Support for this Farm Bill Educational Programming Effort was done with the help of the following sponsors:

- Michigan State University Extension
- Corn Marketing Program of Michigan
- Michigan Soybean Promotion Committee
- Michigan Wheat Program
- USDA
- GreenStone Farm Credit Services

THE SETTING: 25 YEARS OF CORN PRICES

[Graph showing corn prices from 1990 to 2015]
THE AGRICULTURAL ACT OF 2014: COMMODITY PROGRAMS

The new terms – when you hear:

• **Covered commodities**
  – Think “program crops”

• **Price Loss Coverage (PLC)**
  – Think “Countercyclical Payment with no Direct Payment” (or “pre-1996 target price program”).

• **Agricultural Risk Coverage (ARC)**
  – Think “Group Risk Income Protection (GRIP) with different methods of determining yield and price” (GRIP is an insurance product, ARC is an “insurance-like” commodity program).
THE AGRICULTURAL ACT OF 2014: COMMODITY PROGRAMS

- Covered commodities for 2014-2018 crop years
  - Corn, Wheat, Soybeans, Barley, Oats, Other Oilseeds, Grain Sorghum, Rice, Pulse Crops, and Peanuts.
  - Other oilseeds: Sunflower, Rapeseed, Canola, Safflower, Flaxseed, Mustard Seed, Crambe, Sesame Seed, other designated by Secretary.
  - Pulse Crops: Lentils, Dry peas, Small and Large Chickpeas.

OWNER/PRODUCER DECISIONS FOR 2014-18

Farm bill definitions

- **Owner**: Has legal ownership of farmland.

- **Producer**: Owner, operator, landlord, or tenant that shares in the risk of producing crop and is entitled to share in marketing crop.
  - Cash rent owners do not share in risk and are not considered producers.

- **Farm**: Farmland that has a farm serial number assigned by the FSA.
OWNER/PRODUCER DECISIONS FOR 2014-18
Decisions for owners/producers on Farm Service Agency (FSA) farms

• Update Yields
  – 1-time opportunity for owners to update program payment yields for 2014-18.

• Reallocate Base Acres
  – 1-time opportunity for owners to reallocate base acres for 2014-18.

• Choose PLC or County ARC or Individual ARC
  Irrevocable election by producer(s) of PLC or County ARC or Individual ARC for 2014-18.

OWNER/PRODUCER DECISIONS FOR 2014-18

• Who must make decisions?
  – Owners: Yield update and base reallocation.
  – Producers: ARC-CO, ARC-IC or PLC election.

• But tenant (producer) may make yield update, base reallocation, or ARC/PLC decisions if Form FSA-211 (“Power of Attorney”) is marked as:
  – Section A, item 2, “All current and ALL future programs” AND
  – Section B, item 1, “All Actions”.

• And tenant may make ARC/PLC decision if farm is rented with cash rent lease (owner does not share in risk of crop).
ANNOUNCED DATES FOR DECISIONS

• Sept. 29, 2014 to Feb. 27, 2015
  - Owners may update yield history and/or reallocate base acres.

• Nov. 17, 2014 to March 31, 2015
  - Owners/producers may elect ARC-CO, ARC-IC, or PLC for 2014 to 2018 crop years.

• Mid-April 2015 through summer 2015
  - Owners/producers must enroll and sign contracts for 2014 and 2015 crop years (annual enrollment required for 2016 to 2018).

October 2015
  - Owners/producers receive ARC/PLC payments for 2014 crop year.

JULY 28, 2014 FSA LETTER SENT TO OWNERS/PRODUCERS

• Provides farm’s Base Acres, Planted & Considered Planted (P&CP) Acres, and Program Yields (Countercyclical or “CC yields”) for 2009 to 2012 crop years.

• Contained mistake on Recombination of farms from prior years.

• Producers should review all parts of letter – “60 days” to respond if needed.

