

Useful to Usable (U2U) End-of-Project Survey Results from a Survey of Farmers

DATA FOR ONLY 4 STATES W/MOST OUTREACH (IA,
IL, IN, NE)



College of
Agricultural & Life Sciences
UNIVERSITY OF WISCONSIN-MADISON
Growing the future

Prepared by the U2U Project Evaluation Team University of Wisconsin, Environmental Resources Center Evaluation Unit 4/24/2017; Updated by Ajay Singh at Purdue University on 5/9/2017

Note: Selected survey questions were not analyzed for the 4-state region and have been removed from this summary. (5/9/2017)

Methods

The survey frame for the project consisted of owners of land producing corn and who received federal assistance in 2013 and 2014 in 12 Midwestern states. The survey population was identified through a Farm Service Agency (FSA) Freedom of Information Act (FOIA) request in January, 2016. The total number of addresses received through the FOIA request was 390,553. Using the FSA list 6,644 (subtracting bad addresses) were randomly selected of which 2,633 responded (39%). Of those who responded, 1,536 (58%) were agricultural producers (IA = 341; IL = 264; IN = 376; NE = 243; 8 states = 311). **For the purposes of this report we focus on respondents from Iowa, Illinois, Indiana, and Nebraska.**

Results

Asked of all:

Q1. Over the past five years, have you experienced significant drought? (n= 1,168)

Response	Percentage
No	40%
Yes	60%

Q2. Over the past five years, have you had problems with saturated soils, ponding, or significant flooding? (n=1,127)

Response	Percentage
No	32%
Yes	68%

Q3. How concerned are you about weather or climate affecting farm management in your area? (n= 1,192)

Extent of concern	Percentage
Not at all concerned	7.6%
Slightly concerned	27%
Moderately concerned	39.6%
Very concerned	25.8%

Q4. To what extent are you using weather or climate information in farm decision making? (n= 1,190)

Extent of use	Percentage
Not using at all	10%
Using a little	17%
Using some	33%
Using quite a bit	28%
Using a great deal	12%

Q5. Do you currently receive or access weather or climate information in any of the following ways?

Ways of receiving information	No	Yes	n
Weather/climate information app	49%	51%	1,133
Weather/climate related website	39%	61%	1,140
Weather/climate information texts or email alerts	64%	36%	1,106

Q6. Do you use any of the following sources or providers of weather or climate information? If yes, how much influence do they have on your farming decisions?

Weather or climate information source	Use		Influence		
	No	Yes	Not influential	Somewhat influential	Very influential
Subscription or purchased weather/climate tools (e.g. MyDTN™, FieldView Plus or Pro, etc.) Use n= 1,462; Influence n= 237	82%	18%	15%	62%	23%
Free weather/climate services provided by a company, either tied to my purchases with the company or not (e.g. FieldView Prime, Pioneer 360 Tools, etc.) Use n= 1,156; Influence n=378	68%	32%	14%	72%	14%
Free weather/climate services provided by a university or government agency including Extension (e.g. ISU corn nitrogen rate calculator, UMissouri Nitrogen Watch, UNL CornSoyWater, etc.) Use n= 1,154; Influence n=299	76%	24%	11%	77%	12%
Weather/climate information provided personally by a farm advisor whom I pay Use n= 1,156; Influence n=66	96%	4%	38%	42%	20%
Weather/climate information provided personally by a farm advisor whom I do not pay Use n= 1,157; Influence n=120	91%	9%	24%	63%	13%

Q7. Indicate your level of agreement with the following statements about online decision support tools.

Statements	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	n
When farmers use tools with weather or climate information to aid decisions, it can result in better farm outcomes (related to yield, profit, and/or the environment).	2%	4%	37%	51%	7%	1,161
Other farmers like me are using decision support tools with weather or climate information to help with farm decisions.	2%	6%	46%	43%	4%	1,156
I want to meet the expectations of others when it comes to using decision support tools with weather or climate information.	6%	13%	56%	23%	3%	1,143

Q8. Are you willing to use online decision support tools with weather or climate information to inform your work? (n= 1,163)

Response	Percentage
No	41%
Yes, but don't currently use	48%
Yes, and currently use	11%

U2U Project Related Questions

Q9. Had you ever heard of Useful to Useful (U2U) project before receiving this survey, and, if so, from where?

