

ARC AND PLC RECOMMENDATIONS FOR 2021 FOR WISCONSIN FARMERS

Dr. Paul D. Mitchell

Professor of Agricultural and Applied Economics

Extension State Specialist in Cropping Systems Management

Director Renk AgriBusiness Institute

January 19, 2021

ARC or PLC Decision Making Webinar

608-320-1162

pdmitchell@wisc.edu

<https://aae.wisc.edu/pdmitchell/extension/arc-plc-signup/>

What's a Farmer to Do?

- Choosing which program to use for base acres
- Make decision for each FSA farm and crop by March 15, 2021
- Can mix and match programs across farms and crops
 - Use same program for all base acres and crops across all farms
 - Use PLC for your corn base and ARC-CO for your soybean base
 - Use PLC for corn on one farm, ARC-IC for corn and soybeans on another

Overview of Webinar



- My recommendations for ARC-CO and PLC signup for major crops in Wisconsin for 2021 and the underlying logic
- Briefly review
 - Resources page
 - How PLC and ARC work
 - How to use the FarmDOC Payment Simulator Tool
 - Types of farms that may find ARC-IC useful
 - SCO and new ECO crop insurance options
- Zak Werner (FSA CED for Brown, Door, & Manitowoc Counties) to discuss program logistics and pointers regarding sign-up process

Resources Page:
<https://aae.wisc.edu/pdmitchell/extension/arc-plc-signup/>

- Videos, Blogs, Decision Aids, Links, etc.

RESOURCES FOR MAKING ARC AND PLC DECISIONS FOR 2021

This page assembles resources to help farmers (and those working with farmers) make their sign-up decisions for the commodity support programs ARC and PLC for the 2021 crop year. The materials have a Wisconsin focus, but are not exclusively for Wisconsin, as the programs are national in scope.



ARC AND PLC SIGNUP RECOMMENDATIONS FOR 2021 FOR WISCONSIN FARMERS

- [Recommendations in Brief](#) (PDF Version)
- [Signup Recommendations for 2021](#) (Video 2021.1)
- [2021 ARC and PLC Signup: Recommendations for Wisconsin Farmers](#) (PDF Version)
- [PowerPoint: ARC and PLC Recommendations for 2021](#) (PDF Version)
- [Who should consider ARC-IC](#) (Video 2021.2)



UNIVERSITY OF ILLINOIS FARMDOC PAYMENT SIMULATOR

- [Guidance on Price Forecast Models for the ARC/PLC Calculator](#) (PDF Version)
- [FarmDOC ARC/PLC Payment Simulator](#) (Online Decision Aid, U of IL)
- [Demonstration of FarmDOC Payment Calculator](#) (Video 2019.5)
- [Introducing the FarmDoc Payment Calculator](#) (Article, U of IL)



OVERVIEW OF HOW ARC AND PLC WORK

- How ARC and PLC work for farmers: [Introduction](#) (Video 2019.1)
- How ARC and PLC work for farmers: [PLC](#) (Video 2019.2)
- How ARC and PLC work for farmers: [ARC-CO](#) (Video 2019.3)
- How ARC and PLC work for farmers: [ARC-IC](#) (Video 2019.4)
- [Demonstration of FarmDOC ARC/PLC Payment Calculator](#) (Video 2019.5)
- [How ARC and PLC work for farmers](#) (PowerPoint, UW-Madison)



ARC-INDIVIDUAL COVERAGE (ARC-IC)

- [Who should consider ARC-IC](#) (Video 2021.2, UW-Madison)
- How ARC and PLC work for farmers: [ARC-IC](#) (Video 1.4, UW-Madison)

Recommendations for Wisconsin Farmers for 2021

1. **Corn:** Signup for **PLC**
2. **Soybeans:** Signup for **County ARC (ARC-CO)***
3. **Wheat:** Signup for **PLC**
4. **Oats:** Signup for **County ARC (ARC-CO)**
5. **Barley, Sorghum, Sunflower Seeds:** Signup for **PLC**

*Note, if you want to buy SCO (Supplemental Coverage Option) with your crop insurance, you will need to choose PLC for all of your soybean base

USDA-FSA Commodity Support Programs

- Price Loss Coverage (PLC)
- County Agriculture Risk Coverage (ARC-CO)
- Individual Agriculture Risk Coverage (ARC-IC)

Price Loss Coverage (PLC)

Crop	Reference Price
Corn	\$3.70
Soybeans	\$8.40
Wheat	\$5.50
Oats	\$2.40

- Establishes a price floor for each crop based on the national marketing year average price
 - Corn/Soy marketing year: Sep 1 - Aug 31
 - Wheat/Oats marketing year: Jun 1 - May 31
 - The 2021 marketing year not finished until Aug 31, 2022
-
- 2018 National Marketing Year Average Price for Corn was \$3.61, below the PLC Reference Price of \$3.70, which triggered corn PLC payments
 - PLC Payment Rate = $\$3.70 - \$3.61 = \$0.09/\text{bu}$
 - If have 100 corn Base Acres with a Payment Yield of 140 bu/ac, then your PLC payment would be $85\% \times 100 \text{ ac} \times 140 \text{ bu/ac} \times \$0.09/\text{bu} = \$1,071$

Agriculture Risk Coverage (ARC)

County ARC (ARC-CO)