• Contains only information that will be used in 2014 farm bill decisions for 2014 to 2018 crop years.
FLOW CHART OF OWNER/PRODUCER DECISIONS FOR COVERED COMMODITIES

FSA Commodity Programs

1. Revenue-based payments
2. Uses actual & historic county yields
3. May use on farm with PLC for other crops

County ARC (ARC-CO)
1. Revenue-based payments
2. Uses actual & historic county yields
3. May use on farm with PLC for other crops

Price Loss Coverage (PLC)
1. Price-based payments
2. Uses farm’s program yields
3. May use on farm with County ARC for other crops

Individual ARC (ARC-IC)
1. Revenue-based payments
2. Uses actual & historic farm yields
3. Must use for all crops on farm

RMA Insurance

Yield and/or revenue insurance

PLC eligible for SCO insurance in 2015-18

Decision in 2014 to choose ARC or PLC for 2014-18

Choice in 2014 on Base Reallocation & Payment Yield Update

Choice of County ARC or PLC is on crop-by-crop basis for each farm. Choice of Individual ARC is for all the crops on farm. If producer(s) fail to choose ARC or PLC in 2014, then farm will not be eligible for ARC/PLC payments in 2014 crop year. Farm would be eligible for PLC payments in 2015-18 crop years. Source: Adapted from Outlaw, Texas A&M.

PAYMENT YIELD UPDATE DECISION

- Updated yields used for PLC payments
- Owner has 1-time opportunity for retention/update of program payment yields – 2 choices
  1. Retain existing (CC) payment yield or
  2. Update payment yield to 90% of the 2008-12 average (excluding years in which acreage planted to the covered commodity was zero).

  - Decision made on a covered commodity-by-covered-commodity basis (ex: may update corn, not update soybean yield on farm).

If no choice by owner, then existing program yield is retained.
PAYMENT YIELD UPDATE DECISION

- Owner has 1-time opportunity for retention/update of program payment yields – 2 choices
  1. Retain existing (CC) payment yield or
  2. Update payment yield

- If farm’s yield for any year:
  - Is less than 75% of 2008-12 simple county average yield or
  - Cannot be determined or is not available (crop was planted but production is unavailable)
  then owner may use 75% of 2008-12 county average as substitute (plug) yield.

PAYMENT YIELD UPDATE EXAMPLE

- Farm’s yield information
  - 2013 CC soybean yield: 31 bu
  - 2010 soybean yield: less than 75% of county average
  - 2009 soybean yield: Soybeans planted, but no production records available

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Avg</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Yield</td>
<td>45</td>
<td>43</td>
<td>41</td>
<td>46</td>
<td>39.2</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Plug Yield*</td>
<td>32</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Substitute yield equals 75% of county average.
PAYMENT YIELD UPDATE DECISION

• Information needed for yield update
  − Owners or operators certify 2008 to 2012 yields to county FSA office at the farm level.
  − Certified yields are subject to spot-check.
  − Owner responsible for providing records to verify the accuracy of yields.

• Acceptable records for spot-check include:
  − RMA data, specific year yields used in APH records.
  − Production evidence, sales, commercial and on-farm storage, or FSA loan records.
  − Same as under the ACRE program in 2008 farm bill.

BASE REALLOCATION DECISION

• ARC-CO/ARC-IC/PLC use base acres for payment

• Owner has 1-time opportunity for retention/reallocation of base acres – 2 choices
  1. Retain existing allocation of base acres or
  2. Reallocate base acres (cannot add base acres)
  − If no choice by owner, existing base acre allocation is retained.

• Reallocates farm’s base acres for 2014-18 period
  − Reallocation in proportion to ratio of:
    • Average acres planted (and prevented planted) to each covered commodity in 2009-12 to the
    • Average acres planted (and prevented planted) to all covered commodities in 2009-12.
### BASE REALLOCATION EXAMPLE

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
<th>Total Base</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Acres = 500</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2013 Base Acres</strong></td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td><strong>Planted Acreage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>300</td>
<td>200</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td>2010</td>
<td>400</td>
<td>100</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td>2011</td>
<td>100</td>
<td>400</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td>2012</td>
<td>400</td>
<td>100</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>300</td>
<td>200</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td><strong>Crop Ratio</strong></td>
<td>60%</td>
<td>40%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Reallocated Base Acres</strong></td>
<td>240</td>
<td>160</td>
<td>0</td>
<td>400</td>
</tr>
</tbody>
</table>

### THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

- **Producer(s) have choice of Price Loss Coverage (PLC) or Agricultural Risk Coverage (ARC) programs**
  - **PLC provides price-based payments for prices less than the “Reference Price” level**
  - **ARC provides revenue-based payments for revenue less than a “Coverage Guarantee” level**
  - **ARC available as County ARC (ARC-CO) or Individual ARC (ARC-IC) options**
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• Producer(s) may elect any combination of PLC or ARC-CO for covered commodity on farm (ex: may elect PLC for corn and ARC-CO for soybeans).

