Farm Bill Decisions

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First National Bank
Eagle Grove, IA
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What's new in the 2018 FB?

1. Switch between ARC & PLC, update PLC yields
2. Higher Loan Rates for Marketing Assistance Program and Loan Deficiency Payments
3. Cover Crops terminated according to USDA guidelines are “good farming practice” in Crop Insurance
4. Improved dairy assistance
5. Industrial Hemp defined as ag commodity
Learning Objectives

• Highlight ARC/PLC Decisions & Interaction with Crop Insurance
• Illustrate the Supplemental Coverage Option (SCO)
• Review a 7-Step Process for Making ARC/PLC Decisions from Example Farm
• Discuss the PLC Yield Update Process
• Feature the ISU ARC/PLC Payment Analyzer
• Feature the UIUC ARC-IC Payment Analyzer
• Provide ARC/PLC Web Sites

ARC & PLC

- 2018 Farm Bill Re-Authorized 2019-23

- PLC=Price Loss Coverage
  - Price for covered commodity falls below its effective reference price

- ARC=Agriculture Risk Coverage
  - Actual crop revenue (income) declines below a specified guarantee
### Summary of Farm Bill Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Trigger</th>
<th>Trigger Value</th>
<th>Payment based on:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC</td>
<td>Marketing Year Average Price</td>
<td>Effective Price &lt; $3.70 corn, &lt;$8.40 soybeans</td>
<td>85% Base Acres by crop and farm #</td>
</tr>
<tr>
<td>ARC-CO</td>
<td>County Revenue</td>
<td>86% (5-yr OA County Yields x 5-yr OA MYA Price)</td>
<td>85% Base Acres by crop and farm #</td>
</tr>
<tr>
<td>ARC-IC</td>
<td>Total Farm Revenue</td>
<td>86% 5-yr OA Farm Revenue</td>
<td>65% Base Acres summed across farms under ARC-IC</td>
</tr>
</tbody>
</table>

### ARC/PLC Decisions & Crop Insurance (2019-2020)

**Producer Choices:**

1) Update your PLC Yields (everyone!)

2) Elect a Farm Bill Program from Title I for 2019-20

3) Enroll annually in Elected Program

4) Purchase Crop Insurance (Title XI)

**Title I**

- Choose ARC/CO
- Choose ARC/IC
- Choose PLC

**Title XI**

- Uses County Trend Adj. Yields
- Uses Farm’s Actual Yields
- Uses the Farm’s PLC Yield

Can Purchase RP, YP, RPHPE, etc. (about 40% premium subsidy)

Plus Can Purchase SCO (65% subsidy)
2019-23 Commodity Crop Safety Net

Marketing Assistance Loans (MLA) and Loan Deficiency Payments (LDP) National Rates:
- $6.20/bu Soybeans
- $2.20/bu Corn

2020 Crop Insurance Decisions

- Unit Coverage? (Basic, Optional or Enterprise)
- Trend-Adjusted (TA) APH Yield Endorsement?
- Supplementals: Hail, Wind, Green Snap, Buy-up of Projected Price and/or Revenue Guarantee?

- County-based Guarantee up to 86% coverage
- 65% Subsidy Rate
- Revenue Protection – RP (65%-85% Levels)

SCO = Supplemental Coverage Option

SCO = Supplemental Coverage Option
Supplemental Coverage Option (SCO)

• Endorsement to Crop Insurance contract to cover part of the **deductible** in RP, YP, RPHP, APH
• Triggered by low **County** yields
• SCO indemnity depends on:
  ➢ RP/YP/RPHP/APH liability, and
  ➢ county yield/revenue
• Crop CANNOT be enrolled in ARC
• Buy from insurance agent (65% premium subsidy)

SCO Indemnity

• Indemnity = (86% - Actual County Yield or Revenue as % of “Normal”) × underlying crop insurance liability

• Indemnity CAP = (86%-coverage level underlying policy) × underlying crop insurance liability
Example SCO, Story Co - Iowa

Total Revenue Guarantee $654

Producer Premium

Farm APH 190 bu/a
Projected County Yield 176 bu/a
Final RP Price $4/bu

How much of your revenue guarantee would you tie to county revenue instead of farm revenue to save on premiums?