- Establishes a revenue floor for each crop based on county yields and national marketing year average prices
- ARC-CO payments are made if Actual County Revenue is less than the County Guarantee
- County Guarantee = 86% of County Benchmark
- County Benchmark = 5-Year Olympic Average of County Yield x 5-Year Olympic Average of National MYA Price (2015-2019 with price and yield floors)
- Actual Revenue = County Average Yield x National Price
- ARC Payment Rate = County Guarantee – Actual County Revenue, up to 10% of County Benchmark
- ARC Payment = 85% x Base Acres x ARC Payment Rate

Agriculture Risk Coverage (ARC)

Individual ARC (ARC-IC)



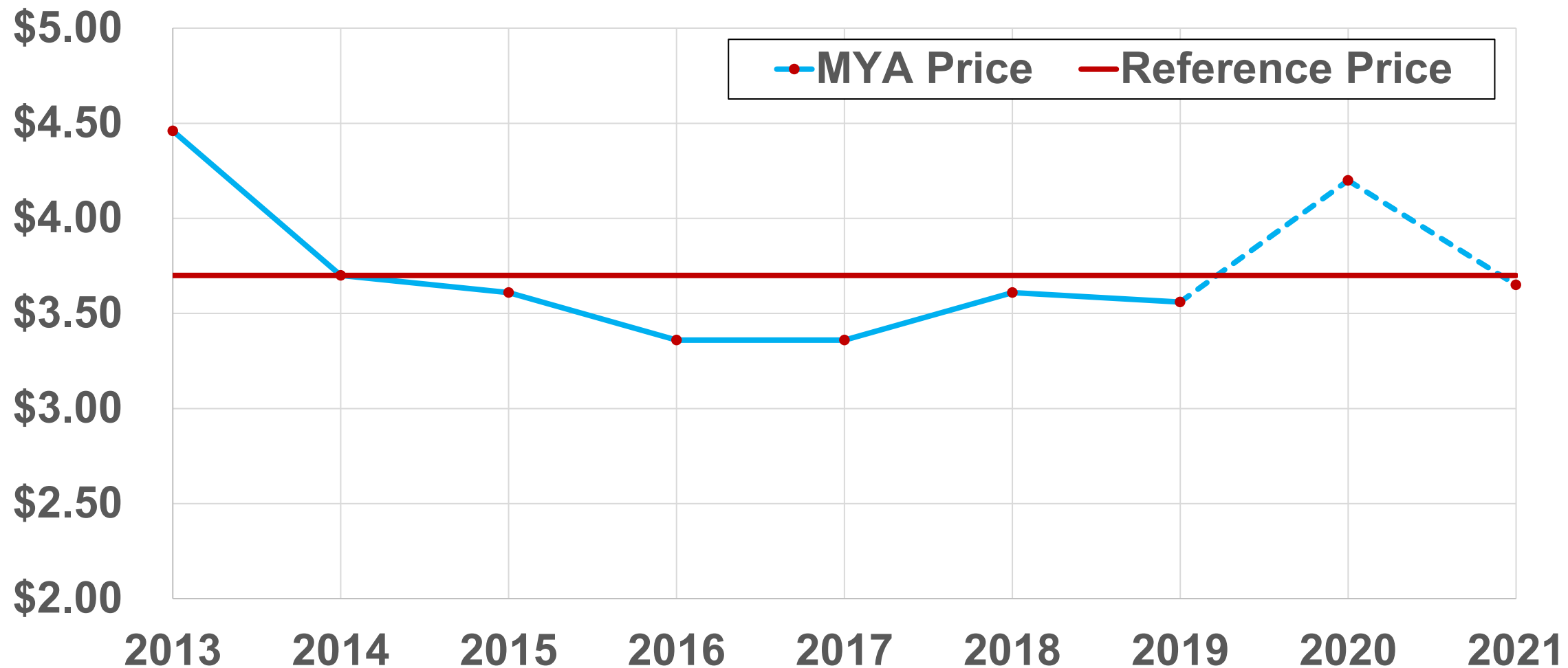
- Establishes a revenue floor for all program crops as a group for an FSA farm based on farm yields and national marketing year average prices
- Generally recommend only a few types of farm consider looking at ARC-IC
- **1)** FSA farm with highly variable yields year to year
 - Often small FSA farms with only a few acres, often a single crop
- **2)** ARC-IC benchmark yield is much higher than ARC-CO county yield and PLC payment yield (unlikely for most Wisconsin farms)
 - Possibly if an FSA farm is one of the few irrigated farms in a county and there is no irrigated option for ARC-CO
- **3)** Acres of vegetables (or fruit) more than 15% of base acres
- **See videos how ARC-IC works and types of farms to consider it**

Reference Prices and USDA Farm Price Projections

Crop	Reference Price	Projected 2020 Price	Projected 2021 Price
Corn	\$3.70	\$4.20	\$3.65
Soybeans	\$8.40	\$11.15	\$10.00
Wheat	\$5.50	\$4.85	\$4.90
Oats	\$2.40	\$2.70	\$2.70

- Projected 2020 Price: USDA-WASDE (Jan 12, 2021)
<https://www.usda.gov/oce/commodity/wasde/>
- USDA Baseline Projected 2021 Price: (Nov 20, 2020) (“[USDA Long-run](https://usda.library.cornell.edu/concern/publications/qn59q396v)”)
<https://usda.library.cornell.edu/concern/publications/qn59q396v>

