



Director's Update October 2014

REACCH is Part of Something Bigger

REACCH is unprecedented in scope among other regional projects addressing the long-term sustainability of our region's wheat production systems. The \$20M project spans disciplines from economics to entomology, and strives to educate from kindergarten through graduate school.

This summer, once again we had more than 150 people at work in REACCH, engaged in their particular research and education efforts, but aware of their role in the larger project. We are not alone in taking this unprecedented integrated approach. Our cohort of large National Institute for Food and Agriculture (NIFA) projects includes **Sustainable Corn** and **PineMap** focused on two other major production regions of the USA, and, like REACCH, striving to achieve new and transformative levels of integration across disciplines, missions and institutions. The leaders of the three Climate Change Coordinated Agriculture Projects (or Climate CAPs) meet regularly in conference to provide one another advice and share insights gained from our work.

Sociologists, data managers, entomologists and others within the projects are collaborating as well. The challenges and great potential of our three CAP projects and partners are outlined in an article, coauthored by the Climate CAP directors, to appear this fall in the *Journal of Soil and Water Conservation* this fall "*Big Interdisciplinarity to Address Climate Change and Agriculture.*"

In that article, we outline of collective outputs (e.g., more than 1000 presentations to agricultural industry and nearly 300 referred publications) and outcomes, including helping to improve nitrogen management, understand and incorporate cover crops and manage new and emerging pests in our systems. We discuss the challenges of coordinating these big projects:

maintaining project cohesion and shared mission, bridging cultural and geographic divides, sustaining an adaptive management approach, monitoring project productivity and processes, educating graduate and undergraduate students for interdisciplinary careers, managing the vast amounts of data being generated, and communicating with stakeholders.

Whether you are a student, scientist, faculty member or stakeholder in REACCH you will recognize many of these challenges and have experienced their consequences and contributed to finding solutions. It is our hope and ambition to perfect solutions to such issues in order to facilitate successful, large, integrated projects in the future, as these will be needed to address the challenges of agricultural sustainability.

This summer, I was able to attend a special meeting convened by Sustainable Corn in Ames

Iowa. Farmers, scientists and policymakers from throughout the Corn Belt convened to learn the latest science and applications appropriate for the anticipated greater frequency of extreme weather events that has already begun to affect corn and soybean production in that region. But the issues they discussed – precision fertilization, remote sensing, cover crops, new rotations were familiar. They are the common ground that we grapple with in agriculture across the nation.

Recently, I visited with Sonny Ramaswamy, Director of NIFA. We agreed that our Climate CAPs are setting the pace for more integrated science, education and extension to address agriculture's challenge going forward.

Sanford Eigenbrode, REACCH Project Director