• If ARC-IC chosen, then ARC-IC required for all covered commodities on that FSA farm number
  – For ARC-IC calculations, “farm” is the sum of producer’s interest in all ARC-IC farms in state.

• If producer(s) on farm do not reach unanimous PLC/ARC decision during election period, then:
  – Farm is ineligible for PLC or ARC in 2014 and
  – Farm is eligible for PLC only in 2015-18

NOTE: Producers = owner/operator/tenant/landlord

THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• PLC: Provides payment if Effective Price is less than Reference Price

• Effective price: (Effective Price used in ARC-CO and ARC-IC also)
  – Greater of National Marketing Year Average price (MYA) for the crop or National Loan Rate
  – Ex: 2014 MYA price for corn and soybeans is September 1, 2014 through August 31, 2015

Reference price for 2014-18:
• $3.70 Corn  $8.40 Soybeans  $5.50 Wheat
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• Maximum PLC payment rate
  – Equals difference between PLC Reference Price and National Loan Rate

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Price</td>
<td>$3.70</td>
<td>$8.40</td>
<td>$5.50</td>
</tr>
<tr>
<td>Loan Rate</td>
<td>$1.95</td>
<td>$5.00</td>
<td>$2.94</td>
</tr>
<tr>
<td>Maximum PLC Payment</td>
<td>$1.75</td>
<td>$3.40</td>
<td>$2.56</td>
</tr>
</tbody>
</table>

THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• PLC calculation
  – Payment Rate = Reference Price – (greater of) MYA price or loan rate
    (payment rate = 0 if MYA > RP)
  – Total Payment = Payment Rate X Payment Yield X 85% of crop’s base acres

Base acres: Reallocated base acres

Payment yield: Updated payment yield
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• Single farm example of PLC/ARC-CO/ARC-IC in 2014 (NOTE: decision should be based on 2014-18)
  – 2014 assumed prices (USDA projection 9/11/14)
    • Corn: $3.50 (range = $3.20 to $3.80)
    • Soybeans: $10.00 (range = $9.00 to $11.00)
  – 2014 assumed farm and county actual yields
    • Corn: 160 bu
    • Soybeans: 43 bu
  – Assumed farm program variables
    • Base acres: 100 (50 corn, 50 soybean)
    Payment yield: 142.1 corn, 40.5 soybean

THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

<table>
<thead>
<tr>
<th>Example of Price Loss Coverage (PLC) for Corn and Soybeans</th>
<th>Gratiot County, Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC Reference Price for 2014-18</td>
<td>Corn: $3.70</td>
</tr>
<tr>
<td>National MYA Price for 2014 (USDA projection Sept 14)</td>
<td>Corn: $3.50</td>
</tr>
<tr>
<td>Payment rate = Reference Price – MYA Price</td>
<td>Corn: $0.20</td>
</tr>
<tr>
<td>Farm Payment Yield (bu/acre)</td>
<td>142.1</td>
</tr>
<tr>
<td>Base Acres</td>
<td>50</td>
</tr>
<tr>
<td>Crop Payment / Acre Payment Rate X Payment Yield X 85% of Base Acres</td>
<td>Corn: $1,207.85</td>
</tr>
<tr>
<td>Total Payment</td>
<td>$1,207.85</td>
</tr>
</tbody>
</table>
THE AGRICULTURAL ACT OF 2014: COMMODITY PROGRAMS

The Supplemental Coverage Option (SCO)

• SCO is a crop insurance product available for the 2015-18 crop years.

• Producer(s) that elect PLC are eligible for SCO, producer(s) that elect ARC not eligible for SCO.

• Producers may purchase SCO coverage for a portion of the crop insurance deductible.
  – Covers portion of deductible from 86% to level of coverage purchased by producer.
  – Priced by Risk Management Agency, premium subsidized at 65%.

