PROGRAM DECISION STEPS
FARM BILL TOOLBOX

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University of Illinois
Development & Outreach Coalition

- University of Illinois
- Watts & Associates
- The Ohio State University
- Michigan State University
- Delaware State University
- University of Arkansas-Pine Bluff
- North Carolina A&T University
- Montana State University
Seven steps to help with the decisions required by the 2014 Farm Bill

One-stop resource available:  http://farmbilltoolbox.farmdoc.illinois.edu

Or search: “Farm Bill Toolbox”
1. Retain or update payment yields

2. Retain or reallocate base acres

3. Program Election: ARC-CO; PLC; ARC-CO

Each decision made by FSA farm; one-time and irrevocable
Collect Information.—

✓ FSA Letter from August: existing payment yields and base acres for each FSA farm

✓ FSA letter also provides record of acres planted on the FSA farm for 2008 to 2013 crop years

✓ Also need crop yield history for 2008 to 2012; crop insurance records will be accepted
Keep or Update Yields.—

- Keep current payment (CC) yields as listed on FSA letter

- Update to 90% of the average yields from 2008 to 2012 crop years

- Payment yields only used for PLC; independent of program choice; decision for landowners only
Retain or Reallocate Base Acres.—

- Keep current base acre distribution as listed on FSA letter

- Reallocate base to ratio of planted acres for program crops in 2009 to 2012 crop years; FSA letter determines

- All programs pay on base acres; decision covers all program crops; decision for landowners only
Compare ARC-CO and PLC.—

- Decision for all **producers** on the farm (not landowners in a cash lease); a crop-by-crop decision

- **ARC-CO**: revenue-based assistance using county average yields and national average prices

- **PLC**: fixed-price, deficiency payment program when national average price is below statutory reference price
<table>
<thead>
<tr>
<th>OPERATIONAL COMPARISON</th>
<th>ARC-CO</th>
<th>PLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-year Olympic moving average marketing year average (MYA) price (reference price plug)</td>
<td>Reference price fixed in statute; does not change</td>
<td>Payment yield used to calculate payments; does not change (after update)—no yield coverage provided</td>
</tr>
<tr>
<td>5-year Olympic moving average of county yields (70% of T-yield plug)</td>
<td>Coverage is from 86% down to 76% of county revenue (i.e. a 10% maximum)</td>
<td>Coverage is for prices below the reference price and down to the loan rate</td>
</tr>
</tbody>
</table>
# Operational Comparison: Prices Used

**ARC-CO** vs **PLC**

<table>
<thead>
<tr>
<th>Year</th>
<th>MYA Price &amp; 5-year Olympic</th>
<th>Corn</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>$3.55 ($3.70)</td>
<td>$9.59</td>
<td>$3.70</td>
</tr>
<tr>
<td>2010</td>
<td>$5.18*</td>
<td>$11.30*</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>$6.22*</td>
<td>$12.50*</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>$6.89</td>
<td>$14.40</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>$4.46*</td>
<td>$13.00*</td>
<td></td>
</tr>
<tr>
<td>Olympic</td>
<td>$5.29</td>
<td>$12.27</td>
<td></td>
</tr>
</tbody>
</table>

(Ref. price replaces MYA below it)

(*Used in the Olympic calculation)
Compare ARC-CO and PLC.—

- Download ARC-CO/ PLC Comparison tool on farmdoc: farmdoc.illinois.edu

- Go to Agriculture Policy Analysis System (APAS): fsa.usapas.com
ARC-PLC Decision Steps

The following 7 steps are designed to help guide you through the decisions required for each FSA farm.

1. Collect Information
2. Keep or Update Yields
3. Retain or Reallocate Base Acres
4. Consider ARC-IC
5. Consider SCG
6. Signup

Corn Price Forecasts
($ per Bushel)

Soybean Price Forecasts
($ per Bushel)

Reference CBO USDA FAPRI

2014 2015 2016 2017 2018
ARC-PLC Decision Steps

The following 7 steps are designed to help guide you through the decisions required for each FSA farm.