SCO might make sense when farm yields move in tandem with county yields. If farm yields disconnected from county yields, SCO less useful

Revenue with LOW farm yields, HIGH county yields

Revenue with LOW farm yields, LOW county yields

Low Farm Yield = 70% APH = 133 bu/a
High County Yield = 88% Normal County Yield = 155 bu/a
Low County Yield = 70% Normal County Yield = 123 bu/a
ARC/PLC Decisions: A 7-Step Process

1. Try to update to a new PLC yield using 2013 thru 2017 Crop Production Evidence effective for the 2020 crop (due SEPT 30)

2. Find your Farms’ Base Acres & Current PLC Yields on FSA 156-EZ form

3. Estimate you County yields for both the 2019 and 2020 Crops (make a list)

4. Estimate the National Cash Price averages for the 2019-20 and 2020-21 Marketing Years (make another list)

5. Place this information into an ARC/PLC Payment Calculator

6. Compare by Crop, by FSA Farm Number the potential ARC-CO vs. PLC payments for both 2019 and 2020 crops
**ARC/PLC Decisions: A 7-Step Process**

- If you had prevented planting acres in 2019, then evaluate potential ARC-IC payments.

7. Elect and Enroll for 2-Years your program(s) of choice:
   - ARC-CO and PLC: by crop by FSA farm number
   - ARC-IC: by FSA farm number (all crops in enrolled farms)

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**PLC Yield Update Process**

- **Everyone** should try to Update their PLC Yields, even if they elect ARC-CO or ARC-IC.
- Deadline: **September 30, 2020**
- To update PLC Yields, need:
  - Production Evidence for 2013 thru 2017 Crops
  - Landowners need to sign the CCC-867 Form (at least 1 landowner)
- Example: current PLC yields Corn 131 bu/a; Soybeans 41 bu/a
Production Reporting Form Example 1

XYZ Insurance Company, L.L.C.
2013-2017 Annual Yields

Application Insured Information

JOE FARMER
111 150TH ST.
BOONE, IA 50099
Mail to: insured@gmail.com
Mobile Number: 515.555.5555
SSS/EIN *****1111

This form contains the actual yield values reported to RMA for each commodity and farm number on the producer’s MPCI policy for the years 2013-2017. The printed portion of this data is considered a rec type of 1 – RMA data as this is the actual data reported to RMA.

<table>
<thead>
<tr>
<th>County</th>
<th>Commodity</th>
<th>Farm Number</th>
<th>Unit Description</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Avg Yields</th>
<th>%</th>
<th>New PLC Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boone</td>
<td>Corn</td>
<td>1234</td>
<td>Home Farm</td>
<td>154</td>
<td>152</td>
<td>209</td>
<td>208</td>
<td>221</td>
<td>188.8</td>
<td>.81</td>
<td>153</td>
</tr>
<tr>
<td>Boone</td>
<td>Soybeans</td>
<td>1234</td>
<td>Home Farm</td>
<td>24</td>
<td>34</td>
<td>52</td>
<td>55</td>
<td>47</td>
<td>?</td>
<td>.81</td>
<td>?</td>
</tr>
</tbody>
</table>

ISU PLC Yield Update Tool (EXAMPLE 1)

1. Choose an Iowa county from the dropdown menu

2. Enter substitute yields

3. Enter your farm yield and historical yields

4. Enter new program and historical yields

5. Click on the PLC yield to update

https://www.extension.iastate.edu/agdm/info/farmbill.html
Yield Update for the PLC Program
Form CCC-867 Entry Example: Corn

THE FARM PLC YIELD UPDATE DECISION is made by an owner of the farm identified in Item 5 above. If FSA receives conflicting yield update from another owner, owners will be required to resolve their dispute providing CCC with written evidence of the dispute resolution by the end of the yield update period.

FARM YIELD UPDATE

7. I agree to update the PLC yield for the covered commodity, identified in Item 6 above, based on 90 percent of the farm’s 2013 through 2017 average yield per planted acre, excluding any year(s) when no acreage was planted times a national factor determined by dividing the 2008-12 national yield by the 2013-2017 national yield. The covered commodity’s national yield factor is 90%.

8. Owner’s Name and Address (Including Zip Code)
Joe Farmer
1111 Main St.,
Boone, IA 50099

9. Signature of Owner (By)

10. Title/Relationship of the Individual Signing in the Representative Capacity

IOWA STATE UNIVERSITY Extension and Outreach Ag Decision Maker
Yield Update for the PLC Program
Form CCC-867 Entry Example: Soybeans

THE FARM PLC YIELD UPDATE DECISION is made by an owner of the farm identified in Item 5 above. If FSA receives conflicting yield update from another owner, owners will be required to resolve their dispute providing CCC with written evidence of the dispute resolution by the end of the yield update period.

