

2021 ARC AND PLC SIGNUP RECOMMENDATIONS FOR WISCONSIN FARMERS

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



Topics Covered

- Recommendations for ARC-CO and PLC for corn, soybeans, wheat and oats, with logic for each recommendation
- Types of farms that may find ARC-IC a useful option

- Not Covered: How PLC and ARC work
- How to use the FarmDOC Payment Simulator Tool
- For those interested, see videos and slides from last year

ARC and PLC Signup: Oct 13, 2020 to March 15, 2021

- Eligibility: any FSA farm with a Farm Serial Number has base acres for program crops and associated PLC payment yields
- Farmers choosing PLC, ARC-CO, or ARC-IC for their base acres
- Can mix and match across farms and crops
 - 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
- Signup is only for the 2021 crop season
 - Already made decision for 2019 & 2020 last year
 - Will choose for 2022 and 2023 in subsequent years
- Payments based on marketing year average prices, so Sep 1, 2021 until Aug 31, 2022, with payments made, if triggered, in Sep/Oct of 2022

Reference Prices and USDA Farm Price Projections

Crop	Reference Price	Projected 2020 Price	Projected 2021 Price
Corn	\$3.70	\$4.00	\$3.65
Soybeans	\$8.40	\$10.55	\$10.00
Wheat	\$5.50	\$4.70	\$4.90
Oats	\$2.40	\$2.70	\$2.70

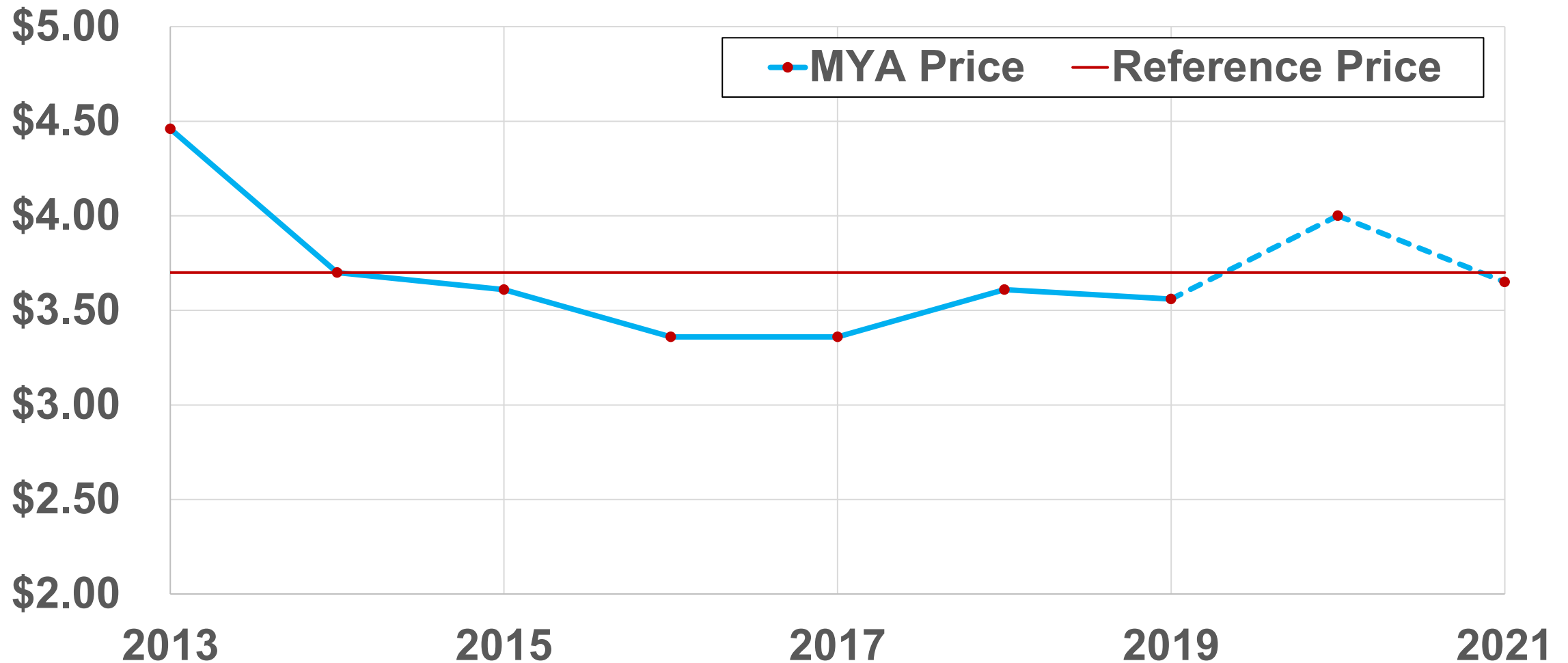
- These projections are different than the FarmDOC Payment Simulator prices
- Projected 2020 Price: USDA-WASDE (Dec 10, 2020)

