2014 Farm Bill
How does it affect you and your operation?
Section II: PLC, SCO, ARC-C, and ARC-I
2014 Farm Bill: PLC, SCO, ARC-C, and ARC-I

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Overview

• General Comments

• Crop Insurance

• Price Loss Coverage (PLC)

• Supplemental Coverage Option (SCO)

• Agriculture Risk Coverage – County (ARC-C)

• Agriculture Risk Coverage – Individual (ARC-I)
General Comments

- Decision is for 5-years (2014-2018 crop years)
- Crop insurance is the primary safety net
- Program elections should be made simultaneously with base acreage reallocation decision
  - Estimated program payments (PLC, ARC-C, and ARC-I) will be calculated on a farm’s base acres
- Yield updates (if available) should be considered for all commodities regardless of program election
- Generic base (old cotton base) is eligible for program payments, however is determined by annual proportional planting amongst covered commodities
- It is very important to distinguish between how crop insurance and SCO/STAX payments are triggered and determined versus PLC, ARC-C, and ARC-I
  - Acres, prices, county vs. farm level etc.
- **Program elections will be driven by producer price expectations over the life of the Farm Bill**
Crop Insurance

• Crop insurance provides coverage against decreases in prices and/or yield during the growing season
  - Covers revenue or yield losses within a production year
  - RP, YP, RP-HPE, ARPI
• Essentially crop insurance methods are unchanged from the past Farm Bill
• Crop insurance will have different premiums and indemnities for irrigated and non-irrigated acres starting in 2015
• Conservation compliance will be required to receive government premium subsidies (Form AD-1026)
• Current crop insurance coverage and program election interaction will be very important prior to making any decisions
• Supplemental Coverage Option (SCO) and STAX are available starting in 2015 as additional insurance options
Price Loss Coverage (PLC)

- Delivered by FSA
- Decoupled from planted acres, only base acres for a farm are eligible for payments
  - Payments could be received for a covered commodity without planting any acres to that commodity
- Paid on 85% of base acres for a covered commodity
- Payments are made when the effective price is less than the reference price for a covered commodity
- Effective price is the higher of the marketing year average price (MYA) or the national average loan rate for the covered commodity
- Reference prices and (national average loan rates) are set at:
  - Soybeans $8.40/bu ($5.00/bu)
  - Corn $3.70/bu ($1.95/bu)
  - Wheat $5.50/bu ($2.94/bu)
  - Sorghum $3.95/bu ($1.95/bu)
Marketing Year Average Prices for Corn, Soybeans, and Wheat from 2009/10 to 2014/15

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/10</td>
<td>$3.70</td>
<td>$9.59</td>
<td>$3.55</td>
</tr>
<tr>
<td>2010/11</td>
<td>$5.70</td>
<td>$6.22</td>
<td>$5.18</td>
</tr>
<tr>
<td>2011/12</td>
<td>$7.24</td>
<td>$6.89</td>
<td>$6.22</td>
</tr>
<tr>
<td>2012/13</td>
<td>$7.77</td>
<td>$4.55</td>
<td>$4.55</td>
</tr>
<tr>
<td>Projected 2013/14</td>
<td>$6.87</td>
<td>$7.00</td>
<td>$4.20</td>
</tr>
<tr>
<td>Projected 2014/15</td>
<td>$10.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Price Loss Coverage (PLC)

• Reference price is set and remains the same from 2014 through 2018
• Election is made on a covered commodity-by-commodity basis
  • Example: PLC could be elected for corn and ARC-C (not ARC-I) for soybeans
• Payments will not be made until after the end of the marketing year (for corn and soybeans marketing year is Sept 1 to Aug 31)
  • Payments could be available for corn and soybeans (if any are triggered) about September 30, 2015 for the 2014 crop year
  • At least a 1-year lag will continue for future years due to MYA prices
• Supplemental coverage option (SCO) is available only for commodities on an FSA farm enrolled in PLC
  • For individual FSA farms covered commodities enrolled in ARC-C and ARC-I are not eligible for SCO
  • Cotton acres cannot be covered by STAX and SCO
Price Loss Coverage (PLC)

