# ALLABOUT THE 2014 FARM BILL

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### Title I – Commodities (Programs)

- Eliminates:
  - Direct Payments
  - Counter-Cyclical Payments
  - Average Crop Revenue Election (ACRE)
  - SURE
- Retains marketing loans
- Provides a Transition Payment for Cotton in 2014
- Establishes:
  - Agricultural Risk Coverage (ARC) program to assist farmers when revenue (price times yield) drops due to low prices or weather disasters
  - Price Loss Coverage (PLC) program to assist farmers when commodity prices drop below reference levels

#### Title I – Commodities (Programs)

#### **ARC and PLC:**

- Producers are given a 1-time choice to enroll in either PLC or ARC (county or individual level) on a commodity-by-commodity basis for each FSN
- Both ARC and PLC pay on decoupled base acres designed to minimize planting and market distortions and comply with international trade agreements
- Landowners are offered a one-time opportunity to reallocate existing base acres using an average of 2009 to 2012 plantings.
- Requires conservation compliance for all commodities



#### Title XI Crop Insurance

- Creates two new shallow loss county triggered programs
  - Supplemental Coverage Option (SCO)
  - Stacked Income Protection Program (STAX) for cotton
- Conservation Compliance for crop insurance
- Traditional crop insurance
  - Enterprise units by dryland/irrigated practice
  - Separate coverage level by practice
  - Beginning farmers (provides 10 percentage point discount for all crop insurance premiums)
  - Authority to do peanut revenue insurance



#### Possible Choices

One time Landowner Choice

- Update base yields
- 2. Reallocate base acres

One time Producer Choice

- 1. Program Choice for the life of the bill (5 years)
  - a. County triggered Ag Risk Coverage (ARC) [similar to county level ACRE]
  - b. Farm-triggered ARC [similar to farm level ACRE]
  - c. Price Loss Coverage (PLC) [similar to counter-cyclical payment program]
- 2. Cotton has the choice of SCO or STAX on planted acres every year (beginning in 2015) with a transition payment in 2014



#### Dates You Need to Know

- Sept. 29, 2014 to Feb. 27, 2015: Land owners may visit their local Farm Service Agency office to update yield history and/or reallocate base acres.
- Nov. 17, 2014 to March 31, 2015: Producers make a one-time election of either ARC or PLC for the 2014 through 2018 crop years.
- Mid-April 2015 through summer 2015: Producers sign contracts for 2014 and 2015 crop years



#### Generic Base

- "Generic Base Acres" = the number of existing base acres for cotton
  - Was created as cotton programs would no longer use base acres
  - It avoids the value of cotton base from being lost
- Because cotton cannot participate in PLC and ARC programs, cotton base is reallocated
  - PLC & ARC are allowed to move to other covered commodity for the crop year.
  - The generic base acres are in addition to other base acres on the farm.
- http://blogs.msucares.com/agecon/2014/04/15/farm-billsupport-tools-and-calculators/



#### **Base Reallocation**

- One time opportunity to elect to reallocate base acres for covered commodities on the farm, among those covered commodities planted on the farm at any time during the 2009-2012
- Reallocation of base acres among covered commodities on a farm shall be in proportion to the ratio of—
  - the 4-year average of the acreage planted on the farm to each covered commodity for 2009-2012 crop years; and any prevented planting to the 4-year average of the acreage planted on the farm to all covered commodities and prevented planting
- Cannot "build base"
- http://blogs.msucares.com/agecon/2014/04/15/farm-billsupport-tools-and-calculators/



### Yield Updating

- Owner of a farm has a 1-time opportunity to update payment yields in 2014 for PLC.
  - equal to 90 percent of the average of the yield per planted acre for the crop of the covered commodity on the farm for the 2008 through 2012 crop years.

| Example Yield Update Calculation |       |       |          |  |  |  |
|----------------------------------|-------|-------|----------|--|--|--|
| Year                             | Corn  | Rice  | Soybeans |  |  |  |
| 2012                             | 165.7 | 7,230 | 46.3     |  |  |  |
| 2011                             | 136.5 | 7,140 | 42.5     |  |  |  |
| 2010                             | 135.4 | 7,120 | 45.0     |  |  |  |
| 2009                             | 146.0 | 6,700 | 42.0     |  |  |  |
| 2008                             | 158.0 | 6,810 | 42.0     |  |  |  |
| Yield                            | 148.3 | 7,000 | 43.6     |  |  |  |
| Daymont Viold                    | 133.5 | 6 200 | 39.2     |  |  |  |
| Payment Yield                    | 155.5 | 6,300 | 39.2     |  |  |  |