THE AGRICULTURAL ACT OF 2014: COMMODITY PROGRAMS

The Supplemental Coverage Option (SCO)

• SCO uses crop insurance prices and county yield to calculate revenue (like a GRIP policy)

• An 85% crop insurance revenue policy may accomplish better/similar coverage at lower cost
  – Compare: Cost of 70% policy + cost of SCO from 70% to 86% versus cost of an 85% policy.
  – SCO may work best for locations where 85% coverage is not available – some counties for some crops in Michigan?
  – Pays after county yields are finalized – March.
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

- **ARC**: Provides payment if Actual Revenue less than Coverage Guarantee

- **Coverage Guarantee** = 86% of benchmark revenue

- **Two ARC options**
  - **ARC-CO**: Based on county yield & MYA price or Reference Price. May be used with PLC on a farm on a crop-by-crop basis (ex: ARC-CO for corn and PLC for soybeans on a farm)
  - **ARC-IC**: Based on farm yield & MYA price Reference Price. If chosen, must be used for all crops on farm (not used with PLC/ARC-CO).

THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

- **ARC-CO calculation**
  - Benchmark revenue =
    - 5-year Olympic average MYA price X
    - 5-year Olympic average county yield
    - (Olympic average excludes high and low)
  - Coverage guarantee =
    - 86% of benchmark revenue
  - Actual revenue =
    - MYA price X county yield for crop year
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• **ARC-CO calculation**
  - Payment rate =
    - If CG > AR, then payment =
      - lesser of CG – AR or 10% of benchmark revenue
    - Payment acres =
      - 85% of base acres
      - (reallocated base acres used in payment)

  Total Payment =
  Payment rate X 85% of base acres

### Example of County ARC (C-ARC) for Corn and Soybeans in 2014 Gratiot County, Michigan

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn MYA Price</th>
<th>County Yield</th>
<th>Corn MYA Price</th>
<th>County Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$3.70*</td>
<td>158</td>
<td>$9.59</td>
<td>42.5</td>
</tr>
<tr>
<td>2010</td>
<td>$5.18</td>
<td>145</td>
<td>$11.30</td>
<td>41.1</td>
</tr>
<tr>
<td>2011</td>
<td>$6.22</td>
<td>155.5</td>
<td>$12.50</td>
<td>45.5</td>
</tr>
<tr>
<td>2012</td>
<td>$6.89</td>
<td>173</td>
<td>$14.40</td>
<td>53.3</td>
</tr>
<tr>
<td>2013</td>
<td>$4.50</td>
<td>145.8</td>
<td>$12.70</td>
<td>41.2</td>
</tr>
<tr>
<td>5-Year Olympic Avg.</td>
<td>$5.30</td>
<td>153.1</td>
<td>$12.17</td>
<td>43.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benchmark Revenue</th>
<th>$811</th>
<th>County Benchmark Revenue</th>
<th>$524</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage Guarantee (86% of Benchmark Revenue)</td>
<td>$698</td>
<td>County Coverage Guarantee</td>
<td>$451</td>
</tr>
</tbody>
</table>

*If MYA price is less than PLC reference price, then MYA price is replaced by PLC reference price (2009 MYA price = $3.55).

*Red years used in Olympic average calculation*
Example of County ARC (ARC-CO) for Corn and Soybeans in 2014
Gratiot County, Michigan

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 MYA Price (USDA projection)</td>
<td>$3.50</td>
<td>$10.00</td>
</tr>
<tr>
<td>2014 County Yield (assumed)</td>
<td>160</td>
<td>43</td>
</tr>
<tr>
<td>Base Acres (assumed)</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>2014 Actual Revenue per acre (2014 MYA Price X 2014 County Yield)</td>
<td>$560</td>
<td>$430</td>
</tr>
<tr>
<td>Coverage Guarantee per acre (86% of Benchmark Revenue)</td>
<td>$698 (previous slide)</td>
<td>$451 (previous slide)</td>
</tr>
<tr>
<td>Maximum Payment Rate per acre (10% of Benchmark Revenue)</td>
<td>$81 (previous slide)</td>
<td>$52 (previous slide)</td>
</tr>
<tr>
<td>Payment Rate per acre = Coverage Guarantee – Actual (to maximum)</td>
<td>$81</td>
<td>$21.09</td>
</tr>
<tr>
<td>Crop Payment = Payment Rate X 85% of base acres</td>
<td>$3,449</td>
<td>$896</td>
</tr>
<tr>
<td>Total Payment</td>
<td></td>
<td>$4,345</td>
</tr>
</tbody>
</table>

THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• ARC-IC is a “Whole Farm Revenue” program.

• ARC-IC uses individual farm’s 5-year moving Olympic Average Revenue per acre for all covered commodities combined.

