Transforming Climate Variability and Change Information for Cereal Crop Producers

U2U useful to usable

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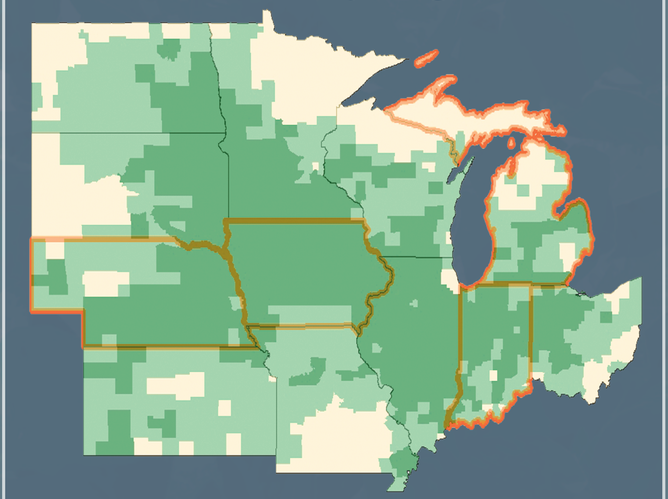
Corn and **soybean** production in the north central United States is highly dependent on favorable temperatures and appropriate precipitation patterns, making this industry vulnerable to changes in climate patterns.

U2U Study Region



Pilot States

Major Corn Growing Area

Minor Corn Growing Area

Crop data from National Agricultural Statistics Service (NASS)
U.S. 2007 Census of Agriculture
Major corn areas harvested over 60,000 acres of corn
Minor corn areas more than 5,000 acres of corn
Map created by Adam Reimer, October 2011

U2U is a 5-year integrated research and extension project that aims to improve the resilience and profitability of farms in the Corn Belt amid variable climate change through the development and dissemination of decision support tools, resource materials, and training.

Objectives:

1. Use *existing data and models* to better understand the contributions of anomalous weather to crop variability and implications for future management options.
2. Understand the *use and value of climate information* for agricultural decision making, and determine effective methods for disseminating usable climate knowledge.

Stakeholder engagement

3. Develop *tools, training materials, and implementation approaches* that lead to more effective decision making and the adoption of climate-resilient farm practices.
4. Evaluate the *effectiveness of decision support tools and materials* in four pilot states, refining resources as needed based on stakeholder feedback.
5. Broadly disseminate *validated decision support resources and extension programs* across the Corn Belt.

Key activities (2011–2013)

- ✓ Develop gridded crop model outputs for the Corn Belt using historical data 1981–2010
- ✓ Identify impacts of climate and management decisions on yields and farm profitability
- ✓ Survey producers and advisors about climate change perceptions and information needs
- ✓ Determine how climate information flows through agricultural communities

A foundation for success

The U2U team is a diverse and uniquely qualified group of faculty, staff, and students from nine universities across the Corn Belt. Team members are experts in applied climatology, crop modeling, agronomy, cyber-technology, economics, and social science.

Ongoing engagement of key stakeholders is at the core of this project and highly critical to its success. Agricultural producers, advisors, and extension educators play an important role in the co-production of science.

U2U Team (*denotes co-project investigator):

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