### Price Loss Coverage (PLC)

- FSA delivered and functions much like CCP
- Payment = 85% x Base acres x base yield x [Reference price – maximum of loan rate or Market Year Average (MYA) price]
- Cotton not eligible
- Reference Prices
  - Corn, \$3.70 per bushel.
  - Long and medium grain rice \$14.00 per hundredweight
  - Soybeans, \$8.40 per bushel
  - Peanuts \$535.00 per ton
  - Wheat, \$5.50 per bushel
  - Sorghum, \$3.95 per bushel
- Can also opt for PLC and Supplemental Coverage Option (SCO)



# Ag Risk Coverage (ARC)

- FSA delivered beginning in 2014.
- Either farm-level or county-level (grower chooses).
  - County-level;
    - paid on 85% of base acres
    - Commodity specific
  - Farm-level;
    - paid on 65% of base acres
    - All FSNs are aggregated
    - Multi-crop coverage
- Average benchmark revenue = 86% x 5 year Olympic average yield (farm or county) x 5 year Olympic average MYA price.
- Payment cannot exceed 10% of benchmark revenue
  - Covers 86% to 76%.
- Cotton not eligible.



#### Ag Risk Coverage (ARC) Soybean Example\*

|                                       | 2014     | 2015     | 2016     | 2017     | 2018     |
|---------------------------------------|----------|----------|----------|----------|----------|
| Olympic Average County Yield          | 45       | 43       | 43       | 43       | 44       |
| Olympic Average Market Year Price     | \$12.10  | \$8.33   | \$8.33   | \$7.69   | \$7.04   |
| ARC Bench Mark                        | \$539.66 | \$355.25 | \$360.58 | \$332.60 | \$309.19 |
| Payment Begins 86% of Benchmark       | \$464.11 | \$305.52 | \$310.10 | \$286.03 | \$265.90 |
| Maximum ARC Payment/Payment acre      | \$53.97  | \$35.53  | \$36.06  | \$33.26  | \$30.92  |
| Actual County Yield                   | 42       | 42.63    | 43.27    | 43.92    | 44.58    |
| Actual 2014 MYA Price                 | \$10.54  | \$10.40  | \$10.56  | \$10.68  | \$10.74  |
| Actual Revenue                        | \$442.68 | \$443.35 | \$456.93 | \$469.05 | \$478.76 |
| Revenue as a percent of ARC Benchmark | 82%      | 125%     | 127%     | 141%     | 155%     |
| Payment on % of Base Acres            | 85%      | 85%      | 85%      | 85%      | 85%      |
| ARC Payment/acre                      | \$18.21  | \$0.00   | \$0.00   | \$0.00   | \$0.00   |

<sup>\*</sup>Hypothetical Example

### Supplemental Coverage Option (SCO)

- RMA delivered beginning in 2015.
- 65% premium subsidy.
- No payment limit.
- Top coverage of 86% coverage
- County-level optional endorsement for crop insurance policies.
  - "Tops up" crop insurance to cover deductible.
  - Yield or revenue triggered depending on underlying crop insurance policy.
  - Expected county yield = GRP trend yield. Expected revenue = GRP trend yield x crop insurance base price.
  - Actual county yield = County yield. Actual revenue = county yield x crop insurance harvest price.
  - Coverage ceases at coverage level for underlying insurance policy.
- May purchase STAX and SCO, but not on same acres.



#### Stacked Income Protection Plan (STAX)

- RMA delivered beginning in 2015.
- Only for cotton
- 80% premium subsidy. No payment limit.
- Modified version of county-level GRIP (with harvest revenue option).
- Expected revenue: Max of GRP yield or 5 year Olympic average yield x higher of crop insurance base price
- Actual revenue: County yield x crop insurance harvest price.
- Maximum 90% coverage (10% deductible).
- Maximum range of payments is 90-70% of expected revenue.
- Do not have to purchase individual-level coverage
- If in STAX, not eligible for SCO.



