

2014 Farm Bill



OSU-KSU Farm Bill Decision Aid

by J. Campiche, E. DeVuyst, G.A. Barnaby, and M. Taylor



Disclaimer

- This information is based on my understanding of the 2014 Farm Bill
- This information is intended for educational purposes only
- Keep checking www.AgManager.info for updated information



- Excel-based spreadsheet
 - Can be downloaded from www.AgManager.info
- Information you will need
 - FSA report 156EZ for each farm
 - FSA program yields
 - Commodity base acres
 - Farm yields 2008-2012
 - APH/crop insurance information
 - Expected plantings 2014-2018
- Updates continuously posted
 - Monthly update of prices
 - Please report errors or questions

2014 Government Program and Crop Insurance Decision Tool

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Prior to completing this program, collect your Crop History Summary (mailed to you by FSA) or USDA Report FSA-156EZ from your FSA Office.

Select State/Territory: Kansas

Select County/Parish: Sedgwick

Select Crops: [List of crops]

Enter Farm Number: [Field]

Lease % Share: 100.00%

Enter Scenario Description

Crop	APH	Current Base Acres	FSA Yield	Reallocated Base Acres	Updated FSA Yield
Corn					
Wheat_Winter					

View units per acre

If you are connected to the internet, you can check for an update by clicking the button below.

Check for Updates

This program is intended for instructional purposes only. The user assumes all risk associated with actual decision making associated with any farm commodity programs. Consult your FSA office and crop insurance agent before enrolling in programs and crop insurance.

Instructions for this program can be downloaded at: [Get manual](#)



- Input your farm information
 - Select your state, county
 - Select your crops
- Data in spreadsheet for all states, counties, and crops
 - Updates to these data will be made as FSA makes data available
- Data for each farm can be saved spreadsheet
 - Allows you to run different yield and price scenarios without re-entering your farm data

Select State/Territory from list

Select County, Parish, or Borough from list below

Select up to 12 Crops

	Dryland	Irrigated		Dryland	Irrigated	Number selected
Barley	<input type="checkbox"/>	<input type="checkbox"/>	Rice Temperate Japonica	<input type="checkbox"/>		2
Canola	<input type="checkbox"/>	<input type="checkbox"/>	Rice Long Grain	<input type="checkbox"/>		
Corn	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Rice Med Grain	<input type="checkbox"/>		
Crambe	<input type="checkbox"/>	<input type="checkbox"/>	Rice Short Grain	<input type="checkbox"/>		
Dry Peas	<input type="checkbox"/>	<input type="checkbox"/>	Safflower	<input type="checkbox"/>		
Flaxseed	<input type="checkbox"/>	<input type="checkbox"/>	Sesame Seed	<input type="checkbox"/>		
Grain Sorghum	<input type="checkbox"/>	<input type="checkbox"/>	Small Chickpeas	<input type="checkbox"/>		
Large Chickpeas	<input type="checkbox"/>	<input type="checkbox"/>	Soybeans	<input type="checkbox"/>		
Lentils	<input type="checkbox"/>	<input type="checkbox"/>	Sunflower	<input type="checkbox"/>		
Mustard Seed	<input type="checkbox"/>	<input type="checkbox"/>	Wheat Winter	<input checked="" type="checkbox"/>		
Oats	<input type="checkbox"/>	<input type="checkbox"/>	Wheat Durum	<input type="checkbox"/>		
Peanuts	<input type="checkbox"/>	<input type="checkbox"/>	Wheat Spring	<input type="checkbox"/>		
Rapeseed	<input type="checkbox"/>	<input type="checkbox"/>				

Clear selections

Done



- APH
 - From crop insurance records
 - Will be used for SCO calculations

- FSA data
 - Enter your base acres and program yields for all crops

- Decision to update based on calculations
 - Notes in spreadsheet help

2014 Government Program and Crop Insurance Decision Tool

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K-STATE
Research and Extension

Prior to completing this program, collect your Crop History Summary (mailed to you by FSA) or USDA Report FSA-156EZ from your FSA Office.

Select State/Territory: Kansas

Select County/Parish: Sedgwick

Select Crops:

Back Forty: Lease % Share: 100.00%

The Good, the Bad, and the Ugly!!

