MAKING CLIMATE-SMART AGRICULTURE WORK

Integrating science, modeling and economics to help farmers, ranchers and foresters mitigate and adapt to the challenges of climate change

A virtual online conference

AGENDA

Registration required: *https://agmip.org/making-climate-smart-agriculture-work/*

Day 1 - Tuesday, May 24, 2022 - *11:00 AM to 3:30 PM EDT*

11:00 AM Eastern

Welcome

Dr. Terry Nipp, Director of Policy and Development
Agricultural Model Intercomparison and Improvement Project (AgMIP)

Keynote Address
Developing Climate-Smart Agriculture
Robert Bonnie
USDA Undersecretary for Farm Production and Conservation

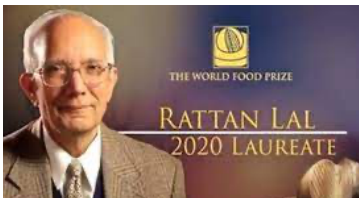
Keynote Address
AgMIP: Climate Change, Agriculture and Global Food Systems
Dr. Cynthia Rosenzweig
Senior Research Scientist, NASA Goddard Institute for Space Studies and Columbia Climate School
Conference Committee Chair

12:00 PM Eastern

Getting There
How science, data, modeling & economics can help make Climate-Smart Agriculture Work

- Dr. Bruno Basso, John A. Hannah Distinguished Professor, Earth and Environmental Sciences, Michigan State University
- Dr. John Antle, Professor, Applied Economics, Oregon State University
- Tim Ryder, Legislative Assistant to Senate Majority Leader Chuck Schumer (D-NY)

1:00 PM Eastern



Keynote Address
Climate and Soil Carbon Sequestration - *What are the key questions?*
Dr. Rattan Lal
2020 World Food Prize Laureate
School of Environment and Natural Resources
The Ohio State University

AgMIP The Agricultural Model Intercomparison and Improvement Project

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1:30 PM Eastern

Climate-Smart Agriculture Soil Carbon and Greenhouse Gas Emissions
What do we know and what do we need to know?

What are farmers asking about climate-smart agriculture?
Dr. Mark Licht, Assistant professor & Extension cropping systems specialist, Iowa State University
Associating agricultural practices and land management with climate benefits
Dr. Peter Woodbury, Sr. Research Associate, School of Integrative Plant Science Soil and Crop Sciences Section, Cornell University
Using models to bridge from observation and management data to national scale GHG emissions
Dr. Stephen Ogle, Professor, Dept. Ecosystem Science and Sustainability, Colorado State University
Dr. Steve Del Grosso, Research Soil Scientist, USDA ARS Soil Management and Sugarbeet Research
Modeling U.S. GHG mitigation potentials of agriculture and forestry
Sara Ohrel, Climate Change Division, EPA

3:10 PM Eastern

Food and Agriculture Climate Alliance
How farmers, ranchers, and forest owners can deliver and benefit from climate solutions
Kelsey Billings, Sr. Director Industry Affairs & Sustainability, National Council of Farmer Cooperatives

3:30 PM Eastern - *Adjourn for the day*

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Day 2 - Wednesday, May 25, 2022 - *11:00 AM to 3:30 PM Eastern*

11:00 AM Eastern

USDA ERS

Keynote Address
Investing in Models, Data and Decision Frameworks to Inform Climate Smart Agriculture Policy Design
Dr. Spiro Stefanou
Administrator, USDA Economic Research Service

11:30 AM Eastern

The Bottom Line: ***Assessing climate-smart agriculture profitability, adoption and sustainability***
Moderator: Dr. John Antle, Oregon State University
Global and national perspectives
Dr. Ron Sands, USDA Economic Research Service
AgMIP methods linking national, regional and farm-scale models
Dr. Roberto Valdivia, Dept of Applied Economics, Oregon State University
Improving farm and regional models for analysis of climate-smart practices and policies
Dr. Pierre Mérel, Dept of Agricultural and Resource Economics, UC Davis
Behavioral modeling and adoption of climate-smart practices
Dr. Kent Messer, Center for Behavioral and Experimental Agri-environmental Policy Research, University of Delaware

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12:30 PM Eastern

COMET

Modeling Climate-Smart Agriculture on the Farm

Dr. Adam Chambers
Air Quality and Atmospheric Change Team
USDA Natural Resources Conservation Service
Amy Swan
Natural Resource Ecology Laboratory
Colorado State University

1:30 PM Eastern

Climate-Smart Conservation at Landscape and Watershed scales

Predicting Climate and Conservation Policy Impacts on US Agricultural Production and Pollution Using SWAT+