### PLC + SCO + Crop Insurance

**Price Loss Coverage (PLC) +** 

86%

Supplemental Coverage Option

Crop Insurance coverage level

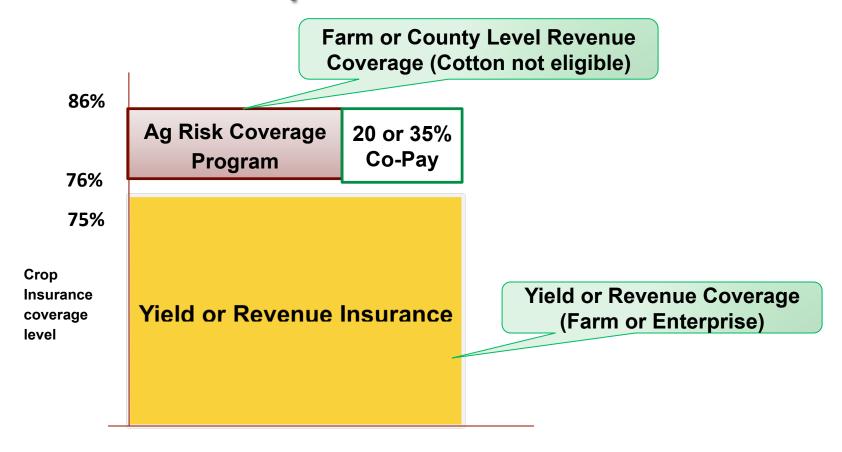
**Yield or Revenue Insurance** 

Optional County Yield or Revenue
Coverage
Cotton has the alternative of Area
Revenue Coverage under STAX

Yield or Revenue Coverage (Farm or Enterprise Level)

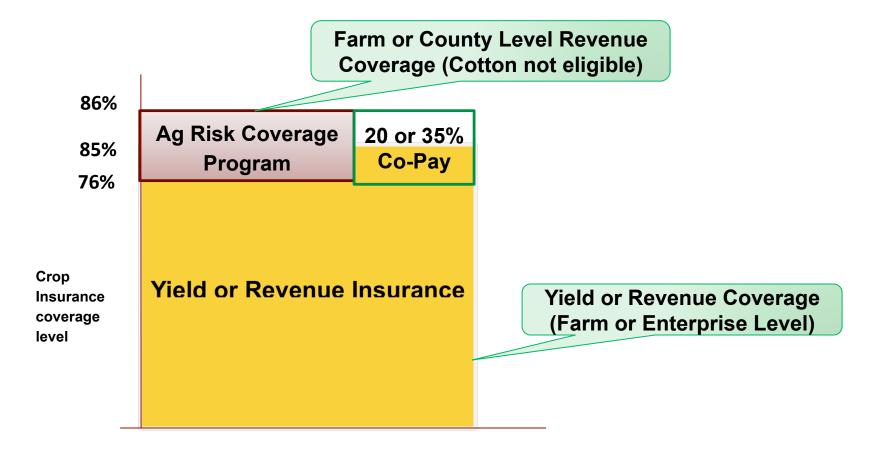


# ARC + Crop Insurance





### ARC + Crop Insurance





# An example of how county triggered programs may not match farm losses

| Farm<br>Level            | 1999    | 2000         | 2001    | 2002    | 2003  | 2004  | 2005  | 2006     | 2007  | 2008     |
|--------------------------|---------|--------------|---------|---------|-------|-------|-------|----------|-------|----------|
| Yield % APH              | 92%     | 54%          | 92%     | 93%     | 123%  | 133%  | 107%  | 82%      | 122%  | 71%      |
| SCO<br>payment<br>needed | \$46.51 | \$155.0<br>3 | \$48.06 | \$40.31 | \$0.0 | \$0.0 | \$0.0 | \$111.62 | \$0.0 | \$155.03 |
| County<br>Level          | 1999    | 2000         | 2001    | 2002    | 2003  | 2004  | 2005  | 2006     | 2007  | 2008     |
| Yield % APH              | 86%     | 79%          | 95%     | 103%    | 117%  | 109%  | 109%  | 87%      | 115%  | 105%     |
| SCO payment              | \$84.65 | \$126.23     | \$28.21 | \$0.0   | \$0.0 | \$0.0 | \$0.0 | \$78.71  | \$0.0 | \$0.0    |

Note: This farm is strongly correlated with the county

# **Crop Insurance Choices**

| Coverage<br>Level | Basic &<br>Optional<br>Subsidy | Enterprise Unit<br>Subsidy | SCO<br>Subsidy | STAX<br>Subsidy |
|-------------------|--------------------------------|----------------------------|----------------|-----------------|
| 50%               | 67%                            | 80%                        | 65%            |                 |
| 55%               | 64%                            | 80%                        | 65%            |                 |
| 60%               | 64%                            | 80%                        | 65%            |                 |
| 65%               | 59%                            | 80%                        | 65%            |                 |
| 70%               | 59%                            | 80%                        | 65%            | 80%             |
| 75%               | 55%                            | 77%                        | 65%            | 80%             |
| 80%               | 48%                            | 68%                        | 65%            | 80%             |
| 85%               | 38%                            | 53%                        | 65%            | 80%             |
| 90%               |                                |                            |                | 80%             |