- **Payment Rate** is the difference between the reference price and the effective price
- **Payment Yield** is the FSA yield for the farm. Either the updated payment yield or the 2008 counter-cyclical-payment yield
- **Payment Acres** are 85% of the sum of base acres for a covered commodity plus generic base acres attributable to the covered commodity for the current year
- **Payment Amount** is the product of Payment Rate x Payment Yield x Payment Acres
## PLC Example: Soybeans

**Payment Rate ($/bu) x Payment Yield (bu/acre) x 85% = PLC Payment ($/acre)**

<table>
<thead>
<tr>
<th>Marketing Year Average Price ($/bu)</th>
<th>Reference Price ($/bu)</th>
<th>PLC Payment Rate ($/bu)</th>
<th>Payment Yield (bu/acre)</th>
<th>PLC Coverage Level</th>
<th>PLC Payment ($/base acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8.40</td>
<td>$8.40</td>
<td>$0.00</td>
<td>40 bu</td>
<td>85%</td>
<td>$0</td>
</tr>
<tr>
<td>$8.30</td>
<td>$8.40</td>
<td>$0.10</td>
<td>40 bu</td>
<td>85%</td>
<td>$3.40</td>
</tr>
<tr>
<td>$8.20</td>
<td>$8.40</td>
<td>$0.20</td>
<td>40 bu</td>
<td>85%</td>
<td>$6.80</td>
</tr>
<tr>
<td>$8.10</td>
<td>$8.40</td>
<td>$0.30</td>
<td>40 bu</td>
<td>85%</td>
<td>$10.20</td>
</tr>
<tr>
<td>$8.00</td>
<td>$8.40</td>
<td>$0.40</td>
<td>40 bu</td>
<td>85%</td>
<td>$13.60</td>
</tr>
</tbody>
</table>
## PLC Example: Corn

Payment Rate ($/bu) x Payment Yield (bu/acre) x 85% = PLC Payment ($/acre)

<table>
<thead>
<tr>
<th>Marketing Year Average Price ($/bu)</th>
<th>Reference Price ($/bu)</th>
<th>PLC Payment Rate ($/bu)</th>
<th>Payment Yield – Updated or CC Yield (bu/acre)</th>
<th>PLC Coverage Level (%)</th>
<th>PLC Payment ($/base acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.70</td>
<td>$3.70</td>
<td>$0.00</td>
<td>135 bu</td>
<td>85%</td>
<td>$0</td>
</tr>
<tr>
<td>$3.60</td>
<td>$3.70</td>
<td>$0.10</td>
<td>135 bu</td>
<td>85%</td>
<td>$11.48</td>
</tr>
<tr>
<td>$3.50</td>
<td>$3.70</td>
<td>$0.20</td>
<td>135 bu</td>
<td>85%</td>
<td>$22.95</td>
</tr>
<tr>
<td>$3.40</td>
<td>$3.70</td>
<td>$0.30</td>
<td>135 bu</td>
<td>85%</td>
<td>$34.43</td>
</tr>
<tr>
<td>$3.30</td>
<td>$3.70</td>
<td>$0.40</td>
<td>135 bu</td>
<td>85%</td>
<td>$45.90</td>
</tr>
</tbody>
</table>
Supplemental Coverage Option (SCO)

- Crop insurance program (RMA administered)
- New crop insurance option available for 2015 crop year
- To be eligible a covered commodity cannot be enrolled in ARC or cotton acres can not be covered by STAX
- Provides additional coverage on top of your underlying insurance policy
  - You must have an underlying insurance policy (Yield Protection, Revenue Protection, or Revenue Protection with the Harvest Price Exclusion)
- SCO follows the coverage of your underlying policy
  - If your underlying policy covers yield loss SCO covers yield loss
  - If your underlying policy covers revenue loss SCO covers revenue loss
- Coverage starts where the underlying insurance policy ends and covers to a maximum of 86%
- Federal Government pays 65% of premium cost
  - Premium depends on the crop, county, coverage level, and type of coverage chosen for the underlying policy
- Payment trigger is different than on the underlying policy
  - For SCO, an indemnity is triggered when there is a county level loss in yield or revenue
- Available in select counties for the 2015 crop year for corn, soybeans, wheat, sorghum, cotton, and rice
- SCO payments will occur later than payments received for the underlying policy
Crop Insurance (CI) and SCO Coverage