• ARC-IC “base acres” for each crop, each year are allocated by percentage of actual planted and considered planted acres.

• ARC-IC the “farm” is the sum of the producer’s interest in all ARC-IC farms in the state.
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• **ARC-IC Benchmark Revenue/acre** =
  Current year weighted average revenue per acre for all covered commodities on farm calculated as:
  Step 1 (Coverage level): Most Recent 5-year Olympic average revenues on farm(s) for each crop.
  = MYA price X higher of “farm yield” or “plug yield”
  Step 2 (Benchmark Revenue): Weighted average revenue per acre with weights equal to current crop years’ covered commodities’ shares of acreage planted.

  **Coverage Guarantee/acre** (CG) = 86% of Benchmark Revenue

THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• **ARC-IC calculation**
  – Actual Revenue (AR) =
    Revenue per acre weighted by covered commodities on farm in current crop year
  – Payment rate =
    If CG (86% of Olympic Average Benchmark Revenue) > AR, the payment = lesser of CG – AR or 10% of Benchmark Revenue

  – Payment acres = 65% of total base acres

  Total Payment = Payment rate X 65% of total base acres
The Agricultural Act of 2014: PLC Versus ARC-CO Versus ARC-IC Decision

Example of Individual ARC (ARC-IC) for Corn and Soybeans in 2014
Gratiot County, Michigan

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn MYA Price</th>
<th>Corn MYA Yield</th>
<th>Corn Farm Revenue</th>
<th>Soybeans MYA Price</th>
<th>Soybeans MYA Yield</th>
<th>Soybeans Farm Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$3.70*</td>
<td>158</td>
<td>$584.60</td>
<td>$9.59</td>
<td>42.5</td>
<td>$407.57</td>
</tr>
<tr>
<td>2010</td>
<td>$5.18</td>
<td>145</td>
<td>$751.10</td>
<td>$11.30</td>
<td>41.1</td>
<td>$464.43</td>
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<td>2011</td>
<td>$6.22</td>
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<td>$967.21</td>
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<td>$568.75</td>
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<tr>
<td>2012</td>
<td>$6.89</td>
<td>173</td>
<td>$1,191.97</td>
<td>$14.40</td>
<td>53.3</td>
<td>$767.52</td>
</tr>
<tr>
<td>2013</td>
<td>$4.46</td>
<td>145.8</td>
<td>$650.27</td>
<td>$13.00</td>
<td>41.2</td>
<td>$535.60</td>
</tr>
</tbody>
</table>

5-Year Olympic Average: $789.53 Corn, $522.93 Soybeans

*If MYA price is less than PLC reference price, then MYA price is replaced by PLC reference price (2009 MYA price = $3.55).

Red years used in Olympic average calculation.

The Agricultural Act of 2014: PLC Versus ARC-CO Versus ARC-IC Decision

Example of Individual ARC (ARC-IC) for Corn and Soybeans in 2014
Gratiot County, Michigan

Assumption for 2014 crop year: 100 base acres, 60 acres planted to corn and 40 acres to soybeans.

5 year Olympic average revenue (previous slide): Corn: $789.53, Soybeans: $522.93

Benchmark Revenue: $682.89 = (0.6 X $789.53) + (0.4 X $522.93)

Coverage Guarantee: $587.28 = 86% of Benchmark Revenue

Actual Revenue: $508.00 = (0.6 X $3.50 X 160) + (0.4 X $10.00 X 43)

Payment Rate: $79.28 = Coverage Guarantee – Actual Revenue

Maximum Payment: $68.29 = 10% of Benchmark Revenue

Total Payment: $4,439 = $68.29 X 65% of 100 total base acres
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

- Comparison of 2014 payments for example farm
  - Total payments for 100 base acres
    - PLC: $1,208
    - ARC-CO: $4,345
    - ARC-IC: $4,439

- Breakdown of PLC, ARC-CO, ARC-IC example farm results
  - PLC: No price protection above Reference Price.
  - ARC-CO: Price protection above Reference Price, example assumed correlation of farm and county yields.
  - ARC-IC: Price protection above Reference Price, paid at 65% of full base on actual yields.

This is 2014. Decision must be based on 2014-18.

IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT OF PRICE OUTLOOK


- Corn
- Soybeans
- Wheat
- Corn PLC ref. price
- Soy PLC ref. price
- Wheat PLC ref. price

Nov 2014 FAPRI Projections
IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT OF PRICE OUTLOOK

• Price outlook a critical factor in the PLC/ARC-CO/ARC-IC decision. Example for 2014:

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$3.70</td>
<td>$9.59</td>
<td>$4.87</td>
</tr>
<tr>
<td>2010</td>
<td>$5.18</td>
<td>$11.30</td>
<td>$5.70</td>
</tr>
<tr>
<td>2011</td>
<td>$6.22</td>
<td>$12.50</td>
<td>$7.24</td>
</tr>
<tr>
<td>2012</td>
<td>$6.89</td>
<td>$14.40</td>
<td>$7.77</td>
</tr>
<tr>
<td>2013</td>
<td>$4.46</td>
<td>$13.00</td>
<td>$6.64</td>
</tr>
</tbody>
</table>

5-year Olympic average (red years) for 2014:
- Corn $5.29
- Soybeans $12.26
- Wheat $6.53

86% ARC:
- Corn $4.55
- Soybeans $10.55
- Wheat $5.61

PLC reference price:
- Corn $3.70
- Soybeans $8.40
- Wheat $5.50

IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT OF PRICE OUTLOOK

| 2014 County ARC Prices and Lowest Possible County ARC Prices in 2015-18 |
|---------------------------|------------|------------|------------|------------|
| MYA Corn | 2014 | 2015 | 2016 | 2017 | 2018 |
| 2009 | $3.70 | | | | |
| 2010 | $5.18 | $5.18 | | | |
| 2011 | $6.22 | $6.22 | $6.22 | | |
| 2012 | $6.89 | $6.89 | $6.89 | $6.89 | |
| 2013 | $4.46 | $4.46 | $4.46 | $4.46 | $4.46 |
| 2014 | $3.70 | $3.70 | $3.70 | $3.70 | $3.70 |
| 2015 | $3.70 | $3.70 | $3.70 | $3.70 | $3.70 |
| 2016 | $3.70 | $3.70 | $3.70 | $3.70 | $3.70 |
| 2017 | $3.70 | $3.70 | $3.70 | $3.70 | $3.70 |

2014 County ARC Prices and Lowest Possible County ARC Prices in 2015-18 (86% of 5-Year Olympic Average). Red years used in Olympic average. PLC

<table>
<thead>
<tr>
<th>Crop</th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$4.55</td>
<td>$10.55</td>
<td>$5.61</td>
</tr>
<tr>
<td>2015</td>
<td>$4.55</td>
<td>$10.55</td>
<td>$5.61</td>
</tr>
<tr>
<td>2016</td>
<td>$4.12</td>
<td>$9.70</td>
<td>$5.56</td>
</tr>
<tr>
<td>2017</td>
<td>$3.40</td>
<td>$8.50</td>
<td>$5.06</td>
</tr>
<tr>
<td>2018</td>
<td>$3.18</td>
<td>$7.25</td>
<td>$4.73</td>
</tr>
<tr>
<td>2019</td>
<td>$3.70</td>
<td>$8.40</td>
<td>$5.50</td>
</tr>
</tbody>
</table>
IMPLICATIONS FOR PRODUCER DECISION-MAKING: ANALYZING THE OPTIONS

Decision tools: MSUE Farm Bill Analyzer (MFBA)

- User input
  - Farm’s base acres and program (CC) yields.
  - Farm’s actual P&CP acres and yields (2008-13).

- MFBA provides
  - County average yields (all counties in MI).
  - Yield growth estimates (default or user’s choice).
  - Price estimates for 2014-18 (four sources or user’s choice).

MFBA calculates

- Results of program yield retention or update on farm.
- Results of base acres retention or reallocation on farm.
- Five-year total payments for farm under ACR-CO, ARC-IC or PLC.
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

• Compliance: ARC or PLC participants must
  - Comply with HEL/WC provisions
  - Be actively engaged in farming
  - Be within the AGI limitation of $900,000/year
  - Control noxious weeds

• Payment limit of $125,000 includes
  - All ARC and PLC payments received directly or indirectly for all covered commodities.
  - All payments received through Marketing Loan Gains and Loan Deficiency Payments.
THE AGRICULTURAL ACT OF 2014: PLC VERSUS ARC-CO VERSUS ARC-IC DECISION

- **Planting flexibility**
  - Any crop can be planted on non-base acres.
  - Any crop can be planted on non-base acres.
  - Payment acres equal
    - 85% of base acres for ARC-CO and PLC.
    - 65% of base acres for ARC-IC.
    - If FAV are planted and harvested on payment acres, then ARC/PLC payments are reduced on an acre-for-acre basis.

