

2017 Risk and Profit Conference Breakout Session Presenters



15. Administration's Proposed Cuts to Crop Insurance in the Next Farm Bill

Mykel Taylor

<mtaylor@ksu.edu>

Mykel Taylor is an Associate Professor in the Department of Agricultural Economics at Kansas State University. Dr. Taylor's research and extension programs are focused in the area of farm management. She attended Montana State University majoring in Agribusiness Management. Her PhD in Economics is from North Carolina State University. She has worked in extension positions at both Kansas State University and Washington State University. Some of her current research areas include measuring basis risk for commodity grains, and analyzing trends in Kansas agricultural land values, rental rates, evaluation of commodity programs in the 2014 Farm Bill, and leasing arrangements.

Art Barnaby

<barnaby@ksu.edu>

Dr. Art Barnaby was raised on a diversified farm, located in Elk County, Kansas. Art received his B.S. degree from Fort Hays State University, M.S. from New Mexico State University and a Ph.D. in Agricultural Economics from Texas A&M University. Art joined the Agricultural Economics faculty in 1979. He currently holds the rank of Professor. Art conducts national extension education programs on market risk, government commodity programs, crop insurance and public policy. In 2016, Art was named one of Farm Credit's Fresh Perspectives Top 100 Honorees. In 2013, Art was 1 of 30 people who were named on Top Producer Editors' list of "Brave Thinkers: 30 Leaders Who Made a Difference" and on their list of "7 Economists, Bankers Who Challenged the Status Quo". He has authored several research projects on crop insurance issues and their impacts on farmers. His research work with the private sector was the basis for the first revenue insurance contract.

Art is a past winner of the Excellence in Extension Award presented by the National Association of Public and Land Grant Universities. He is also a three time winner of the American Agricultural Economics Association Distinguished Extension Program Award. Art was a member of the 2015 Western Agricultural Economics Association's Group Extension Project Award for the OSU-KSU 2014 Farm Bill Decision Tool and Education Program. Art is a frequent speaker at professional, farmer-producer, ag lender, and insurance industry meetings. Art's wife, Nancy, holds a B.S. degree from Fort Hays State University in Nursing. Art and Nancy have two sons and five granddaughters.

Abstract/Summary

The next Farm Bill is already in the works and many impactful proposals are coming to the negotiating table. The session will feature a quick look at some of those proposals and what they could mean for Kansas farmers and ranchers. We will focus specifically on crop insurance limits and changes to other relevant programs.

Crop Insurance and the Next Farm Bill

By Mykel Taylor and Art Barnaby Kansas State University Risk and Profit Conference Manhattan, KS August 17-18 2017



Policies Under Consideration

- Add a fix to ARC so that guarantees are based on "expected" yield
- Add Cotton to the Title 1 commodity program

C.I. Policies Under Consideration

- Limits for participation based on Adj. Gross Income
 - \$250,000 (AFFIRM Act) and 500,000 (Administration's budget) AGI limits are both on the table
- Harvest Price Option
 - Eliminate HPO option or HPO subsidy
- Capping crop insurance premium cost-shares (subsidies)
 - Limit a farm to receiving \$40,000 in cost-share, all crop insurance purchases above that point are unsubsidized

C.I. Policies Under Consideration

- Administration's budget aims to cut \$3 billion per year over 10 years
 - This is nearly half of the government's share and will require big declines in participation to achieve budget cuts estimated by the Administration.

Adjusted Gross Income Caps

Adjusted Gross Income Cap

- Impact on Kansas farms depends on the profitability
 - In the good years, we could have as many as 30-40% of farms affected
 - In the bad years, that drops to 5-10%
- Loss of customers will also affect crop insurance industry sales.

Adjusted Gross Income Cap (\$250k) \$12,000,000 45% 40% \$10,000,000 35% \$8,000,000 30% 25% **Fotal** \$ \$6,000,000 20% \$4,000,000 15% 10% \$2,000,000 5% 0% \$-2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 Premiums Forgone -% of farms cut from program

Adjusted Gross Income Cap

- What are the implications beyond the farm gate?
 - Consider the impacts to the insured pool caused by the loss of the 'biggest' farms
- Used KFMA data to simulate which farms would hit AGI cap and how the loss ratio is affected



Adjusted Gross Income Cap

- ► \$500,000 versus \$250,000 cap
 - Lower limit will affect more farms
- Likely to be some work-around that people will use including creating "paper farms" and adding spouse as an operator
- Landowners who crop share and hit cap
 - Trusts, investor entities
 - May change their lease to cash or get out completely

The Harvest Price Option



Harvest Price Option

- Elimination of the option completely or
- Elimination of the cost-share for HPO
- Popular for Revenue Protection policies in the Corn Belt
 - Could create some savings in the RMA budget because corn and soybean producers likely to switch to Yield Protection policy or drop their coverage
 - Affects all RP insured farmers, regardless of their AGI or farm size

Harvest Price Option

		Sume Loss culculated in Dollars		
		УP	RP	RP-hpe
1	Average Iowa APH yield ²	185	185	185
2	Coverage level	80%	80%	80%
3	Bushel guarantee	148	148	148
4	Deducted bushels	37	37	37
5	Projected price	\$5.68	\$5.68	\$5.68
6	Insurance guarantee	\$840.64	\$840.64	\$840.64
6	Bushels per acre produced	92	92	92
7	Bushels lost below Expected	93	93	93
8	Bushels Indemnified			
9	Indemnity-Harvest Price ³	\$5.68	\$7.50	\$7.50
10	Gross indemnity			
11	Insurance guarantee	\$840.64	\$1,110.00	\$840.64
12	Value of production ⁴	\$522.56	\$690.00	\$690.00
13	Gross indemnity	\$318.08	\$420.00	\$150.64
14				
15	Avg. IA Farmer Paid Premium ⁵	\$15.97	\$20.18	\$14.29
16	Net Indemnity Payment	\$302.11	\$399.82	\$136.35
17	# Replaced Bu. Of 93 Bu. Lost	40.3	53.3	18.2

