

Kenneth Miller ~ and his wife Bonnie own and operate a 2000 acre ranch near Fort Rice, North Dakota. They manage a very diverse landscape, from native grasslands mixed within high cut-banks to unpredictable river-bottom land and focus on soil health improvement and regenerative land management. At present the Miller's complemente their cow/calf herd with a custom grazing enterprise utilizing native grassland, both dry and irrigated tame pastureland, and cover crops. The increased forage production, and therefore higher animal numbers, is due to their use of holistic planned grazing for over 20 years. Wildlife serves as both a benefit to the ranch as a whole and as an indicator of the health of the land. The Millers manage their cropland with the native prairie in mind. They have been no-tilling for the past 10 years and have been growing cover crops since 2006 for grazing and soil benefits, including regenerating former cropland back to grassland through the use of diverse cover crop mixtures.



In addition to ranching, Ken works for the Burleigh County Soil Conservation District, belongs to the Missouri Slope Irrigation Development Association, and is a mentor with the North Dakota Grazing Lands Coalition.

Carissa Spencer ~ Carissa C. Spencer has been the Minnesota NRCS State Agronomist since March 2012. She grew up in Madelia, Minnesota. She is an Iowa State University graduate with a degree in Agronomy and has been a Certified Crop Advisor (CCA) for the past eleven years. Before coming to the NRCS she worked for Rhone Poulenc Agro in North Carolina and Southwest Iowa as a chemical sales representative. She has also worked for United Western Coop and NEW Cooperative in Western and North Central Iowa as a sales agronomist. She came back to Minnesota in 2006 to work for NRCS as a District Conservationist in Martin County.

Producer Panel Members

Chris Blanchard is n organic CSA farmer and consultant from Decorah, IA - speaking from Rochester

Grant Breitreutz is a livestock producer from Redwood Falls, MN and is vice president of MN GLCA - from Lamberton

Tim Dritz is a strip-till farmer from Henricks, MN - from Morris

Troy Salzer is a livestock producer from Barnum, MN and a mentor for MN GLCA - from Cloquet

Jim Wulf is a livestock producer from Starbuck, MN and mentor for MN GLCA - from Morris

Soil Health Demonstration Leaders



Cloquet – Mike Walczynski: Area Resource Soil Scientist, MN NRCS Duluth Area Office (218-720-5308, ext. 113)

Crookston – Heather Dose: Area Resource Soil Scientist, MN NRCS Thief River Falls Area Office (218-681-6600, ext. 107)

Lamberton – Joe Kristoff: Area Resource Soil Scientist, MN NRCS Marshall Area Office (507-537-0541, ext. 105)

Morris – Tom Champa: Area Resource Soil Scientist, MN NRCS Fergus Falls Area Office (218-736-5445, ext. 102)

Rochester – Doug Miller: Area Resource Soil Scientist, MN NRCS Jordon Field Office (952-492-2636)

Saint Paul – Kathryn DesForge: Area Resource Soil Scientist, MN NRCS Brooklyn Center Area Office (763-566-2941, ext. 111)

Staples – Jeff Duchene: Area 2 Grazing Specialist, MN NRCS Perham Field Office (218-346-4260, ext. 101)

Restoring the Soil Resource: Insuring for Resiliency & Profit

A Minnesota-wide Video Conference Workshop on Soil Health
September 21, 2012

West Central Research & Outreach Center • Ag Auditorium • Morris, MN
Julia Ahlers Ness (LSP), Clarence Caraway (GLCA), Brad Heins (WCROC)

University of MN-St. Paul Campus • Room 145 Peters Hall • St. Paul, MN
Tyler Carlson (LSP); Grace Wilson (MISA), Jon Dockter (MFA)

Central Lakes College • Room A113 • Staples, MN
Jeff Duchene (NRSC), Roy Bell (GLCA)

Fond Du Lac Tribal and Community College • Room 166 • Cloquet, MN
Tom Gervais (NRCS), Troy Salzer (GLCA), Wayne Monsen (MDA)

Winona State University Rochester Campus • Room ST110 • Rochester, MN
John Zinn (NRCS), Caroline van Schaik (LSP), Nathan Redalen (GLCA)

Southwest Research & Outreach Center • Lamberton, MN
Lance Smith (NRCS), Jill Sackett (UMN Ext.), Grant Breitreutz (GLCA),

University of MN-Crookston • Dowell Hall 101 • Crookston, MN
Jim Stordahl (UMN Ext.), Mark Hayek (NRCS)