### Annual reporting requirements
- ARC-CO and PLC: acreage report required.
- ARC-IC: acreage and production report required.

---

### COMPARISON OF PLC, ARC-CO AND ARC-IC PROGRAMS

<table>
<thead>
<tr>
<th></th>
<th>PLC</th>
<th>ARC-CO</th>
<th>ARC-IC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment type?</td>
<td>Price-based payment</td>
<td>Revenue-based payment</td>
<td>Revenue-based payment</td>
</tr>
<tr>
<td>Payment trigger?</td>
<td>MYA price less than PLC Reference Price</td>
<td>Actual revenue less than coverage guarantee</td>
<td>Actual revenue less than coverage guarantee</td>
</tr>
<tr>
<td>Base acres?</td>
<td>Specific crop base acres on farm</td>
<td>Specific crop base acres on farm</td>
<td>TOTAL base acres of all covered commodities on farm</td>
</tr>
<tr>
<td>Share of base acres?</td>
<td>85% of individual covered commodity base acres on farm</td>
<td>85% of individual covered commodity base acres on farm</td>
<td>65% of all acres planted to covered commodities on all ARC-IC farm(s) in the State</td>
</tr>
<tr>
<td>Payment yield?</td>
<td>PLC yield</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Payment rate?</td>
<td>PLC Reference Price minus MYA Price</td>
<td>Lesser of coverage guarantee minus actual revenue OR 10% of benchmark revenue</td>
<td>Lesser of coverage guarantee minus actual revenue OR 10% of benchmark revenue</td>
</tr>
<tr>
<td>Payment formula?</td>
<td>Base x 85% x Payment Rate x PLC Yield</td>
<td>Base x 85% x Payment Rate</td>
<td>Base x 65% x Payment Rate</td>
</tr>
<tr>
<td>Covered commodity planting requirement?</td>
<td>Planting of covered commodities NOT required</td>
<td>Planting of covered commodities NOT required</td>
<td>Planting of covered commodities required</td>
</tr>
<tr>
<td>Election options?</td>
<td>Elect by covered commodity base acres by farm</td>
<td>Elect by covered commodity base acres by farm</td>
<td>Elect for ALL covered commodities on the farm</td>
</tr>
<tr>
<td>Mix of ARC and PLC on farm?</td>
<td>ARC-CO and PLC may be mixed on farm</td>
<td>ARC-CO and PLC may be mixed on farm</td>
<td>ARC-CO and PLC may NOT be mixed with ARC-IC on farm</td>
</tr>
<tr>
<td>Combined with SCO?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Annual reporting requirement?</td>
<td>Acreage report required, production report NOT required</td>
<td>Acreage report required, production report NOT required</td>
<td>Acreage report AND production report required</td>
</tr>
</tbody>
</table>
**FLOW CHART OF 2014 OWNER/PRODUCER DECISIONS FOR COVERED COMMODITIES**

**FSA Commodity Programs**

- **Individual ARC (ARC-IC)**
  1. Revenue-based payments
  2. Uses actual & historic farm yields
  3. Must use for all crops on farm

- **County ARC (ARC-CO)**
  1. Revenue-based payments
  2. Uses actual & historic county yields
  3. May use on farm with PLC for other crops

- **Price Loss Coverage (PLC)**
  1. Price-based payments
  2. Uses farm’s program yields
  3. May use on farm with County ARC for other crops

**RMA Insurance**

- Yield and/or revenue insurance
- PLC eligible for SCO insurance in 2015-18

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**IMPLICATIONS FOR PRODUCER DECISION-MAKING: OVERVIEW**

- This farm bill has **no** “iron-clad” decisions that apply to all farms – not even yield update or base reallocation decisions.

- Programs have multiple moving parts – decision making tools are needed for comparing multiple scenarios.

- Price outlook a critical factor in the PLC/ARC-CO/ARC-IC decision.

