

Professional Development Workshop

June 20, 2012

Maple Hill Farm Inn, 11 Inn Road, Hallowell, ME

Agenda

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

8-8:10: Welcome and program introduction, goals, workshop expectations: Susan Gammon, Executive Director, Androscoggin Valley Soil and Water Conservation District

8:10-9:20: An overview of agricultural GHG emissions, causes, effects, potential reduction solutions, and national interest. Eliav Bitan, Agricultural Advisor, Climate and Energy Program, National Wildlife Federation

9:20-9:50: Update on New England Farmers Union “Buy Local Carbon” project and their work to establish a regional New England offset market. Bob Wagner, Carbon Project Coordinator and Policy Consultant, New England Farmers Union.

9:50-10:05: BREAK

10:05-10:35: Update on T-AGG work, mitigation potential of various practices in the US, the regional availability of research and data on these practices and an overview of the developing carbon offsets protocols and program (California) and practice based approaches. Lydia Olander, Ph.D. Director, Nicholas Institute, Duke University.

10:35-11:45: The economics and co-benefits of agricultural management practices that reduce GHG emissions. Juan P. Alvez, Ph.D. Gund institute for Ecological Economics, Rubenstein School of Environmental & Natural Resources, University of Vermont

11:45-11:55: Overview of ecosystem services. USDA/NRCS related cost share programs, current regional and national news. Chris Jones, Assistant State Conservationist for Special Projects, Natural Resources Conservation Service.

11:55: Working Lunch-includes speakers

12:10-3:10: Best Management Practices for Maine farms (modules), expected effects on sustainability, co-benefits, estimated cost of implementation of priority practices and estimated emissions reductions, potential transferability to other states.

- a. **Forest**-John Gunn, Ph.D., Manomet Maine Center for Conservation Sciences
- b. **Energy**-Claudia Lowd, Energy Innovation Coordinator, Maine Rural Partners
- c. **Fertilizer**-Lauchlin Titus, Certified Professional Agronomist and Certified Crop Advisor, Ag Matters LLC
- d. **Manure**-Mark Hedrich, Nutrient Management Coordinator, Maine Department of Agriculture

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- e. **Pasture**-Richard Kersbergen, Extension Educator, University of Maine Cooperative Extension
- f. **Crop**-Ellen Mallory, Ph.D., Assistant Professor of Sustainable Agriculture University of Maine

3:10-4:30: Training in use of developed modules and assessment tool. Hands on group activity and case studies, discussion. Susan Gammon and Focus Group.

4:30-4:45: Overview of quantification methods that relate to modules. Susan Gammon, AVSWCD

4:45-5:00: Discussion of future commitment need, explanation of tracking, evaluations. Susan Gammon, AVSWCD

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Speaker Biographies

Eliav Bitan has learned from farmers and scientists around the world about links between climate change and agriculture. He is the co-author of publications including "Future Friendly Farming: Seven Agricultural Practices to Sustain People and the Environment", "High Sequestration, Low Emissions, Food Secure Farming", and "Understanding Opportunities and Increasing Implementation of Climate Friendly Conservation". He has spoken on climate change and agricultural issues at national meetings across the country, including the Soil and Water Conservation Society Annual Meeting and was a founding member of the Coalition on Agriculture and Greenhouse Gases (C-AGG). In his role at the National Wildlife Federation, he works with farmers to understand practices and policies that support stewardship of climate and land resources. Previously, at the Rodale Institute he shared cutting edge science on organic agriculture and climate in the United States and at the United Nations' Copenhagen climate conference. His Columbia University thesis on the historical context of climate science was published by the Columbia Undergraduate Journal of History. He grew up in southern Maine.

Bob Wagner has worked in the field of farmland protection since 1981. Since 1985, he has worked in various senior-level positions at American Farmland Trust. Through his work with AFT, and earlier as a legislative assistant to then-Congressman James Jeffords of Vermont and a consultant to the Vermont Department of Agriculture, Bob has played an active role in the promotion and development of state and local farmland protection strategies and programs throughout the country. Bob lives with his family in Hatfield, Mass. He has served as the chair of the Hatfield Agricultural Advisory Commission since its creation in 2003 and as the chair of Hatfield's Community Preservation Committee since 2008.

Lydia Olander directs the Nicholas Institute's program in ecosystem services. She has worked on a range of issues for the institute, including national energy, climate, and transportation policy; oil and energy security; clarifying new science relevant to climate change policy for decision makers; and water issues for a rapidly developing North Carolina. Currently she is developing the Institute's and Duke's expanding initiative on ecosystem services; coordinating Duke's Ecosystem Services Working Group; coordinating the development of a National Ecosystem Services Partnership; helping to coordinate the Institute's programs on greenhouse gas offsets; directing the Technical Working Group on Agricultural Greenhouse Gases; and, when time permits, working on the burgeoning multinational effort on reduced emissions from deforestation and degradation (REDD). She received her doctorate from Stanford University, where she studied nutrient cycling in tropical forests, and has a masters in forest science from Yale University. She has published in professional journals, including *Ecosystems*, *Biogeochemistry*, *Soil Biology and Biochemistry*, *Forest Ecology and Management*, *Earth Interactions*, and *Environmental Research Letters*.