Response	Percentage
No	95%
Yes, at U2U sessions at outreach events/meetings/conferences	1%
Yes, in U2U newsletter	0.3%
Yes, received an advertisement in the mail	1.3%
Yes, received an email advertisement	0.3%
Yes, from peers/colleagues (other farmers, Extension Educator, etc.)	1.3%
Yes, from an internet search	0.5%
Yes, I don't remember	1.4%
Yes, other	0.4%

Q10. Before receiving this survey, had you ever visited the U2U website? (n= 1,179)

Response	Percentage
No	99%
Yes	1%
	100%

AgClimate View (ACV)

Q11a. Had you ever heard of the AgClimate View (ACV) tool before this survey? (n= 1,145)

Response	Percentage
No	95%
Yes	5%
	100%

Asked of those that had heard of ACV:

Q11b. Have you ever used the ACV tool in your decision making? (n= 148)

Response	Percentage
No, I don't plan to	60%
No, but I'm thinking about it	34%
Yes, but I do not plan to use again	1 %
Yes, and I will use again	5%
	100%

Asked of those that are not using ACV now **AND** have used it but do not plan to use again:

Q11c. Which of the following reasons make you hesitate to use the ACV tool?

Reason	Percentage
Not relevant to the types of decisions I make	25%
Another tool provides this information	9%
My advisor gives me this information	6%
I don't think it does a very good job	6%
It is hard to use	2%
I don't know enough about it	57%
Other	6%

Please elaborate on the reasons stated above.

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Asked of those that have used ACV in decision making and will use it again:

Q11d. What decisions did the tool help you with and how helpful it was?

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Q11e. Would you recommend ACV to others? (n= 142)

Response	Percentage
No	67%
Yes	33%
	100%

Corn GDD

Q12a. Had you ever heard of the Corn GDD tool before this survey? (n= 1,152)

Response	Percentage
No	82%
Yes	18%
	100%

Asked of those that had heard of Corn GDD:

Q12b. Have you ever used the Corn GDD tool in your decision making? (n= 246)

Response	Percentage
No, I don't plan to	42%
No, but I'm thinking about it	31%
Yes, but I do not plan to use again	3%
Yes, and I will use again	24%
	100%

Asked of those that are not using Corn GDD now **AND** have used it but do not plan to use again:

Q12c. Which of the following reasons make you hesitate to use the Corn GDD tool?

Reason	Percentage
Not relevant to the types of decisions I make	27%
Another tool provides this information	12%
My advisor gives me this information	10%
I don't think it does a very good job	4%
It is hard to use	2%
I don't know enough about it	46%
Other	4%

Please elaborate on the reasons stated above.

NOT ANALYZED FOR 4-STATE REGION

Asked of those that have used Corn GDD in decision making and will use it again:

Q12d. What decisions did the tool help you with and how helpful it was?

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Q12e. Would you recommend Corn GDD to others? (n= 176)

Response	Percentage
No	48%
Yes	52%
	100%

Corn Split N

Q13a. Had you ever heard of the Corn Split N tool before this survey? (n= 1,160)

Response	Percentage
No	84%
Yes	16%
	100%

Asked of those that had heard of Corn Split N:

Q13b. Have you ever used the Corn Split N tool in your decision making? (n= 228)

Response	Percentage
No, I don't plan to	37%
No, but I'm thinking about it	38%
Yes, but I do not plan to use again	6%
Yes, and I will use again	19%

Asked of those that are not using Corn Split N now **AND** have used it but do not plan to use again:

Q13c. Which of the following reasons make you hesitate to use the Corn Split N tool?