Corn Prices and its Reference Price



Recommendations for Corn base acres

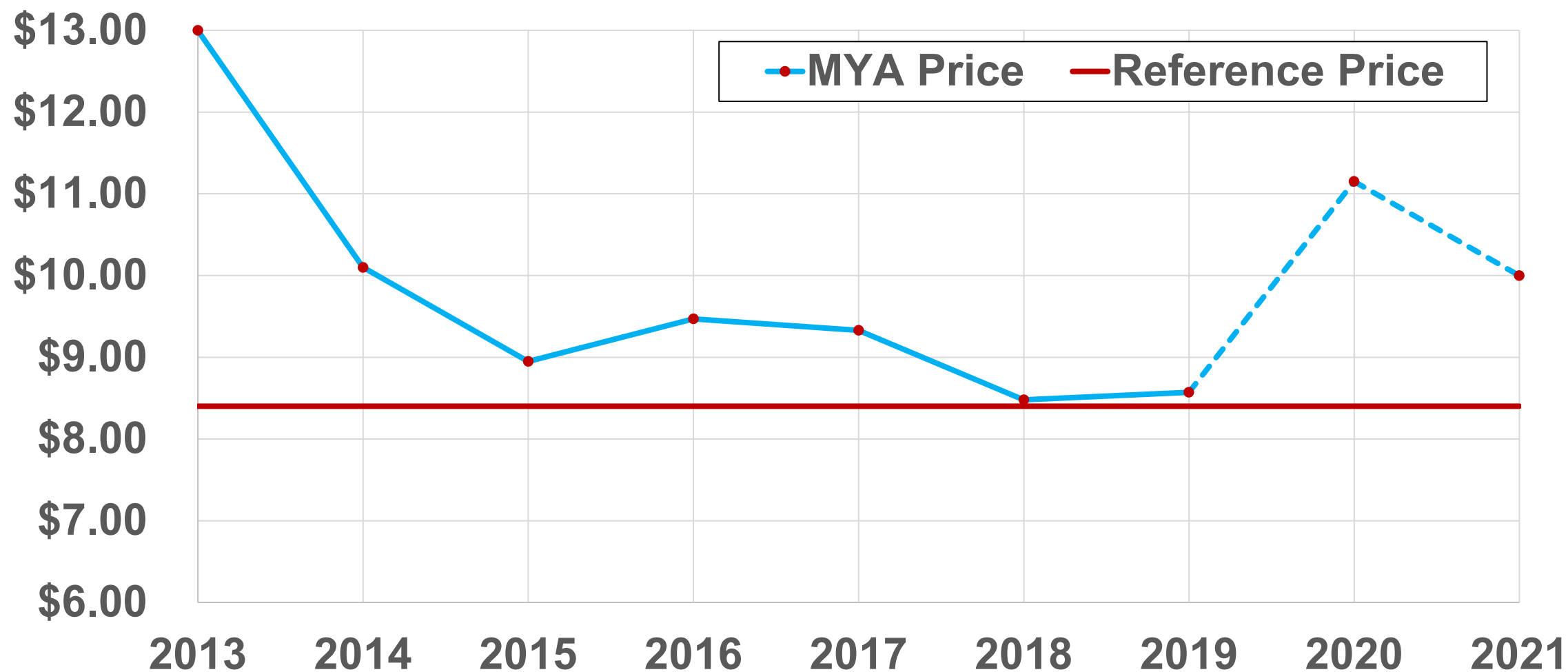
- **Short Answer: Sign up for PLC**
- The PLC \$3.70 price floor provides better safety net than ARC
- Even with higher expected prices for 2021, markets can still drop due to disruptions (post-covid economy, trade and policy, weather)
- Even with an expected price over \$3.70, uncertainty creates some likelihood of a price below \$3.70, triggering PLC Payments
- ARC-CO guarantee is based on 2014-2019 yields and prices and it requires a 14% loss in actual revenue using 2021 yields and prices to trigger payments
- What's more likely: price <\$3.70 or a county revenue shortfall?

Corn Payment Simulator Results for 2021

Expected Price 2021	Scenario Name	Expected Payment		Likelihood of Payment	
		PLC	ARC	PLC	ARC
\$3.40	Forecast/Low	\$55.24	\$21.31	70%	45%
\$3.65	USDA Long-run	\$34.95	\$12.58	56%	30%
\$3.73	CBO	\$29.59	\$10.16	50%	26%
\$4.00	High	\$15.51	\$4.27	33%	12%
\$4.20	Custom	\$8.56	\$2.08	22%	6%

- **Dane** County, **150** bu/ac PLC Payment Yield
- <https://fd-tools.ncsa.illinois.edu/arcplc>
- PLC: higher average payments, better safety net than ARC

