



FARM PROGRAM DECISION TOOL

Gary Schnitkey,
Jonathan Coppess,
Nick Paulson
University of Illinois

DEVELOPMENT & OUTREACH COALITION

- University of Illinois
- Watts & Associates
- The Ohio State University
- Michigan State University
- Delaware State University
- University of Arkansas-Pine Bluff
- North Carolina A&T University
- Montana State University

DECISION ASSISTANCE

Farm Bill Toolbox on farmdoc:

<http://farmbilltoolbox.farmdoc.illinois.edu/>

Web-based decision tool,
Agriculture Policy Analysis System
(APAS):

<http://fsa.usapas.com/>

FARM BILL DECISIONS

One-time, irrevocable per FSA farm:

Deadline (February 27)

- 1) Update payment yields
- 2) Retain or reallocate base acres

Deadline (March 31)

3) Program Election decision:

- ✓ Agriculture Risk Coverage, County Option (ARC-CO)
 - ✓ Agriculture Risk Coverage, Individual Farm Coverage Option (ARC-IC)
 - ✓ Price Loss Coverage (PLC)
- (+ Supplemental Cover Option (SCO) in crop insurance)

STEP ONE: COLLECT INFORMATION

- ✓ For each FSA farm
- ✓ FSA August letter: base, yields, acres planted
- ✓ Yield history for 2008 to 2012; crop insurance records accepted



STEP TWO: RETAIN OR UPDATE YIELDS

- ✓ Landowner decision; keep current (FSA letter) or update to 90% of 2008-2012
- ✓ Need cropping history; Crop Insurance records accepted
- ✓ Crop-by-crop decision; generally, choose the one that results in highest yield



STEP THREE:

RETAIN OR REALLOCATE BASE

- ✓ Landowner decision; all program crops on farm; will not increase or decrease total
- ✓ Keep current or reallocate to the ratio of 2009-2012 plantings
- ✓ Generally look to increase base for crops with larger potential payments

STEP FOUR:

COMPARE ARC-CO & PLC

- ✓ All producers on the farm;
crop-by-crop decision
- ✓ ARC-CO: county revenue
program
- ✓ PLC: deficiency payment
when MYA is below
reference price

STEP FIVE: CONSIDER ARC-IC

- ✓ All producers on the farm; all farms in state enrolled in ARC-IC
- ✓ Individual, farm-level revenue (yields), sum of all crops with base
- ✓ 5-year Olympic average; planted acres determine weights
- ✓ 65% of base acres

STEP SIX: CONSIDER SCO

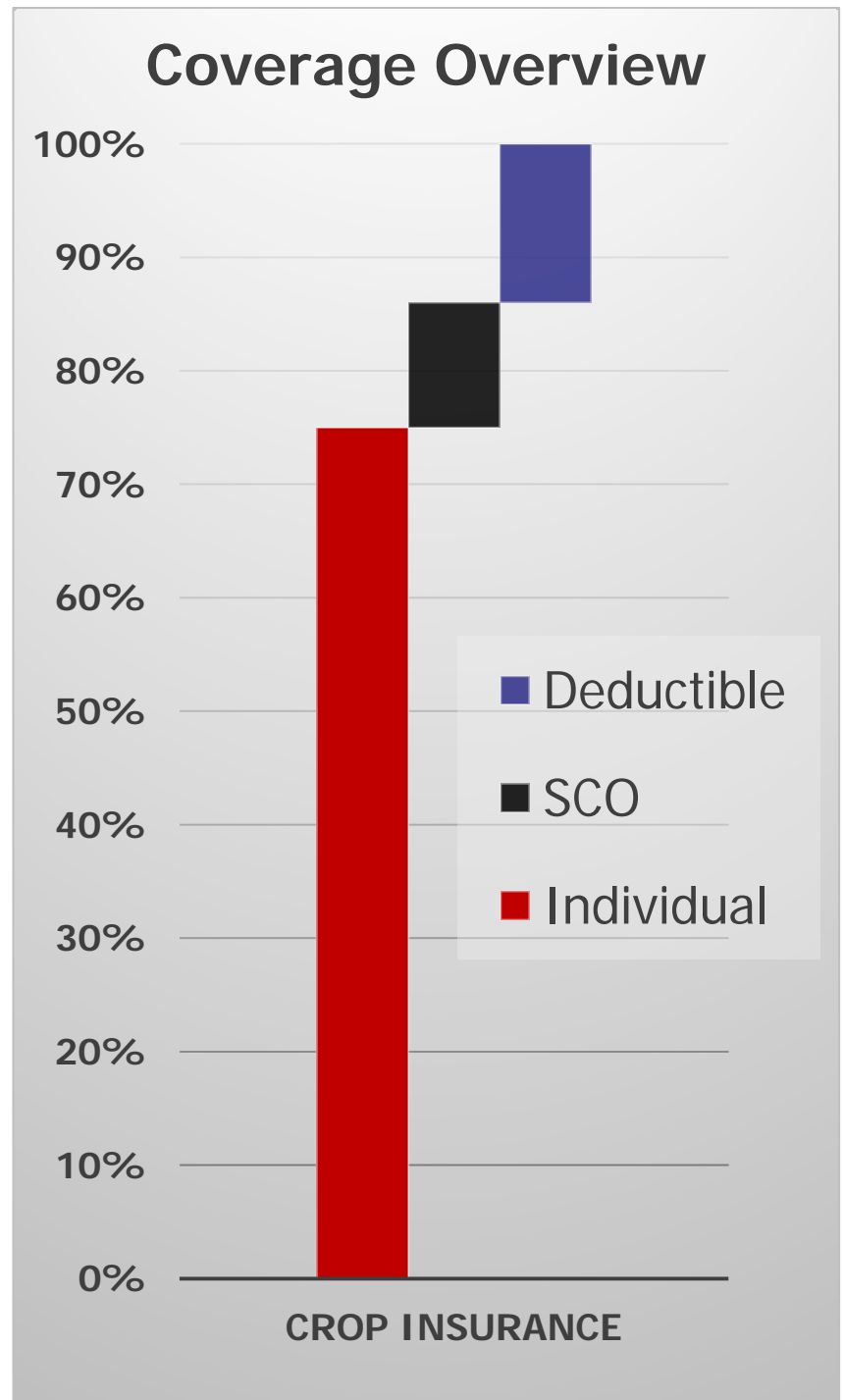
- ✓ Supplemental Coverage Option; crop insurance policy
- ✓ Available starting in 2015, expanded in future years
- ✓ Only available for crops in PLC (or no program)
- ✓ Requires purchase of an individual insurance plan (YP, RP, RP-HPE)

