9.18

\$10.03

\$10.90



<sup>1</sup> PACE makes payments when applications of nitrogen can not be made post-planting. More information is available at:

https://farmdocdaily.illinois.edu/2022/01/the-post-application-coverage-endorsement-pace.html

\$129

\$149

\$168

\$188

\$208

https://farmdocdaily.illinois.edu/2022/01/the-post-application-coverage-endorsement-pace.html

# **Post Application Coverage Endorsement (PACE) Tool**



<sup>&</sup>lt;sup>2</sup> For 2022, PACE is available in a limited number of counties. This tool only quotes for those counties. A map showing those counties is available at:

<sup>&</sup>lt;sup>3</sup> Units do not have to be the same as the underlying COMBO policy.

<sup>&</sup>lt;sup>4</sup>PACE is available for Revenue Protection (RP), RP with harvest price exclusion (RPhpe), and

<sup>&</sup>lt;sup>5</sup> Use the yield to determine guarantees. This will be either the Actual Prodution History (APH) yield or the Trend-Adjusted APH yield.

<sup>&</sup>lt;sup>6</sup> Higher PACE elections will have higher indemnities when they occur than lower PACE price elections. Farmer-paid premiums increase with higher price elections.

<sup>&</sup>lt;sup>7</sup>The post application percent is the amount of nitrogen applied after planting.

<sup>&</sup>lt;sup>8</sup> The PACE indemnity will be paid if nitrogen can not be applied because of natural causes. Final yields do not matter. Under RP, the PACE indemnity can increase if harvest price is above the projected price.

### **Post Application Coverage Endorsement Tool**

State	Not avail	lable everywhere	Illinois	
County			Champaign	
Unit	Basic, Op	tional, Enterprise	Enterprise	
Underlying	Policy	YP, RP, or RPhpe	RP	
Underlying	Policy Le	vel	85	<mark>%</mark>
APH yield			20	0
Base price	Same as	underlying policy	\$ 5.5	
Pace Cover	age Level	Election	90	<mark>%</mark> (75% to 90%)

	90% Pace Coverage Electtion		
Post	Farmer-		
Application	Paid	PACE	
Percent	Premium	Indemnity	
25%	\$1.63	\$30	
30%	\$2.72	\$50	
35%	\$3.27	\$59	
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65%	\$8.17	\$149	
70%	\$9.18	\$168	
75%	\$10.03	\$188	
80%	\$10.90	\$208	
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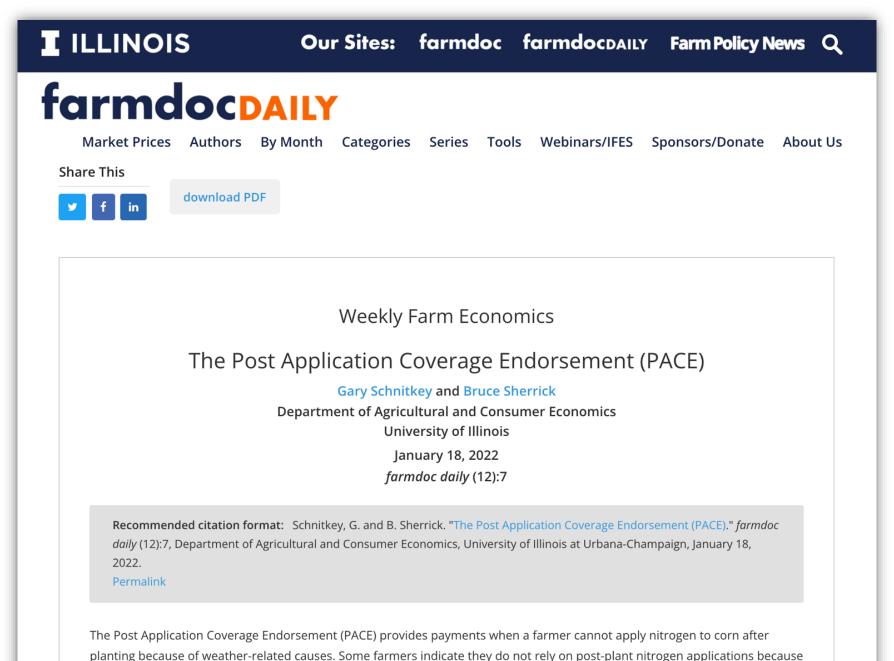
# **PACE Tool Output**