Juan P. Alvez Ph.D. comes from a two-generation pasture-based family farm in Uruguay. He obtained his BS in Agronomy in Brazil and his MS in Plant and Soil Science and his Ph.D. at the Rubenstein School of Environmental Resources (Gund Institute for Ecological Economics) at the University of Vermont. He has experienced interdisciplinary research in ecosystems goods and services, land use change, conservation policy, green markets, agro-ecology and ecological economics. His current research interests address environmental, social and productive aspects of rural farms with emphasis on dairy management, ecosystems conservation and sustainable livelihoods. In his view, grasslands play a key role because they are complex ecosystems that sustain a vast array of functions and processes delivering benefits for supporting healthy environments.

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John Gunn, Ph.D., is leading projects in carbon offsets, sustainable forestry, forest certification, and forest biodiversity conservation. John's sustainable forestry career began with developing sustainable forest management systems at Hancock Land Company. He has also worked in forest certification with RainForest Alliance (SmartWood). Before coming to Manomet John worked in Maine at the Trust to Conserve Northeast Forestlands, where he headed up a forest carbon offset project, sustainable forestry programs aimed at small woodlot owners, and other sustainable forestry projects. His Ph.D. is from University of New Brunswick at Fredericton in Wildlife Ecology.

Lauchlin Titus, a certified professional agronomist, is the owner of AgMatters LLC of Vassalboro, Maine. AgMatters LLC provides crop consulting services to Maine farmers, supports Seedway seed dealers, provides safe food handling information to specialty crop farmers, and several other functions to support Maine agriculture. Lauchlin has worked in agriculture for 40 years and is currently active on the Maine Nutrient Management Board, Northeast SARE administrative council, Maine Vegetable and Small Fruit Growers Association, and is a member of several other agricultural associations. Lauchlin was honored by the Northeast Region Certified Crop Advisors Board as the 2011 CCA of the year for his "continued dedication to his clients and agronomic leadership in the Northeast"

Ellen Mallory, Ph.D., coordinates the SARE Professional Development Program at the University of Maine. She joined the faculty at the University of Maine in 2008 as Sustainable Agriculture Extension Specialist and Assistant Professor of Sustainable Agriculture. Ellen's research focuses on the sustainable use of organic amendments like manure and compost to supply crop fertility needs. She aims to develop tools that help farmers optimize the use of organic amendments for crop production while minimizing potential environmental impacts, such as nitrate leaching and greenhouse gas emissions. Her research also explores how improved soil quality affects nitrogen dynamics in the soil. Her work includes evaluating tests to predict nutrient availability from organic sources, adjusting application rates to account for amendment history, and developing management strategies, such as crop rotation and trap crops, to efficiently cycle nutrients and prevent their loss. Ellen received her BS from Swarthmore College, her MS from the University of Wisconsin, and received her Ph.D. degree from the University of Maine.

Claudia Lowd has a BS in Pulp and Paper Engineering from Western Michigan University. She is a certified Permaculture Designer and Educator. She is the Vice President of Maine Solar Energy Association. She is and has been involved in multiple grant projects, including: solar assessments for farms and rural businesses, anemometer selection process and wind modeling training for farm wind projects, Efficiency Maine dairy and greenhouse audit program and energy efficiency implementation, off grid farms and winter CSA, and solar, biomass and wind work for towns. She is in the process of creating a Buyers Guide and Vendor Directory.

Mark Hedrich has served as Nutrient Management Coordinator for the Maine Department of Agriculture since 2005. He is a long term Knox-Lincoln County Soil and Water Conservation District Supervisor and has also served on the Knox-Lincoln Farm Service County Committee. He has been a diversified farmer since 1980. He received an M.S. in Ruminant Nutrition/Animal Science from Cornell University.

Rick Kersbergen is the Sustainable Dairy and Forage Systems Extension Professor with the University of Maine. He has been working for the University of Maine for 26 years out of the Waldo County Extension office. He holds degrees from the University of Maine and Bates College. His recent research projects include organic dairy forage systems and no-till corn silage production.

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Susan Gammon, Executive Director, Androscoggin Valley Soil and Water Conservation District, has acted as lead for the collaborative partnership in development of the Earth Smart program and workshop. She has been project manager of two State Conservation Innovation Grants focused on agricultural greenhouse gas emissions reductions via carbon sequestration, modeling soils in four Maine counties and on outreach to farmers, providing workshops about the offset market and practices to reduce emissions. She is project manager of the Northeast SARE Professional Development grant that made the workshop possible. She and her husband are retired dairy farmers, modest beef farmers and growers of feed crops for market.