### Payment Limits

- The total amount of payments received for PLC, ARC and a marketing loan gain or loan deficiency payment may not exceed \$125,000
- separate and equal payment limitation for peanuts.
- Payments will spike
- Adjusted Gross Income
  - Prohibits a person or legal entity from receiving benefits under subtitle
     A if the average gross income of the person or legal entity exceeds
     \$900,000 by using a moving three-year average.
- Actively Engaged
  - The Secretary may establish limits for varying types of farming operations on the number of individuals who may be considered to be actively engaged in farming.



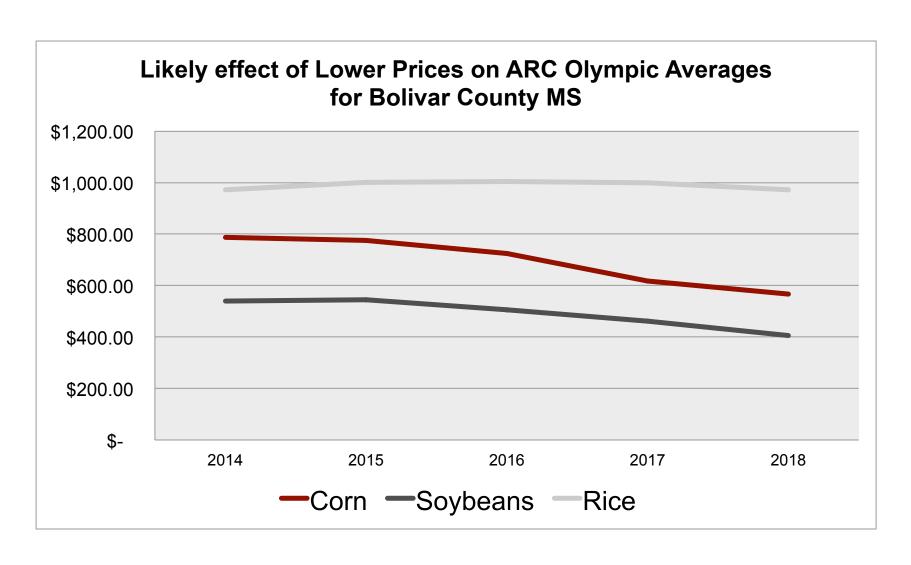
# ANALYSIS OF REPRESENTATIVE FARMS

# Estimating the Chances of Farm Program Payment Levels

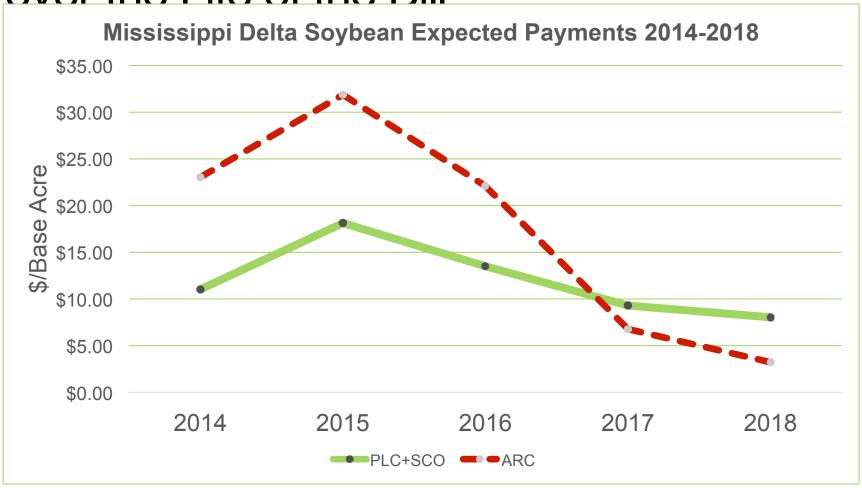
- All programs depend price and/or yield which are unknown
  - Differs from direct payments
- Use computer models that simulate price and yield outcomes
  - Price
    - We don't know what prices will be, but we know future forecast of price and the variability of price – get the odd of various price levels
  - Yield
    - Know we have significant yield trend
    - We know about the distribution of weather
    - Quantify deviations from trend to estimate the chances of a yield shortfall



