Maine Earth Smart-"Farming for the Future"
A Maine Agricultural Greenhouse Gas Emissions Reduction and Certification Program
Focusing on Adaptation and Mitigation

Professional Development Workshop
February 24, 2014
USDA Service Center, 254 Goddard Road, Lewiston, ME
7:30 A.M. to 4:00 P.M.

Agenda

7:30-8:00: Registration and continental breakfast

8-8:10: Welcome and program introduction, goals, workshop expectations:

8:10-9:10: **The Maine Experience**. An overview from Maine's Climate Future to the present including broad natural resource area effects, with a touch on adaptation specifics! Tradeoffs in the adaptation toolkit will also be discussed. **Ivan Fernandez, PhD. Distinguished Maine Professor, University of Maine Climate Change Institute and School of Forest Resources**.

9:10-10:15: Soil Management and Greenhouse Gas Emissions in High-Value Production Systems. A discussion of soil conservation practices, soil quality, soil organic matter and greenhouse gas emissions. **Timothy Griffin, PhD. Tufts University, Associate Professor, Friedman School of Nutrition Science and Policy, Program Director of Agriculture, Food and Environment**.

10:15-10: 30: BREAK

10:30-11:30: Farm Practices to Protect Soil and Water Resources in a Changing Climate. **John Jemison, PhD. Water Quality and Soil Specialist, University of Maine Cooperative Extension.**

11:30-12:30: Weed Communities and Weed Management in a Changing Climate. Discussion of on-going research and regional collaboration assessing the potential for and prediction of range expansion in a variety of common and rare weed species as a consequence of climate change and to develop strategies to reduce effects on growers. "Knowledge of weed biology and ecology is increasingly important to guide management. Predicting tomorrow's weed communities and knowledge of the genetic variability in existing weed species will allow us to begin working on management strategies and educational programs that will help northern New England farmers adapt to changing weed problems." **Eric Gallandt, PhD. Associate Professor of Weed Ecology and Management, School of Food and Agriculture, University of Maine.**

12:30-1:00: Lunch

1:00-2:15: Observed and Projected changes in the Northeast, Adaptations and Mitigation for Farmers. Additional topics will include an update on the new Cornell Institute of Climate

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Change and Agriculture programs and the development of a network for climate change and agriculture for the Northeast as well as climate change outreach for agriculture. **Allison Morrill Chatrchyan, Ph.D., Director, Institute for Climate Change and Agriculture, Cornell University**

2:15-3:00: Panel Discussion: What they are seeing, how they are adapting to climate change, what tools they need to succeed, suggested program changes, what works, what doesn't. Participants include farmers and program providers.

2:45-3:45: Group Activity and Group Discussion:
The group activity is not yet final but may include a demonstration of and individual work with Comet Farm, an on-line whole farm carbon and greenhouse gas accounting tool, if time is available. An alternative activity may be an outreach exercise or another reinforcement of a presentation topic. Group discussion will address any remaining questions and issues as well as: Where do we go from here? How can the program be improved? How can panel discussion concerns and suggestions be addressed?

3:45-4:00: Questions, Evaluations.

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Biographies

Ivan Fernandez, PhD., is a University of Maine Professor of Soil science and Forest Resources and a Cooperating Professor in the Climate Change Institute. He is involved in forest soils, biogeochemistry and climate change research, focusing on forested ecosystems and soil processes and the underlying mechanisms governing the response of forests to management, air pollution and climate change. "Research is largely associated with critical environmental issues such as climate change, carbon in forest ecosystems, acid deposition, sludge and ash land spreading, and the effects of forest harvesting on the biogeochemistry of forests." Dr. Fernandez has published numerous peer-reviewed journal articles and has been recognized as a Distinguished Maine Professor among other honors.,

Timothy Griffin, PhD., is an Associate Professor and Director of the Agriculture, Food and Environment Program of the Friedman School of Nutrition Science & Policy and a faculty steering committee member for the Water: Systems, Science and Society (WSSS) program at Tufts. His research interest includes the intersection of agriculture and the environment, and the development and implementation of sustainable production systems. Current research interests are the environmental impacts of agriculture (nutrient flows, carbon retention and loss, and climate change), impacts of policy on adoption of agricultural practices and systems, and development and implementation of equitable food systems at the local to regional scales. Past research responsibilities have "included field and lab components addressing: crop management, alternative crop development, short- and long-term effects of cropping systems on potato yield and quality, management strategies to improve soil quality, manure nitrogen and phosphorus availability, soil carbon sequestration and cycling, emission of greenhouse gases from high-value production systems, and grain production for organic dairy systems."

John Jemison, PhD., is an Extension Professor of Soil and Water Quality, teaching courses on food systems and the fate of pesticides in the environment. His agricultural research focuses on nutrient and weed management strategies to improve productivity, reduce risk to water quality, and boost local food production. He is the chair of the Maine Board of Pesticides Control and a cooperating professor in the School of Food and Agriculture.

Eric Gallandt PhD., is Associate Professor of Weed Ecology and Management, School of Food and Agriculture, University of Maine. His current research is on ecologically-based weed management, weed seedbanks, weed seed fate, seed predation, annual weed population dynamics, physical weed control and organic farming systems.

Allison Morrill Chatrchyan, PhD., is Director of the new Institute for Climate Change and Agriculture at Cornell University. The institute serves as a clearinghouse for research, outreach to stakeholders, and decision-support tools at the intersection of climate change and agriculture. Allison's applied research interests include assessing stakeholder knowledge and barriers to climate change action, and building educational strategies and tools to help support increased climate change mitigation and adaptation. She previously served as a Program Leader for the Cornell Cooperative Extension (CCE) system in Dutchess County, NY, and worked on the CCE Energy and Climate Change Team with a small team of CCE staff from around New York State and their faculty partners from the University. She served as Co-Chair of the Cornell Climate Change Program Work Team, which developed new climate change communications materials, including the updated climatechange.cornell.edu website. She previously worked for the Bard Center for Environmental Policy, the United Nations Environment Programme in Paris, France, and the Law Companies Environmental Policy Center in Washington, DC. A native of Hamilton, NY in Madison County, Allison received her Ph.D. and M.A. from the University of Maryland; and her B.A. from Colby College in Waterville, Maine.