Soybean Prices and its Reference Price



Recommendations for Soybean base acres



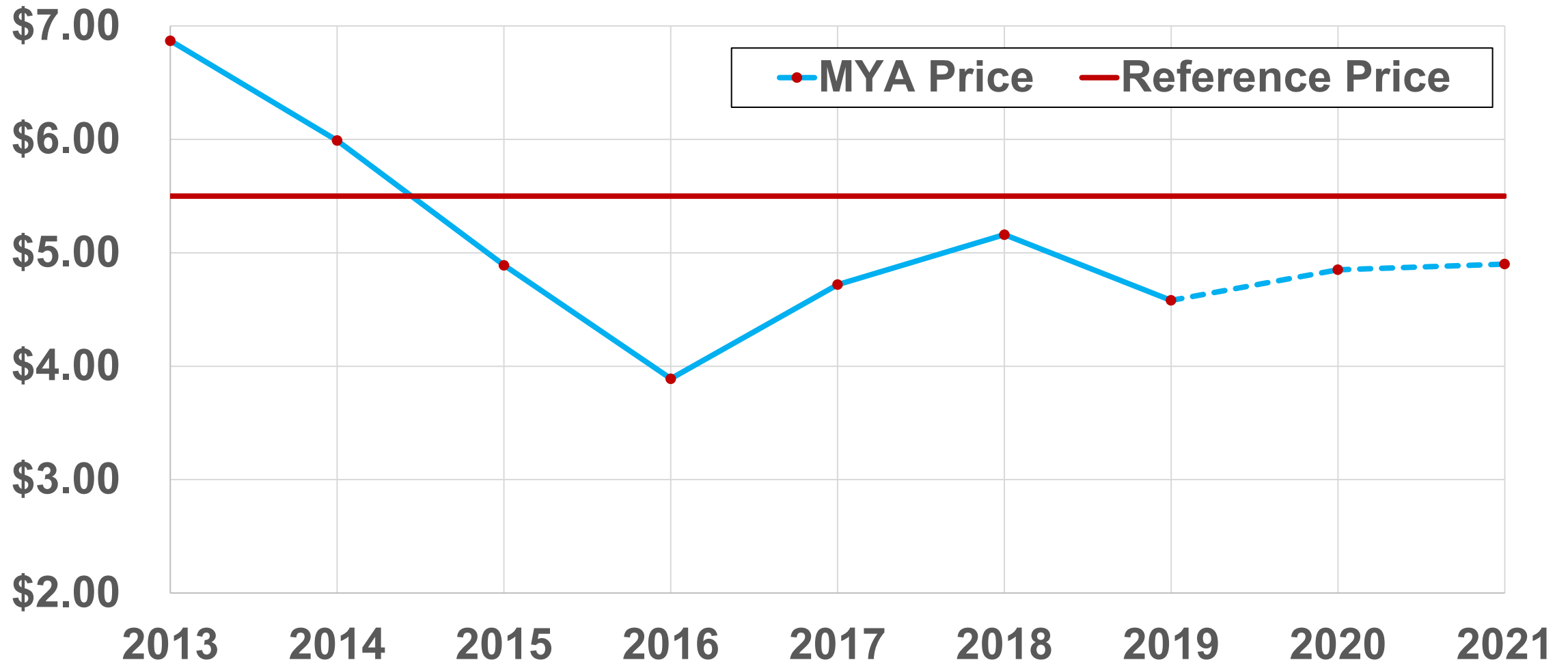
- **Short Answer: Sign up for ARC**
- We have never had a PLC payment for Soybeans, even with COVID
- The \$8.40 price floor seems irrelevant for soybeans
- If you want to buy SCO endorsement with crop insurance, then must use PLC
- What makes ARC more valuable compared to PLC? Higher expected prices, Lower farm PLC payment yields, *Located along Lake Michigan or Western WI*
- Neither ARC nor PLC likely to pay much
 - \$10.00 projected 2021 price in Nov 2020, probably higher now
 - Will China keep buying soybeans? Will farmers over supply the market?
- What's more likely, price below \$8.40 or county revenue shortfall?

Soybean Payment Simulator Results for 2021

Expected Price 2021	Scenario Name	Expected Payment		Likelihood of Payment	
		PLC	ARC	PLC	ARC
\$8.50	Low	\$14.81	\$16.48	48%	57%
\$9.12	CBO	\$6.00	\$10.66	26%	39%
\$9.40	Forecast	\$3.67	\$8.59	18%	32%
\$10.00	USDA Long-run	\$0.95	\$5.30	7%	21%
\$10.20	Custom	\$0.55	\$6.00	4%	22%

- **St. Croix** County, **45** bu/ac PLC Payment Yield
- <https://fd-tools.ncsa.illinois.edu/arcplc>
- ARC: higher average payments, better safety net

