Farm Bill Details and Decisions

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ARC, PLC, and Other Issues

Overview

• PLC
  • Yield update
  • Effective reference price
  • Calculations
  • Economics

• ARC-CO
  • Trend yield adjustment
  • Irrigated/nonirrigated practice expansion
  • Calculations
  • Economics

• ARC-CO v. PLC decision

• ARC-IC
  • Details
  • Special circumstance

• Crop Insurance - SCO
  • Review under PLC enrollment

• Ad Hoc Assistance
  • Trade assistance
  • Agricultural disaster assistance
ARC and PLC Decisions

• PLC Yield Update
  • By crop by farm (FSA farm number)
  • Update available regardless of whether farm is enrolled in ARC or PLC

• ARC v. PLC
  • ARC-CO v. PLC by crop by farm (FSA farm number)

• ARC-IC by farm (FSA farm number)
  • If enrolled in ARC-IC, producer’s interest in all farms enrolled in ARC-IC counts toward single ARC-IC calculation
Price Loss Coverage (PLC)

Details

• Existing PLC program implemented in 2014 reauthorized
  • Follows model of Counter-Cyclical Payment and Deficiency Payment of programs before

• Payment on 85% of base acres

• New effective reference price based on higher of reference price or 85% of 5-year average price
  • History lagged 2 years from current year – 2019 calculation based on 2013-2017 prices

• Opportunity to update payment yields

• Impact
  • Provides income support and risk management support when price is near or below effective reference price
Price Loss Coverage (PLC)

Yield Update

• Yield update equal to
  • 90% of the 2013-2017 farm average yield
    • Substitute yield equal to 75% of the county average for low farm yields
  • Multiplied by national yield factor
    • 2008-2012 national average yield divided by 2013-2017 national average yield
    • Minimum factor of 0.9 - Maximum factor of 1.0

• Yield factor allows yield updates nationally, but detrends results based on average national yield changes
  • Yield update originally proposed just for counties with multiple years of low yields during last yield update in 2014 (based on 90% of 2008-2012 yields)
## Price Loss Coverage (PLC) Yield Update

Updated Payment Yield = Max of

\[
\text{Max of} \left[ \text{90\% x 5 \text{ - Year Average}} \left[ \text{Max of} \left[ \text{Actual Yield} \times 75\% \times \text{County Average Yield} \right] \times \text{National Yield Factor} \right] \right] \text{Existing PLC Payment Yield}
\]

<table>
<thead>
<tr>
<th>Corn</th>
<th>Existing PLC Yield</th>
<th>2013-2017 Yield History</th>
<th>Average Yield</th>
<th>90% of Average Yield</th>
<th>National Yield Factor</th>
<th>Updated PLC Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2013</td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>Saunders County</td>
<td>142</td>
<td>176</td>
<td>187</td>
<td>130</td>
<td>190</td>
<td>201</td>
</tr>
<tr>
<td>75% County Yield</td>
<td>136</td>
<td>436</td>
<td>436</td>
<td>136</td>
<td>436</td>
<td>136</td>
</tr>
<tr>
<td>Lincoln County</td>
<td>149</td>
<td>422</td>
<td>164</td>
<td>186</td>
<td>204</td>
<td>182</td>
</tr>
<tr>
<td>75% County Yield</td>
<td>129</td>
<td>129</td>
<td>129</td>
<td>129</td>
<td>129</td>
<td>129</td>
</tr>
</tbody>
</table>
Price Loss Coverage (PLC)
Yield Update Analysis and Comparison
• Yield update a choice between
  • Existing PLC program payment yield
  • Farm’s 2013-2017 average yield multiplied by adjusted factor

<table>
<thead>
<tr>
<th>Crop</th>
<th>Adjusted Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>81%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>81%</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>81.7%</td>
</tr>
<tr>
<td>Wheat</td>
<td>85.9%</td>
</tr>
<tr>
<td>Other Program Crops</td>
<td>Multiply national yield factor times 90%</td>
</tr>
</tbody>
</table>
### Price Loss Coverage (PLC) Effective Reference Price