Based on coverage election, the Tool calculates

- Farmer-Paid Premium
- Indemnity

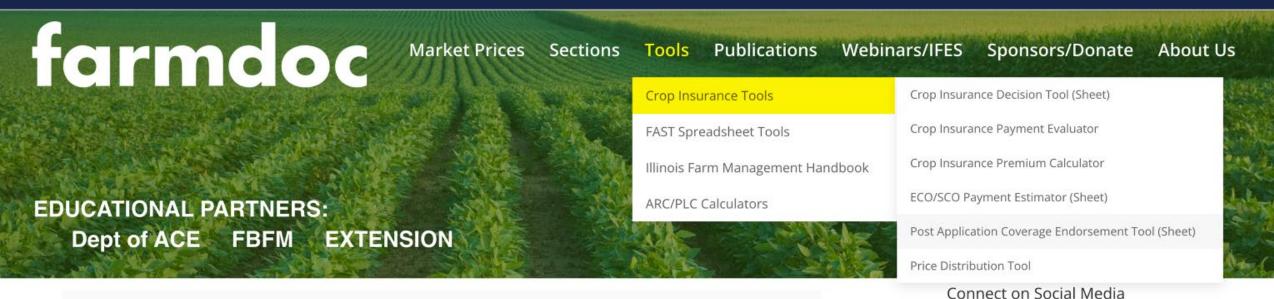
Post Application Percent is the amount of total N to be applied after planting

#### farmdocdaily.illinois.edu/2022/01/the-post-application-coverage-endorsement-pace.html





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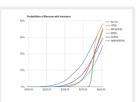
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#### \$ Payment Evaluator

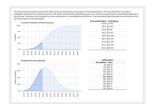
#### Crop Insurance Payment Evaluator Last Updated: February 16, 2022

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



#### 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.



#### Crop Insurance Decision Tool Last Updated: February 2, 2022

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.

As an alternative to the executable tool you can

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#### **ECO/SCO Payment Estimator**

Last Updated: February 25, 2021

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

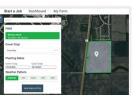
As an alternative to the executable tool you can



#### 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.



### **Crop Insurance Tools**

farmdoc.illinois.edu/crop-insurance

**Crop Insurance Premium Calculator** 

**Crop Insurance Decision Tool** 

**ECO/SCO Payment Estimator** 

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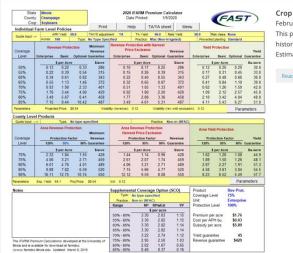
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FAST (Farm Analysis Solution Tools) are a suite of Microsoft Excel spreadsheets designed to assist those in agriculture make better decisions via user-friendly computer programs. FAST aids users in performing financial analysis, assessing investment decisions, and evaluating the impacts of various management decisions.

#### **Featured Tools**



#### **Crop Insurance Decision Tool**

February 2, 2022

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....

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**Post Application Coverage Endorsement Tool** February 16, 2022

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

#### **Crop Insurance Decision Tool** February 2, 2022

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....

More Information

#### Farm Bill What-If Tool

January 11, 2022

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 statecounty-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.

#### Farm Rent Evaluator July 20, 2021

Compares the risks and returns of different leases.

More Information

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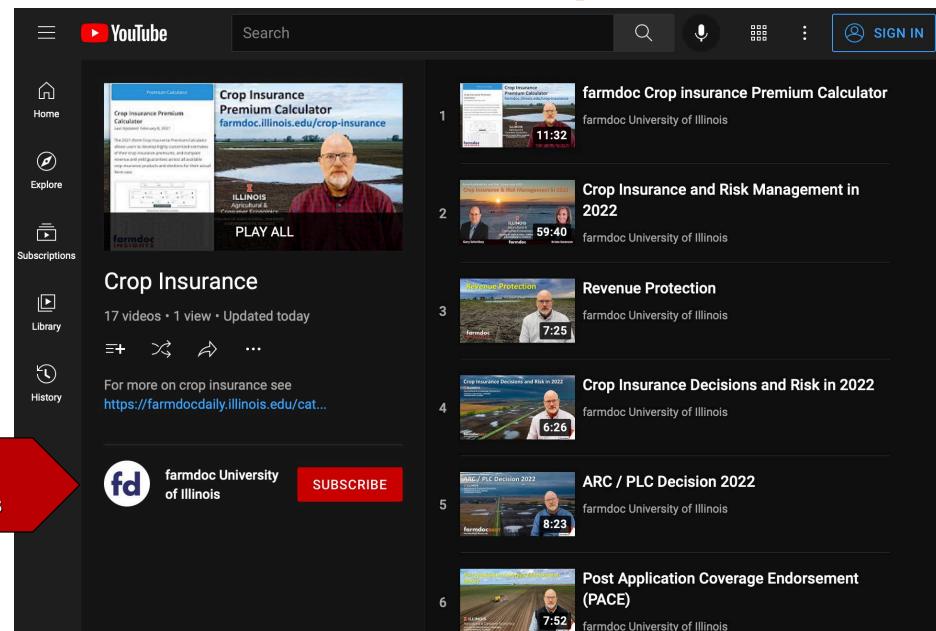


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