Dr. Jeff Arnold, Grassland Soil and Water Research Laboratory, USDA Agricultural Research Service
Dr. Mike White, Grassland Soil and Water Research Laboratory, USDA Agricultural Research Service

CEAP and Its Role in Providing Conservation Benefit Estimates

Dr. Evelyn Steglich, Soil Science and Resource Assessment – Modeling Team, USDA Natural Resources Conservation Service

Science-Based Solutions for Policy Decision Making: *Dashboard Technology for Farm to National Modeling*

Dr. Raghavan Srinivasan, Spatial Sciences Laboratory and Blackland Research and Extension Center, Texas A&M University

2:30 PM Eastern

Climate-Smart Regional Integrated Assessment and Multi-Model Ensembles

AgMIP: Model intercomparison and application protocols across 50+ activities

Dr. Alex Ruane, Climate Impacts Group, NASA Goddard Institute for Space Studies

Integrated cropping systems and Climate-Smart Agriculture

Dr. Sotirios Archontoulis, Integrated Crop Management, Iowa State University Extension

Range, grasslands, and livestock

Dr. Greg Kiker, Ecological Modeling and Management, Agricultural and Biological Engineering, University of Florida Institute of Food and Agricultural Sciences

AgMIP: Multi-model ensembles

Dr. Bruno Basso, John A. Hannah Distinguished Professor, Earth and Environmental Sciences, Michigan State University

3:30 PM Eastern - *Adjourn for the day*

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Day 3 - Thursday, May 26, 2022 - *11:00 AM to 3:30 PM Eastern*

11:00 AM Eastern

Keynote Address

The Role of Research, Education and Economics in Supporting Climate-Smart Agriculture

Dr. Shefali Mehta

USDA Acting Chief Scientist and Deputy Undersecretary of Research, Education and Economics

11:30 AM Eastern

New Horizons

Incorporating new science and technologies with foundational models

Leveraging Satellite and Aerial Data for Climate-Smart Agriculture

Dr. Bradley Doorn

Program Manager, NASA Water Resources and Agriculture

EARTH SCIENCE APPLIED SCIENCES

Incorporating satellite and aerial data at farm-scales

Dr. Bruno Basso, John A. Hannah Distinguished Professor, Earth and Environmental Sciences, Michigan State University

ARS and NASA collaborations to respond to changes in climate and weather

Dr. Fred Pierson, Northwest Watershed Research Center, USDA Agricultural Research Service

Operationalizing precision sustainable agriculture through on-farm research and the Long-Term Agroecosystem Network

Dr. Steven Mirsky, Sustainable Agricultural Systems Laboratory, USDA-ARS

AgMIP: Next generation modeling and AI

Dr. Jonas Jaegermeyr, Center for Climate Systems Research, Columbia University

AgMIP: Building foundational models for climate-smart agriculture

Dr. Alex Ruane, Climate Impacts Group, NASA Goddard Institute for Space Studies

1:30 PM Eastern

Building New Partnerships for Climate-Smart Agriculture: *New approaches and opportunities*

Dr. Bill Hohenstein

Director of USDA's Office of Energy and Environmental Policy
Office of the Chief Economist

USDA NIFA Institute of Bioenergy, Climate, and Environment

Dr. Kevin Kephart, Deputy Director

USDA Partnerships for Climate-Smart Commodities

Katina Hanson, Acting Senior Advisor for Climate-Smart Commodities, USDA Farm Production and Conservation Mission Area

USDA ARS Climate Hubs and LTARs

Dr. Dannele Peck, Director of the Northern Plains Climate Hub, USDA Agricultural Research Service

USDA Economic Research Service

Dr. Tom Worth, Division Director of the Resources and Rural Economics Division

3:00 PM Eastern

Next Steps

- Dr. Terry Nipp, Director of Policy and Development
  Agricultural Model Intercomparison and Improvement Project (AgMIP)
- Dr. John Antle, Professor, Applied Economics, Oregon State University
- Dr. Sotirios Archontoulis, Integrated Crop Management, Iowa State University Extension
- Dr. Greg Kiker, Agro-ecological Modeling and Management, Agricultural and Biological Engineering, University of Florida Institute of Food and Agricultural Sciences
- Dr. Bruno Basso, John A. Hannah Distinguished Professor, Earth and Environmental Sciences, Michigan State University
- Dr. Cynthia Rosenzweig, Senior Research Scientist, NASA Goddard Institute for Space Studies/Columbia Climate School

3:30 PM Eastern - *Conference adjourns*