- Price outlook a critical factor in the PLC/ARC-CO/ARC-IC decision is only one element in a larger risk management strategy.
IMPLICATIONS FOR PRODUCER DECISION-MAKING: ANALYZING THE OPTIONS

• Decision tools: University of Illinois / Texas A&M
  – User chooses average price/yield, then tool generates random price/yield around average.
  – User chooses:
    • Addition of crop insurance to ARC/PLC
    • Production practice (irrigated/non-irrigated)
    • Crop type (commodity/food grade soybean)
    • TAMU requires 10 years data for best results.

• Using MFBA with UI and/or TAMU tools
  Use MFBA to run scenarios and narrow options, then use UI/TAMU to add additional risk factors.

IMPLICATIONS FOR PRODUCER DECISION-MAKING: ANALYZING THE OPTIONS

• Decision tools: Comparing MFBA with UI and/or TAMU tools
  – Using similar scenarios, yield update and base reallocation decision results the same.
  – Using similar scenarios without crop insurance, ARC-CO/ARC-IC/PLC decision results in same rank order, but differ in size of payments (likely due to randomly generated prices/yields).
IMPLICATIONS FOR PRODUCER DECISION-MAKING: YIELD UPDATE & BASE REALLOCATION

- Updated yields (PLC) and reallocated base acres (PLC & ARC-CO) will be used for 2014-18.
- Yield update decisions might not be “automatic” if a year of poor yield occurred during 2008-2012.
- Given current price outlook, reallocating base to corn is likely preferred option, then soybean, then wheat, but in a very low price scenario, wheat base could be preferred to soybean base.
- Can effectively get 100% corn base by choosing ARC-IC for farm and planting all corn on the farm.

IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT ON RISK MANAGEMENT

- Producers may use any mix of PLC & ARC-CO on a farm. ARC-IC must be used on all crops on farm.
- PLC/ARC-CO/ARC-IC decision is only one element of a larger risk management strategy.
- PLC/ARC-CO/ARC-IC are not designed to replace crop insurance or other risk management tools.
IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT ON RISK MANAGEMENT

- If a very low price scenario, then decision moves toward PLC (ARC-CO & ARC-IC have 10% payment cap, PLC does not).

- If a high price scenario (expected prices above PLC Reference Price), then decision moves toward ARC (ARC provides limited price risk protection above Reference Price, PLC does not).

ARC provides limited yield risk protection, PLC does not provide yield risk protection.

IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT ON RISK MANAGEMENT

- ARC-IC is based on actual plantings, yields, and yield history and could provide a closer match to actual risk exposure on some farms.

- If farm’s yield is not highly correlated with county average, then decision moves toward ARC-IC.

- If farm’s historical yield higher than county average, then decision moves toward ARC-IC.

- If farm’s future yields will be higher than county average, then decision moves toward ARC-CO.
IMPLICATIONS FOR PRODUCER DECISION-MAKING: IMPACT ON RISK MANAGEMENT

• If farm’s yield not correlated with county average yield, then from a “risk management stand point” decision moves toward ARC-IC, but….
  – Different counties could have different results
    • 2012 individual/county yields a major variable
    • 2012 high prices with varying yields

• Once again, there are no “iron-clad” rules that are certain to be correct for all farms at all times.

What Should I Do?

I. Gather information - FSA
   Base acreage for each FSA farm number
   Historical acreage planted - each farm
   Historical Yields (average or each farm)

II. Run Calculators
   – test possible variables on each farm
  1. Decide - Update Yields
  2. Decide - Reallocate base acres
  3. Decide - PLC, ARC-CO or ARC-IC

III. Learn more and sign-up – don’t wait!
CONCLUSIONS

1. The 2014 farm bill continues the evolution of farm programs toward crop insurance and “insurance like” commodity programs.

2. Decisions on commodity programs (PLC/ARC-CO/ARC-IC) must be made in the context of an overall risk management strategy.

3. There are very few (no?) iron-clad rules for making decisions – look at multiple scenarios.

4. New programs and price instability could mean 2014-2018 will be “back to the future” (farm programs will matter).

INFORMATION SOURCES

• FSA fact sheets on yield update, base reallocation, and ARC/PLC decisions: http://www.fsa.usda.gov/FSA/

• MSUE Farm Bill Fact Sheets, FSA and MSUE presentation slides, videos, and MSUE farm bill decision tool analyzer: http://msue.anr.msu.edu/program/info/farm_bill

• University of Illinois decision tool: http://fsa.usapas.com/

• Texas A&M University decision tool: https://usda.afpc.tamu.edu/