<https://www.usda.gov/oce/commodity/wasde/>

- Projected 2021 Price: USDA Agricultural Projections (Nov 20, 2020)

<https://usda.library.cornell.edu/concern/publications/qn59q396v>

Corn Prices and its Reference Price



Recommendations for Corn base acres

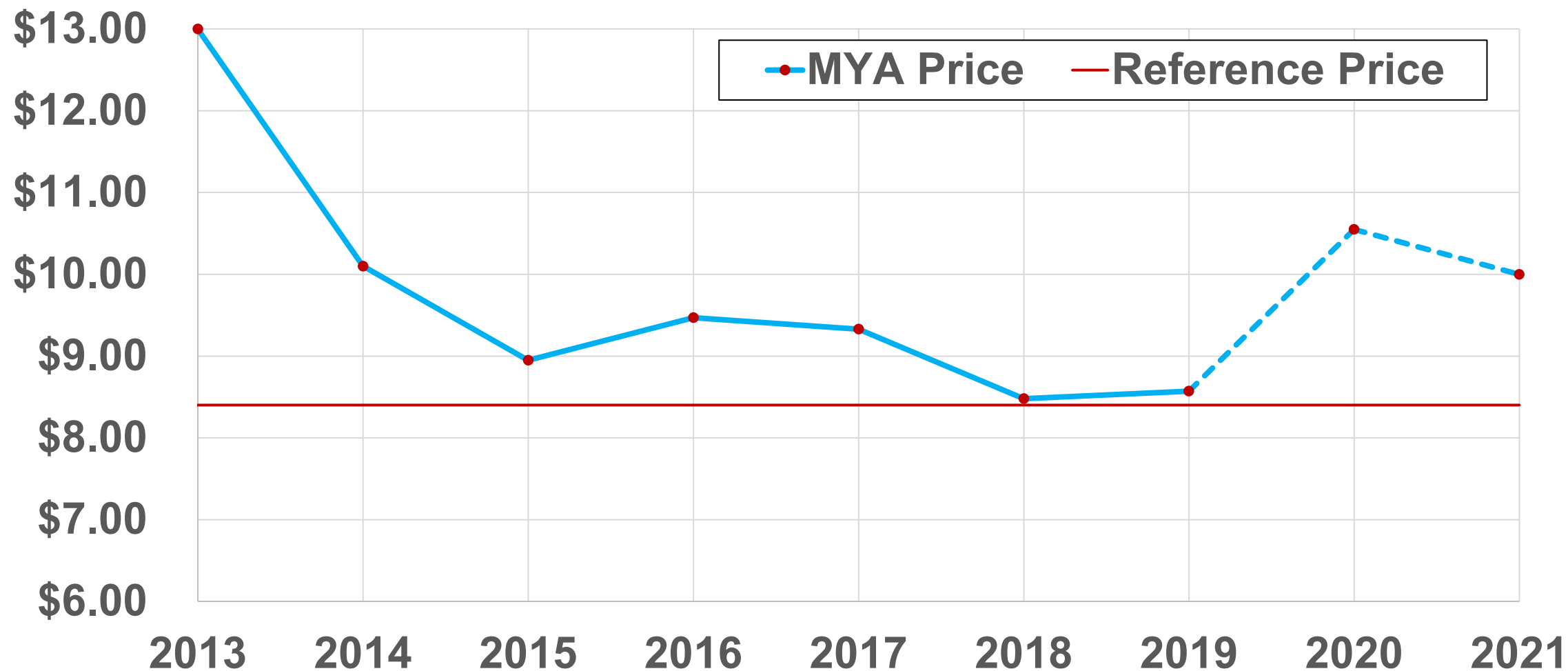
- **Short Answer: Sign up for PLC**
- The PLC \$3.70 price floor provides better safety net than ARC
- Even with higher expected prices for 2021, markets can still drop due to disruptions (post-covid economy, trade and policy)
- Even with an expected price over \$3.70, uncertainty creates a reasonable likelihood of a price below the \$3.70 Reference Price
- ARC-CO has lower average payments because its guarantee, based on 2014-2019 yields and prices, requires a 14% loss in actual revenue using 2021 yields and prices to trigger payments
- ARC-CO best when prices are falling relative to 2+ years ago