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TODD COUNTY SOIL & WATER CONSERVATION DISTRICT

WORKSHOP PROGRAM

- 8:00 a.m. Registration**
- 8:30 Welcome** (from Morris) – Julia Ahlers Ness, Chippewa 10% Project Coordinator & Clarence Caraway, President of MN Grazing Lands Conservation Association
- 8:45 Don Baloun – Opening Address** (from Rochester) – Don Baloun is State Conservationist for the MN Natural Resource Conservation Service.
- 9:00 Jay Fuhrer – Soil Health: Moving Toward Sustainability** (from Morris)
Jay will highlight examples of restoring soil health on Burleigh County farms and ranches, including the Menoken Farm, owned and operated by the Burleigh County Soil Conservation District. Cropping systems which use cover crop combinations, poly grain cover crops, integrating livestock with cover crops, grazing systems, compost, and gardens are all used to restore the foundation principles of Soil Health.
- 10:00 Kristine Nichols – Managing Soil Biota for Economic and Environmental Sustainability** (from Morris)
Kris will present examples from farmers and ranchers in ND, SD, MN, IA, KS, and NE that illustrate the relationships between soil organisms and plants, which help plants grow under stressed conditions such as drought, low nutrient availability, and high moisture content. Soil organisms are dependent upon aboveground management practices which include diverse crop rotations, continuous green cover, reduced disturbance by tillage, and appropriate nutrient and pest management. By relying on biological mechanisms, farmers and ranchers can reduce costs through fuel, fertilizer, and pesticide savings while maintaining or increasing crop and livestock production as well as improving soil, water, and air quality.
- 11:00 Break**
- 11:15 Kenneth Miller – Experiences Using Cover Crops to Build Soil Health** (from Morris)
Ken will give a history of using grazing and cover crops on his ranch to build soil health.
- 12:15 p.m. Lunch**
- 1:00 Producer Panel & Discussion: Tools & Techniques for Building Soil Health in Minnesota** (from Morris, Lamberton, Rochester & Cloquet)
- 2:30 Break**
- 2:45 Carissa Spencer - Minnesota Soil Health Resources** (from Cloquet) – Carissa Spencer is State Agronomist for MN Natural Resource Conservation Service.
- 3:05 Wrap-up Discussion** (from Morris)
- 3:15 Hands-on Soil Health Assessment Demonstrations** (held at each site)
- 4:00 Adjourn**

This workshop was organized by the Land Stewardship Project, Minnesota Grazing Lands Conservation Association, Minnesota Natural Resources Conservation Service and Minnesota Department of Agriculture, with support from Learning Network of Minnesota, West Central Research and Outreach Center, University of Minnesota Extension, Minnesota Institute for Sustainable Agriculture, Midwest Forage Association, Pope County Soil and Water Conservation District, North Central Soil Conservation Research Laboratory, Glenwood office of the MN Department of Natural Resources and the Chippewa River Watershed Project.

WORKSHOP SPEAKERS & PRESENTERS



Don Baloun – was named State Conservationist for the NRCS in Minnesota in 2010. He has held numerous staff and managerial positions since he began his career with the agency in 1979. Don's career led him to the states of Iowa and Wisconsin where he served as a Soil Scientist, Soil Conservationist, District Conservationist, Area Resource Conservationist, DNR/NRCS Liaison and the Assistant State Conservationist.

While serving as Assistant State Conservationist for NRCS in Wisconsin, Baloun had responsibility for the development and implementation of the Farm Bill Easement Programs for Wisconsin, outreach and communication with NRCS partners. Baloun served on several national headquarter details including, EQIP Policy Team Leader, EQIP Manual Re-write, WRP-NHQ Program Manager Assistance, acting WRP Program Manager, Regional Assistant Chief's Office-Management Analyst, CCPI Policy Matrix Development.

Jay Fuhrer ~ is a Conservationist employed by the Natural Resources Conservation Service, in Bismarck, North Dakota. Growing up on a small grain and livestock farm, Jay's interests have always centered on agriculture. Jay emphasizes Soil Health as a foundation for cropping systems, grazing systems, and cover crops when working with Burleigh County producers. Information and Education activities strive to utilize a team approach with farmers talking to farmers about Soil Health. Jay's interest in soil health has resulted in numerous speaking engagements within the US and also includes Canada, France and Russia.



Kristine Nichols ~ has been a Research (Soil) Microbiologist with the USDA, Agricultural Research Service (ARS) Northern Great Plains Research Laboratory in Mandan, ND since 2003. She was raised on a primarily corn-soybean conventional farm in southwestern Minnesota. Kris received Bachelor of Science degrees in Plant Biology and in Genetics and Cell Biology from the University of Minnesota in 1995, a Masters degree in Environmental Microbiology from West Virginia University in 1999, and a Ph.D. in Soil Science from the University of Maryland in 2003. She is the leading authority both in the USA and abroad on the study of arbuscular mycorrhizal fungi, a plant root symbiote, and glomalin, a glycoprotein produced by these fungi. Her research and professional

achievements have focused on soil microbiology, nutrient cycling, crop rotation, livestock grazing, cover crops, soil aggregation and the role of glomalin to influence soil properties and improve soil health.

Dr. Nichols is widely recognized for her professional efforts and achievements that have contributed to the understanding of the sustainability of production agriculture and the impacts that it can have on the quality of our soil and water natural resources. Through her work with producers and others in agriculture, she has shown a way to improve economics and environmental sustainability by increasing plant production under low input systems. She has recently been recognized by the International Soil and Water Conservation Society as the recipient of the 2012 Conservation Research Award.