STEP SIX: CONSIDER SCO

- ✓ County-based trigger
 - ✓ 86% coverage level
 - ✓ Coverage band extends down to coverage level on individual plan
 - ✓ County triggers payment, determines relative payment size
 - ✓ County loss applied to underlying policy deductible range – determines individual farm-level payment

STEP SIX: CONSIDER SCO

- ✓ Example with 75% RP
- ✓ SCO range from 86% to 75%
- ✓ County trigger applied to individual deductible



STEP SIX: CONSIDER SCO

- ✓ Yield component
 - Same trend/expected yields used for existing area plans (i.e. GRIP/GRP or ARPI)

- ✓ Price component
 - Same futures prices used for existing insurance programs

STEP SIX: CONSIDER SCO

✓ Guarantee

- 86% of county trend yield when coupled with YP
- 86% of county expected revenue (insurance price x trend yield) when coupled with RP or RP-HPE

✓ Premiums

- Set by RMA
- Flat subsidy rate of 65%

STEP SIX: CONSIDER SCO

✓ Indemnity Payments

– Product of:

1. County-level payment factor

$$\frac{\left[86\% - \frac{\text{Actual County Revenue} \backslash \text{Yield}}{\text{Expected County Revenue} \backslash \text{Yield}} \right]}{86\% - \text{Individual Coverage Level}}$$

2. Maximum Farm Payment (\$/acre)

$$(0.86 - \text{Coverage Level}) * \text{Farm Liability}$$

STEP SIX: CONSIDER SCO

- ✓ Example: County Calculations
 - \$4.62 base corn price
 - 180 bu county trend yield
 - $\$4.62 \times 185 = \$832/\text{acre}$
 - Guarantee = $0.86 \times \$832 = \716
- ✓ SCO with 75% RP
 - Payments triggered if county revenue falls below \$716
 - Max payment reached if county revenues fall below \$624
 - ($0.75 \times \$832 = \624)

STEP SIX: CONSIDER SCO

- ✓ Example: Max Farm Payment
 - \$4.62 base corn price
 - 185 bu APH yield
 - Liability = $4.62 \times 180 = \$855/\text{acre}$

- ✓ SCO with 75% RP
 - Max Payment:
 $(0.86 - 0.75) \times \$855 = \mathbf{\$94/\text{acre}}$

STEP SIX: CONSIDER SCO

- ✓ SCO considerations
 - Covers revenue/yield risk *within* a crop year
 - Timing of indemnity payments vs commodity program payments
 - Insurance (futures) vs MYA prices
 - Planted vs base acreage
 - No payment limits on SCO indemnities
 - Premium cost

- ✓ What are available individual coverage levels in your area?