Reason	Percentage
Not relevant to the types of decisions I make	27%
Another tool provides this information	12%
My advisor gives me this information	10%
I don't think it does a very good job	5%
It is hard to use	10%
I don't know enough about it	44%
Other	10%

Please elaborate on the reasons stated above.

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Asked of those that have used Corn Split N in decision making and will use it again:

Q13d. What decisions did the tool help you with and how helpful it was?

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Q13e. Would you recommend Corn Split N to others? (n= 158)

Response	Percentage
No	48%
Yes	52%
	100%

Climate Patterns Viewer (CPV)

Q14a. Had you ever heard of the Climate Patterns Viewer (CPV) tool before this survey? (n= 1,182)

Response	Percentage
No	92%
Yes	8%
	100%

Asked of those that had heard of CPV:

Q14b. Have you ever used the CPV tool in your decision making? (n= 123)

Response	Percentage
No, I don't plan to	48%
No, but I'm thinking about it	37%
Yes, but I do not plan to use again	5%
Yes, and I will use again	10%

Asked of those that are not using CPV now **AND** have used it but do not plan to use again:

Q14c. Which of the following reasons make you hesitate to use the CPV tool?

Reason	Percentage
Not relevant to the types of decisions I make	28%
Another tool provides this information	9%
My advisor gives me this information	11%
I don't think it does a very good job	0%
It is hard to use	3%
I don't know enough about it	51%
Other	3%

Please elaborate on the reasons stated above.

NOT ANALYZED FOR 4-STATE REGION

Asked of those that have used CPV in decision making and will use it again:

Q14d. What decisions did the tool help you with and how helpful it was?

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Q14e. Would you recommend CPV to others? (n= 73)

Response	Percentage
No	41%
Yes	59%

Comparative Analysis of Tools:

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Asked of all

Q14. In general, do you think any of the U2U tools are needed for informing farm decisions? Please rely on the descriptions of the tools on previous pages of the survey if you are not familiar with them. (n= 1,027)

Response	Percentage
No	41%
Yes	59%
	100%

Q18. Please tell us whether you believe each statement is more true for public sources, more true for private sources, equally true for both, or not true for either.

Statement	Not true for either	More true for public	Equally true for both	More true for private	I don't know	n
The information is provided in time for me to make a decision	7%	8%	43%	10%	32%	1,089
The information is specific to my farm fields	17%	5%	20%	27%	32%	1,082
The information is relevant to the decisions I make	7%	7%	46%	12%	27%	1,081
The information is accurate	11%	6%	39%	7%	38%	1,078
The information addresses the most important decisions or problems in corn production	14%	4%	30%	14%	38%	1,084
The provider of the information is trustworthy	5%	8%	43%	6%	38%	1,084
The information is used as a way to sell farmers something	11%	4%	21%	30%	35%	1,082
The way the information is distributed to farmers is fair	4%	10%	38%	5%	43%	1,084
The information helps me reduce financial risks	16%	4%	35%	7%	39%	1,085

The information leads to better crop yields	14%	3%	33%	7%	43%	1,088
The information gives me a competitive advantages over other farmers	21%	2%	20%	8%	51%	1,087

Q17. Uncertainty is part of making any decision. The following set of questions ask about how you deal with uncertainty and new information in your decision making. Please indicate your level of agreement with the following statements.

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	n
I enjoy the uncertainty of using a new farming practice without knowing exactly what might happen	20%	38%	29%	12%	1%	1,397
I don't like to adopt a farming practice without knowing what I can expect from it	2%	6%	16%	63%	13%	1,398
I like unpredictable situations	27%	46%	20%	5%	2%	1,393
I don't like it when scientific research about farming can be interpreted in many different ways	2%	6%	30%	51%	11%	1,393
I find that a well ordered life with regular hours suits my temperament	8%	31%	35%	22%	4%	1,396
I don't like it when questions about farming practices can be answered in more than one way	2%	15%	42%	35%	5%	1,393
I consult many different opinions before deciding to change my farming practices	2%	9%	21%	57%	12%	1,398
I see many possible solutions to problems I face on my farm	1%	6%	27%	60%	7%	1,394
When I have not made a decision on how to manage my farm, I feel stressed	2%	14%	36%	43%	5%	1,396
When I am confronted with a problem on my farm, I am worried if there is no apparent solution	5%	28%	31%	32%	4%	1,392
I become impatient and irritated if I can't find a solution to a problem immediately	5%	35%	34%	22%	4%	1,391
I don't like the routine aspects of farming	13%	49%	31%	6%	1%	1,389
I feel uncomfortable when I don't understand the reason why events on my farm occurred	4%	21%	35%	36%	4%	1,397