- CI
- CI or SCO
- SCO
SCO Example

- Assume a producer’s soybean crop has an expected value of $472.50 (45 bu @ $10.50/bu)
- The producer buys a revenue protection policy with a 75% coverage level (underlying policy)
- The underlying policy covers 75% (or $354.38); 25% is unprotected (or $118.12)
- Producer has the option to buy SCO coverage
  - Because the underlying policy provides revenue protection the SCO coverage also provides revenue protection
  - SCO payments are determined at the county level
- SCO coverage is calculated as:
  - Percent of expected crop value covered by SCO = SCO endorsement less policy coverage level (86% - 75% = 11%)
  - Amount of SCO protection = Percent of expected crop value covered by SCO x expected crop value (0.11 x $472.5 = $51.98)
- SCO pays when the county average revenue falls below 86% of its expected value to the coverage level of the underlying policy
- Payments could be received from SCO without payments from the underlying policy or vice versa
Crop Insurance Decision Tool

Coverage Amounts (per acre)

<table>
<thead>
<tr>
<th>Protection Amounts</th>
<th>Coverage Range</th>
<th>Producer Premium* Premium Subsidy*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCO</td>
<td>11% (86% - 75%)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Revenue</td>
<td>75% (75% - 0%)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Total</td>
<td>86% (86% - 0%)</td>
<td>$0.00</td>
</tr>
<tr>
<td>$662.20</td>
<td></td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Expected Crop Value: $770.00

Cropp Returns by Actual County Yields Chart

- Crop Returns **
- Underlying Payment **
- SCO Payment **
- Expected Crop Value **

Coverage Amounts (per acre)

Calculations:

<table>
<thead>
<tr>
<th>Actual County Yields</th>
<th>Percent of Expected Yield</th>
<th>Crop Returns</th>
<th>Underlying Payment</th>
<th>SCO Payment</th>
<th>Total Payment</th>
<th>Total Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>10%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>134</td>
<td>96%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>129</td>
<td>92%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>123</td>
<td>88%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>118</td>
<td>84%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>112</td>
<td>80%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>106</td>
<td>76%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>100</td>
<td>72%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>94</td>
<td>68%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>88</td>
<td>64%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>82</td>
<td>60%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>76</td>
<td>56%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
<tr>
<td>70</td>
<td>52%</td>
<td>$540.00</td>
<td>$37.50</td>
<td>$84.70</td>
<td>$122.20</td>
<td>$662.20</td>
</tr>
</tbody>
</table>

* Estimates only.

The University of Tennessee
Institute of Agriculture
2015 SCO Availability (Excluding Cotton)

- SCO availability in 2015 is based on the availability of county data from NASS, subject to:
  - NASS county yield estimates being available for at least 20 of the last 30 years
  - NASS county yield estimates being available for 8 of the last 10 years, with an average of at least 10,000 planted acres over those years
  - There being at least 50 or more farming entities for the crop in the county according to the most recent Census of Agriculture

- In 2016 additional crops, areas, and production methods (irrigated v. non-irrigated) will be included in SCO coverage
Crop Year 2015 Supplemental Coverage Option (SCO) Availability for Wheat

Legend
- Blue: Winter Wheat*
- Green: Spring Wheat**

SCO wheat coverage is estimated to be available for over 80 percent of planted acreage.

* Includes Spring, Durum, and Khorasan types in counties with a June 30 contract change date.
** Includes Durum and Khorasan types in counties with a November 30 contract change date.
SCO and This Years Winter Wheat

• 2015 winter wheat crop is eligible for SCO coverage in: Crockett, Dyer, Gibson, Haywood, Henry, Obion, Robertson, and Weakley Counties

• Decision must be made by the crop insurance sales closing date (September 30)

• Can withdraw from SCO if ARC is chosen or intended to be chosen by the earlier of the acreage reporting date or December 15th without penalty
  • Producers must notify their crop insurance agents prior to the dates to not be charged an SCO premium
  • This only applies to the 2015 crop year
  • If SCO is chosen and ARC elected after the date. You will be required to pay 20% of your SCO premium (to cover administration costs) and not receive SCO coverage (underlying policy would remain in effect)
Agriculture Risk Coverage (ARC)

