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STAFF PAPER

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Farmers' Crop Insurance Choices in Iowa and Michigan: Survey Summary

Crop insurance is an important tool for American farmers that allows them to manage some of the risk inherent in agricultural production. Extreme weather events such as drought and floods can have a devastating impact on crops and farm income. These events can occur at the same time in the same state (see Rudat, 2017). In a single Michigan county, Isabella, flooding in the early summer of 2017 was estimated to have caused over \$20 million in damage to crops (Adamczyk, 2017). As such, tools such as crop insurance that compensate farmers for some of these losses are becoming increasingly important. The importance of the federal crop insurance program (Multiple Peril Crop Insurance or MPCI) was highlighted in a recent hearing of the US Senate's hearing of the Committee on Agriculture, Nutrition, and Forestry. Many farmers and industry leaders testified about the crucial role of crop insurance for the viability of American farms, especially in times of low commodity prices (see Michigan Farm News, August 4 2017).

Cuts to the USDA's budget have been proposed by the new administration. These proposed cuts would reduce the agency's budget by over 20%. Included in these proposed budget cuts are changes to crop insurance policy. These proposed changes include capping annual crop insurance premium subsidies at \$40,000, limiting crop insurance subsidy eligibility to farmers with less than \$500,000 adjusted gross income, and eliminating the harvest price option for crop insurance policies (OMB, 2017). With the importance of crop insurance to area farmers and the proposed changes to federal agricultural policy, it is important to understand how farmers currently use crop insurance and the perceptions and motives underlying their crop insurance decisions.

A survey of farmers' crop insurance choices was recently conducted by researchers at Michigan State University. The survey asked farmers about their crop insurance purchase and payment history for corn and soybeans, as well as their current and planned crop insurance purchases, among other topics. A total of 612 farmers in Michigan and Iowa completed the survey, with just under half of the respondents farming in Michigan (43%) and the rest operating

farms in Iowa. These two states were chosen for this survey to represent a state typical of the US corn belt (Iowa) and a state more typical of mixed farming (Michigan).

Farmers growing at least 100 acres of corn or soybeans in the 2016 season were eligible to participate in the survey. Survey participants were contacted by mailing surveys (77% of respondents), by email which contained a link to the online version of the survey (18% of respondents), or in person at farmer meetings (5% of respondents).

Crop insurance purchase history

Most farmers had experience with crop insurance, with over 80% of respondents purchasing it in at least one year from 2011 to 2015. Insurance purchases differed by state, with 64% of Michigan farmers purchasing insurance for corn or soy, and over 92% of farmers in Iowa purchasing MPCCI in at least one year from 2011 to 2015.

Almost 70% of farmers who purchased MPCCI made a claim in at least one year from 2011 to 2015. Similar to purchasing patterns, a smaller share of farmers in Michigan received an indemnity payment from 2011 to 2015 than those in Iowa. Fifty-six percent of Michigan farmers who purchased insurance made a claim in at least one of those five years; the proportion for farmers in Iowa was over 75%. In both states, the year with the highest proportion of farmers making an insurance claim was 2012, with 28% of farmers in Michigan and 49% of farmers in Iowa receiving an indemnity payment.

Table 1. Proportion of farmers purchasing crop insurance or making a claim in any one year between 2011-2015, by state

	Michigan	Iowa
<i>Purchased MPCCI in at least one year from 2011-2015</i>	64.0%	92.6%
<i>Made claim, any year from 2011 to 2015 (of those purchasing any year)</i>	56.4%	75.3%

Crop insurance purchase patterns differ by the number of acres operated. Farmers with smaller farms purchase crop insurance at a lower rate than those with larger farms, but this relationship holds only for farms below 1,000 acres, above which the rate of purchasing insurance starts to decline.

Table 2. Proportion of farmers purchasing crop insurance from 2011-2015, by acres operated

Acres operated	% purchasing insurance	Number of farms
<i>100-399</i>	75.8%	124
<i>400-699</i>	81.0	163
<i>700-999</i>	85.1	101
<i>1,000-1,499</i>	79.5	78
<i>1,500-1,999</i>	83.0	47
<i>2,000+</i>	77.0	61

If we examine the relationship between acres owned (rather than acres operated) and rates of purchasing insurance, a different pattern emerges. The proportion of farmers purchasing insurance decreases as the number of acres owned increases, as shown in the table below.