Effective Reference Price = Min of \[ \text{Max of} \left[ \begin{array}{c} \text{85% of 5-year Olympic Average Price} \\ \text{115% of Reference Price} \end{array} \right] \]

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Reference Price (MIN)</th>
<th>Marketing Year Average Price</th>
<th>Olympic Average Price</th>
<th>85% of Olympic Average Price</th>
<th>115% of Reference Price (MAX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>$3.70</td>
<td>$4.46 $3.70 $3.61 $3.36 $3.36</td>
<td>$3.56</td>
<td>$3.02</td>
<td>$4.26</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>3.95</td>
<td>4.28 4.03 3.31 2.79 3.22</td>
<td>3.52</td>
<td>2.99</td>
<td>4.54</td>
</tr>
<tr>
<td>Wheat</td>
<td>5.50</td>
<td>6.87 5.99 4.89 3.89 4.72</td>
<td>5.20</td>
<td>4.42</td>
<td>6.33</td>
</tr>
</tbody>
</table>
## Price Loss Coverage (PLC) Payment Rate

The PLC Payment Rate is calculated as:

$$\text{PLC Payment Rate} = \max \left( \frac{\text{Effective Reference Price} - \text{Effective Price}}{0} \right)$$

And the PLC Payment is calculated as:

$$\text{PLC Payment} = \text{PLC Payment Rate} \times \text{PLC Payment Yield} \times \text{Base Acres} \times 85\%$$

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Effective Reference Price</th>
<th>Marketing Loan Rate</th>
<th>Marketing Year Average Price*</th>
<th>PLC Payment Rate</th>
<th>PLC Payment Yield*</th>
<th>PLC Payment per Paid Acre***</th>
<th>PLC Payment per Base Acre***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>$3.70</td>
<td>$2.20</td>
<td>$3.85</td>
<td>$0.00</td>
<td>150</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>3.95</td>
<td>2.20</td>
<td>3.40</td>
<td>0.55</td>
<td>77</td>
<td>42.35</td>
<td>36.00</td>
</tr>
<tr>
<td>Soybean</td>
<td>8.40</td>
<td>6.20</td>
<td>9.00</td>
<td>0.00</td>
<td>45</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Wheat</td>
<td>5.50</td>
<td>3.38</td>
<td>4.60</td>
<td>0.90</td>
<td>41</td>
<td>36.90</td>
<td>31.37</td>
</tr>
</tbody>
</table>

* Price forecast from USDA-WAOB as of November 2019 for illustration only. ** Average PLC payment yield in Nebraska (before yield update). *** Payment per paid acre and payment per base acre (accounting for 85% paid acre factor) subject to budget sequestration and payment limits.
### Price Loss Coverage (PLC) Payment Rate over Range of Corn Prices

PLC Payment Rate = Max of \[\frac{\text{Effective Reference Price} - \text{Effective Price}}{0}\]

PLC Payment = PLC Payment Rate x PLC Payment Yield x Base Acres x 85%

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Effective Reference Price</th>
<th>Marketing Loan Rate</th>
<th>Marketing Year Average Price*</th>
<th>PLC Payment Rate</th>
<th>PLC Payment Yield*</th>
<th>PLC Payment per Paid Acre***</th>
<th>PLC Payment per Base Acre***</th>
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<tr>
<td>Corn</td>
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<td>$2.20</td>
<td>$3.85</td>
<td>$0.00</td>
<td>150</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>3.70</td>
<td>2.20</td>
<td>3.75</td>
<td>0.00</td>
<td>150</td>
<td>7.50</td>
<td>6.38</td>
<td>0.00</td>
</tr>
<tr>
<td>3.70</td>
<td>2.20</td>
<td>3.65</td>
<td>0.05</td>
<td>150</td>
<td>22.50</td>
<td>19.13</td>
<td></td>
</tr>
</tbody>
</table>

* Price forecast from USDA-WAOB as of November 2019 and range below for illustration only. ** Average PLC payment yield in Nebraska (before yield update). *** Payment per paid acre and payment per base acre (accounting for 85% paid acre factor) subject to budget sequestration and payment limits.
Agriculture Risk Coverage (ARC)