Corn Payment Simulator Results for 2021

Expected Price	Scenario Name	Expected Payment		Likelihood of Payment	
		PLC	ARC	PLC	ARC
\$3.20	Low	\$74.05	\$30.38	79%	61%
\$3.40	Mid/COVID	\$55.24	\$22.39	71%	46%
\$3.60	Pre-COVID	\$38.61	\$15.00	60%	35%
\$3.73	CBO	\$29.59	\$10.56	50%	26%
\$3.90	High	\$20.03	\$6.04	39%	16%

- **Dane** County, **150** bu/ac PLC Payment Yield
- USDA Projected 2021 Price **\$3.65**
- 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 in 2020 with COVID: the \$8.40 price floor seems irrelevant for soybeans
- What makes ARC more valuable? Higher expected prices, Lower farm PLC payment yields, Located in counties 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?
 - ARC guarantees are calculated using \$8.95 Olympic average price
 - If price anywhere near the \$10.00 level, ARC payments will only be triggered if low county yields

Alternatives for Developing Soybean Recommendations

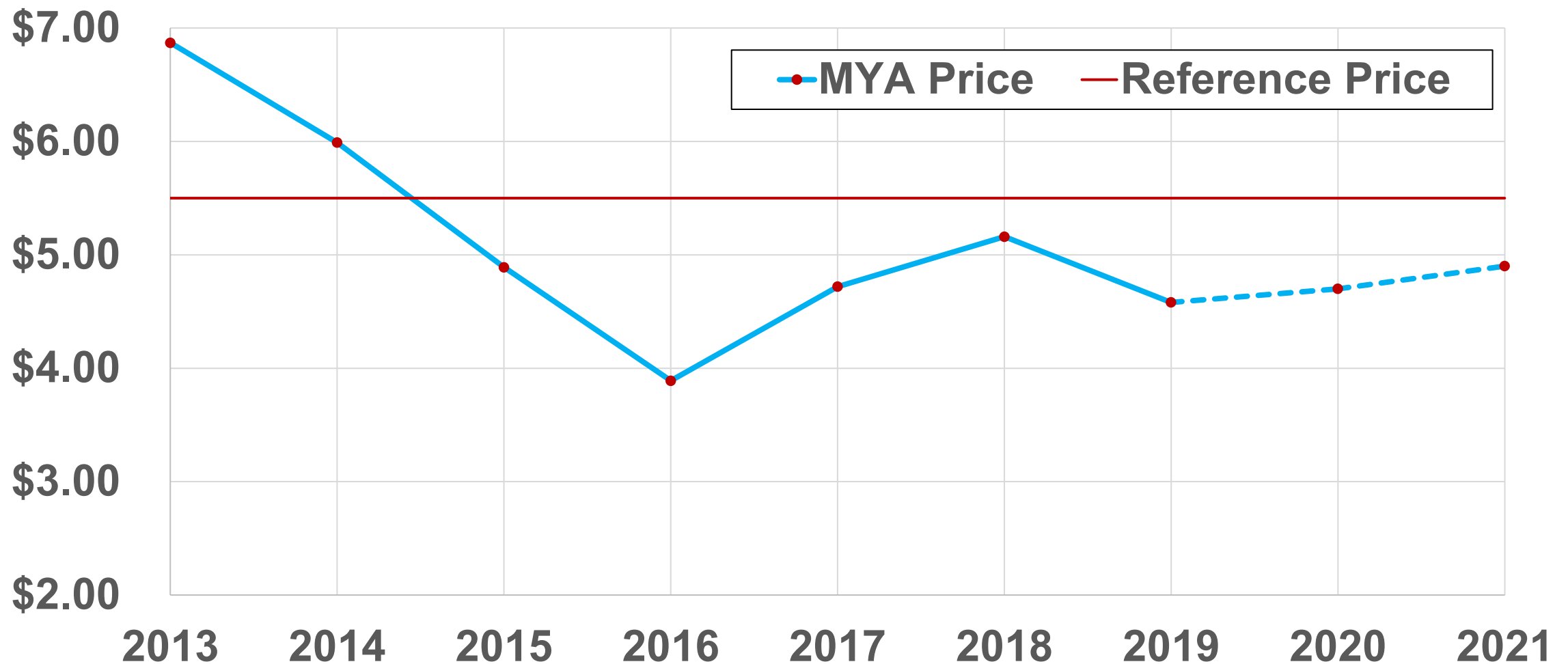
- 1. What's a bigger risk for you: low county yields or a national soybean price collapse?
 - If low county yields, choose ARC
 - If national soybean price collapse, choose PLC
- 2. Run the FarmDOC payment simulator for your county and your payment yields, pick the option with the highest average payments
 - Tool seems slow to update price projections (June 2020)
- 3. Wait for expert price projections in Feb/March and then decide
 - Feb 2021 USDA publishes updated long-run price projections (<https://usda.library.cornell.edu/concern/publications/qn59q396v>)
 - Average futures prices for contracts over 2021 marketing year

