



2014 Farm Bill

Farm Program Decision Aid Example

Farm Bill Implementation Seminar
Part 2

A “Farm Unit” needs to be created for any existing base acres or acres planted in the 2008-2012 period. The 2008-2012 yield data is used for yield updates and 2009-2012 data is used for base reallocation analysis.

Lower Delta Eg.'s Farm Units

FSA #	Farm Name	Crop Practice	
271	Lower Delta	Grain sorghum Non-Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Non-Irrigated	Edit Yields
271	Lower Delta	Grain Corn Irrigated	Edit Yields
271	Lower Delta	Grain Corn Non-Irrigated	Edit Yields
271	Lower Delta	Long Grain Rice Irrigated	Edit Yields
271	Lower Delta	Winter Wheat Non-Irrigated	Edit Yields
271	Lower Delta	Cotton Irrigated	Edit Yields
271	Lower Delta	Cotton Non-Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Non-Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Irrigated	Edit Yields



Available Tools

[Help!](#)

Yield Update

This tool calculates values for PLC yields using yield histories for your units listed on the left.

Base Acre Reallocation & PLC/ARC Decision Aid

This tool helps you decide whether to reallocate your base acres and whether to choose PLC, ARC-C, or ARC-I for each farm unit based on your data.

Farm Bill 2014 Insurance

This tool calculates net revenue for alternative insurance choices available through the 2014 Farm Bill and RMA.

ARC/PLC Evaluator for Generic (Cotton) Base

A simple comparison of expected PLC and ARC-CO payments for all available crops assuming an assigned PLC Payment Yield.

Generic Base Election Assistance

This tool calculates net returns for alternative crops under PLC and ARC which you could allocate generic base.

ARC-C Explorer

SCO Premium Estimator

[New Farm Unit](#)

The decision support tools that are currently available are shown in blue.

Note that a “Farm Unit” also needs to be created for each RMA recognized production practice.

The screenshot shows a web browser window with the URL https://decisionaid.afpc.tamu.edu/farm_unit/new. The page title is "New Farm Unit" and it includes a "Help!" button. The form instructions state: "Create one farm unit for each unique FSA number - crop - practice combination on your farming operation. To utilize the crop insurance tools, separate tracks or insurance units within a single FSA number."

The form fields are as follows:

- Farm Name (text input)
- Description (text input)
- FSA # (text input)
- Crop (dropdown menu)
- Administrative State (dropdown menu)
- Type (dropdown menu)
- Administrative County (dropdown menu)
- Practice (dropdown menu)

Below these are three main sections:

- Yields & Base**: Counter Cyclical Yield (text input), 2013 Base Acres (text input).
- Crop Insurance**: APH Yield (text input), 2014 Insurance Policy (text input).
- Future Acres**: 2014, 2015, 2016 (text inputs).

A blue arrow points from the text above to the "Practice" dropdown menu.

Administrative state and county required for ARC analysis

Edit Farm Unit

Help!

Create one farm unit for each unique FSA number - crop - practice combination on your farming operation. To utilize the crop insurance tools, separate tracks or insurance units within a single FSA number.

Farm Name	Lower Delta	Description	EG. 1 - NFAC IRR Soybeans
FSA #	271	Crop	Soybeans
Administrative State	Mississippi	Type	Commodity Soybeans
Administrative County	Humphreys	Practice	Irrigated

Future acres are optional for yield update and base reallocation analysis.

Yields & Base

Counter Cyclical Yield bu/ac

2013 Base Acres

Crop Insurance

Rate Yield bu/ac

Approved APH Yield bu/ac

Future Acres

2014

2015

2016

2017

2018

Basis

Harvest Time Basis \$/bu

2014 Insurance Policy

Insurance

Coverage

Unit Structure

Historical Yields for Lower Delta Soybeans Irrigated FSA

Help!

271

Enter yields for 10 or more years to get the full benefit of the insurance analysis capabilities of the decision aid. Yield risk for the crop will not be representative of actual variability if only yields for 2008-2012 are entered.