Crop: APH: Current Base Acres: FSA Yield: Reallocated Base Acres: Updated FSA Yield:

Corn: 80.0: 0.0: 40.0: 75.0: 75.6

Wheat_Winter: 50.0: 300.0: 40.0: 225.0: 42.9

2014 Planted Acres: 2015 Planted Acres: 2016 Planted Acres: 2017 Planted Acres: 2018 Planted Acres:

Corn: 300: 300: 300: 300: 300

Wheat_Winter: 300: 300: 300: 300: 300

2014 Price: 2015 Price: 2016 Price: 2017 Price: 2018 Price:

Corn: \$ 3.500: \$ 4.000: \$ 4.000: \$ 2.250: \$ 4.000

Wheat_Winter: \$ 6.010: \$ 5.750: \$ 5.750: \$ 4.250: \$ 5.750

If you are connected to the internet, you can check for an update by clicking the button below.

Check for Updates

This program is a user-assisted tool. It is not a computer program. It is a spreadsheet. It is not a program. It is a spreadsheet. It is not a program. It is a spreadsheet.



- Updating yield and base?
 - Results presented with *higher* of current/updated yields
 - Results with *both* reallocated and current base

Enter your farm's historical yields							
Crop	2008	2009	2010	2011	2012	2013	Units
Corn	76			30			bu/acre
Wheat_Winter		22	55		60	47	bu/acre

Planted Acres							
Crop	2009	2010	2011	2012	2013	4-Year Avg	Ratio
Corn			300			75	0.250
Wheat_Winter	300	300		300	300	225	0.750

Your Farm's Historical Yields						County Substitute Yield		Your Farm's Update Yields with Plug Yields					90% of Updated Average	Current FSA Yield	Updated FSA Yield
Crop	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012			
Corn	76			30		84.0		84.0			84.0		75.6		75.6
Wheat_Winter		22	55		60	28.0			28.0	55.0		60.0	42.9	40.0	42.9



- Next steps require your expectations of the future...
 - Enter your plans for planted acres by crop
 - Enter expected prices

Select State/Territory: Kansas

Select County/Parish: Sedgwick

Select Crops:

Back Forty: Lease % Share: 100.00%

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Corn: 300: 300: 300: 300: 300

Wheat_Winter: 300: 300: 300: 300: 300

2014 Price: 2015 Price: 2016 Price: 2017 Price: 2018 Price:

Corn: \$ 3.500: \$ 4.000: \$ 4.000: \$ 2.250: \$ 4.000

Wheat_Winter: \$ 6.010: \$ 5.750: \$ 5.750: \$ 4.250: \$ 5.750

Check for Updates



- Planting rotation going forward
 - Kept the same here
 - Matters if you want to buy SCO or opt for ARC-IC
- Price expectations
 - Try good prices and bad
 - 2017 has low prices (below the reference prices)

Select State/Territory: Kansas

Select County/Parish: Sedgwick

Select Crops:

Back Forty: Lease % Share: 100.00%

The Good, the Bad, and the Ugly!!

Crop: APH: Current Base Acres: FSA Yield: Reallocated Base Acres: Updated FSA Yield:

Corn: 80.0: 0.0: 40.0: 75.0: 75.6

Wheat_Winter: 50.0: 300.0: 40.0: 225.0: 42.9

2014 Planted Acres: 2015 Planted Acres: 2016 Planted Acres: 2017 Planted Acres: 2018 Planted Acres:

Corn: 300: 300: 300: 300: 300

Wheat_Winter: 300: 300: 300: 300: 300

2014 Price: 2015 Price: 2016 Price: 2017 Price: 2018 Price:

Corn: \$ 3.500: \$ 4.000: \$ 4.000: \$ 2.250: \$ 4.000

Wheat_Winter: \$ 6.010: \$ 5.750: \$ 5.750: \$ 4.250: \$ 5.750

Check for Updates



- Now you can work on the programs...

What do you want to work on next?