Table 3. Proportion of farmers purchasing crop insurance from 2011-2015, by acres owned

Acres owned	% purchasing insurance	Number of farms
<i>0-399</i>	83.4%	307
<i>400-699</i>	77.7	130
<i>700-999</i>	77.4	53
<i>1,000-1,499</i>	76.0	50
<i>1,500-1,999</i>	71.4	14
<i>2,000+</i>	70.0	20

Farmers' 2016 crop insurance choices

Similar to their historical insurance purchases, more Iowa farmers purchased MPCCI policies in 2016 than those in Michigan, as shown in the table below. Just over 80% of Michigan farmers purchased either catastrophic coverage (CAT) or buy-up policies for corn; this number was over 90% for Iowa farmers in our sample. For soybeans, over 75% of farmers in Michigan purchased insurance in 2016, while almost 90% of farmers in Iowa did. These numbers differ slightly from the statewide average proportion of acres insured. The proportion of Michigan

corn and soybean acres insured, either with CAT or buy-up policies, was lower than the proportion of survey respondents, with 71.7% and 75.5% of corn and soybean acres insured in the state. The proportion of Iowa acres insured was closer to the proportion of survey respondents purchasing insurance, with 92.6% and 93.5% of planted corn and soybean insured (see Table 4 below).

Table 4. Proportion of survey respondents purchasing crop insurance in 2016, by crop and state

Crop	Survey respondents		Statewide average	
	Michigan	Iowa	Michigan	Iowa
<i>Corn</i>	80.9%	92.0%	71.7%	92.6%
<i>Soybean</i>	76.4	88.5	75.5	93.5

Survey respondents in Michigan tended to insure at a lower rate than their Iowa counterparts. Of those purchasing crop insurance for corn or soybeans, Michigan farmers elected an average coverage level of just over 76%, while Iowa farmers insured over 80% of their losses, on average. These patterns are similar to statewide averages, weighted by the number of policies purchased, as shown in table 6 below.

Table 5. 2016 coverage level, by crop and state

Crop	Survey respondents		Statewide average	
	Michigan	Iowa	Michigan	Iowa
<i>Corn</i>	76.3%	80.8%	72.1%	80.0%
<i>Soybean</i>	76.3	81.0	72.9	79.8

Statewide average coverage levels for policies purchased in 2016 differ slightly from those in our sample. RMA data show that the average coverage level purchased by Michigan farmers was 72.1% for corn and 72.9% for soybeans. Iowa farmers, purchased policies with an average coverage level of 80.0% for corn and 79.8% for soybeans. Coverage levels for farmers in our sample did not differ significantly by farm size, as shown in table 6 below, for either crop.

Table 6. Coverage level by acres owned

Farm size (acres)	Coverage level	
	Corn	Soybean
<i>0-600</i>	79.7%	79.7%
<i>700-1,499</i>	77.9	78.0
<i>1,500+</i>	80.3	80.5

Unit structure was similar across the two states, with the majority of policies purchased for enterprise units, for both corn and soybeans. In both states, producers who purchased insurance for optional or basic units were more likely to purchase yield protection than those who purchased enterprise units, as shown in tables 7 and 8.

Among farmers in both states, revenue protection policies are the most popular insurance products for corn and soybeans. Farmers in Michigan were more likely to purchase yield protection policies than were farmers in Iowa (tables 9 and 10, below).

Table 7. 2016 MPCCI policy and unit type for Michigan and Iowa, corn

Policy type	Unit type			All unit types
	Optional	Basic	Enterprise	
<i>Yield protection</i>	18.2%	14.3%	5.0%	9.3%
<i>Revenue protection</i>	79.5	81.0	93.5	88.4
<i>Other</i>	2.3	4.8	1.4	2.2
Total	100%	100%	100%	100%

Table 8. 2016 MPCCI policy and unit type for Michigan and Iowa, soybeans

Policy type	Unit type			All unit types
	Optional	Basic	Enterprise	
<i>Yield protection</i>	14.3%	20.9%	3.5%	9.4%
<i>Revenue protection</i>	85.7	74.4	95.0	88.4
<i>Other</i>	0.0	4.7	1.8	2.1
Total	100%	100%	100%	100%