I find that establishing a consistent routine enables me to enjoy life more	2%	12%	36%	45%	5%	1,401
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Asked of those that had heard of at least one U2U tool

Q15. Compared to other sources of weather or climate information that you have used, in general U2U tools: (n= 192)

Response	Percentage
Provide useful information I am not getting from other sources	16%
Provide the same information that I get from other sources	20%
Provide less useful information than I get from other sources	2%
I cannot compare because I have not used U2U tools AND other sources of weather/climate information	62%

Q16. How has your likelihood of using weather or climate information in farm decision making changed due to the U2U project or tools? (n= 185)

Likelihood change	Percentage
Decreased my likelihood	2%
Slightly decreased my likelihood	5%
No change	50%
Slightly increased my likelihood	34%
Increased my likelihood	10%

Asked of all

Q20. Please indicate your level of agreement with each of the statements related to climate variability

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	n
In the past 5 years, I have noticed more variable/unusual weather on my farm	3%	11%	28%	47%	11%	1,123
In the past 5 years, I have noticed more variable/unusual weather across the Corn Belt	2%	10%	30%	49%	9%	1,123
I am willing to use seasonal climate outlooks to help me make decisions about agricultural practices	2%	11%	39%	46%	2%	1,107
Changes in weather patterns are hurting my farm operation	4%	25%	47%	23%	3%	1,112
I have the knowledge and technical skill to deal with any weather-related threats to the viability of my farm operation	3%	21%	45%	29%	2%	1,117
Changing my practices to cope with increasing climate variability is important for the long-term success of my farm	2%	7%	39%	46%	6%	1,116

Q21. Please indicate your level of agreement with each of the statements related to sustained long-term changes to climate patterns.

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	n
Earth's climate conditions occur at random with no cycles or trends	8%	48%	27%	14%	3%	1,105
Earth's climate conditions occur in a cyclical pattern	1%	5%	35%	55%	4%	1,100
Even if climate changes, we can't predict what those changes will be in the future	1%	14%	31%	49%	6%	1,101
Having more information about climate change will reduce uncertainties about future conditions on my farm	3%	15%	39%	42%	2%	1,098
Climate models are accurate enough to predict long-term climate patterns in my area	11%	34%	43%	12%	0%	1,100
Climate change is happening	4%	10%	33%	47%	6%	1,101
Earth's climate always changes	0.2%	2%	15%	67%	16%	1,104
Human activities are contributing to climate change	6%	14%	36%	37%	7%	1,101
Climate change will not affect the way that I farm	6%	44%	34%	15%	2%	1,100

Climate change will cause more extreme weather events in my area	2%	11%	48%	35%	5%	1,099
There is enough evidence that climate is changing	5%	14%	34%	42%	5%	1,102
Climate change has affected my farm management practices	4%	24%	45%	25%	2%	1,103

Q22. Given what you believe to be true about the potential impacts of climate change on agriculture in the Corn Belt, please indicate your level of agreement with the following statements.