Details

• Existing ARC program implemented in 2014 reauthorized
  • Follows model of Agricultural Risk Coverage Election (state-level guarantee) program of 2008 Farm Bill with county or farm-level protection

• Support
  • County-level coverage (ARC-CO) choice by crop by farm
    • Payments by crop paid on 85% of base acres
  • Individual (farm-level) coverage (ARC-IC) choice by farm
    • Payments across all of a producer’s farm interests enrolled in ARC-IC paid on 65% of base acres

• Impact
  • Provides income support and risk management support when price is near or below effective Olympic average price and/or yield is below trend-adjusted Olympic average yield
Agriculture Risk Coverage – ARC-CO

Details

• Yield data based first on RMA yield data, then NASS and other sources

• Benchmark calculations
  • History lagged 2 years from current year – 2019 benchmark based on 2013-2017 yields and prices
  • Benchmark yields for each year of yield history adjusted for trend
  • Benchmark price for each year equal to higher of national marketing year average price or new effective reference price
Agriculture Risk Coverage – ARC-CO

Trend-Adjusted Olympic Average Yield Comparison

Saunders County Irrigated Corn - 2019

2019 Yield Adjustment Factor = 2.2

Actual Yield  Trend Yield Adjustment  ··· 5-Year Olympic Average  -- 5-Year Trend-Adjusted Olympic Average
Agriculture Risk Coverage – ARC-CO
Trend-Adjusted Olympic Average Yield Comparison

Lincoln County Irrigated Corn - 2019

Actual Yield
Trend Yield Adjustment
5-Year Olympic Average
5-Year Trend-Adjusted Olympic Average

2019 Yield Adjustment Factor = 1.9
# Agriculture Risk Coverage – ARC-CO Benchmark and Guarantee

\[
\text{ARC – CO Benchmark} = \text{ARC – CO Benchmark} \times \frac{\text{ARC – CO Benchmark}}{\text{ARC – CO Benchmark Price}}
\]

\[
\text{ARC – CO Guarantee} = \text{ARC – CO Benchmark} \times 86\%
\]

<table>
<thead>
<tr>
<th>Irrigated Corn</th>
<th>Benchmark Yield</th>
<th>Benchmark Price</th>
<th>Benchmark Revenue</th>
<th>Guarantee</th>
<th>MAX Payment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saunders County</td>
<td>219.10</td>
<td>$3.70</td>
<td>$810.67</td>
<td>$697.18</td>
<td>$81.07</td>
</tr>
<tr>
<td>Lincoln County</td>
<td>202.68</td>
<td>3.70</td>
<td>749.92</td>
<td>644.93</td>
<td>75.00</td>
</tr>
</tbody>
</table>
# Agriculture Risk Coverage – ARC-CO

## Revenue and Payment

### Irrigated Corn Benchmark Revenue Guarantee

\[
\text{ARC – CO Payment Rate} = \text{Actual County Yield} \times \min \left[ \text{Max of} \left[ \frac{\text{ARC – CO Guarantee} - \text{ARC – CO Actual Revenue}}{\text{ARC – CO Benchmark Revenue} \times 10\%} \right], 0 \right]
\]

<table>
<thead>
<tr>
<th>Irrigated Corn</th>
<th>Benchmark Revenue</th>
<th>Guarantee</th>
<th>MAX Payment Rate</th>
<th>Actual Yield*</th>
<th>Effective Price**</th>
<th>Actual Revenue</th>
<th>ARC-CO Payment Per Paid Acre***</th>
<th>ARC-CO Payment Per Base Acre***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saunders County</td>
<td>$810.67</td>
<td>$697.18</td>
<td>$81.07</td>
<td>180</td>
<td>$3.85</td>
<td>$693.00</td>
<td>$4.18</td>
<td>$3.55</td>
</tr>
<tr>
<td>Lincoln County</td>
<td>$749.92</td>
<td>644.93</td>
<td>75.00</td>
<td>160</td>
<td>3.85</td>
<td>616.00</td>
<td>28.93</td>
<td>24.59</td>
</tr>
</tbody>
</table>