Table 9. 2016 MPCCI policy type for Michigan and Iowa (all unit types), corn

Policy type	Survey respondents		Statewide average	
	Michigan	Iowa	Michigan	Iowa
<i>Yield protection</i>	20.8%	18.0%	19.6%	4.3%
<i>Revenue protection</i>	79.2	81.5	80.4	95.7
<i>Other</i>	-	0.6	-	-
<i>Total</i>	100%	100%	100%	100%

Table 10. 2016 MPCCI policy type for Michigan and Iowa (all unit types), soybeans

Policy type	Survey respondents		Statewide average	
	Michigan	Iowa	Michigan	Iowa
<i>Yield protection</i>	18.8%	17.3%	14.7%	4.5%
<i>Revenue protection</i>	81.1	81.9	85.4%	95.5%
<i>Other</i>	-	0.8		
<i>Total</i>	100%	100%	100%	100%

Table 11. Use of other risk mitigating strategies, by state

	Michigan	Iowa
<i>Named peril insurance (e.g. hail)</i>	43.9%	72.7%
<i>Forward/minimum price contracts</i>	70.8	66.9
<i>Futures/options markets</i>	32.2	39.1
<i>Supplemental coverage option (SCO)</i>	6.6	5.7
<i>ARC-IC, ACR-CO, PLC</i>	67.8	85.5
<i>Investment in land technologies</i>	57.1	53.7
<i>Other</i>	10.9	6.0

The survey asked about the use of other risk-management tools. Farmers in both states use forward and minimum price contracts, futures markets, and investment in land technologies

(e.g. tile drain) at roughly the same frequency. However, farmers in Michigan purchase named peril insurance (e.g. hail insurance) at much lower rates than Iowa farmers, as shown in the table above.

Farmers were asked about their perceptions of crop insurance in general and the indemnity payments they have received in relation to the premiums they have paid. Farmers in Michigan were more likely to report that they felt they have paid more for crop insurance policies than they have received in indemnity payments over the life of their farms, as seen in table 12.

Table 12. Relationship of premiums paid for and payments received from crop insurance, by state

Response	Michigan	Iowa
<i>I have paid more in premiums than I have received in claims</i>	74.9%	64.5%
<i>I have paid about the same as I have received in claims</i>	14.0%	17.3%
<i>I have paid less in premiums than I have received in claims</i>	11.2%	18.2%

Data from the USDA Risk Management Agency (RMA) suggests that loss ratios are higher in Iowa than in Michigan, for both corn and soybeans. The loss ratio is a ratio of insurance indemnities to premiums, including the out of pocket premium paid by producers and federal government subsidies. The goal of the RMA is to have a loss ratio of 1.0 over time, such that the indemnities paid are roughly equal to insurance premiums.

For Michigan corn policies, and soybean policies in both states, the loss ratio is less than one. This indicates that, on average, the premiums for these policies were greater than the indemnities received by farmers. As shown in the tables 13 and 14 below, the ten-year average loss ratio for corn and soybean policies is lower for Michigan policies than for policies covering Iowa farmers. This indicates that, compared with producers in Iowa, the ratio of indemnities to premiums was lower for Michigan farmers over the past ten years. This is consistent with

farmers' perceptions about their crop insurance premiums and payments expressed in this survey.

Table 13. RMA loss ratio for corn, 2007-2016 by state

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Mean
Michigan	0.77	0.88	0.50	0.25	0.32	1.43	0.76	0.73	0.38	0.35	0.64
Iowa	0.15	1.13	0.22	0.70	0.24	2.78	2.74	2.29	0.18	0.10	1.05

Table 14. RMA loss ratio for soybeans, 2007-2016 by state

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Mean
Michigan	0.32	1.37	0.27	0.21	0.16	0.54	0.24	0.69	0.35	0.18	0.43
Iowa	0.12	1.35	0.23	0.35	0.33	0.96	0.86	1.11	0.24	0.07	0.56

Factors affecting farmers' crop insurance decisions

Survey respondents were asked how they make crop insurance decisions for their farms by rating the importance of certain factors in their insurance choices. Interestingly, these responses also differed by state. As shown in table 15, for farmers in Iowa, downside yield and price risk was rated most important by the largest number of respondents, followed by out-of-pocket premium price. These two factors were reversed for farmers in Michigan, who rated out-of-pocket price of the policy most important, followed by downside yield and price risk. It is helpful to note that crop insurance tends to be more expensive in Michigan than in Iowa. Take as an example, the most popular plan, revenue protection: in 2015 Michigan farmers paid on average 8.9 cents per dollar of liability, the number was 6.3 cents for Iowa. In both states, the other factors were relatively unimportant.

Table 15. Factor that had the greatest impact on crop insurance choices for 2016, by state

Factor	Michigan	Iowa
<i>Out of pocket price of the policy</i>	35.9%	25.6%
<i>Downside yield and price risk</i>	25.6	40.6
<i>Cash flow constraints</i>	5.4	9.0
<i>Lender/agent recommendations</i>	4.5	7.4
<i>Neighbours'/friends' decisions</i>	0.5	0.6
<i>My feelings about the likely weather and market conditions</i>	8.5	8.6
<i>Amount of claims received in past years</i>	9.0	3.8
<i>Other</i>	10.8	4.5

How proposed policy changes will affect producers

As mentioned above, the President's 2018 budget has proposed cuts to the USDA's budget. Included in these proposed cuts are changes to federal crop insurance policy, which would limit participation in federally subsidized crop insurance programs to individuals with less than \$500,000 adjusted gross income, cap subsidies at \$40,000, and eliminate the harvest price option. In this section, we estimate how these proposed changes will affect farmers who completed this survey.

Although we did not ask about adjusted gross income in this survey, farmers were asked to report their annual gross farm sales, within a particular range. Of those who provided this information, over 37% reported gross sales greater than \$500,000 annually, with over 14% of respondents reporting sales of over \$1,000,000. Gross farm sales differs from adjusted gross income, however, which includes net farm income as well as income from other sources (wages, interest and dividends, etc.). Farms would have to have sales considerably higher than \$500,000 to generate a net income of that value. Using reported gross sales, few farms in our sample would be subject to the restrictions of subsidized crop insurance participation.

The impact of the proposed cap on crop insurance subsidies on farmers is more difficult to estimate. Farmers were only asked specific policy details, including their out of pocket

premium, on their largest policy for corn and soybeans. Not all respondents provided this information.

Using RMA data and reported acres, however, we can estimate the premium subsidies farmers received in 2016 to approximate how the subsidy cap would affect respondents. From the total amount of subsidies and total acres insured by county, we estimated an average per-acre subsidy for corn and soybeans (combining all unit types and coverage levels). Multiplying this by the total number of acres planted in corn and soybeans from survey respondents, we calculated the average subsidy amount that each farmer would receive if he insured all acres.

From these estimates, only a small number of survey respondents would be affected by the proposed subsidy cap. An estimated 12 participants, six in each state, receive subsidies greater than the \$40,000 cap. All participants with subsidy estimates greater than \$40,000 operate at least 1,200 acres. This represents less than 2% of our survey respondents.

Farm characteristics

A description of farm size of respondents is shown below in table 16. Figure 1 shows the distribution of acres operated for farms less than 2,500 acres. As shown in the table and figure, the mean farm size was larger among respondents in Michigan than those in Iowa.

Table 16. Description of acres operated, owned, and rented for respondents, by state

	Mean	Median	Min	Max
<i>Michigan</i>				
<i>Acres operated</i>	1,163	800	146	9,582
<i>Acres owned</i>	678	450	0	9,582
<i>Acres rented</i>	486	280	0	4,000
<i>Iowa</i>				
<i>Acres operated</i>	806	600	101	4,200
<i>Acres owned</i>	364	245	0	2,700
<i>Acres rented</i>	440	300	0	4,040

Of greater significance is the proposed elimination of the harvest price option for insurance policies. Policies with harvest price exclusion are used to a limited extent (typically

less than 1% of the policies sold in Michigan and Iowa). Elimination of the harvest price option would affect the majority of farmers, as revenue protection policies are by far the most popular insurance products in both states, with approximately 80% of insured corn and soybean acres in Michigan and almost 95% of insured corn and soybean acres in Iowa covered by revenue protection policies.