- **Start** Overview
- **1** Collect Information
- **2** Keep or Update Yields
- **3** Retain or Reallocate Base Acres
- **4** Average ARC-IC
- **5** Consider ARC-IC/PLC
- **6** Consider SCC
- **7** Signup

### Wheat Price Forecasts ($ per Bushel)

- **2014** $4.00
- **2015** $4.20
- **2016** $4.40
- **2017** $4.60
- **2018** $4.80

### Peanut Price Forecasts ($ per Pound)

- **2014** $0.1500
- **2015** $0.1700
- **2016** $0.1900
- **2017** $0.2100
- **2018** $0.2300
Compare ARC-CO and PLC.—

- Much of this decision depends on your price expectations for 2014 through 2018

- Type of risk coverage factors in as well: ARC-CO for lower prices and yields; PLC for very low prices

- Other considerations include the 10% maximum payment on ARC-CO and availability of SCO for PLC
Compare ARC-CO and PLC.—

- Soybeans: all forecasts have prices above reference; difficult for PLC to be effective

- Corn: close call, how low on price expectations (USDA?); keep in mind impact of big yields in 2014

- Wheat: even closer call on price expectations; SCO may also be a significant factor (see step 6)
TAKE A BREAK

Please Return in 15 Minutes

Discussion of ARC-IC and SCO
ARC-PLC Decision Steps

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<tr>
<th>Start</th>
<th>1 Collect Information</th>
<th>2 Keep or Update Yields</th>
<th>3 Retain or Reallocate Base Acres</th>
<th>4 Compare ARC-CD and PLC</th>
<th>5 Consider ARC-IC</th>
<th>6 Consider SCG</th>
<th>7 Signup</th>
</tr>
</thead>
</table>

**Consider ARC-IC.**

- **Uses the sum of all program crops on the farm weighted by actual planted acres**

- **All farms in the state enrolled in ARC-IC; producer’s share**

- **Payments made on 65% of total base acres for the farm (all program crop base)**
### Randolph County, IN: ARC-IC Example Calculations

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn Yield</th>
<th>Corn Price</th>
<th>Corn Revenue</th>
<th>Soybeans Yield</th>
<th>Soybeans Price</th>
<th>Soybeans Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>173</td>
<td>$3.55</td>
<td>$640</td>
<td>51</td>
<td>$9.59</td>
<td>$489</td>
</tr>
<tr>
<td>2010</td>
<td>157</td>
<td>$5.18</td>
<td>$813*</td>
<td>46</td>
<td>$11.30</td>
<td>$520*</td>
</tr>
<tr>
<td>2011</td>
<td>143</td>
<td>$6.22</td>
<td>$889</td>
<td>47</td>
<td>$12.50</td>
<td>$588*</td>
</tr>
<tr>
<td>2012</td>
<td>104</td>
<td>$6.89</td>
<td>$717*</td>
<td>47</td>
<td>$14.40</td>
<td>$677</td>
</tr>
<tr>
<td>2013</td>
<td>171</td>
<td>$4.46</td>
<td>$763*</td>
<td>51</td>
<td>$13.00</td>
<td>$663*</td>
</tr>
</tbody>
</table>

5-year Olympic Average Revenue:  
- Corn: $764  
- Soybeans: $590

(*Used in the Olympic calculation)
**Randolph County, IN: ARC-IC Example Calculations**

<table>
<thead>
<tr>
<th></th>
<th>Corn: 60 acres planted</th>
<th>Soybeans: 40 acres planted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td><strong>Yield</strong></td>
<td><strong>Price</strong></td>
</tr>
<tr>
<td>2014</td>
<td>180</td>
<td>$3.50</td>
</tr>
</tbody>
</table>

**Benchmark (Max.)**

\[
(0.6 \times $764) + (0.4 \times $590) = $695 \quad (\times 10\% = $69.50)
\]

**Guarantee**

86% of $695 = $597

**Actual**

\[
(0.6 \times $630) + (0.4 \times $510) = $582
\]

**Difference**

$597 - $582 = $15

**Estimated Payment**

$15 \times 100 \times 65\% = $995 \quad ($9.95 per base acre)
Consider ARC-IC.—

- Uses the **sum** of all program crops on the farm **weighted** by actual planted acres

- All farms in the state enrolled in ARC-IC; producer’s share

- Payments made on **65%** of total base acres for the farm (all program crop base)
Consider Supplemental Coverage Option (SCO).—

- **A Crop Insurance Policy**: planted acres, APH and actual yields, RMA prices, premium (65% subsidy)

- **Uses a county-based trigger** at 86%; coverage down to underlying COMBO insurance trigger

- **Applied to deductible range of your underlying policy; cannot be mixed** with ARC-CO or ARC-IC
Consider Supplemental Coverage Option (SCO).—