Wheat Prices and its Reference Price



Recommendations for Wheat base acres

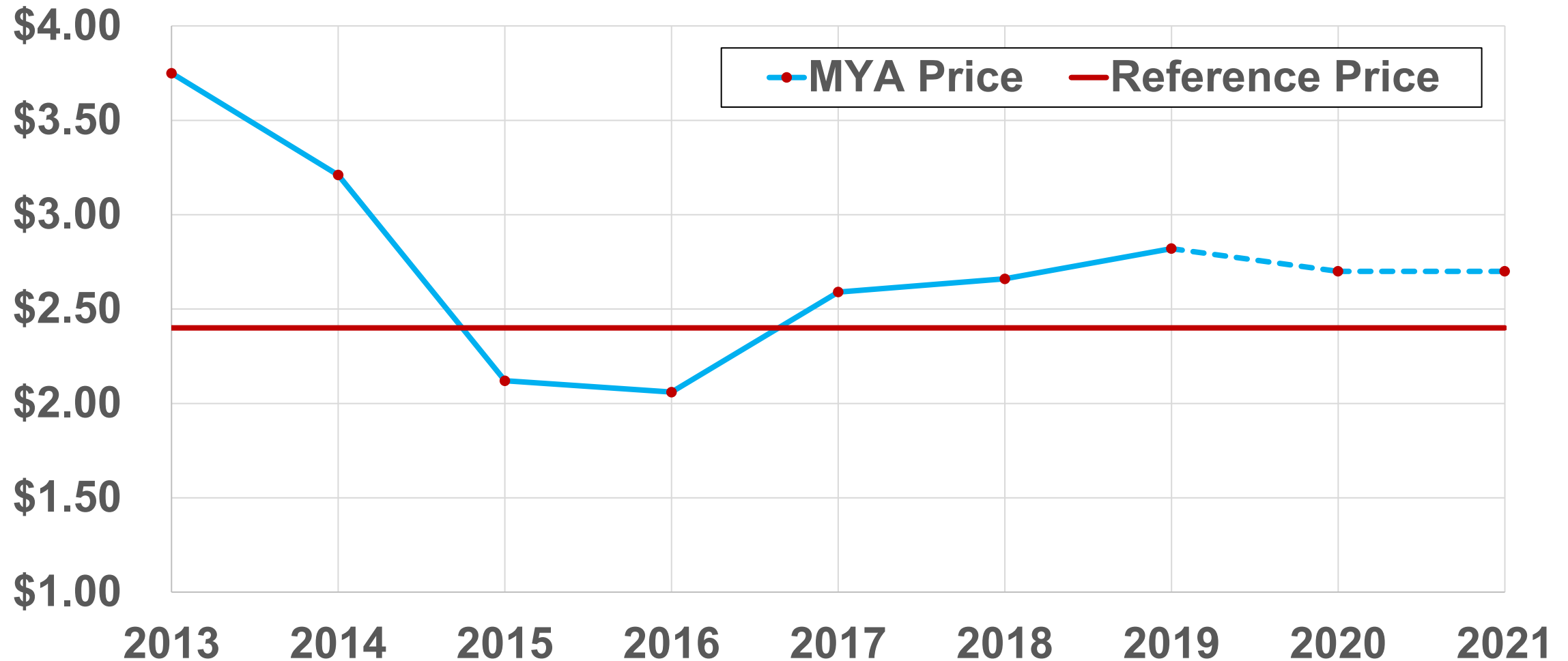
- **Short Answer: Sign up for PLC**
- The PLC \$5.50 floor provides a better safety net than ARC
- 2021 expected price of \$4.90 is well below the \$5.50 Reference Price, implying that relatively large PLC payments are likely
- What's more likely, price below \$5.50 or county revenue shortfall?

Wheat Payment Simulator Results for 2021

Expected Price 2021	Scenario Name	Expected Payment		Likelihood of Payment	
		PLC	ARC	PLC	ARC
\$4.55	Low	\$42.24	\$11.94	90%	49%
\$4.70	Forecast	\$36.72	\$9.96	85%	42%
\$4.90	USDA Long-run	\$29.68	\$7.47	81%	33%
\$5.00	High	\$26.34	\$6.42	77%	29%
\$5.09	CBO	\$23.49	\$5.59	73%	26%

- **Kewaunee** County, **50** bu/ac PLC Payment Yield
- <https://fd-tools.ncsa.illinois.edu/arcplc>
- PLC: higher average payments, better safety net