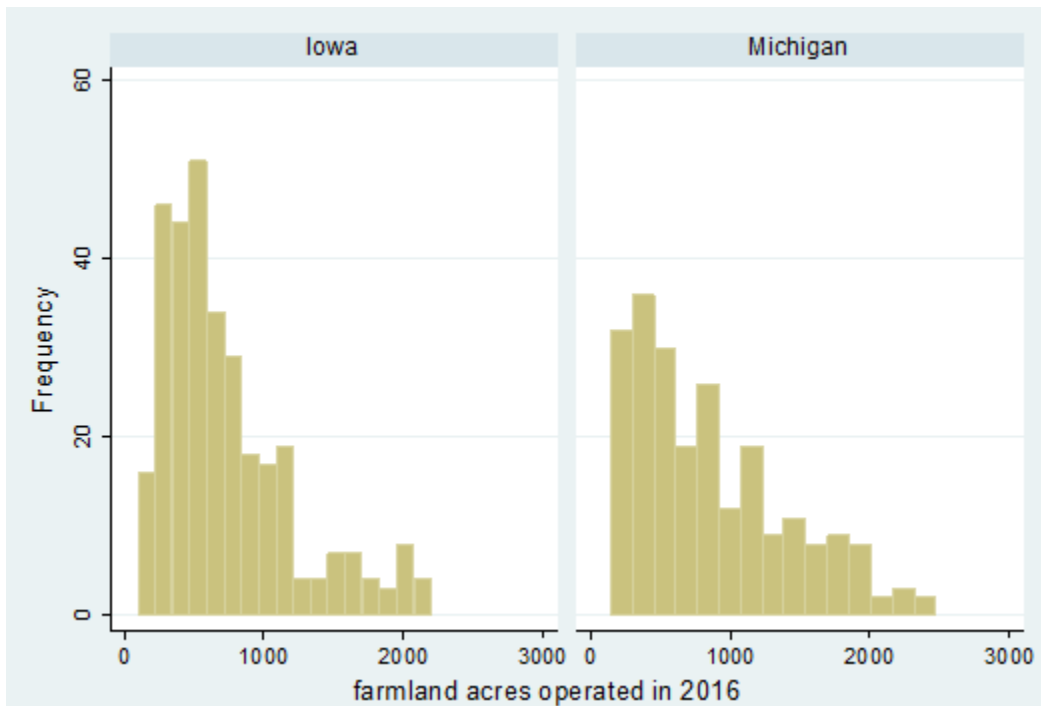


Figure 1. Distribution of acres operated (for farms <2,500 acres), by state

The farm size represented in our sample is larger than the typical farm in either state. The 2012 mean farm size in Michigan was just over 190 acres, while the mean farm size in Iowa was over 345 acres that same year (USDA, 2012). This average includes all farms in the state, however, and participation in this survey was limited to farmers who grew at least 100 acres of corn or soybeans in the past year.

Using data from 2012 Census of Agriculture, the median farm size with corn and soybean sales is between 260 and 499 acres for farms in both Michigan and Iowa¹. This is below the

¹ Median values were calculated by the number of farms with sales reported to the USDA for the 2012 Census Agriculture. This is the median acres operated restricted to farms above 100 acres, as is done in our sample. The number of farms was reported within a range of sizes, so a more precise median cannot be calculated.

median farm sizes of 800 and 600 for farms in Michigan and Iowa, respectively, included in our sample.

Table 17. Mean and median acres operated, by state

	Mean	Median
<i>Michigan</i>		
<i>Acres operated</i>	191	260-499
<i>Iowa</i>		
<i>Acres operated</i>	345	260-499

Demographics

The survey also collected data on farmer demographics. The mean age of respondents was just over 58 years old. The majority of respondents had attended some post-secondary education. Eighty-seven percent stated that farming was their primary occupation, while only 24% were employed off their farms. Average farm sales among respondents was just under \$250,000, while the majority of respondents reported that at least 60% of their household income came from their farm operation.