FARM YIELD UPDATE

7. I agree to update the PLC yield for the covered commodity, identified in Item 6 above, based on 90 percent of the farm’s 2013 through 2017 average yield per planted acre, excluding any year(s) when no acreage was planted times a national factor determined by dividing the 2008-12 national yield by the 2013-2017 national yield. The covered commodity’s national yield factor is 88.3.

<table>
<thead>
<tr>
<th>Year</th>
<th>Yield</th>
<th>Year</th>
<th>Yield</th>
<th>Year</th>
<th>Yield</th>
<th>Year</th>
<th>Yield</th>
<th>Year</th>
<th>Yield</th>
<th>Year</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>60.59</td>
<td>2014</td>
<td>60.59</td>
<td>2015</td>
<td>52</td>
<td>2016</td>
<td>55</td>
<td>2017</td>
<td>67</td>
<td>Total</td>
<td>235.18</td>
</tr>
<tr>
<td>Average</td>
<td>47.04</td>
<td>Multiplied by</td>
<td>4.5</td>
<td>Multiplied by</td>
<td>90%</td>
<td>Multiplied by</td>
<td>yield</td>
<td>Factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor</td>
<td>PLC Yield</td>
<td>Factor</td>
<td>PLC Yield</td>
<td>Factor</td>
<td>PLC Yield</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| ISU PLC Yield Update Tool (EXAMPLE 2)

The FSA software will not let you update a PLC yield if the updated yield is lower than the old PLC yield.

| Iowa State University Extension and Outreach |

ISU PLC Yield Update Tool (EXAMPLE 2)

<table>
<thead>
<tr>
<th>FSA Farm Number (Optional):</th>
<th>9999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current PLC Yield</td>
<td>New PLC Yield</td>
</tr>
<tr>
<td>Corn (bu/acre)</td>
<td>150</td>
</tr>
<tr>
<td>Soybeans (bu/acre)</td>
<td>40</td>
</tr>
</tbody>
</table>

1. Choose an Iowa county from the dropdown menu

<table>
<thead>
<tr>
<th>Substitute yields</th>
<th>Corn</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wright</td>
<td>140.86</td>
<td>29.48</td>
</tr>
</tbody>
</table>

**Corn**

<table>
<thead>
<tr>
<th>Year</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Substitute yield</td>
</tr>
<tr>
<td>2014</td>
<td>Your farm</td>
</tr>
<tr>
<td>2015</td>
<td>Higher yield</td>
</tr>
<tr>
<td>2016</td>
<td>Corn yield ratio</td>
</tr>
<tr>
<td>2017</td>
<td>Program yield</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Substitute yield</td>
</tr>
<tr>
<td>2014</td>
<td>Your farm</td>
</tr>
<tr>
<td>2015</td>
<td>Higher yield</td>
</tr>
<tr>
<td>2016</td>
<td>Soybean yield ratio</td>
</tr>
<tr>
<td>2017</td>
<td>Program yield</td>
</tr>
</tbody>
</table>

2 Substitute yield is 75% of 2013-2017 simple county average yield per planted acre.
3 If yield evidence is not available for a given year the crop was grown, enter the substitute yield for “Your Farm”.
4 The new PLC yield is the simple average of annual program yields.
Price Loss Coverage

Payments made when the effective price is less than the effective reference price for a covered commodity.

- Effective Price is the *higher* of Marketing Year Avg. Price for the crop or the National Loan Rate for the crop.
- Effective Reference Price: Higher of Statutory Reference Price ($3.70 c, $8.40 s) and 85% of the 5-year Olympic average price, up to statutory reference price \times 1.15.
- Payments made on 85% of base acres
- Payments made regardless of commodity planting

Projected vs PLC Effective Reference Prices for Corn & Beans

![Graph showing projected vs PLC effective reference prices for corn and beans.](#)
**ARC-CO Program**

Payments made when the Actual County Revenue is *less than* the ARC-CO Guarantee for a covered commodity.

