Outputs and impacts by the numbers

Useful to Usable (U2U): Transforming Climate Variability and Change Information for Cereal Crop Producers was a USDA-NIFA funded research and extension project focused on improving the usability of climate information for agricultural production in the Midwestern United States. Beginning in 2011, a diverse team of biophysical and social scientists from nine Midwestern universities spent six years working with the agricultural community to develop climate-based decision support tools and resources to enhance farm resilience to a variable and changing climate.

FEATURED OUTCOMES

TEAM
Team members from 9 universities
60 faculty and staff contributors
62 graduate and undergraduate students trained
11 students earned MS or PhD

OUTREACH
162 scientific conference presentations
165 outreach events with Midwestern farmers and advisors
Over 40,000 website visitors with more than 165,000 page views
35,560 people reached through 4-round print & online media campaign

PUBLICATIONS
50 peer-reviewed articles in physical, social, and interdisciplinary science journals
53 Extension publications, book chapters, and magazine articles
Research and tools featured in over 170 trade and popular press articles

AWARDS
2015 USDA-NIFA Partnership Award for Mission Integration
2015 Purdue College of Agriculture TEAM Award

OVERALL SUCCESS
U2U tools have been used to support decisions on over 15.5 million acres in the Midwestern U.S.
35% of advisors1 and 34% of farmers2 had heard about at least one U2U tool
33% of advisors1 and 34% of farmers2 who had heard about U2U tools have used one or more U2U tools in their decision making
71% of advisors1 and 44% of farmers2 familiar with U2U tools said they would recommend the tools to others

1 Across 12-state U2U region
2 In 4 key outreach states (IA, IL, IN, NE)

DECISION TOOLS
5 Decision Support Tools (DSTs) developed and transferred to Regional Climate Centers for long-term availability
Outputs and impacts by the numbers

WHAT WE DELIVERED

Decision Support Tool Suite

U2U incorporated climate data into five web-based tools to help farmers and advisors make informed decisions.

Top ways farm advisors used the U2U tools with their clients:
- Seed purchases
- Crop choice
- Fertilizer application timing

Farmers used U2U tools for:
- Scheduling planting/harvest
- Planning and scheduling fertilization
- Improving their yields

52% of advisors who used U2U tools said they are now more likely to use weather and climate information in their job.

74% of advisors who had used U2U tools felt the tools are moderately to very usable.

AgClimate View_{\text{DST}}

Customize historical climate and crop yield data for the U.S. Corn Belt

ACV.AgClimate4U.org

Corn GDD_{\text{DST}}

Track real-time GDD accumulations and learn about climate risks for corn development

GDD.AgClimate4U.org

Climate Patterns Viewer_{\text{DST}}

Connect global climate conditions to local climate impacts

CPV.AgClimate4U.org

Corn Split N_{\text{DST}}

Determine the feasibility and profitability of using in-season nitrogen application for corn production

SplitN.AgClimate4U.org

Irrigation Investment_{\text{DST}}

Explore the profitability of investing in irrigation equipment within the Corn Belt

Irrigation.AgClimate4U.org

PARTNERS

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