STEP SIX: CONSIDER SCO

Quote input -->	APH Yield: 63.0	Use TA adjustment Yes	TA Yield: 66.6	Rate yield: 63.0	Risk class: None
	Acres: 100	Type: No Type Specified	Practice: Non-Irrigated	Prevented planting: Standard	

Coverage Level	Revenue Protection				Revenue Protection with Harvest Price Exclusion				Yield Protection			
	Enterprise	Basic	Optional	Minimum Revenue Guarantee	Enterprise	Basic	Optional	Guarantee	Enterprise	Basic	Optional	Guarantee
	\$ per Acre			\$/acre	\$ per Acre			\$/acre	\$ per Acre			Bu./acre
50%	1.42	2.34	2.84	200	1.32	2.17	2.61	200	1.12	1.85	2.28	33.3
55%	1.91	3.45	4.14	220	1.72	3.10	3.65	220	1.42	2.55	3.11	36.6
60%	2.56	4.62	5.39	240	2.21	3.99	4.59	240	1.76	3.17	3.83	40.0
65%	3.41	6.98	7.98	260	2.83	5.80	6.60	260	2.20	4.52	5.38	43.3
70%	4.27	8.75	9.83	280	3.47	7.12	8.02	280	2.66	5.45	6.42	46.6
75%	6.05	11.83	13.10	300	4.86	9.50	10.60	300	3.65	7.15	8.34	50.0
80%	10.30	16.74	18.28	320	8.16	13.25	14.58	320	6.13	9.96	11.47	53.3
85%	17.78	23.46	25.34	340	13.93	18.38	20.03	340	10.52	13.88	15.79	56.6

Parameters	Projected Price: \$6.00	Volatility (revenue): 0.21	Volatility (rev w ith exclusion): 0.21	Parameters
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County Level Products

Quote input --->	Type: No type specified	Practice: Non-irrigated
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Coverage Level	Area Revenue Protection				Area Revenue Protection Harvest Price Exclusion				Area Yield Protection			
	Protection Factor			Minimum Revenue Guarantee	Protection Factor			Revenue Guarantee	Protection Factor			Yield
	120%	90%	80%	\$/acre	120%	90%	80%	\$/acre	120%	90%	80%	Bu./acre
70%	3.53	2.65	2.35	259	3.19	2.39	2.13	259	0.91	0.68	0.61	43.2
75%	5.72	4.29	3.81	278	5.20	3.90	3.47	278	1.04	0.78	0.69	46.3
80%	8.51	6.38	5.67	296	7.80	5.85	5.20	296	1.74	1.31	1.16	49.4
85%	14.18	10.64	9.45	315	13.00	9.75	8.67	315	3.36	2.52	2.24	52.4
90%	21.94	16.46	14.63	333	19.48	14.61	12.99	333	6.46	4.85	4.31	55.5

Parameters	Exp. Yield: 61.7	Proj Price: \$6.00	Vol: 0.21	Parameters
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Notes

The *iFARM Premium Calculations* developed at the University of Illinois and is available for download at farmdoc.illinois.edu (www.farmdoc.illinois.edu. Updated: August 30, 2014).

Supplemental Coverage Option (SCO)

Type: No type specified			
Practice: Non-irrigated			
Range	RP	RPwExl	YP
\$ per acre			
50% - 86%	6	5	2
55% - 86%	6	5	2
60% - 86%	6	5	2
65% - 70%	5	5	2
70% - 86%	5	5	2
75% - 86%	4	4	1
80% - 86%	3	2	1
85% - 86%	1	0	0

Product	Rev Prot.
Coverage Level	75%
Unit	Enterprise
Protection Level	100%
Premium per acre	\$6.05
Cost per APH bu.	\$0.10
Subsidy per acre	\$20.25
Yield guarantee	49.95
Revenue guarantee	\$300

STEP SIX: CONSIDER SCO

Coverage Level	Revenue Protection			Minimum Revenue Guarantee	Revenue Protection with Harvest Price Exclusion			Revenue Guarantee
	Enterprise	Basic	Optional		Enterprise	Basic	Optional	
	\$ per Acre			\$/acre	\$ per Acre			\$/acre
50%	1.42	2.34	2.84	200	1.32	2.17	2.61	200
55%	1.91	3.45	4.14	220	1.72	3.10	3.65	220
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80%	10.30	16.74	18.28	320	8.16	13.25	14.58	320
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Practice: **Non-irrigated**

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STEP SIX: CONSIDER SCO

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75%	3.65	7.15	8.34	50.0
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70% - 86%	5	5	2
75% - 86%	4	4	1
80% - 86%	3	2	1
85% - 86%	1	0	0

STEP SEVEN: DECISIONS & DEADLINES

- ✓ **Base acre reallocation and yield updates:**
Sept. 29, 2014 to
Feb. 27, 2015
- ✓ **ARC/PLC Election:**
Nov. 17, 2014 to at least
March 31, 2015
- ✓ **Sign contracts:**
mid-April through
June 1, 2015