- Actual Co Revenue = Co Yield × Marketing Year Avg Price
- ARC-CO Guarantee = 86% Benchmark Revenue
- Benchmark Revenue = 5y O.Avg Price × 5y O.Avg Yield
  - Use Highest of Trend-Adjusted Yields, 80% T-yield as yield plug
  - Use Effective Reference Price if ERP>actual MYA price
- Max payment = 10% Benchmark Revenue
- Payments made on 85% of base acres
- Payments made regardless of commodity planting

**Example Farm 1: Boone, IA**

- FSA Farm # 1234
- Operator Joe Farmer

- Uses Price projections from FAPRI (alternative USDA, or any other price projection)

➢ What are the projected PLC and ARC-CO payments for this farm?
FSA-156EZ Form: Example 1 Farm

IOWA BOONE
Form: FSA-156EZ
Farm: 1234
Prepared: Nov 15, 2019
Crop Year: 2019

Operator Name: Joe Farmer
Farms Associated with Operator: 11-111-1235
CRP Contract Number(s): None
Recon ID: None

- Boone County, Iowa
- Farm # 1234
- Operator Joe Farmer
- Corn Base Acres = 80
- Soybean Base Acres = 70
- Updated PLC Corn Yield = 153
- PLC Soybean Yield = 41

DCP Crop Data

<table>
<thead>
<tr>
<th>Crop Name</th>
<th>Base Acres</th>
<th>CCC Reduction Acres</th>
<th>CTAP Yield</th>
<th>PLC Yield</th>
<th>HIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>80</td>
<td>0</td>
<td>0</td>
<td>153</td>
<td></td>
</tr>
<tr>
<td>Soybeans</td>
<td>70</td>
<td>0</td>
<td>0</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ISU ARC/PLC Payment Estimator Example 1 (Corn)

1. Select the cell below and choose an Iowa county from the dropdown menu:

Boone

Estimated Payments for Corn Base Acres in Boone County, Iowa

County Yield 154.9 158.6 162.3 165.9 163.9 165.9 163.9 165.9 163.9 165.9 163.9 165.9
RMA Trend Adjusted Yield 107.9 108.6 110.3 112.3 109.7 110.7 109.7 110.7 109.7 110.7 109.7 110.7

2. Agricultural Risk Coverage, County Option (ARC-County)

County Yield 154.9 158.6 162.3 165.9 163.9 165.9 163.9 165.9 163.9 165.9 163.9 165.9
RMA Trend Adjusted Yield 107.9 108.6 110.3 112.3 109.7 110.7 109.7 110.7 109.7 110.7 109.7 110.7

3. Price Loss Coverage (PLC)

Expected PLC Yield 151.5 151.5 151.5 151.5 151.5 151.5 151.5 151.5 151.5 151.5 151.5 151.5

Payments / bu / bushel / base acre
After surtaxation $ 0.15 $ 0.15 $ 0.15 $ 0.15 $ 0.15
PLC Payment based on farm yield / base acre $ 20.01

ISU ARC/PLC Payment Estimator Example 1 (Corn)
ISU ARC/PLC Payment Estimator Example 1 (Soybeans)

Estimated Payments for Soybean Base Acres in Boone County, Iowa

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>$10.00</td>
<td>$10.10</td>
<td>$0.95</td>
<td>$0.87</td>
<td>$0.83</td>
<td>$0.80</td>
<td>$0.80</td>
<td>$0.80</td>
<td>$0.80</td>
<td>$0.80</td>
</tr>
<tr>
<td>Higher MFA, Effective Def. Price</td>
<td>10.00</td>
<td>10.10</td>
<td>0.95</td>
<td>0.87</td>
<td>0.83</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td>ARC-IC Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Agricultural Risk Coverage, County Option (ARC-County)

- Farms with prevented planting:
  - **ARC-IC Program**
  - Payments are made when the ARC-IC Actual Revenue is less than the ARC-IC Guarantee for ALL covered commodities on ALL farms enrolled in ARC-IC in the state for the producer.
  - ARC-IC Guarantee = 86% ARC-IC Benchmark Revenue
  - Max Payment = 10% ARC-IC Benchmark Revenue
  - Payments made on 65% of base acres
  - ARC-IC benchmarks, guarantees and actual revenues are calculated at the farm level and **WEIGHTED** to the producer’s share of the covered commodities planted across all enrolled ARC-IC farm(s) in the state.

Example farm: Corn base acres in PLC & Soybean base acres in ARC-CO

Farms with prevented planting: ARC-IC Program

Payments are made when the ARC-IC Actual Revenue is less than the ARC-IC Guarantee for ALL covered commodities on ALL farms enrolled in ARC-IC in the state for the producer.