Table 18. Demographic characteristics of respondents

	Mean	Median	Min	Max
<i>Age</i>	58.07	59	21	89
<i>Education</i> ^a	3.32	3	1	6
<i>Farming primary occupation</i>	87%	-	-	-
<i>Employed off farm</i>	24%	-	-	-
<i>Gross sales</i> ^b	3.99	4	1	6
<i>Household income</i> ^c	3.82	5	1	5

^a Education categories: 1 = less than high school, 2 = high school, 3 = some college, no degree, 4 = 2-year college degree, 5 = 4-year college degree, 6 = advanced degree

^b Gross sales categories: 1 = less than \$50,000, 2 = \$50,000 to \$99,999, 3 = \$100,000 to \$249,999, 4 = \$250,000 to \$499,999, 5 = \$500,000 to \$999,999, 6 = \$1,000,000 or more

^c Household income categories: 1 = less than 20%, 2 = 20% up to 40%, 3 = 40% up to 60%, 4 = 60% up to 80%, 5 = 80% or more

The only two characteristics for which farmers differed by state were the proportion of those employed off farm (20% for Michigan respondents vs. 28% for Iowa respondents) and gross sales.

Table 19. Mean demographic characteristics, by state

	Michigan	Iowa
<i>Age</i>	57.81	58.27
<i>Education</i>	3.23	3.38
<i>Farming primary occupation</i>	0.87	0.87
<i>Employed off farm**</i>	0.20	0.28
<i>Gross sales***</i>	4.23	3.81
<i>Household income</i>	3.87	3.78

** , *** denotes that means are statistically different at the 5% and 1% levels, respectively

Conclusion

The responses from farmers in Michigan and Iowa collected from this survey indicate that farmers in the two states approach their crop insurance decisions differently. Farmers Michigan may be more able to bear some risk due to the more diversified nature of farming in the state. Additionally, Michigan farmers were more likely to state that the policy price was the most important factor they consider when making their crop insurance decisions. This is in contrast to farmers in Iowa, who were more likely to cite downside yield and price risk as the most important factor.

Michigan producers were also more likely to report that they believed that they have paid more in insurance premiums than they have received in indemnity payments. Their experiences with returns to insurance policies purchased in the past may also influence farmers' views about the value of insurance.

It may be that farmers in Michigan are more able to bear risk on their farms due to the more diversified crop portfolio in the state. A disproportionate number of Michigan farmers included in our sample operate in regions with more diversified farming (e.g. the thumb of

Michigan). This may have had an impact on our results, including more farmers who do not rely as heavily on crop insurance. Additionally, Michigan farmers in our sample also rent a smaller proportion of their operated land, perhaps exposing them to less risk than respondents from Iowa. These summary survey results provide insight into how farmers choose among the many insurance options available to them. Data from the RMA show different patterns in the two states, but these survey data allow for more detailed exploration into farmers' insurance choices. The data obtained from this survey will be further analyzed to investigate farmers' crop insurance choices.

The responses to our survey also allow us to estimate the potential impacts of proposed changes to federal crop insurance policy. It is difficult to determine from these data how many farmers would be impacted by the proposed limit on subsidized crop insurance participation to those with adjusted gross income of less than \$500,000. A small number of farmers in our sample would be affected by the proposed subsidy cap. The greatest impact of the proposed changes, however, would be felt from the proposed elimination of the harvest price option. Insurance policies with the harvest price option are by far the most popular products; eliminating the harvest price option has the potential to reduce indemnity payments received by farmers.

Survey Methods

Data in this report were obtained from farmers in Michigan and Iowa. Surveys were completed in person, online, as well as mailed to participants. Farmers who grew at least 100 acres of corn or soybeans were eligible to participate. We elicited responses from all counties in Iowa, and counties in the southern part of Michigan's lower peninsula where the majority of corn and soybean production occurs.

Researchers travelled to several locations in Michigan and Iowa to conduct surveys with farmers in person. Mail and online surveys were conducted by the Center for Survey Statistics & Methodology at Iowa State University. A total of 2586 farmers were contacted about completing the survey online or through the mail. Farmers for whom the research team had email addresses were first contacted through the mail and invited to participate in the online survey. Those who did not complete the online survey and those with no email address were then mailed a copy of the survey. Response rates are calculated as a ratio of completed surveys to eligible sample. The response rate is 31.1% in Iowa and 26.6% in Michigan. The overall response rate is 29.0%.