Year	Actual Yield / Planted Acre	Planted Acres	Prevented Planted Acres	
2004	52.0	337.3	0.0	Delete
2005	54.0	430.6	0.0	Delete
2006	48.0	366.1	0.0	Delete
2007	58.0	216.1	0.0	Delete
2008	57.0	476.6	0.0	Delete
2009	46.0	511.5	0.0	Delete
2010	41.0	672.5	0.0	Delete
2011	55.0	550.4	0.0	Delete
2012	58.0	482.2	0.0	Delete
2013	50.0	540.0	0.0	Delete
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Add Farm Yield

RMA "A" yield and acreage data for Eg. 1. NFAC IRR Soybeans.

Done Entering Yields

Base and Program Selection Decision Aid

Lower Delta Eg.'s Farm Units

FSA #	Farm Name	Crop Practice	
271	Lower Delta	Grain Corn Irrigated	Edit Yields
271	Lower Delta	Grain Corn Non-Irrigated	Edit Yields
271	Lower Delta	Grain sorghum Non-Irrigated	Edit Yields
271	Lower Delta	Long Grain Rice Irrigated	Edit Yields
271	Lower Delta	Winter Wheat Non-Irrigated	Edit Yields
271	Lower Delta	Cotton Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Non-Irrigated	Edit Yields
271	Lower Delta	Cotton Non-Irrigated	Edit Yields
271	Lower Delta	Commodity Soybeans Non-Irrigated	Edit Yields

Available Tools

[Help!](#)

Yield Update

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Base Acre Reallocation & PLC/ARC Decision Aid

This tool helps you decide whether to reallocate your base acres and whether to choose PLC, ARC-C, or ARC-I for each farm unit based on your data.

Farm Bill 2014 Insurance

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Generic Base Election Assistance

This tool calculates net returns for alternative crops under PLC and ARC which you could allocate generic base.

Planted Acres Used in Base Reallocation Analysis

Your Data

Your current base acres, planted acres history, and prevented planting history for 2009 through 2012 are presented below. It is vital that this information is correct and complete, or the reallocated base acres will not be calculated correctly.

- There is no official ARC-CO historical yield data from FSA for Grain sorghum in Humphreys County, Mississippi. We will use historical yield data from other sources, but you should re-run this analysis at a later date when official ARC-CO historical yields are available for this case.
- There is no official ARC-CO historical yield data from FSA for Long Grain Rice in Humphreys County, Mississippi. We will use historical yield data from other sources, but you should re-run this analysis at a later date when official ARC-CO historical yields are available for this case.

Mississippi FSA # 271

Planted Acres History

	2009	2010	2011	2012
Long Grain Rice	0.0	0.0	0.0	0.0
Grain sorghum	0.0	0.0	0.0	0.0
Grain Corn	345.2	157.6	310.4	0.0
Soybeans	698.0	884.7	570.4	487.2
Wheat	186.5	184.3	0.0	0.0

Note: 154.8 and 572.1 acres of cotton planted in 2011 and 2012 respectively.

Base Acreage Reallocation Results

Base Acres

	Current Base	Potential Reallocated Base
Long Grain Rice	4.0	0.0
Grain sorghum	1.7	0.0
Grain Corn	282.4	112.1
Soybeans	3.0	364.0
Wheat	236.2	51.1

Verify Data

It is vital that the Current Base Acres and Planting History above is correct and complete, or the reallocated base acres will not be calculated correctly, and the analysis will be invalid.

Information is correct

In addition to using either the USDA or Food and Agricultural Policy Research Institute (FAPRI) projections for marketing year prices the user can enter their own projection.

Your Price Outlook

Help!

Please enter the expected annual commodity prices that you want to use in your analysis. You must complete all spaces in the form below before you can proceed. FAPRI and USDA price projections are provided for your convenience.