[Click to enter ARC--Individual](#)
[Click to enter ARC--County](#)
[Click to enter PLC info](#)
[Click to enter SCO info](#)



- ARC-IC
 - Input projected yields
- Yields
 - Use linear trend, average
 - Custom yields (used APH)
- Prices
 - Use FAPRI (2014)
 - Custom prices (low in 2017)

ARC-Individual Enter Crop Yield Data for YOUR Farm					
Crop	2009 Yield	2010 Yield	2011 Yield	2012 Yield	2013 Yield
Corn			30.0		
Wheat_Winter	22.0	55.0		60.0	47.0
Crop	2014 Yield	2015 Yield	2016 Yield	2017 Yield	2018 Yield
Corn	80.0	80.0	80.0	80.0	80.0
Wheat_Winter	50.0	50.0	50.0	50.0	50.0
Crop	2009 Price	2010 Price	2011 Price	2012 Price	2013 Price
Corn	\$ 3.550	\$ 5.180	\$ 6.220	\$ 6.890	\$ 4.460
Wheat_Winter	\$ 4.870	\$ 5.700	\$ 7.240	\$ 7.770	\$ 6.870
Crop	2014 Price	2015 Price	2016 Price	2017 Price	2018 Price
Corn	\$ 3.500	\$ 4.000	\$ 4.000	\$ 2.250	\$ 4.000
Wheat_Winter	\$ 6.010	\$ 5.750	\$ 5.750	\$ 4.250	\$ 5.750
Crop	Base Acres	Loan Rate	ARC Price 2014	Benchmark Rev 2014	Weighted Revenue 2014
Corn	0	\$ 1.950	\$ 5.287	\$424.14	\$280.00
Wheat_Winter	300	\$ 2.940	\$ 6.603	\$0.00	\$0.00



- ARC-IC
 - Payments made on 65% of total base acres
 - Penalty will be too high for most farms
- Other notes
 - Paperwork burden higher for this program
 - Changing your planted acres will change the coverage (not decoupled)
 - Comparison to ARC-CO depends heavily on scenarios you pick

ARC Individual Results					
Farm	2014	2015	2016	2017	2018
Benchmark Rev.	\$ 424.14	\$ 281.73	\$ 273.06	\$ 310.82	\$ 196.18
ARC Guarantee	\$ 364.76	\$ 242.29	\$ 234.83	\$ 267.31	\$ 168.72
Actual Revenue	\$ 280.00	\$ 287.50	\$ 287.50	\$ 180.00	\$ 287.50
Payment Rate	\$ 84.76	\$ -	\$ -	\$ 87.31	\$ -
Max Payment	\$ 42.41	\$ 28.17	\$ 27.31	\$ 31.08	\$ 19.62
ARC-Individual Payments Paid on 65% of Total Base Acres					
	2014 ARC Payment	2015 ARC Payment	2016 ARC Payment	2017 ARC Payment	2018 ARC Payment
Payments	\$ 8,271	\$ -	\$ -	\$ 6,061	\$ -
Total Discounted Payments @ 5% Discount Rate				\$	13,507



- ARC-CO
 - Input projected yields
- Yields
 - Use linear trend, average
 - Custom yields (in 2015)
- Prices
 - Use FAPRI (for 2014)
 - Custom prices (low in 2017)

ARC-County Enter Crop Yield Data for Your County					
Crop	2009 Yield	2010 Yield	2011 Yield	2012 Yield	2013 Yield
Corn	92.0	84.0	56.0	56.0	72.0
Wheat_Winter	34.0	38.0	27.0	48.0	48.0
Crop	2014 Yield	2015 Yield	2016 Yield	2017 Yield	2018 Yield
Corn	72.0	30.0	72.0	72.0	72.0
Wheat_Winter	39.0	12.0	39.0	39.0	39.0
Crop	2014 Price	2015 Price	2016 Price	2017 Price	2018 Price
Corn	\$ 3.500	\$ 4.000	\$ 4.000	\$ 2.250	\$ 4.000
Wheat_Winter	\$ 6.010	\$ 5.750	\$ 5.750	\$ 4.250	\$ 5.750
Crop	2009 Price	2010 Price	2011 Price	2012 Price	2013 Price
Corn	\$ 3.550	\$ 5.180	\$ 6.220	\$ 6.890	\$ 4.460
Wheat_Winter	\$ 4.870	\$ 5.700	\$ 7.240	\$ 7.770	\$ 6.870
Crop	Base Acres	Loan Rate	Reference Price	Reallocated Base Acres	Benchmark Price 2014
Corn	0.0	\$ 1.95	\$ 3.70	75.0	\$ 5.29
Wheat_Winter	300.0	\$ 2.94	\$ 5.50	225.0	\$ 6.60
Crop	ARC Benchmark	ARC Guarantee	2014 Actual Revenue	Payment Rate	Max Payment
Corn	\$ 373.59	\$ 321.29	\$ 252.00	\$ 69.29	\$ 37.36
Wheat_Winter	\$ 264.13	\$ 227.15	\$ 234.39	\$ -	\$ 26.41