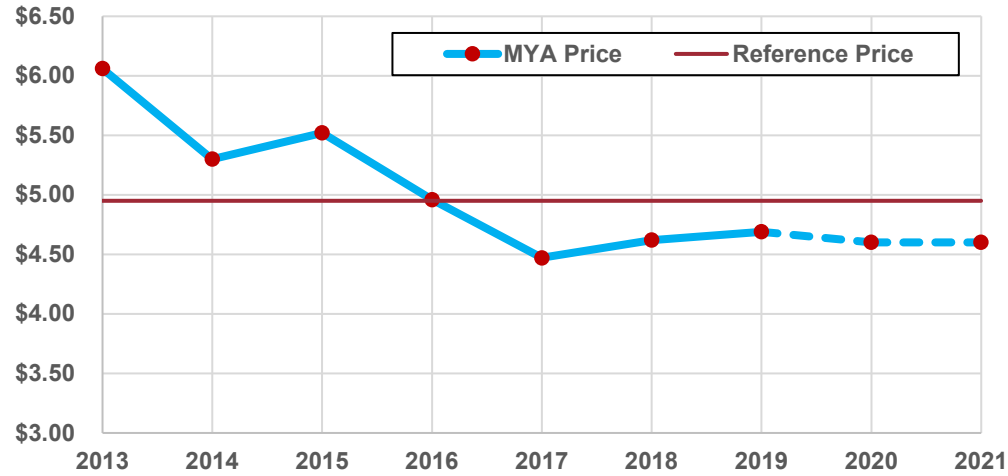
Oat Prices and its Reference Price



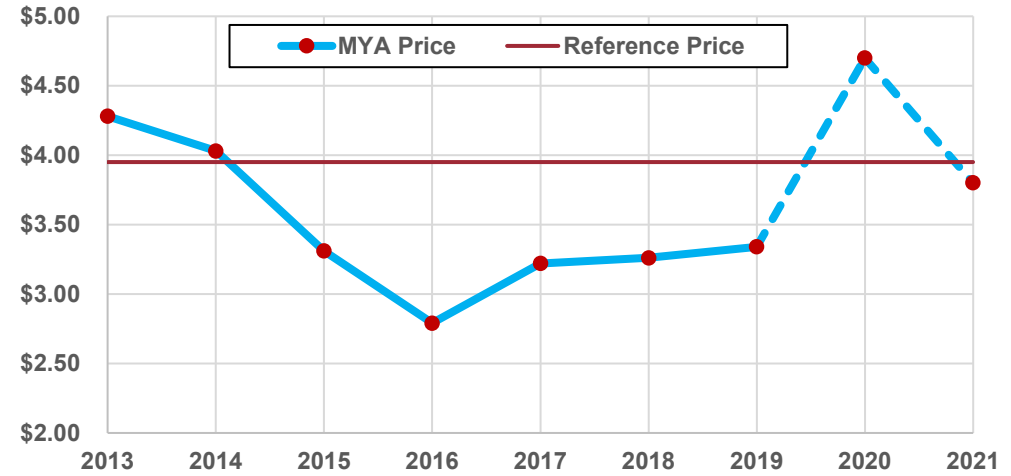
Recommendations for Oat base acres

- **Short Answer: Signup for ARC**
- Low county yields are more likely to trigger ARC payments than low national prices are to trigger PLC payments
- What's more likely, price below \$2.40 or county revenue shortfall?
- Historical prices have given a relatively high county guarantee for ARC that may trigger payments if low yields or prices occur
 - Olympic average price is \$2.55 for 2021
- PLC Reference Price = \$2.40, USDA 2021 Projection = \$2.70
 - PLC unlikely to pay in 2021 for oats
- Neither ARC nor PLC likely to pay much for Oats

