



Division of Extension
University of Wisconsin-Madison

HOW ARC AND PLC WORK FOR FARMERS

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RENK AGRIBUSINESS INSTITUTE
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USDA-FSA Commodity Support Programs

- Price Loss Coverage (PLC)
 - Establishes a price floor for each crop based on the national marketing year average price
- County Agriculture Risk Coverage (ARC-CO)
 - Establishes a revenue floor for each crop based on county revenue
- Individual Agriculture Risk Coverage (ARC-IC)
 - Establishes a revenue floor for all program crops as a whole based on farm yields and national prices

Eligibility for ARC and PLC

- If you own or operate a farm with Base Acres
 - If you received ARC/PLC payments before, then you are likely eligible again
- Base Acres are associated with a Crop and have a Payment Yield for that crop
- Common program crops with base acres in Wisconsin include:
 - Corn, soybeans, wheat, oats, barley, sorghum
- Eligible farmers choose which program to elect for their base acres
- In some cases (share leases), may have decide with landowner

Program Signup

- Choice for 2019 and 2020 is the same for both years
- Sign up at FSA office: Sep 3, 2019 to Mar 15, 2020
- Crop years 2021 and following will be an annual election
- Cannot enroll new base acres
- Cannot change the crop allocation of base acres
- Can update payment yields this year
- Strongly recommend updating Payment Yields if they increase, even if you do not use PLC, because you may someday

Program Signup

- Can mix County ARC and PLC across crops
 - PLC for corn and ARC-CO for soybeans
- Focus has been on PLC and County ARC
- Last time (2014-2018 crop years)
 - Almost all farmers chose ARC for corn and soybeans
 - Small grains split, 2/3 choosing ARC, 1/3 choosing PLC
- Very little sign up for ARC-IC and so there has not been much coverage or discussion of it

Price Loss Coverage (PLC)

- Establishes a price floor for each crop based on the national marketing year average price
- Each program crop has a set Reference Price
 - Corn \$3.70, Soybeans \$8.40, Wheat \$5.50, Oats \$2.40
- If the National Marketing Year Average Price is less than this Reference Price, PLC payments are triggered
 - $\text{PLC PaymentRate} = \text{Reference Price} - \text{MYA Price}$
 - $\text{PLC Payment} =$
 $85\% \times \text{BaseAcres} \times \text{PaymentYield} \times \text{PLC PaymentRate}$
- Corn/Soy marketing year: Sep 1 - Aug 31
- Wheat/Oats marketing year: Jun 1 - May 31

PLC Example

- 2018 National Marketing Year Average Price for Corn was \$3.61, below the PLC Reference Price of \$3.70
 - PLC payments triggered for corn base acres
- 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 revenue
- County ARC 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
- 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

ARC-CO Guarantee Calculations

- Many farmer-friendly floors or cups used in Olympic average calculations for county revenue guarantee
- Minimum MYA Price each year = Reference Price
- Minimum county yield each year = 80% county T yield
- County yields are trend adjusted like crop insurance
- No lag year, 2019 calculation uses 2013-2017 yields and prices
- Previously waited until Sep 2019 to finalize 2018 MYA prices to calculate revenue guarantee for 2019 crops
 - Preparing for earlier signup deadlines

Non-Irrigated Corn in 2019 for Dane County

Year	Yield	MYA Price	Price Floor
2017	194.54	3.36	3.70
2016	214.63	3.36	3.70
2015	201.15	3.61	3.70
2014	187.41	3.70	3.70
2013	183.67	4.46	4.46

Olympic Average = 194.37

Olympic Average = \$3.70

- 80% county T yield floor does not matter for Dane County
- Trend Adjustment: +1.93 bu/yr for each year before 2018
- ARC County Benchmark = $\$3.70 \times 194.37 = \719.17
- ARC Guarantee = $86\% \times \$719.17 = \618.49
- Maximum ARC Payment = $10\% \times \$719.17 = \71.92

Non-Irrigated Corn in 2019 for Dane County

- County ARC Guarantee for corn in Dane County in 2019 is \$618.49
- Suppose 2019 actual county yield in Dane County is 171 bu/ac and 2019 national MYA corn price is \$3.53
- Actual revenue = $171 \times \$3.53 = \$603.63 < \$618.49$
- ARC Payment Rate = $\$618.49 - \$603.63 = \$14.86/\text{ac}$, well below max payment, so ARC Payment Rate = \$14.86
- If have 100 corn base acres, then your ARC payment would be $85\% \times 100 \text{ ac} \times \$14.86/\text{ac} = \$1,263.10$

Agriculture Risk Coverage (ARC)

Individual ARC (ARC-IC)

- Establishes a revenue floor for all program crops as a whole based on farm yields and national prices
- Example assuming 2 program crops: corn and soybeans
- Benchmark Revenue by Crop = 5-Year Olympic Average of Yield per Planted Acre x National MYA Price
 - No trend adjustment to yields
 - Price has Reference Price as floor
- Farm Benchmark Revenue =
(Corn Acres/Total Acres) x Corn Benchmark Revenue +
(Soy Acres/Total Acres) x Soy Benchmark Revenue
- Farm Guarantee = 86% of Farm Benchmark Revenue

ARC-IC Hypothetical Example

Year	Price	Price Used	Yield	Revenue
2017	3.36	3.70	181	669.70
2016	3.36	3.70	194	717.80
2015	3.61	3.70	191	706.70
2014	3.70	3.70	183	677.10
2013	4.46	4.46	171	762.66

CORN
Olympic
Average
\$700.53

Year	Price	Price Used	Yield	Revenue
2017	9.33	9.33	61	569.13
2016	9.47	9.47	46	435.62
2015	8.95	8.95	61	545.95
2014	10.10	10.10	42	424.20
2013	13.00	13.00	38	494.00

SOYBEAN
Olympic
Average
\$491.86

ARC-IC Hypothetical Example

- Suppose farm planted 60 acres of corn and 40 acres of soybeans in 2019, but has 90 base acres of corn & soy
- Farm Benchmark Revenue =
 Corn 60% x \$700.53 +
 Soybean 40% x \$491.86 = \$617.06
- Farm Guarantee = 86% x \$617.06 = \$530.67
- Individual ARC Payment Rate = Farm Guarantee – Actual Farm Revenue, up to 10% of County Benchmark
- Individual ARC Payment = **65%** x Base Acres x Individual ARC Payment Rate

ARC-IC Hypothetical Example

- Suppose farm planted 60 acres of corn and 40 acres of soybeans in 2019, but has 90 base acres of corn & soy
- Suppose 2019 actual farm corn yield was 10,260 bu (or 171 bu/ac) and 2019 national MYA corn price is \$3.60
- Suppose 2019 actual farm soybean yield was 1,640 (or 41 bu/ac) and 2019 national MYA soybean price is \$8.80
- Actual Revenue = $(10,260 \times \$3.60) + (1,640 \times \$8.80) / 100 = \$513.68/\text{ac} < \530.67 guarantee
- Individual ARC Payment Rate = $\$530.67 - \$513.68 = \$16.99/\text{ac}$
- Individual ARC Payment = $65\% \times 90 \times \$16.99 = \939.92
- Note payments use 65% multiplier and 90 base acres





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