* Assumed actual yield for illustration only. ** Price forecast from USDA-WAOB as of October 2019 for illustration only. *** Payment per paid acre and payment per base acre (accounting for 85% paid acre factor) subject to budget sequestration and payment limits.
Agriculture Risk Coverage – ARC-CO
Outlook

Corn Prices and the Safety Net

* Price projections for 2019 from USDA-WAOB and USDA-FSA as of November 2019. Price projections for 2020-2023 from USDA-OCE as of November 2019. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue.
Agriculture Risk Coverage – ARC-CO Outlook

Sorghum Prices and the Safety Net

* Price projections for 2019 from USDA-WAOB and USDA-FSA as of November 2019. Price projections for 2020-2023 from USDA-OCE as of November 2019. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue.
Agriculture Risk Coverage – ARC-CO Outlook

Soybean Prices and the Safety Net

* Price projections for 2019 from USDA-WAOB and USDA-FSA as of November 2019. Price projections for 2020-2023 from USDA-OCE as of November 2019. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue.
Agriculture Risk Coverage – ARC-CO Outlook


ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue.
Agriculture Risk Coverage – ARC-IC

Details
• Calculations based on farm-level yields and national prices
  • Weighted for current year plantings

• Revenue calculations based on planted acres
  • Exception in the case of 100% prevent plant acres on a farm (FSA farm number)

• Payments
  • Based on producer’s interest in all farms enrolled in ARC-IC
  • Paid on 65% of base acres
2018 Farm Bill Program Decisions
Crop Insurance/Risk Management Considerations

• PLC provides price protection that may substitute for price risk management at price levels near or below reference prices
  • PLC may complement crop insurance purchases, particularly YP, but PLC protection is limited to program yields and base acres
  • PLC enrollment (technically, not enrolling in ARC) allows the producer to also consider the Supplemental Coverage Option (SCO)
Price Loss Coverage (PLC)
Effective Safety Net at $3.70 Reference Price

Corn Marketing Loan/PLC Safety Net

Corn Price/Payment Received ($/Bushel)
Corn Price ($/Bushel)

- MLG/LDP
- PLC Payment Rate
- Crop Revenue
- Adjusted Crop Revenue
2018 Farm Bill Program Decisions
Crop Insurance/Risk Management Considerations

• ARC provides shallow-loss revenue protection that may substitute for higher levels of crop insurance coverage
  • ARC protects revenue risk from 86% down to 76% of the ARC benchmark that may be in the producer’s crop insurance deductible range, but...
    • ARC-CO protection is tied to county-level risk of crops in the farm’s base and pays on just 85% of base acres
    • ARC-IC protection is tied to farm-level risk of planted crops on the farm, but pays on just 65% of base acres
Agriculture Risk Coverage – ARC-CO
Effective Safety Net at 200 B/A Benchmark (Trend) Yield and $3.70 Benchmark Price
Crop Insurance
Supplemental Coverage Option (SCO)

• County-based crop insurance policy
  • Available to cover gap between 86% and insurance protection level selected
  • Coverage tied to type of personal coverage selected (YP, RP, RP-HPE, etc.)

• Available if farm/crop not enrolled in ARC
  • May be more relevant given potential shift in enrollment toward PLC
  • Separate from the farm program decision – contact crop insurance agent

• Analysis to be weighed between purchasing SCO and lower levels of crop insurance vs. higher levels of crop insurance
  • SCO may reduce premium cost relative to higher levels of individual coverage, but also shifts protection to county-level results as opposed to farm-level results
2018 Farm Bill Program Decisions

ARC v. PLC Decisions

• Under stable, lower price levels, PLC support will kick in before ARC support for downward price movement

• Under modestly increasing price levels, ARC and PLC support may quickly disappear

• Under substantially higher prices, moving average price in ARC benchmark and moving average price in PLC effective reference price could ratchet up support to near equivalent levels

• On a year-by-year basis, ARC-IC may be an important consideration

• Any analysis of potential payments based on price projections must consider risk and uncertainty
**Decisions and Outlook**

**Prices and Long-Run Projections**


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**Decisions and Outlook**

**Prices and Long-Run Projections**


* Corn Prices and Baseline Projections


ARC-CO/PLC Decision Tools

www.fsa.usda.gov/programs-and-services/arcplc_program/index

The Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) programs were authorized by the 2014 and 2018 Farm Bills.