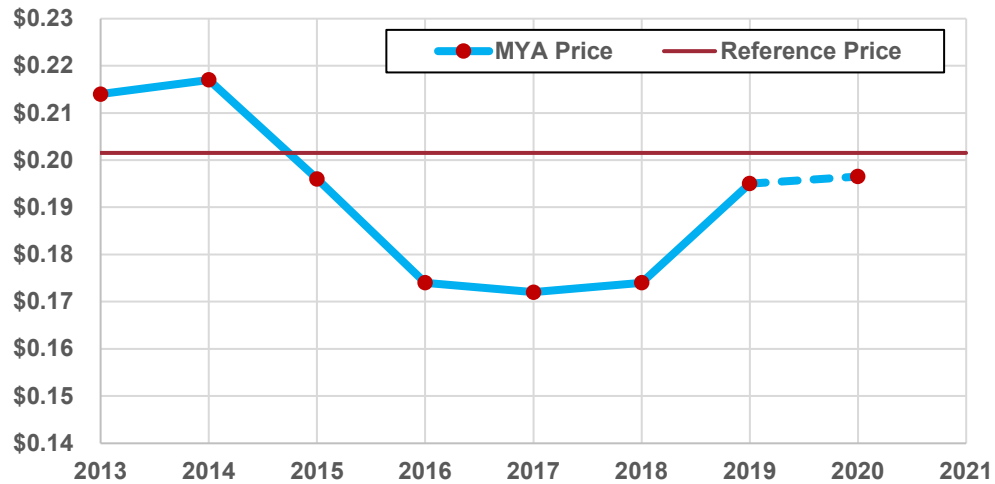
Barley



Sorghum



Sunflower Seed



Recommendations for Minor Crops

- Choose PLC
- Reference Price is good relative to market expectations

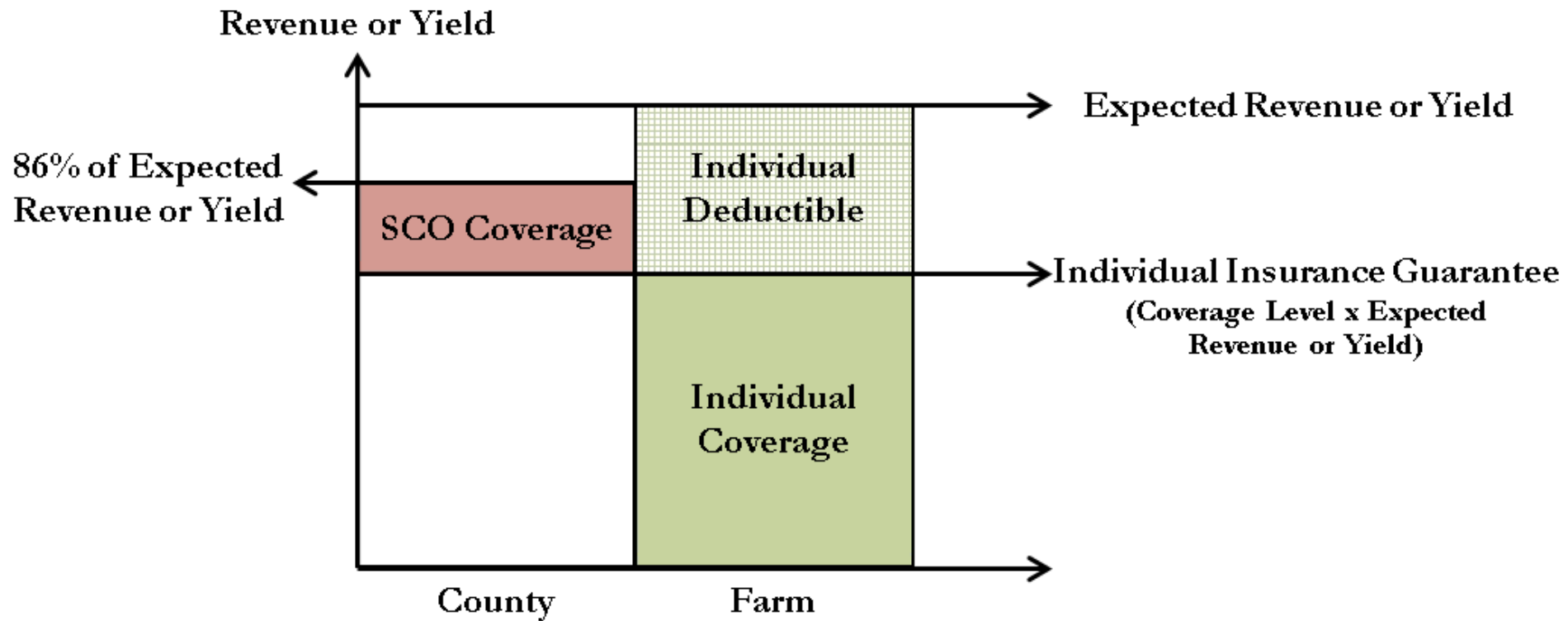
Summary of Recommendations for 2021

- **Corn**: Choose PLC: Reference Price is good relative to market expectations
- **Soybeans**: Choose ARC-CO, more likely to generate payments than PLC, but will be small if paid (PLC if want to buy SCO)
- **Wheat**: Choose PLC: Reference Price is good relative to market expectations
- **Oats**: Choose ARC-CO, more likely to generate payments than PLC, but will be small if paid
- **Sorghum, Barley, Sunflower Seeds**: Choose PLC: Reference Price is good relative to market expectations

Resources Page: <https://aae.wisc.edu/pdmitchell/extension/arc-plc-signup/>

Supplemental Coverage Option (SCO)

- SCO: allows you to insure part of your RP/YP deductible with a county policy (ARP/AYP)
 - Layer individual & county coverage
 - Can't exceed 86% total coverage
- Add SCO to your RP policy to increase coverage up to the 86% of your expected revenue
 - SCO will not pay until county loss exceeds 14%
 - 65% SCO premium subsidy (farmer pays 35% of premium)
- SCO available, **but only if you choose PLC**
 - If choose ARC, cannot buy SCO



Possible outcomes with RP plus SCO

1. SCO pays, but not RP
2. RP pays, but not SCO
3. Both SCO and RP pay
4. Neither SCO nor RP pays

Supplemental Coverage Option (SCO)

- Suppose you have 75% RP on corn (25% deductible)
- Suppose you added 86% SCO (max you can buy)
- Suppose Outcome 3 occurs: both RP and SCO pay
- Suppose county revenue is 80% of average
- Suppose your revenue is 65% of your guarantee
- Receive SCO indemnity for a 6% loss
- Receive RP indemnity for a 10% loss
- In 2020, 830 corn farmers and 312 soybean farmers bought SCO in WI, but we had a good year, so no indemnities paid

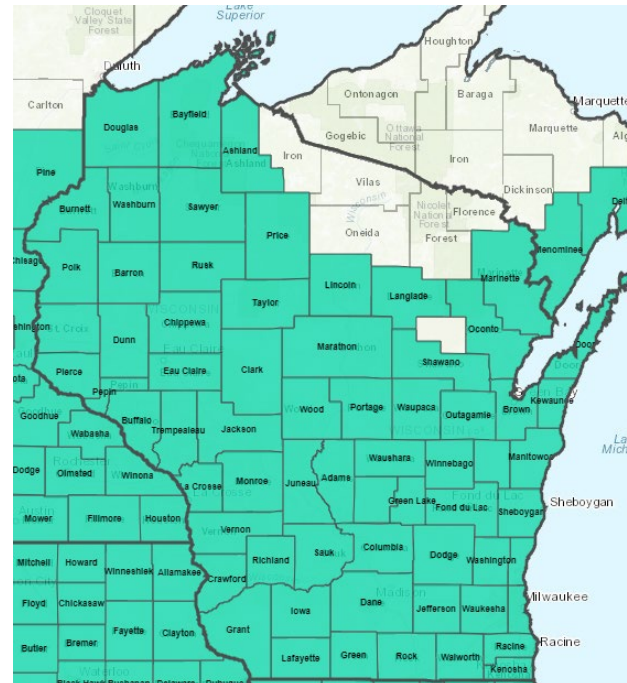
SCO Availability in Wisconsin

- SCO available for corn, soybeans and wheat in most Wisconsin counties (<https://prodwebnlb.rma.usda.gov/apps/MapView/index.html>)
- Available in 2020 in the green counties on these maps