Soybean Payment Simulator Results for 2021

Expected Price	Scenario Name	Expected Payment		Likelihood of Payment	
		PLC	ARC	PLC	ARC
\$8.10	Low	\$23.28	\$21.32	64%	68%
\$8.30	COVID	\$18.75	\$19.34	55%	62%
\$8.50	Mid	\$14.81	\$17.16	48%	58%
\$8.70	Pre-COVID	\$11.44	\$15.61	41%	53%
\$8.90	High	\$8.57	\$13.26	35%	46%
\$9.12	CBO	\$6.00	\$11.34	26%	41%

- **St. Croix** County, **45** bu/ac PLC Payment Yield
- USDA Projected 2021 Price **\$10.00**

Wheat Prices and its Reference Price



Recommendations for Wheat base acres

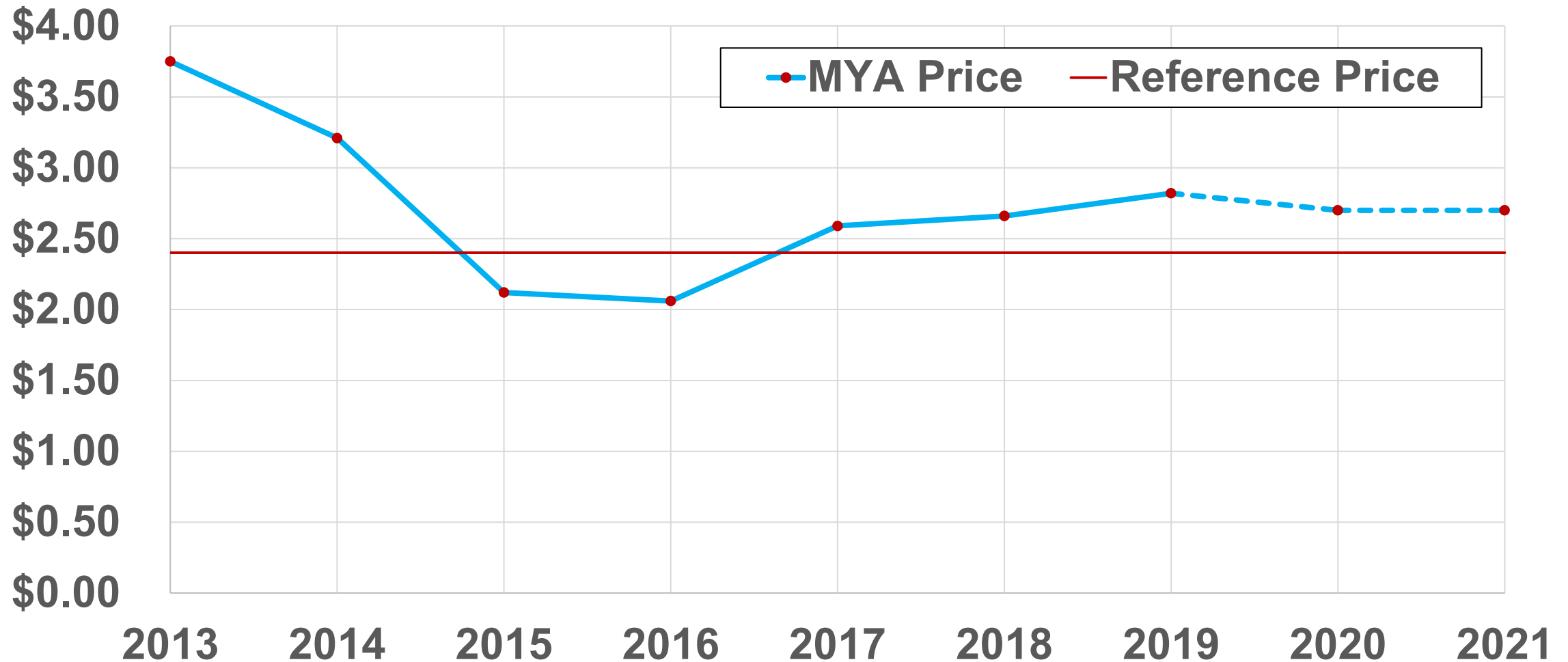
- **Short Answer: Sign up for PLC**
- The PLC \$5.50 floor provides a better safety net than ARC
- 2021 expected price of \$4.90 is well below the \$5.50 Reference Price, implying that relatively large PLC payments are likely
- ARC-CO has lower average payments because its guarantee, based on yields and prices from 2014-2019, requires 14% loss in actual revenue using 2021 county yields and prices
 - PLC just needs price below \$5.50
- ARC-CO best when prices are falling relative to 2+ years ago

Wheat Payment Simulator Results for 2021

Expected Price	Scenario Name	Expected Payment		Likelihood of Payment	
		PLC	ARC	PLC	ARC
\$4.60	Low	\$40.37	\$13.45	88%	53%
\$4.70	Mid	\$36.72	\$12.04	85%	48%
\$5.00	(Pre-)COVID	\$26.34	\$8.26	77%	35%
\$5.09	CBO	\$23.49	\$7.23	73%	32%
\$5.25	High	\$18.80	\$5.64	66%	26%

- **Kewaunee** County, **50** bu/ac PLC Payment Yield
- USDA Projected 2021 Price **\$4.90**
- PLC: higher average payments, better safety net