Example from Iowa in 2012

- Corn price @ harvest=\$7.50
- Drought cut yield in half
- Coverage under RP with HPO is highest
- Coverage under RP with HPO excluded is lowest
- PLC not likely to have paid
- ARC not likely to have paid (yield low, but price high)

Harvest Price Option

Arguments for dropping HPO include that it "duplicates" the commodity title of the Farm Bill

Not really an accurate assessment...

Scenarios	HPO	PLC	ARC
Price at harvest higher than Cl guarantee	Pays	Doesn't pay	Unlikely to pay
Price at harvest lower than Cl guarantee	Doesn't pay	Likely to pay	Likely to pay

Premium Cost-Share Cap



\$40,000 Limit on Premium Cost-Share

- Estimated the number of acres you could insure, on average, before hitting the limit
 - Function of premiums paid which vary by crop, commodity prices, and volatility
 - Results will vary by year and location

Estimated Number of Crop Acres Needed to Hit \$40,000 Cost-Share Limit



Estimated Number of Crop Acres Needed to Hit \$40,000 Cost-Share Limit



Impact on KS Farms of Cost-Share Cap (assumes no purchase above \$40k)



Premium Cost-Share Cap Implications

- Farmers are likely to hit the \$40,000 premium cost-share limit well before they hit the AGI limit
- Could end up choosing to insure some crops and not others
 - Would affect actuarials if it occurs on a widespread basis within a state

Current Research

The 2014 Farm Bill: Program Choice

- Farmers and landowners were given full flexibility to choose which program to enroll their base acres in for the life of the bill
 - ARC-CO (county-level yields, marketing year prices)
 - ARC-IC (farm-level yields, marketing year prices)
 - PLC (marketing year prices, reference prices)
- Decisions were made under conditions of uncertainty
 - Outcomes for payments depend on future yields and prices
 - Possible to not get a payment in one or multiple years, across county lines
 - Updating base acres was another choice to be made

The 2014 Farm Bill: Program Choice

- K-State Research and Extension educational efforts
 - 15 statewide meetings, over 4,000 people attended
 - Dozens of other meetings held by county agents, FSA
 - Similar efforts in other states to educate people on their choices and potential implications of those decisions
- Pre- and Post-Education surveys conducted
 - 1,400 surveys returned
 - Data collected on farmer characteristics, risk preferences, program understanding, preferred program (pre and post)
 - Data supported a strong educational impact on decisionmaking

Methods and Data

- Variables collected on respondents
 - Years of experience farming
 - Percent of income from farming
 - Owned vs. rented acres
 - Use of crop insurance and level of coverage
 - Risk attitudes using a Likert scale (Pennings and Garcia 2001)
 - Membership in farm groups and other sources of information
- Variables on expectations
 - Program with best risk protection, highest expected payouts
 - Level of expected payouts under this farm bill

Kansas Program Enrollment (% of total)

Сгор	ARC-CO	ARC-IC	PLC	Base Acres in KS
Wheat	66.4	0.2	33.4	49.5
Corn	76.3	0.3	23.4	21.1
Soybeans	78.9	0.2	20.9	12.9
Grain Sorghum	44.9	0.1	55.0	15.6

ARC-CO and PLC were dominant programs of choice

- Analysis presented here focuses on the following
 - ARC-CO and PLC
 - Wheat, corn, and soybeans

Results

- Overall uncertainty of program attributes
 - Respondents who answered "Don't Know" to questions about expected payments from the programs and which program offered the best risk protection, PLC was the preferred program
 - Likely a result of the relative simplicity of PLC to ARC-CO, similar to CC payments of previous farm bills
- Implications of this result
 - Complexity of the programs affected decision-making process
 - If next Farm Bill retains the same programs as the 2014 version, may reduce the attractiveness of PLC relative to ARC for people with greater uncertainty

Results

- Expected payments in the first year drove people toward ARC
 - K-State published estimated ARC-CO payments for the first year of the program (able to do so because of lag in Farm Bill implementation)
 - The higher a county's expected first year payment, the more likely a resident of that county was to pick ARC-CO
- Implications
 - Information provided by Extension on program structure and estimated payments (even in short run) affected people's decisions

Results

- Older farmers preferred PLC
 - Familiarity with counter-cyclical payment program of previous farm bills
 - Experience with periods of low prices prior to 2008-2013
- Implications of this result
 - Younger farmers with only more recent farming profitability experience may not have realized actual probability of low price scenario and its impacts on their financial situation
 - Expect PLC to be more popular given the low price scenario has been realized by both young and old producers (assuming we hold the reference prices static)

Results

- Crop insurance
 - Higher levels of crop insurance coverage increased the probability of choosing ARC-CO
 - PLC enrollees were eligible for SCO, which adds coverage (county-based) up to 86% from your baseline coverage level
 - For producers with relatively high levels of crop insurance coverage, the added benefit of SCO was minimal
- Implications of this effect
 - If there is a cap on crop insurance subsidies and/or participation then SCO eligibility will be an even more important aspect of program enrollment in the next Farm Bill

Questions?



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