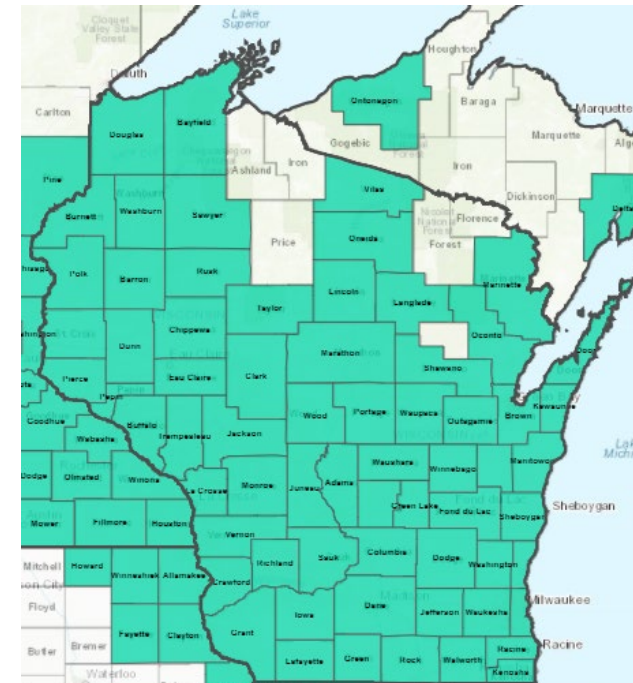
Corn



Soybeans



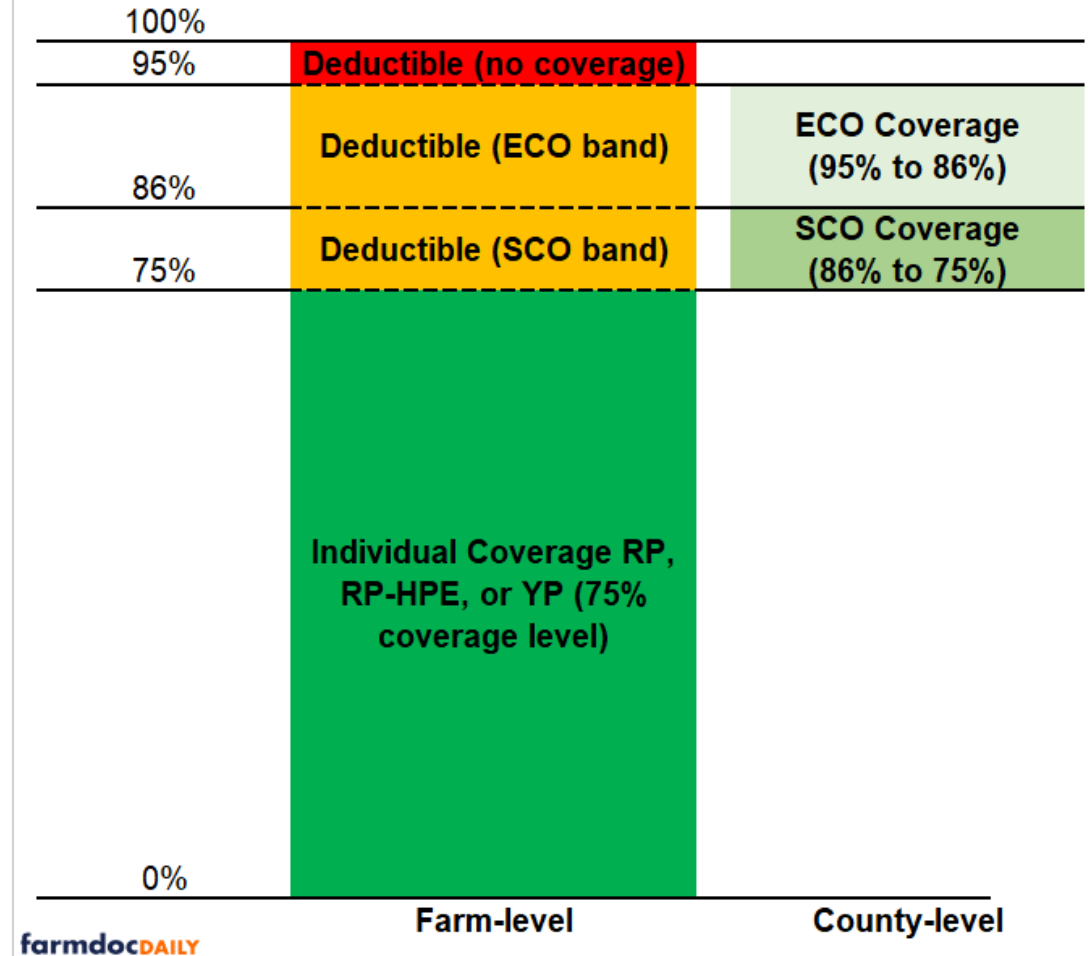
Wheat



New for 2021: Enhanced Coverage Option (ECO)

- ECO: Insure part of your RP/YP deductible with a county policy (ARP/AYP)
- Covers from 86% up to 95% of expected revenue based on county revenue
- Can use ECO whether sign up for ARC or PLC
- Can add ECO on top of to SCO or use ECO instead of SCO
- ECO has smaller premium subsidy

Figure 1. Illustration of ECO, SCO, and 75% Individual Coverage



THANKS FOR YOUR ATTENTION!

Dr. Paul D. Mitchell

608-320-1162

pdmitchell@wisc.edu

Professor of Agricultural and Applied Economics

Extension State Specialist in Cropping Systems Management

Director Renk AgriBusiness Institute

January 19, 2021

ARC or PLC Decision Making Webinar

Resources Page: <https://aae.wisc.edu/pdmitchell/extension/arc-plc-signup/>