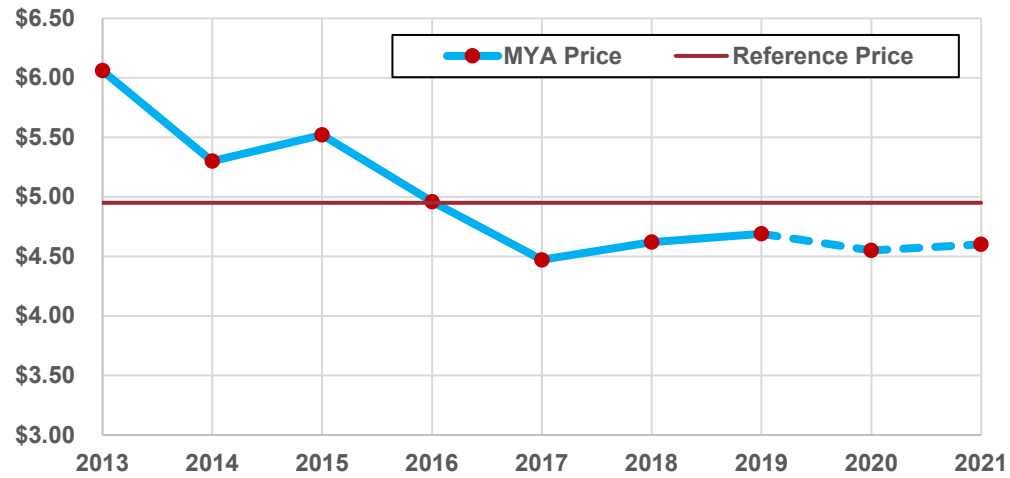
Oat Prices and its Reference Price



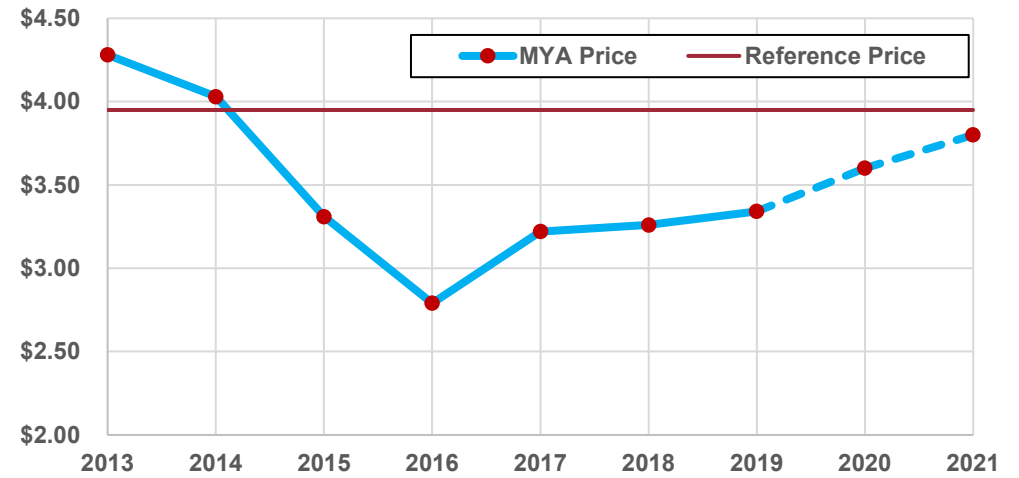
Recommendations for Oat base acres

- **Short Answer: Signup for ARC**
- Low county yields more likely to trigger ARC payments than low national prices to trigger PLC payments
- 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
- In Feb, use USDA long-run price and CME futures

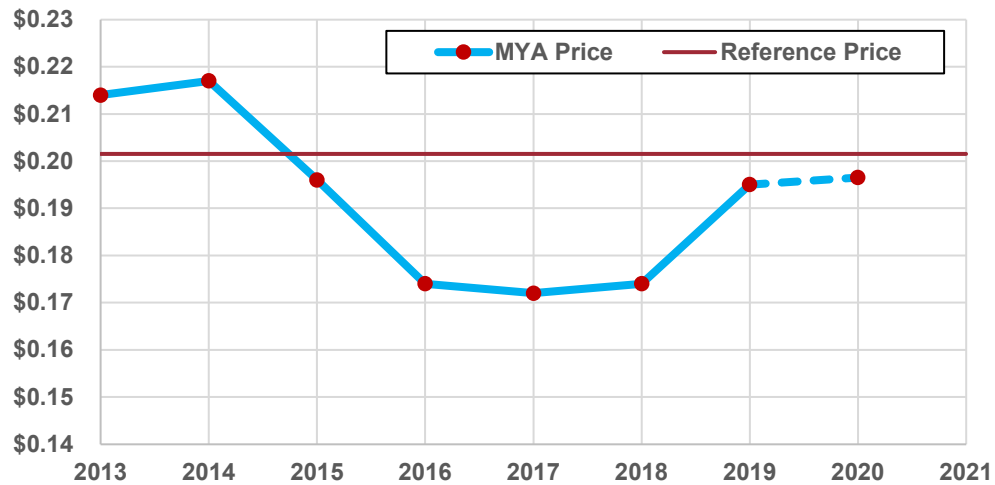
Barley



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
- **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

ARC-IC for 2021?