Long Grain Rice			
	FAPRI	USDA	in \$/lb
2014	0.1257	0.1270	<input type="text" value="0.1257"/>
2015	0.1282	0.1390	<input type="text" value="0.1282"/>
2016	0.1309	0.1430	<input type="text" value="0.1309"/>
2017	0.1309	0.1470	<input type="text" value="0.1309"/>
2018	0.1313	0.1490	<input type="text" value="0.1313"/>

Grain sorghum			
	FAPRI	USDA	in \$/bu
2014	3.4102	3.4500	<input type="text" value="3.3300"/>
2015	3.6046	3.4500	<input type="text" value="3.5400"/>
2016	3.7500	3.1700	<input type="text" value="3.7100"/>
2017	3.8669	3.2200	<input type="text" value="3.8800"/>
2018	3.9057	3.2900	<input type="text" value="3.9200"/>

Grain Corn			
	FAPRI	USDA	in \$/bu
2014	3.4976	3.5000	<input type="text" value="3.4000"/>
2015	3.8865	3.6800	<input type="text" value="3.7400"/>
2016	4.0245	3.3800	<input type="text" value="3.9800"/>
2017	4.0966	3.4700	<input type="text" value="4.1900"/>
2018	4.1033	3.5300	<input type="text" value="4.2000"/>

Soybeans			
	FAPRI	USDA	in \$/bu
2014	10.0011	10.0000	<input type="text" value="9.9500"/>
2015	9.1035	8.6600	<input type="text" value="8.9300"/>
2016	9.7776	9.0000	<input type="text" value="9.5500"/>
2017	10.0848	8.9700	<input type="text" value="10.2600"/>
2018	10.2345	9.1900	<input type="text" value="10.5000"/>

Wheat			
	FAPRI	USDA	in \$/bu
2014	5.9031	5.9000	<input type="text" value="5.8800"/>
2015	5.3639	5.1000	<input type="text" value="5.3900"/>
2016	5.5040	4.3800	<input type="text" value="5.6300"/>
2017	5.7030	4.3300	<input type="text" value="5.8700"/>
2018	5.9033	4.5600	<input type="text" value="5.9700"/>

Your County Yield Outlook

If you want the analysis to assume a particular 2014 yield is realized with certainty, enter it below. Leave it blank to simulate the yield over numerous possible realizations, with an average realization equal to the value in the *Projected 2014* column.

	2009	2010	2011	2012	2013	Projected 2014	Your 2014 <small>(optional)</small>	2014 Yield Calculation	Change from 2013
Wheat in Humphreys, Mississippi (bu/ac)	52	59	58	49	63	64	<input type="text"/>	Simulated	0.9 %
Grain corn in Humphreys, Mississippi (bu/ac)	116	121	103	165	174	163	<input type="text" value="175"/>	Certain	0.6 %
Grain sorghum in Humphreys, Mississippi (bu/ac)	70	68	69	83	76	81	<input type="text"/>	Simulated	5.5 %
Soybeans in Humphreys, Mississippi (bu/ac)	25	39	41	46	48	41	<input type="text" value="48"/>	Certain	0.0 %
Long grain rice in Humphreys, Mississippi (lb/ac)	6328	6326	6649	7075		7084	<input type="text"/>	Simulated	-

FAPRI Prices provided as of 2014-11
 USDA Prices provided as of 2014-11

Analyze Program Options

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2014 County Corn ARC Guarantee Revenue =
 $86\% * 134 \text{ bu/ac} * \$5.29/\text{bu} = \$609/\text{ac}$

Data used to calculate 2014
 ARC-CO benchmark revenue.

National Price & County Yield Data

Historical data from USDA sources used to generate results for your analysis.