- Example with 75% Revenue Protection (RP) individual policy
- SCO covers 86% down to 75%; county trigger applied to RP deductible
- Available in 2015; only those counties RMA has enough data to rate it
## Consider SCO: Wheat Example (75% RP)

### County Calculations

<table>
<thead>
<tr>
<th>Base Price</th>
<th>County Trend Yield</th>
<th>Revenue</th>
<th>County Trigger</th>
<th>Revenue Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6.00</td>
<td>65</td>
<td>$390</td>
<td>86% x $390 = $335</td>
<td>75% x $390 = $293</td>
</tr>
</tbody>
</table>

### Farm Calculations

<table>
<thead>
<tr>
<th>Base Price</th>
<th>Farm APH</th>
<th>Revenue</th>
<th>RP Trigger</th>
<th>Max. Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6.00</td>
<td>60</td>
<td>$360</td>
<td>75% x $360 = $270</td>
<td>(86%-75%) x $360 = $40</td>
</tr>
</tbody>
</table>

### SCO Coverage and Expected Payment

<table>
<thead>
<tr>
<th>Harvest Price</th>
<th>County Yield</th>
<th>County Rev.</th>
<th>Shortfall Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5.50</td>
<td>55</td>
<td>$303</td>
<td>($335-$303)/($335-$293) = 0.76</td>
</tr>
</tbody>
</table>

Expected Payment: $30.48
Consider SCO: Corn Example (80% RP)

**County Calculations**

<table>
<thead>
<tr>
<th>Base Price</th>
<th>County Trend Yield</th>
<th>Revenue</th>
<th>County Trigger</th>
<th>Revenue Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.62</td>
<td>150</td>
<td>$691</td>
<td>86% x $691 = $594</td>
<td>80% x $691 = $553</td>
</tr>
</tbody>
</table>

**Farm Calculations**

<table>
<thead>
<tr>
<th>Base Price</th>
<th>Farm APH</th>
<th>Revenue</th>
<th>RP Trigger</th>
<th>Max. Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.62</td>
<td>160</td>
<td>$739</td>
<td>80% x $739 = $591</td>
<td>(86%-80%) x $591 = $35</td>
</tr>
</tbody>
</table>

**SCO Coverage and Expected Payment**

<table>
<thead>
<tr>
<th>Harvest Price</th>
<th>County Yield</th>
<th>County Rev.</th>
<th>Shortfall Factor</th>
<th>Expected Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.50</td>
<td>160</td>
<td>$560</td>
<td>($594-$560)/($594-$553) = 0.83</td>
<td>0.83 x $35 = $29.42</td>
</tr>
</tbody>
</table>
Consider Supplemental Coverage Option (SCO).—

- **A Crop Insurance Policy:** planted acres, APH and within year prices; no payment limits or AGI requirements

- Purchasing a county-based trigger using farm yields; effectiveness compared to individual buy-up

- Comparing PLC + SCO + COMBO vs. ARC-CO + COMBO vs. ARC-IC + COMBO
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<th>6 Consider SCP</th>
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</tr>
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</table>

Make Your Decisions.—

- **Update Payment Yields (Landowner):** February 27, 2015
- **Reallocate Base Acres (Landowner):** February 27, 2015
- **Program Election (Producers):** March 31, 2015
QUESTIONS?

Thank you,

Jonathan Coppess
jw coppes@illinois.edu
ADDITIONAL MATERIAL
**OPERATIONAL COMPARISON: EXPECTED PAYMENTS**

<table>
<thead>
<tr>
<th></th>
<th>ARC-CO</th>
<th>PLC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Randolph Co., Indiana</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2014</strong></td>
<td>Corn</td>
<td>Soybeans</td>
</tr>
<tr>
<td>Benchmark Guarantee</td>
<td>$830 ($5.29 \times 157)</td>
<td>$593 ($12.27 \times 48)</td>
</tr>
<tr>
<td>Actual Payment</td>
<td>$714 ($830 \times 86%)</td>
<td>$510 ($593 \times 86%)</td>
</tr>
<tr>
<td></td>
<td>$665 ($3.50 \times 190)</td>
<td>$510 ($10.00 \times 51)</td>
</tr>
<tr>
<td></td>
<td>($49 \times 85%)</td>
<td>($0 \times 85%)</td>
</tr>
<tr>
<td><strong>Estimated Payment</strong></td>
<td>$41</td>
<td>$0</td>
</tr>
</tbody>
</table>