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Survey of Farmers' Crop Insurance Choices²



Please fill in the blanks or circle the best answer for each question.

Section A: Basic Information

A1. Did you grow at least 100 acres of corn or soybean in 2016?

0 = No —→ ***If No, please return this survey in the enclosed postage-paid envelope.***
1 = Yes

² The summary in this article only pertains to the first two sections of a longer survey. The other sections, not presented here, ask about farmers insurance decisions in what-if scenarios.

A2. How long have you been a farm operator? _____ *Number of years*

A3. In what county is most of the agricultural land you operate located? _____

A4. How many farmland acres did you operate or manage in 2016? _____ *acres*

A5. Of these acres, how many acres were in grass? _____ *acres*

A6. How many acres that you operated/managed in 2016 were rented from others? _____ *acres rented*

A7. Please complete the table below indicating acres harvested and the approximate average yield of the land you operated in 2016. (Please record 0, if no acres were planted or harvested.)

Crop	# Acres in 2016	Yield in 2016	Was land irrigated?
Corn		bu/ac	0 = No 1 = Yes
Soybeans		bu/ac	0 = No 1 = Yes
Other: Please specify		Unit: _____ #/acre	0 = No 1 = Yes

A8. For the crops listed above, how variable are your yields from year to year compared to other farms in your county?

Much less variable	Slightly less variable	About average	Slightly more variable	Much more variable
1	2	3	4	5

A9. How much of the corn you harvested in 2016 will be used on your farm (please circle the appropriate number)?

None	1% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%
1	2	3	4	5	6

A10. For the years 2011-2015 did you purchase Multiple Peril Crop Insurance (MPCI) for any crop?

0 = No —————> *If No, go to A15, next page*

1 = Yes

A11. Please **circle the years** you purchased MPCI for any crop.

2015 2014 2013 2012 2011

A12. For the years 2011-2015, did you receive indemnity payments from your MPCI policies?

0 = No —————> *If No, go to A15, next page*

1 = Yes

A13. Please **circle the years** you received indemnity payments.

2015 2014 2013 2012 2011

A14. Please complete the table below for the most recent claim you made on your MPCI.

Year	Crop(s)	# Acres	Coverage level	Realized yields	Claim amount
		acres	%	bu/ac	\$
		acres	%	bu/ac	\$
		acres	%	bu/ac	\$

A15. In 2016, did you use the following tools to manage risk?
(Please answer this question whether or not you have crop insurance.)

	No	Yes
a. Named peril insurance (e.g. hail insurance)	0	1
b. Forward contracts	0	1
c. Futures markets	0	1
d. Supplemental Coverage Option (SCO)	0	1
e. Minimum price contracts	0	1
f. Agricultural Risk Coverage (ARC) or Price Loss Coverage (PLC)	0	1
g. Options markets	0	1
h. Investment in land and production technologies (e.g., tile drain)		
i. Other tools? (Please specify)	0	1

A16. Did you make changes in your 2016 crop insurance?
(Please answer this question whether or not you have crop insurance.)

0 = No

1 = Yes → ***If Yes, please answer the following questions.***

	No	Yes
b. Increased coverage level	0	1
c. Decreased coverage level	0	1
d. Changed from basic or optional to enterprise units	0	1
e. Other changes? (Please specify)	0	1

A17. What will you likely do with your decisions on crop insurance for 2017?
(Please answer this question whether or not you have crop insurance.)

1 = I will not make any changes

2 = I will increase my coverage level in 2017

3 = I will decrease my coverage level in 2017

4 = I will wait until the end of February to consider my coverage level

5 = I will make other changes not listed above *(Please describe below.)*

Section B: Crop Insurance Choices – CORN

B1. Did you sign up for Catastrophic Risk Protection (CAT) for **corn** in 2016?

- 0 = No
- 1 = Yes —————> *If Yes, go to B7, next page*

B2. How many crop insurance policies and units did you have for corn in 2016? (*If you did not purchase crop insurance for corn in 2016, please enter zero and skip to question B7 on the next page.*)

a. Number of policies for corn: _____ b. Number of units for corn: _____

B3. Please describe your “buy-up” policy for corn in 2016 in the table below. If you had more than one policy or unit, please describe the one with the greatest number of acres.

a. Policy type	b. Unit type	c. # of Acres	d. APH yield	e. Coverage level	f. Out of pocket premium
1 = Yield Protection 2 = Revenue Protection 3 = Revenue Protection with Harvest Price Exclusion 4 = Other	1 = Optional 2 = Basic 3 = Enterprise		bu/acre	_____ %	\$ _____/acre

B4. How would you rate the yield of the land in that policy for corn (you described in B3 above) compared to average yield for your county?