- ARC-CO Example

- 2015 is a drought year
- 2017 has low prices (below the reference prices)

- Payments in both years

- Either low yields or low prices will trigger ARC-CO
- Payment limits at 10% of county revenue

- NPV of payouts is greater for updated base acres

Crop	ARC-County Payments with Current Base Acres					
	Paid on 85% of Base Acres					Net Present Value
	2014	2015	2016	2017	2018	
Corn	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wheat_Winter	\$ -	\$ 7,126	\$ -	\$ 6,651	\$ -	\$ 12,532
Totals	\$ -	\$ 7,126	\$ -	\$ 6,651	\$ -	\$ 12,532
Total Discounted ARC Payments @ 5% Discount Rate						12,532
Crop	ARC-County Payments with Reallocated Base Acres					
	Paid on 85% of Base Acres					Net Present Value
	2014	2015	2016	2017	2018	
Corn	\$ 2,382	\$ 2,247	\$ -	\$ 1,765	\$ -	\$ 6,047
Wheat_Winter	\$ -	\$ 5,344	\$ -	\$ 4,988	\$ -	\$ 9,398
Totals	\$ 2,382	\$ 7,591	\$ -	\$ 6,753	\$ -	\$ 15,445
Total Discounted ARC Payments @ 5% Discount Rate						15,445

ARC-CO will trigger for either low yields (2015) or low prices (2017) because it is based on revenue.



- PLC example

- Payments triggered when prices fall below reference prices
- No per acre payments limits

- Highest payout

- 2017 due to low prices (below the reference prices)

- Updating base acres not impactful

Price Loss Coverage Calculations					
Crop	2014 Price	2015 Price	2016 Price	2017 Price	2018 Price
Corn	\$ 3.500	\$ 4.000	\$ 4.000	\$ 2.250	\$ 4.000
Wheat_Winter	\$ 6.010	\$ 5.750	\$ 5.750	\$ 4.250	\$ 5.750
Crop	Current Base Acres	Loan Rate	Reference Price	Reallocated Base Acres	Updated FSA Yield
Corn	0	\$ 1.95	\$ 3.70	75.0	75.6
Wheat_Winter	300	\$ 2.94	\$ 5.50	225.0	42.9

PLC Payments with Current Base Acres and UPDATED FSA Yields							
Crop	Base Acres	2014	2015	2016	2017	2018	NPV
Corn	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wheat_Winter	300	\$ -	\$ -	\$ -	\$ 13,674	\$ -	\$ 11,812
Totals		\$ -	\$ -	\$ -	\$ 13,674	\$ -	\$ 11,812
Total Discounted PLC Payment @ 5% Discount Rate						\$	11,812
PLC Payments with Reallocated Base Acres and UPDATED FSA Yields							
Crop	Updated Base Acres	2014	2015	2016	2017	2018	NPV
Corn	75	\$ 964	\$ -	\$ -	\$ 6,988	\$ -	\$ 7,000
Wheat_Winter	225	\$ -	\$ -	\$ -	\$ 10,256	\$ -	\$ 8,860
Totals		\$ 964	\$ -	\$ -	\$ 17,244	\$ -	\$ 15,860
Total Discounted PLC Payment @ 5% Discount Rate						\$	15,860



- SCO

- Stacked on your existing crop insurance
- Coverage up to 86%
- Same product as underlying crop insurance (e.g. RP, RP-HPE, Y)

- Coverage by county

- Only certain crops available
- More crops in future years
- Decision to enroll is annual

- Only get SCO with PLC!