**Agriculture Loss Coverage-County (ARC-CO)**

The ARC-CO program provides income support tied to historical base acres, not current production, of covered commodities. ARC-CO payments are issued when the actual county crop revenue of a covered commodity is less than the ARC-CO guarantee for the covered commodity.

**Price Loss Coverage (PLC)**

PLC program payments are issued when the effective price of a covered commodity is less than the respective reference price for that commodity. The effective price equals the higher of the market year average price (MYA) or the national average loan rate for the covered commodity.
2018 Farm Bill Decision Aid

To retrieve your saved farms, you must first

Login
Agricultural Policies and Programs
Other Issues

- Ad Hoc Trade Assistance
- Ad Hoc Agricultural Disaster Assistance
Trade Assistance
Market Facilitation Program (MFP)

• $14.5 billion in MFP payments

• Single payment rate per county per planted acre of MFP eligible commodity
  • $15-150 per acre nationally
  • $15-74 per acre in Nebraska
  • $15 per acre on prevented planting acres planted to approved cover crop by August 1

• Signup began July 29 and runs through December 6

• 1st installment equal to higher of 50% of payment rate or $15 per acre

• 2nd installment announced on November 15
  • Additional 25% payment (75% of total payment rate less first installment)*

• 3rd installment expected in early 2020 depending on trade situation

• Additional MFP payments
  • $0.20/hundredweight for milk (1st)
  • $0.10/hundredweight for milk (2nd)*
  • $11.00/head for pork (1st)
  • $5.50/head for pork (2nd)*
  • Additional payment rates for selected specialty crops

• Additional trade aid
  • $1.4 billion for commodity purchases
  • $100 million for trade promotion

* Assumed 2nd installment payment details based on USDA announcement of November 15, 2019.
Trade Assistance
MFP Payment Rates*

* Payment rate per planted acre of MFP eligible commodity. Prevented planting acres eligible for minimum $15 per acre if planted to approved cover crop by August 1. First installment equal to higher of 50% of payment rate or $15 per acre. Source: USDA-FSA.
Trade Assistance

MFP Payment Rates – 2\textsuperscript{nd} Installment*

* Payment rate per planted acre of MFP eligible commodity. Second installment equal to 75\% of total announced payment rate less initial payment rate. Source: USDA-FSA.
Agricultural Disaster Assistance
2018-2019 (WHIP+)

- Assistance for producers in disaster counties
  - Crop losses
    - Losses below expected revenue x payment factor (70-95%)
    - Adjustment for limited disaster budget
      - 100% on 2018 losses
      - Initial 50% payment on 2019 losses
  - Prevented planting losses – top up payment for crop insurance prevented planting coverage
  - Stored commodities (75% factor) – coverage for lost commodities in private storage facilities
- Additional ag assistance

<table>
<thead>
<tr>
<th>Insurance Coverage Level Purchased</th>
<th>WHIP+ Payment Factor (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Crop Insurance</td>
<td>70</td>
</tr>
<tr>
<td>CAT/NAP Basic 50/55</td>
<td>75</td>
</tr>
<tr>
<td>50% ≤ Coverage &lt; 55%</td>
<td>77.5</td>
</tr>
<tr>
<td>55% ≤ Coverage &lt; 60%</td>
<td>80</td>
</tr>
<tr>
<td>60% ≤ Coverage &lt; 65%</td>
<td>82.5</td>
</tr>
<tr>
<td>65% ≤ Coverage &lt; 70%</td>
<td>85</td>
</tr>
<tr>
<td>70% ≤ Coverage &lt; 75%</td>
<td>87.5</td>
</tr>
<tr>
<td>75% ≤ Coverage &lt; 80%</td>
<td>92.5</td>
</tr>
<tr>
<td>80% ≤ Coverage</td>
<td>95</td>
</tr>
</tbody>
</table>
Agricultural Disaster Assistance
Nebraska Disaster Counties
Questions?

For further information, please visit:

farmbill.unl.edu
and
fssa.usda.gov/ne