- Each FSA farm can sign up for a different program by crop
 - One FSA farm can have PLC for corn and ARC-CO for soybeans and another of FSA farm can have ARC-IC for corn and soybeans jointly
- Previous signup was for 2019 and 2020 crop years when farms knew their 2019 yields (year with lots of prevented plant)
- Could use ARC-IC to receive large payments for 2019
 - Nationally, about 6% corn and soybean base chose ARC-IC
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- Adapted from FarmDoc article “The Case for Looking at the ARC-IC (ARC-Individual) Program Option” Zulauf et al. Oct 29, 2019
- <https://farmdocdaily.illinois.edu/2019/10/the-case-for-looking-at-the-arc-ic-arc-individualprogram-option.html>

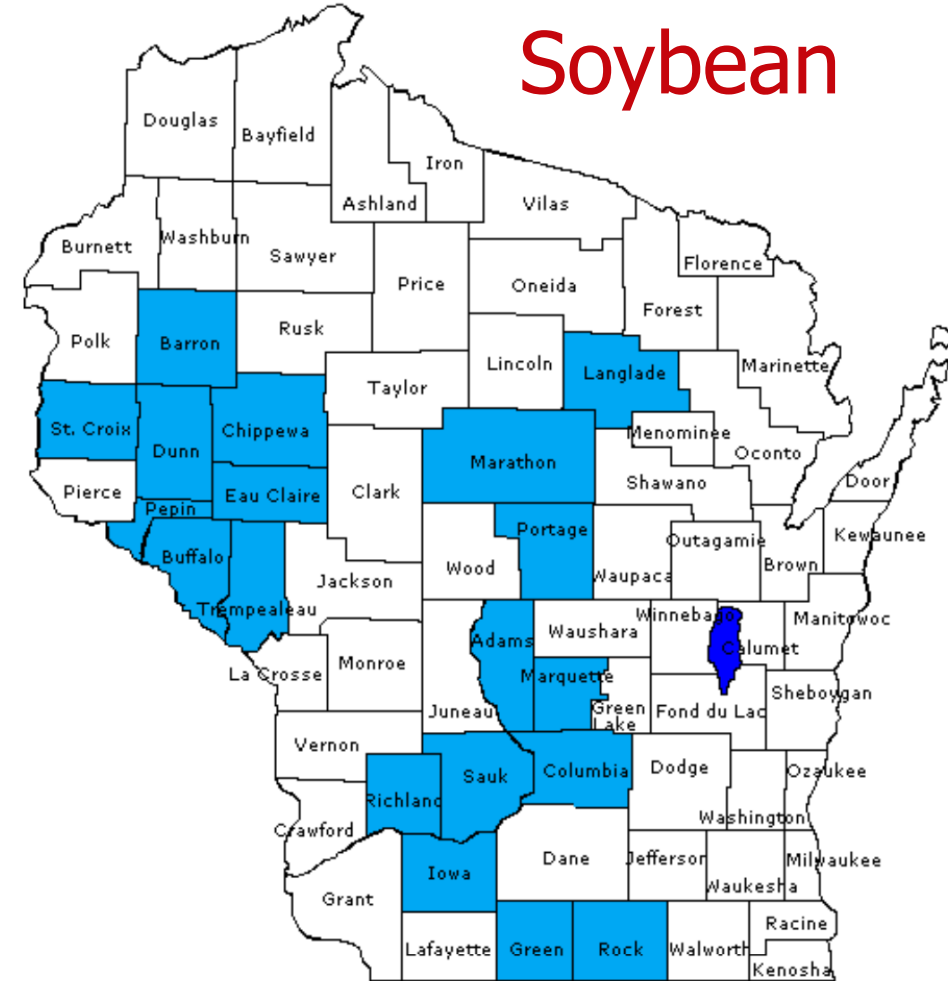
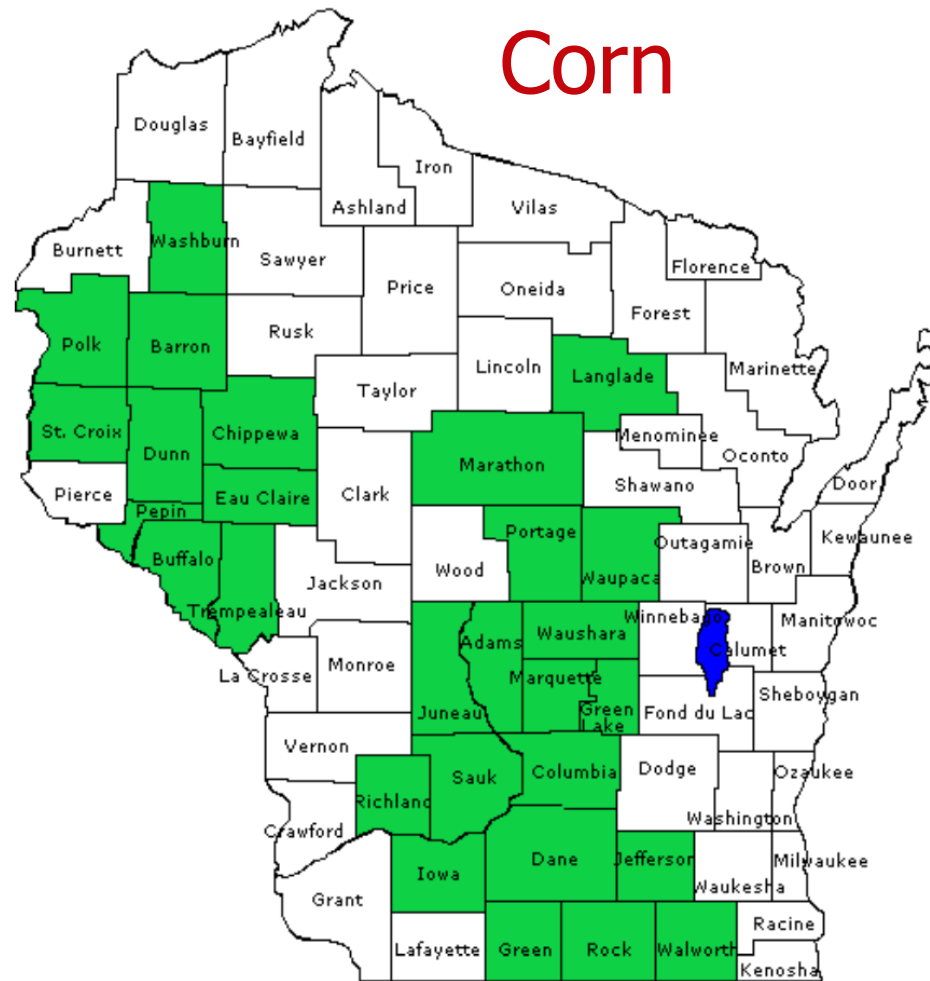
Which FSA farms should look at ARC-IC?

- 2021 signup is not like 2019-2020 signup
- You won't know if you will have lots of prevented plant or low yields in 2021, but some farmers may still find ARC-IC a valuable option
- **1)** FSA farm with highly variable yields from year to year
- **2)** Your ARC-IC benchmark yield is much higher than ARC-CO county yield and your PLC payment yield
- **3)** Acres of vegetables (or fruit) are more than 15% of base acres

Which farms should look 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
- ARC-CO & PLC pay on 85% of base acres, 15% “non-payment acres”
- ARC-IC pays on 65% of base acres, 35% “non-payment acres”
- Farm with 40 base acres can plant up to $40 \times 15\% = 6$ acres of processing vegetables and not reduce ARC-CO or PLC payment acres
- If enrolled in ARC-IC, same farm can plant up to $35\% \times 40 = 14$ acres

Counties with Irrigated Options for ARC-CO



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