- Administered by FSA
- PLC is commodity price determined
- ARC is revenue (price and yield) determined
- Covers a portion of losses in revenue for a covered commodity relative to a revenue guarantee
- Two choices under ARC: county or individual farm
  - County (ARC-C) is chosen on a commodity-by-commodity basis (coverage can be elected for ARC-C for one covered commodity and PLC on another covered commodity on the same farm)
  - Individual (ARC-I) applies to all covered commodities on an individual farm (all covered commodities must be elected for the FSA farm)
Agriculture Risk Coverage (ARC)

- **Benchmark Revenue** is the product of Olympic average yields and Olympic average national (or substituted reference) prices.
- **ARC Guarantee** is 86% of benchmark revenue.
- ARC payments occur when actual revenue falls below benchmark revenue.
- **Payment Rate** is determined after calculating the difference between ARC Guarantee and actual revenue.
  - Can not exceed 10% (76% to 86% revenue coverage).
- **Payment Amounts** are paid on payment acres (a percentage of base acres and generic base acres).
Agriculture Risk Coverage - County (ARC-C)

- Selected on a commodity-by-commodity basis (similar to PLC)
- Paid on 85% of base acres for each covered commodity
- Covers revenue losses between 76% and 86% of benchmark county revenue for each covered commodity
- Triggered by a loss in revenue at the county level
- Benchmark county revenue is the product of county Olympic average yields and national Olympic average prices
  - Olympic averages are three averages after omitting the high and low
  - Benchmark revenue is a moving calculation for the most recent 5-years
    - For example, 2016 will be Olympic averages for 2011-2015 crop years
Agriculture Risk Coverage - County (ARC-C)

• Olympic average price calculations use the higher of the Marketing Year Average (MYA) Price or the Reference Price for the covered commodity
  • Final prices are determined after the conclusion of the marketing year for each commodity
  • Reference prices are the PLC Reference Prices for covered commodities
• Will allow separate irrigated and non-irrigated county yield guarantees (where available)
## Olympic Average Price Calculation Example

<table>
<thead>
<tr>
<th>Covered Commodity</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013 (Est.)</th>
<th>Olympic Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans (MYA)</td>
<td>$9.59</td>
<td>$11.30</td>
<td>$12.50</td>
<td>$14.40</td>
<td>$13.00</td>
<td>$12.27</td>
</tr>
<tr>
<td>Reference Price</td>
<td>$8.40</td>
<td>$8.40</td>
<td>$8.40</td>
<td>$8.40</td>
<td>$8.40</td>
<td>$8.40</td>
</tr>
<tr>
<td>Corn (MYA)</td>
<td>$3.55</td>
<td>$5.18</td>
<td>$6.22</td>
<td>$6.89</td>
<td>$4.45</td>
<td>$5.28</td>
</tr>
<tr>
<td>Reference Price</td>
<td>$3.70</td>
<td>$3.70</td>
<td>$3.70</td>
<td>$3.70</td>
<td>$3.70</td>
<td>$3.70</td>
</tr>
<tr>
<td>Wheat (MYA)</td>
<td>$4.87</td>
<td>$5.70</td>
<td>$7.24</td>
<td>$7.77</td>
<td>$6.87</td>
<td>$6.60</td>
</tr>
<tr>
<td>Reference Price</td>
<td>$5.50</td>
<td>$5.50</td>
<td>$5.50</td>
<td>$5.50</td>
<td>$5.50</td>
<td>$5.50</td>
</tr>
</tbody>
</table>
Agriculture Risk Coverage - County (ARC-C): Example

- Olympic average county corn yield for 2009-2013 is 156 bu/acre
- Olympic average national price for 2009-2013 is $5.28/bu
- Benchmark revenue is $156 \times $5.28 = $824/acre
  - Revenue guarantee is $824 \times 0.86 = $708/acre
  - Payment rate will not exceed $824 \times 0.10 = $82.40/acre
- If actual county yield is 170bu/acre and MYA price is $4.00:
  - Actual county revenue is $170 \times $4.00 = $680/acre
  - Actual crop county revenue is less than revenue guarantee
  - Payment rate would be $708 - $680 = $28/acre (cannot exceed $82.40)
  - Payment amount per acre is 85% of payment rate or $0.85 \times $28 = $23.80/acre
Agriculture Risk Coverage - Individual (ARC-I)