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	n
There's too much uncertainty about the impacts of climate change to justify changing my agricultural practices and strategies	2%	13%	40%	42%	4%	1,112
It is important for farmers to adapt to climate change to ensure the long-term success of U.S. agriculture	3%	8%	38%	49%	4%	1,106
Changing my practices to cope with increasing climate variability is important for the long-term success of my farm	2%	9%	39%	47%	4%	1,104

Demographics

Asked of all

Q23. How many years have you been farming? (n= 1,125)

Measures of central tendency: Mean= 35 years, Median= 38 years, Mode= 40 years
 Measures of variation: SD= 15, Range= 78, Minimum= 2, Maximum= 80

Q24. How many acres do you farm? (n= 1,118)

Measures of central tendency: Mean= 1010 acres, Median= 500 acres, Mode= 500 acres
 Measures of variation: SD= 1,452, Range= 18,000, Minimum=0, Maximum= 18,000

Q25a. In 2015, how many acres of corn did you manage? (n= 1,097)

Measures of central tendency: Mean= 568 acres, Median= 250 acres, Mode= 300 acres
 Measures of variation: SD= 1,474, Range= 40,000, Minimum= 0, Maximum= 40,000

Q25b. In 2015, how many acres of soybean did you manage? (n= 1,035)

Measures of central tendency: Mean= 444 acres, Median= 250 acres, Mode= 0 acres
 Measures of variation: SD= 710, Range= 9,000, Minimum= 0, Maximum= 9,000

Q25c. In 2015, how many acres of other crops did you manage? (n= 566)

Measures of central tendency: Mean= 146 acres, Median= 50 acres, Mode= 0 acres
 Measures of variation: SD= 371, Range= 4,800, Minimum=0, Maximum= 4,800

Q26. What other crops do you manage?

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Q27. Do you have access to the internet? (n= 899)

Response	Percentage
No	18%
Yes	82%

Q28. On a continuum of early adopter to late adopter, where "Early Adopter" is adopting a new technology along with the first set of farmers and "Late Adopter" is adopting the technology after most farmers adopt it, where would you place yourself? (n= 1,118)

Adopter category	Percentage
Early adopter	8%
Early majority	24%
Neither early majority nor late majority	35%
Late majority	19%
Late adopter	14%

Q29. What is your gender? (n= 1,152)

Gender	Percentage
Male	93.5%
Female	6.5%

Q30. What is the highest level of school you have completed? (n= 1,147)

School level	Percentage
Some formal schooling	2%
High school diploma/GED	32%
Some college	20%
2 year degree	13%
4 year degree	27%
Graduate degree	6%
	100%

Q31. In comparison to others in the U.S., your opinions on most issues are:
 NOT ANALYZED FOR 4-STATE REGION

Association Between Demographic and Outcome Variables

Purposively selected variables such as gender, age, education level, technology adopter category, farming experience in years and number of acres farmed were tested for any statistically significant associations with the medium term outcomes such as the use of U2U tools in decision making and intention to recommend U2U tools to others. No statistically significant associations were observed between any of the demographic variables and the two outcome variables. Further, associations between select climate change related beliefs and attitudes and the use of tools in decision making and intention to recommend them to others were also tested. All but one of these associations were not significant (Table 1).

Table 1. Association Between Select Climate Change Beliefs and Attitudes and The Use of Tools in Decision Making and Intention to Recommend the Tools to Others

Climate Change Belief/Attitude	Use of Tools In Decision Making	Intention to Recommend the Tools to Others
When farmers use tools with weather or climate information to aid decisions, it can result in better farm outcomes (related to yield, profit, and/or the environment)	NS for all the tools.	NS for ACV, Corn GDD and CPV. Significant for Corn Split N with farmers <i>agreeing</i> with this statement recommending the tool to others in higher numbers than expected.
Climate change is happening	NS for all the tools.	NS for all the tools.
Human activities are contributing to climate change	NS for all the tools.	NS for all the tools.
Changes in weather patterns are hurting my farm operation	NS for all the tools.	NS for all the tools.
Climate models are accurate enough to predict longterm climate in patterns in my area	NS for all the tools.	NS for all the tools.

NS= Not Significant at 0.05 level of significance.

**Expected*= The frequency that would exist if there was no statistically significant association between the two test variables at 0.05 level of significance