- ARC-IC Guarantee = 86% ARC-IC Benchmark Revenue
- Max Payment = 10% ARC-IC Benchmark Revenue
- Payments made on 65% of base acres
- ARC-IC benchmarks, guarantees and actual revenues are calculated at the farm level and **WEIGHTED** to the producer’s share of the covered commodities planted across all enrolled ARC-IC farm(s) in the state.

Source: Iowa State FSA Office
ARC-IC Calculations Require Lots of Information

- Download the What-If Tool: 
  https://farmdoc.illinois.edu/2018-farm-bill

- For only 1 farm, use tab “arc-ic”
- For multiple farms, use tab “arc-ic-multi”

- How to use it video: 
  https://www.youtube.com/watch?v=nsjT-hegdp8

ARC-IC Example

- Need 2013-2017 yield history
- Indicate whether the crop was planted
- If planted, Used Yield = higher of (farm yield, 80% County T-Yield)
- If NOT planted, Used Yield = County Yield

ARC-IC Example Table
**ARC-IC Example**

**Benchmark Revenue Calculation:**
5-y Olympic Avg. of annual Revenues

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**ARC-IC Example**

- The Benchmark Revenues for each crop are WEIGHTED by planted acres in 2019 to calculate the Benchmark Revenue for the Farm.
ARC-IC Example with 100% Prevented Acres Entire Farm

2019 ARC-IC Payment (Payment Assumes One FSA Farm Enrolled in ARC)

<table>
<thead>
<tr>
<th>Crop</th>
<th>2019 Acres</th>
<th>2019 Prevent Plant</th>
<th>Farm MYA</th>
<th>Loan Rate</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>0</td>
<td>100</td>
<td>2.20</td>
<td>0.00</td>
<td>738.86</td>
</tr>
<tr>
<td>Soybeans</td>
<td>150</td>
<td></td>
<td>6.20</td>
<td>0.00</td>
<td>538.30</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td>1277.16</td>
</tr>
</tbody>
</table>

Benchmark Revenue = $618.52 (per base acre)
Guarantee = $531.93 (per base acre)
ARC-IC Payment = $40.20 (per base acre)

Prevent plant acres are considered planted with no yields → high ARC-IC Payment

ARC-IC Example Only with Corn Prevented Acres

2019 ARC-IC Payment (Payment Assumes One FSA Farm Enrolled in ARC)

<table>
<thead>
<tr>
<th>Crop</th>
<th>2019 Acres</th>
<th>2019 Prevent Plant</th>
<th>Farm MYA</th>
<th>Loan Rate</th>
<th>Revenue</th>
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<td>0.00</td>
<td>538.30</td>
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<tr>
<td>Total</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td>1277.16</td>
</tr>
</tbody>
</table>

Benchmark Revenue = $538.30 (per base acre)
Guarantee = $462.94 (per base acre)
Arc Revenue = $450.00 (per base acre)
ARC-IC Payment = $8.41 (per base acre)

Both effects result in LOWER ARC-IC Payment than under 100% prevented planting: $8.41 vs. $40.20

Benchmark Revenue is Lower because it gives a weight of 100% to soybean revenue, and 0% to corn revenue → Lower Guarantee

Farm Revenue is >0
ARC/PLC Web Sites

• USDA Farm Service Agency (FSA)
  https://www.fsa.usda.gov/programs-and-services/arcplc_program/index

• ISU Ag Decision Maker
  – (Farm Bill Information, Sequenced Videos, ARC/PLC Payment Estimator)
  www.extension.iastate.edu/agdm/info/farmbill.html

• Farm Doc – U of IL Extension Economics
  – (Daily e-Newsletter articles, Webinars, ARC/PLC Tool)
  https://go.illinois.edu/fd-ARCPLC

• FAPRI – University of Missouri
  – (October U.S. Baseline Outlook & Crop Price Projections)
  www.fapri.missouri.edu

• Texas A & M University
  – Farm Bill Decision Aid Tool
  https://agrilifeextension.tamu.edu/solutions/farm-bill-decision-aid-tool/

Thank you for your attention!

Questions? Comments?

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https://www2.econ.iastate.edu/faculty/plastina/
Corn: Projected Prices & PLC Reference Price


Soybeans: Projected Prices & PLC Reference Price