# ARC Guarantees Are Likely to Decline Over Time



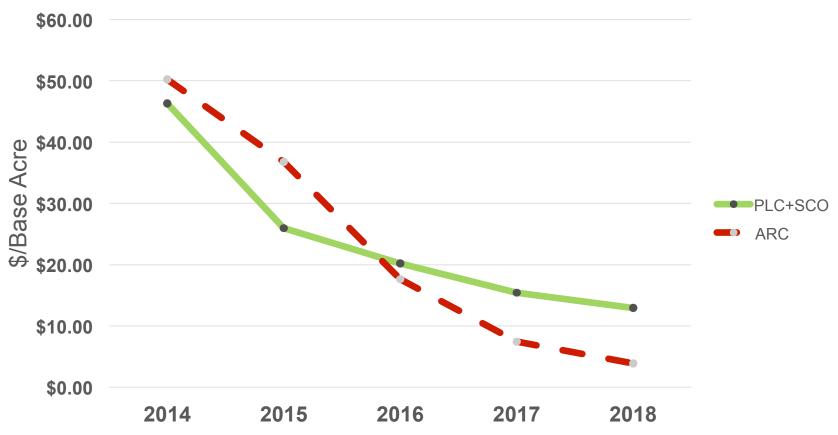
# Trend in Estimated Soybean Payment over the Life of the Bill





# Trend in Estimated Corn Payment over the Life of the Bill

Mississippi Delta Corn Expected Payments 2014-2018





# Mississippi Delta Representative Farm Estimated Average Annual Payments 2014-2018

|         | Optimal<br>Coverage<br>Level | Net Return to<br>Crop<br>Insurance | PLC            | SCO     | PLC +<br>SCO | ARC      |
|---------|------------------------------|------------------------------------|----------------|---------|--------------|----------|
|         | 000/                         | <b>**</b>                          | <b>#</b> 04.00 | 04004   | 244040       | 0.4.4.40 |
| Rice    | 60%                          | \$19.14                            | \$94.26        | \$48.84 | \$143.10     | \$41.42  |
| Wheat   | 75%                          | \$13.15                            | \$8.40         | \$10.53 | \$18.93      | \$15.07  |
|         |                              |                                    |                |         |              |          |
| Soybean | 75%                          | \$14.99                            | \$5.46         | \$9.41  | \$14.87      | \$19.89  |
|         |                              |                                    |                |         |              |          |
| Corn    | 75%                          | \$15.04                            | \$18.75        | \$5.41  | \$24.15      | \$20.35  |



#### 5 Questions to ask of ARC/PLC decision aids

- 1. How does the decision aide account for uncertain prices yields over the life of the bill?
  - estimates of payments must account for the odds of various prices and yields over 5 years.
- 2. If the decision aide accounts for risk, then what risks are modeled?
  - five risk variables: Three prices: Cash price, futures price, market year average price and two yields: farm and area yield.
- 3. If the decision aide accounts for risk, then how is the correlation of random variables handled?
  - A farm considering individual ARC with three crops needs 120 correlations.
- 4. Does the model ask you for lots of farm yield data?
- 5. Does the decision aid help you understand risk protections as well as expected returns?



# 5 Questions to ask yourself about the ARC/PLC decision

- 1. How much do you want to protect yourself from risk or increase government payments?
- 2. How much are you willing to take money upfront and be exposed in out years?
- 3. How much do you value having a price floor under the price of a crop?
- 4. How much are you willing to depend on individual crop insurance for risk protection?
- 5. How much are you willing to depend on area-triggered crop insurance for risk protection?



#### **Summary**

- Easy calls
  - Conversion of cotton base to generic base
  - Yield updates
  - Farm level ARC may not be a good fit for diversified producers
  - STAX will be preferred to SCO for cotton unless low crop insurance coverage
- Important things to remember
  - area triggered programs may not trigger when you have a loss
  - Remember Title 1 programs are on base acres not planted acres
  - As compared to direct payments which paid every year, ARC, PLC, and SCO are expected to pay less than 50% of the time.



#### **Decision Aides**

- We have two available
- http://blogs.msucares.com/agecon/2014/04/15/farm-billsupport-tools-and-calculators/
- We will continue to do representative farm analysis
- USDA Supported programs Two teams approved by USDA
  - AFPC/FAPRI
  - U of Illinois
  - We are collaborating with the AFPC/FAPRI team
- We will be doing training in December and January