- Benchmark revenue is farm revenue determined by historical farm yields and national prices and is a moving measure of the 5 most recent years.
- Payments are paid on 65% of total farm base and generic base acres.
- Individual ARC will pay when a farmer’s revenue is between 76% and 86% of a five-year rolling Olympic average.
- Benchmark revenue changes as annual planted acreage changes.
- Reference price substitution for MYA price is the same as for ARC-C.
Agriculture Risk Coverage (ARC-I): Example

- Assume an FSA farm has 100 total base acres (no generic base)
- In 2014 the farm was planted to 70% soybeans and 30% corn
- Olympic average revenue (2009-2013) is $650/acre for soybeans and $750 for corn (Olympic average farm yield by commodity x Olympic average national price or reference price by commodity)
  - Benchmark revenue is ($650 x 0.70) + ($750 x 0.30) = $680/acre
  - Revenue guarantee is $680 x 0.86 = $585
- In 2014 the farm produces yields of 50 bu/acre for soybeans and 170 bu/acre for corn
- MYA prices for 2014 are $10.00 (soybeans) and $4.00 (corn)
- Actual revenue is (50 x $10 x 0.70) + (170 x $4 x 0.3) = $554/acre
- Payment rate is $585-$554 = $31, may not exceed $68 ($680/acre x 0.1)
- Payment per base acre is $31 x 0.65 = $20.15
PLC, ARC-C, and ARC-I Summary

• **PLC**
  - Fixed reference prices are compared to national marketing year average prices for each crop
  - Payment yields are established with USDA
  - Payments are made on 85% of base acres (plus proportional generic base acres assigned to the covered commodity)
  - SCO option is available to provide additional crop insurance coverage

• **ARC-C**
  - County benchmark revenue: 5-year Olympic average revenue (national prices x county yields) on a commodity-by-commodity basis
  - Actual revenue is determined by county yield and national price for each covered commodity
  - Payments are made on 85% of base acres (plus proportional generic base acres assigned to the commodity)

• **ARC-I**
  - Individual farm benchmark revenue 5-year (historic farm yields and national prices)
  - Covers all covered commodities (cannot pick on a commodity-by-commodity basis)
  - Payments are made on 65% of base acres + generic base acres
An Estimated Timeline

• Beginning August 1, 2014: Producers start receiving letters notifying them of current bases and yields and 2009 to 2012 planting history (60 days to correct)

• Late Summer – 2014: MPP, ARC, and PLC online tools become available. MPP enrollment for 2014 and 2015 begins. Owners have opportunity to update yields and reallocate bases for ARC/PLC purposes

• Fall 2014: NAP buy-up online tools become available. NAP buy-up sign-up starts

• Winter 2014: ARC/PLC one-time selections occur

• Early 2015: ARC/PLC sign-up for 2014 and 2015 starts
What Now?

• Do not rush this decision
  • Time will reveal additional information about the current yield and price environment
  • Continue to revisit alternatives as program and market information is revealed
• Get informed
  • This is not an easy or straightforward decision; there are many moving parts that will impact program alternatives and payouts
  • Given many current price forecasts for row crops due diligence is a necessity when making program choices
• Collect data that is specific to your operation
  • Evaluate data on FSA farm base acres and yields for accuracy and correct accordingly with your FSA office
  • Many alternatives are FSA Farm # and RMA crop insurance policy specific so evaluate unique circumstances for each farm
  • You know the farms you operate; identify issues that may require unique consideration

• THIS IS A DECISION THAT WILL REWARD TIME AND EFFORT!
Decision Aids for Base Reallocation, Yield Update, and Program Alternatives

• Texas A&M
  • https://afpc.tamu.edu/models/decisionaid.php

• University of Illinois
  • http://farmdoc.illinois.edu/farmbilltoolbox/

• University of Tennessee
  • http://economics.ag.utk.edu/crop.html

• Mississippi State University
  • http://blogs.msucares.com/agecon/2014/04/15/farm-bill-support-tools-and-calculators/

• FSA
  • http://www.fsa.usda.gov/FSA/webapp?area=home&subject=arp&topic=landing

• RMA
  • http://prodwebnlb.rma.usda.gov/apps/CIDT/