	2009	2010	2011	2012	2013	Your 2014	2014 Calculation
County Yields							
Wheat in Humphreys, Mississippi (bu/ac)	52	59	58	49	63	64	Simulated
Grain corn in Humphreys, Mississippi (bu/ac)	116	121	103	165	174	175	Certain
Grain sorghum in Humphreys, Mississippi (bu/ac)	70	68	69	83	76	81	Simulated
Soybeans in Humphreys, Mississippi (bu/ac)	25	39	41	46	48	48	Certain
Long grain rice in Humphreys, Mississippi (lb/ac)	6328	6326	6649	7075		7084	Simulated
National Prices							
Long Grain Rice (\$/lb)	0.1290	0.1100	0.1340	0.1450	0.1540		
Grain sorghum (\$/bu)	3.2200	5.0200	5.9900	6.3300	4.2800		
Grain Corn (\$/bu)	3.5500	5.1800	6.2200	6.8900	4.4600		
Soybeans (\$/bu)	9.5900	11.3000	12.5000	14.4000	13.0000		
Wheat (\$/bu)	4.8700	5.7000	7.2400	7.7700	6.8700		

2014 County Soybean ARC Guarantee Revenue =
 $86\% * 42 \text{ bu/ac} * \$12.27/\text{bu} = \$443/\text{ac}$

Farm-by-Farm Choices

FSA # 271 

Base Reallocation

Risk Chart, Same Choice for All Crops

Per Crop Analysis


Base Reallocation Considerations

Need help interpreting this information? Try our [YouTube video](#)

Total (2014-2018) Expected Payments or Expected Net Indemnity by Farm Program Option

Crop	Reallocate Base	ARC-CO		PLC		PLC + SCO	
		Yes	No	Yes	No	Yes	No
Long Grain Rice		\$0	\$501	\$0	\$1,390	\$0	\$1,390
Grain sorghum		\$0	\$132	\$0	\$183	\$0	\$183
Grain Corn		\$15,067	\$37,947	\$16,385	\$41,266	\$25,151	\$50,033
Soybeans		\$37,442	\$309	\$13,211	\$109	\$13,211	\$109
Wheat		\$2,180	\$10,073	\$3,861	\$17,838	\$3,861	\$17,838

All results shown exclude payments on generic base acres. All results shown are based crop insurance at 75% Revenue Protection.

Combinations of ARC-CO, PLC, and PLC+SCO to Maximize Total Payments for the Farm 

Crop	Reallocate Base		No Reallocation	
	Program	Expected Payment	Program	Expected Payment
Long Grain Rice	ARC-CO	\$0	PLC	\$1,390
Grain sorghum	ARC-CO	\$0	PLC	\$183
Grain Corn	PLC + SCO	\$25,151	PLC + SCO	\$50,033
Soybeans	ARC-CO	\$37,442	ARC-CO	\$309
Wheat	PLC	\$3,861	PLC	\$17,838
	Total	\$66,454	Total	\$69,753

[Change Prices or Yields](#)

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All results shown exclude payments on generic base acres. All results shown are based crop insurance at 75% Revenue Protection.

For ARC-CO (agriculture risk coverage - county) selected for all crops with “reallocated base” the expected annual payment across all crops is \$21 per acre.

The following table shows expected payments or SCO net indemnities if you make the same choices across all crops in FSA # 271.

FSA Program	Reallocate Base	2014	2015	2016	2017	2018	Sum
ARC-IC	N/A						◀ Show Details
Expected Payment		\$6,746	\$16,515	\$12,509	\$4,382	\$1,045	\$41,197
ARC-CO	Yes	\$6,427	\$19,300	\$15,503	\$8,520	\$4,939	\$54,689
ARC-CO	No	\$9,406	\$15,475	\$13,486	\$6,132	\$4,463	\$48,961
PLC ▲	Yes	\$6,644	\$10,775	\$7,412	\$4,382	\$4,245	\$33,457
PLC ▲	No	\$15,542	\$16,075	\$11,891	\$8,729	\$8,550	\$60,787
SCO Expected Net Indemnity	N/A	\$0	\$2,833	\$2,750	\$283	\$2,900	\$8,767
PLC + SCO	Yes	\$6,644	\$13,608	\$10,162	\$4,665	\$7,145	\$42,223
PLC + SCO	No	\$15,542	\$18,908	\$14,641	\$9,012	\$11,450	\$69,553

For PLC (price loss coverage) selected for all crops with “existing base” the expected annual payment across all crops is \$23 per acre.