Supplemental Coverage Option Calculations						
Crop	2014 Price	2015 Price	2016 Price	2017 Price	2018 Price	
Corn	\$ 3.500	\$ 4.000	\$ 4.000	\$ 2.250	\$ 4.000	
Wheat_Winter	\$ 6.010	\$ 5.750	\$ 5.750	\$ 4.250	\$ 5.750	
Crop	Crop Insurance	Coverage Level	SCO Yield	Max SCO Coverage	Payment multiplier	SCO Premium
Corn	RP	80%	71.4	86%	100%	\$ 3.00
Wheat_Winter	RP	80%	39.4	86%	100%	\$ 2.00
Projected Price when Insurance is Purchased						
Crop	2014	2015	2016	2017	2018	
Corn	\$ 3.50	\$ 3.89	\$ 4.02	\$ 4.10	\$ 4.10	
Wheat_Winter	\$ 3.50	\$ 3.89	\$ 4.02	\$ 4.10	\$ 4.10	
Projected Harvest Price						
Crop	2014	2015	2016	2017	2018	
Corn	\$ 3.50	\$ 3.89	\$ 4.02	\$ 4.10	\$ 4.10	
Wheat_Winter	\$ 3.50	\$ 3.89	\$ 4.02	\$ 4.10	\$ 4.10	
Expected SCO Payments Net of Premiums						
Crop	2014	2015	2016	2017	2018	Net Present value
Corn	\$ -	\$ -	\$ -	\$ (900)	\$ -	\$ (777)
Wheat_Winter	\$ -	\$ 2,901	\$ (600)	\$ -	\$ (600)	\$ 1,725
Totals	\$ -	\$ 2,901	\$ (600)	\$ (900)	\$ (600)	\$ 948

SCO payout for low county yield year only. Rest of years are a net cost (premium).



- Results

- Calculated using the NPV of payments across all years for each crop and program combination

- Comparison of results using updated and current base acres

- Optimal program may vary by crop

The Good, the Bad, and the Ugly!!					
Net Present Value of Payments					
Current Base Acres	ARC-County	PLC	SCO	PLC+SCO	ARC-Ind
Corn	\$0	\$0	-\$777	-\$777	
Wheat_Winter	\$12,532	\$11,812	\$1,725	\$13,537	
Total NPV w/ Current base acres	\$12,532	\$11,812	\$948	\$12,760	\$13,507
Reallocated Base Acres	ARC-County	PLC	SCO	PLC+SCO	ARC-Ind
Corn	\$6,047	\$7,000	-\$777	\$6,223	
Wheat_Winter	\$9,398	\$8,860	\$1,725	\$10,585	
Total NPV w/ Reallocated base acres	\$15,445	\$15,860	\$948	\$16,808	\$13,507
Crop	Reallocate Y/N	Best Option	NPV		
Corn	Y	PLC	\$7,000		
Wheat_Winter	Y	PLC+SCO	\$10,585		
Total NPV--best option			\$17,585		

Differences between payouts may not be large and are highly dependent on data you enter.



What to choose?

- Best fit for your farm will depend on your preferences for risk management

- Protection against catastrophic price declines (PLC)
- Protection against shallow revenue losses (ARC)

Or....

- Highest program payments
 - Payment in 2014-2015 likely for both ARC-CO (wheat: yield loss, others: price loss) and PLC (sorghum?)
 - How good you are at guessing where prices and yields will be in future years?



Resources for you...

www.AgManager.info

Click on the Farm Bill Icon!

- Frequently Asked Questions
- Reallocating Base
- Updating Program Yield
- Articles on Price Forecasts
- Decision Tool
- Much more!!!



USDA-FSA decision aids: ARC/PLC, Dairy

www.fsa.usda.gov/FSA

Farm Bill In-Depth Educational Meetings:

- January 12: Wichita
- January 13: Pittsburg
- January 14: Emporia
- January 15: Ottawa
- January 20: Salina
- January 21: McPherson
- January 22: Pratt
- January 26: Goodland
- January 27: Scott City
- January 28: Liberal
- January 29: Dodge City
- February 10: Phillipsburg
- February 11: Hays
- February 12: Frankfort
- February 13: Atchison



Other models:

Both available at: www.fsa.usda.gov/arc-plc

[National Association of Agricultural and Food Policy \(NAAFP\) led by the Food and Agricultural Policy Research Institute \(FAPRI\) at the University of Missouri, and the Agricultural and Food Policy Center \(AFPC\) at Texas A&M University](#)

[National Coalition for Producer Education \(NCPE\), led by the University of Illinois](#)



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