- | | | | | |
|-------------------------|-----------------------------|---------------|------------------------------|--------------------------|
| Much lower than average | Somewhat lower than average | About average | Somewhat higher than average | Much higher than average |
| 1 | 2 | 3 | 4 | 5 |

B5. For the land in that policy for corn (you described in B3 above), how variable are your yields from year to year compared to other farms in your county?

- | | | | | |
|--------------------|------------------------|---------------|------------------------|--------------------|
| Much less variable | Slightly less variable | About average | Slightly more variable | Much more variable |
| 1 | 2 | 3 | 4 | 5 |

B6. Did you make a claim for this policy in 2016?

- 0 = No
- 1 = Yes —————> Claim amount: \$ _____

Crop Insurance Choices – SOYBEANS

B7. Did you sign up for Catastrophic Risk Protection (CAT) for **soybeans** in 2016?

0 = No

1 = Yes → *If Yes, go to B13 next page*

B8. How many crop insurance policies and units did you have for soybeans in 2016?

(If you did not purchase crop insurance for soybeans in 2016, please enter zero and skip to question B13 on the next page.)

a. Number of policies for soybeans: _____ b. Number of units for soybeans: _____

B9. Please describe your “buy-up” policy for soybeans in the table below. If you had more than one unit, please describe the one with the greatest number of acres.

a. Policy type	b. Unit type	c. # of Acres	d. APH yield	e. Coverage level	f. Out of pocket premium
1 = Yield Protection 2 = Revenue Protection 3 = Revenue Protection with Harvest Price Exclusion 4 = Other	1 = Optional 2 = Basic 3 = Enterprise		bu/acre	_____ %	\$ _____/acre

B10. How would you rate the yield of the land in that policy for soybeans (you described in B9 above) compared to average yield for your county?

Much lower than average	Somewhat lower than average	About average	Somewhat higher than average	Much higher than average
1	2	3	4	5

B11. For the land in that policy for soybeans (you described in B9 above), how variable are your yields from year to year compared to other farms in your county?

Much less variable	Slightly less variable	About average	Slightly more variable	Much more variable
1	2	3	4	5

B12. Did you make a claim for this policy in 2016?

1 = No

2 = Yes → Claim amount: \$ _____

B13. Compared to other farmers you know, how willing are you to accept risk when making your crop insurance decisions? *(Please answer this question whether or not you have crop insurance.)*

Much less willing to accept risk	Slightly less willing to accept risk	About average	Slightly more willing to accept risk	Much more willing to accept risk
1	2	3	4	5

B14. How much impact did the following factors have on your crop insurance choices in 2016?
(If you did not purchase crop insurance in 2016, please indicate how much impact each of the factors had on your decision not to purchase insurance.)

Factors	No Impact	Slight Impact	Some Impact	Quite a bit of Impact	Great Impact
a. Out of pocket price of the policy	1	2	3	4	5
b. Downside yield and price risk	1	2	3	4	5
c. Cash flow constraints	1	2	3	4	5
d. Lender/agent recommendations	1	2	3	4	5
e. Neighbors'/friends' decisions	1	2	3	4	5
f. My feelings about the likely weather and market conditions	1	2	3	4	5
g. The amount of claims received in past years	1	2	3	4	5

B15. Which of the following factor had the **greatest impact** on your crop insurance choices for 2016?
Please circle only one.

(If you did not purchase crop insurance in 2016, please circle the factor that had the greatest impact on your decision not to purchase insurance.)

- 1 = Out of pocket price of the policy
- 2 = Downside yield and price risk
- 3 = Cash flow constraints
- 4 = Lender/agent recommendations
- 5 = Neighbors'/friends' decisions
- 6 = My feelings about the likely weather and market conditions
- 7 = The amount of claims received in past years
- 8 = Other (Please explain: _____)