Difference of \$8,766 reflects total net SCO indemnities.

All results shown exclude payments on generic base acres. All results shown are based crop insurance at 75% Revenue Protection.

Grain Corn



FSA Program	Reallocate Base	2014	2015	2016	2017	2018	Sum
ARC-CO	Yes						◀ Show Details
Expected Payment		\$3,264	\$4,812	\$4,169	\$1,678	\$1,143	\$15,067
ARC-CO	No						▼ Hide Details
Expected Payment		\$8,220	\$12,120	\$10,501	\$4,227	\$2,878	\$37,947
Probability of Payment		60%	74%	63%	30%	23%	
25% of Payments		≤ \$0	≤ \$0	≤ \$0	≤ \$0	≤ \$0	
25% of Payments		≥ \$17,005	≥ \$19,458	≥ \$19,713	≥ \$6,672	≥ \$0	
5% of Payments		≥ \$17,005	≥ \$19,458	≥ \$21,047	≥ \$19,192	≥ \$17,546	
PLC	Yes						◀ Show Details
Expected Payment ▲		\$5,769	\$3,886	\$2,733	\$1,990	\$2,007	\$16,385
PLC	No						▼ Hide Details
Expected Payment ▲		\$14,530	\$9,787	\$6,884	\$5,011	\$5,055	\$41,266
Probability of Payment		70%	52%	44%	31%	33%	
25% of Payments		≤ \$0	≤ \$0	≤ \$0	≤ \$0	≤ \$0	
25% of Payments		≥ \$24,869	≥ \$17,646	≥ \$11,561	≥ \$3,949	≥ \$5,678	
5% of Payments		≥ \$40,279	≥ \$35,101	≥ \$30,117	≥ \$28,417	≥ \$27,750	

Given price outlook scenario we selected expected per acre ARC-CO payments range from \$10 to \$43.

Given price outlook scenario we selected expected per acre PLC payments range from \$18 to \$52.

All results shown exclude payments on generic base acres. All results shown are based crop insurance at 75% Revenue Protection.

Soybeans

FSA Program	Reallocate Base	2014	2015	2016	2017	2018	Sum
ARC-CO	Yes						◀ Show Details
Expected Payment		\$2,935	\$13,815	\$10,736	\$6,469	\$3,487	\$37,442
ARC-CO	No						▼ Hide Details
Expected Payment		\$24	\$114	\$88	\$53	\$29	\$309
Probability of Payment		32%	88%	72%	51%	31%	
25% of Payments		≤ \$0	≤ \$125	≤ \$0	≤ \$0	≤ \$0	
25% of Payments		≥ \$36	≥ \$141	≥ \$140	≥ \$125	≥ \$49	
5% of Payments		≥ \$131	≥ \$143	≥ \$148	≥ \$143	≥ \$130	
PLC	Yes						◀ Show Details
Expected Payment 		\$730	\$5,611	\$3,668	\$1,655	\$1,548	\$13,211
PLC	No						▼ Hide Details
Expected Payment 		\$6	\$46	\$30	\$14	\$13	\$109
Probability of Payment		10%	40%	29%	16%	15%	
25% of Payments		≤ \$0	≤ \$0	≤ \$0	≤ \$0	≤ \$0	
25% of Payments		≥ \$0	≥ \$69	≥ \$18	≥ \$0	≥ \$0	
5% of Payments		≥ \$47	≥ \$231	≥ \$183	≥ \$122	≥ \$112	

Given price outlook scenario we selected expected per acre ARC-CO payments range from \$8 to \$38.

Given price outlook scenario we selected expected per acre PLC payments range from \$2 to \$15.

All results shown exclude payments on generic base acres. All results shown are based crop insurance at 75% Revenue Protection.