



# Resilient Agriculture: Adapting to a Changing Climate

August 5-7, 2014  
Ames, Iowa

**SUSTAINABLE  
CORN.ORG**  
CROPS, CLIMATE, CULTURE AND CHANGE



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture



# CONFERENCE AGENDA

Tuesday, Aug 5

## GARDEN ROOM

1:00 - 1:15 p.m.

### **Welcome and Opening**

Lois Wright Morton and Dean Wendy Wintersteen, ISU

1:15 - 2:00 p.m.

### **Keynote 1: CLIMATE CHANGE AND AGRICULTURE**

Jerry Hatfield, USDA-ARS

2:00 - 2:45 p.m.

### **Keynote 2: MIDWESTERN FARMERS ANTICIPATE AND RESPOND TO CLIMATE CHANGE**

Cathy Kling, ISU

2:45 - 3:15 p.m.

### **Break**

3:15 - 5:00 p.m.

### **THE SCIENCE OF RESILIENCE - Part 1**

Presentations and discussions moderated by Jim Gulliford, Soil & Water Conservation Society, Ankeny, IA

### **Nitrogen's Resiliency Role**

Rob Anex, UW

### **Carbon's Resiliency Role**

Rattan Lal, OSU

### **Water's Resiliency Role**

Jeff Strock, UMN

### **Regional Water Challenges and Opportunities to Increase Crop Resilience**

Jon Hobbs, Jet Propulsion Lab, NASA

### **Predicting the Impact of Increasing Temperatures on Corn Yield**

Bruno Basso, MSU

## SOUTH PRAIRIE

5:00 - 6:30 p.m.

### **Poster Symposium and Reception**

Sponsored by Monsanto

## NORTH & CENTRAL PRAIRIE

6:30 p.m.

### **Dinner**

## BUS DEPARTS FOR OLDE MAIN

6:45 p.m.

Leaves from underpass near hotel registration desk

7:00 p.m.

### **Dinner for Next Generation Scientists and Next Generation Farmers**

Sponsored by United Soybean Board

# CONFERENCE AGENDA

Wednesday Aug 6  
Morning

BUSES DEPART FOR FIELD DEMONSTRATIONS

8:30 a.m. Leaves from underpass near hotel registration desk

ISU FIELD EXTENSION EDUCATION LAB & SUSTAINABLE CORN RESEARCH SITE

9:00 - 11:45 a.m. **Hands-on Field Demonstrations**

## **Drainage Water Management**

Jane Frankenberger (Purdue), Matt Helmers (ISU)  
and Shawn Wohnoutka (RCRCA)

## **Cover Crop Options and Management**

Eileen Kladvko (Purdue), Charles Ellis (MU)  
and Bryan Overstreet (Purdue)

## **Climate Tools for Corn Production**

Chad Hart (ISU), Dennis Todey (SDSU), Laura Edwards (SDSU)  
Chad Ingels (ISU) and Hans Schmitz (Purdue)

## **Rye Cover Crop, Corn Nitrogen Fertilization, and Canopy Sensing**

John Sawyer (ISU), Peter Scharf (MU) and Dick Wolkowski (UW)

## **Measuring Greenhouse Gases**

Vince Davis (UW), Becky Bailey (UW) and Javed Iqbal (ISU)

## **Soil Moisture and Water Infiltration**

Laura Bowling (Purdue), Scott Lee (ISU) and Marilyn Thelen (MSU)

BUSES DEPART FOR GATEWAY HOTEL & CONFERENCE CENTER

Noon



# CONFERENCE AGENDA

Wednesday Aug 6  
Afternoon

GARDEN ROOM

12:30 - 1:30 p.m.

## **Lunch**

1:30 - 3:15 p.m.

## **THE SCIENCE OF RESILIENCE - Part 2**

Presentations and discussion moderated by Paul Helgeson, GNP Company

### **Cover Crops**

Eileen Kladivko, Purdue

### **Rotation and Tillage**

Joe Lauer, UW and Emergson Nafziger, UI

### **Crop Diseases**

Darin Eastburn, UI

### **Crop Insects**

Mike Dunbar, ISU

3:15 - 3:45 p.m.

## **Break**

3:45 - 5:00 p.m.

## **FARMER VIEWS ON ADAPTATION TO INCREASING WEATHER VARIABILITY AND EXTREMES**

Session and panel moderated by Chad Ingels, ISU

### **Video: Farmer Perspectives on Vulnerability, Uncertainty, Risks and the Impacts of Climate Change**

### **Survey Results: Farmer Perspectives**

J. Gordon Arbuckle, Jr., ISU

### **Panel: Corn Belt Farmers' Perspectives, Experience and Future Needs as They Adapt to Weather Variability and Extremes**

*The Farmers:* Andy Bensend, Wisconsin  
Pat Feldpausch, Michigan  
Garry Niemeyer, Illinois  
Ray Gaesser, Iowa

5:45 p.m.

## **LOAD BUSES FOR REIMAN GARDENS**

Leaves from underpass near hotel registration desk

REIMAN  
GARDENS

6:00 p.m.

## **Reception - Sponsored by DuPont Pioneer**

6:45 p.m.

## **Dinner**

# CONFERENCE AGENDA

Thursday Aug 7

## GARDEN ROOM

8:00 - 8:30 a.m.

### AGRICULTURE & FORESTRY IN A CHANGING CLIMATE: ADAPTATION RECOMMENDATIONS

Ernie Shea, 25x'25 Alliance

8:30 - 10:00 a.m.

### CUTTING EDGE TECHNOLOGIES AND STRATEGIES FOR RESILIENT AGRICULTURE

Presentations and discussion moderated by Fred Yoder, 25x'25 Alliance

#### **An Integrated Approach to Sustainability**

Ravi Sripada, The Climate Corporation

#### **DuPont Pioneer**

Ken O'Brien, DuPont Pioneer

#### **John Deere**

Pauley Bradley, John Deere

#### **A Cloud Computational Tool for Precision Nitrogen Management**

Harold van Es, Cornell

#### **Crop Decision-making to Protect Soil and Water**

David Muth, AgSolver

10:00 - 10:30 a.m.

#### **Break**

10:30 a.m. - noon

### DEVELOPING A SUSTAINABLE VALUE CHAIN

Presentations and discussion moderated by Fred Yoder, 25x'25 Alliance

#### **Consumer Demand for Products with Light Environmental Footprints**

John Kadyszewski, Winrock International

#### **International Economies and Sustainability Protocols**

Mark Jackson, Former Iowa Soybean Association President

#### **Keep it for the Crop: Sustainability in Nutrient Management**

Jean Payne, Illinois Fertilizer & Chemical Association

#### **USDA Efforts to Improve Sustainability and Resilience in Agriculture Systems**

Bill Hohenstein, Climate Change Program, USDA

12:15 - 2:00 p.m.

#### **Lunch and Speakers**

### A VIEW OF THE FUTURE FROM CORN AND SOYBEAN FIELDS: WHAT DOES LONG TERM SUSTAINABILITY AND RESILIENCE LOOK LIKE AND HOW DO WE GET THERE?

Garry Niemeyer, Former National Corn Growers Assoc. President

Laura Foell, Director, United Soybean Board



## Sustainable Corn

Funded by USDA-NIFA as The Climate and Corn-based Cropping Systems Coordinated Agricultural Project.  
USDA-NIFA Award No. 2011-68002-30190

### Participating Institutions:

