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2014 North Central Regional Conference

C. Lee Burras

Iowa State University, lburras@iastate.edu

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2014 North Central Regional Conference

Abstract

Seventy-six pedologists and related professionals registered to learn about--and contribute to-- the topics of soil survey, soil health, and soil dynamic properties at the 2014 North Central Regional Cooperative Soil survey Conference, held June 2nd through 5th on the campus of Iowa State University. Forty-four of the registrants were USDA--NRCS employees (14 from Iowa, 2 from regional and MLRA offices, and 8 from national postings), and 24 were university employees (7 faculty from ISU, 9 faculty from cooperating universities, and 8 graduate students). The remaining eight registrants were with cooperating agencies from Iowa, Minnesota, or the Federal government. The meeting had three core components: research presentations, technical discussions and updates, and a field trip. The field trip illustrated Iowa soils and mapping issues and opportunities.

Keywords

soil survey, soil health, soil dynamic properties

Disciplines

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Comments

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Editor's Note

Issues of this newsletter are available at <http://soils.usda.gov/>. Under the Soil Survey tab, click on Partnerships, then on NCSS Newsletters, and then on the desired issue number.

You are invited to submit articles for this newsletter to Jenny Sutherland, National Soil Survey Center, Lincoln, Nebraska. Phone—(402) 437-5326; FAX—(402) 437-5336; email—jenny.sutherland@lin.usda.gov.



2014 North Central Regional Conference

By Lee Burras, professor, Iowa State University, Ames, Iowa.

Seventy-six pedologists and related professionals registered to learn about—and contribute to—the topics of soil survey, soil health, and soil dynamic properties at the 2014 North Central Regional Cooperative Soil Survey Conference, held June 2nd through 5th on the campus of Iowa State University. Forty-four of the registrants were USDA–NRCS employees (14 from Iowa, 22 from regional and MLRA offices, and 8 from national postings), and 24 were university employees (7 faculty from ISU, 9 faculty from cooperating universities, and 8 graduate students). The remaining eight registrants were with cooperating agencies from Iowa, Minnesota, or the Federal government. The meeting had three core components: research presentations, technical discussions and updates, and a field trip. The field trip illustrated Iowa soils and mapping issues and opportunities.

The opening session was held in the beautifully renovated Curtiss Hall Auditorium. Rick Bednarek, USDA–NRCS state soil scientist for Iowa and cohost for the conference, kicked off the meeting by outlining the conference goals and making introductions. Wendy Wintersteen, dean of ISU's College of Agriculture & Life Sciences, welcomed everyone to Iowa State University, noting the importance that ISU and the State of Iowa place on soil survey. Allen Gehring, USDA–NRCS state conservation engineer for Iowa, built on Dean Wintersteen's comments by discussing the role of soil survey in ensuring the success of conservation in Iowa, where 90 percent of the land is farmland.

The technical core of the conference began with Roy Vick, Associate Director

for Soil Operations. Mr. Vick outlined recent and ongoing restructuring, personnel changes, and priorities within the NRCS Soil Science Division. The next speaker, Ken Scheffe, soil scientist with the Soil Survey Standards Branch at the National Soil Survey Center, explained new and updated procedures in soil survey. Director Vick's and Mr. Scheffe's presentations illustrated the importance and relevance of cooperators to the U.S. soil survey program as well as clarified within-agency needs and expectations. Their presentations stressed the importance of smooth and efficient delivery of soil survey products to the public and other government agencies. The timeliness of their messages was highlighted by the numerous questions they handled.

The final two speakers for the opening session were Kendall Lamkey, professor and chair of ISU's Department of Agronomy, and Elwynn Taylor, professor of climatology in ISU's Department of Agronomy. Dr. Lamkey challenged the group to better identify the importance of soils in crop yields, going so far as to suggest that additional soils knowledge will likely have little impact on crop yields since maximum yields have already been reached. Dr. Taylor explained why he predicts increased weather extremes for the next 15 years in the central U.S. Both presentations resulted in thoughtful questions, fun debate, and some respectful skepticism.

The second day of the conference was held in ISU's Scheman Hall. It began with three progressively more detailed presentations about dynamic soil properties and ecological site indexes. The speakers were Stacy Clark, ESI specialist for soil survey regions 10 and 11; Skye Wills, soil scientist specializing in dynamic soil properties at the National Soil Survey Center; and Ryan Dermody, soil survey office leader at Waverly, Iowa. The perspectives offered by their various levels of responsibility, coupled with the specific examples they provided, were highly useful and relevant to the intensely farmed landscapes of the North Central Region. The next part of the day was dedicated to posters, including several focused on dynamic soil properties, and to committee breakouts.

The afternoon of day two featured three themes: nutrients and organic matter, committee meetings, and soil data join recorrelation (SDJR). First up was Jim Gillespie, division director with the Iowa Department of Agriculture and Land Stewardship, who explained Iowa's nutrient reduction strategy. Tom Sauer, USDA-ARS research soil scientist at the National Laboratory for Agriculture and the Environment, then discussed his research regarding the effects of tree plantings on the content of soil organic matter in Mollisols in the Great Plains and the Russian Steppe. The session ended with an explanation of the goals, challenges, and opportunities of SDJR by Paul Finnell, NRCS national soils database manager; Michael Whitehead, senior regional soil scientist for soil survey region 10; and Ryan Dermody. The presentation by Mr. Dermody, which illustrated the success that he and his team are having with SDJR in MLRA 104, was especially useful and meaningful given that he explained the methods by which they readily meet local, regional, and national goals.

A banquet was held the evening of day two. The highpoint was Tom Fenton's presentation on the contributions of R.V. Ruhe to soil survey and soil geomorphology in Iowa, the U.S., and the world. Dr. Fenton is professor emeritus at Iowa State University and Dean of Iowa Soil Survey. He has been part of the National Cooperative Soil Survey program for over 50 years.

Day three featured the field trip, which focused on soil health, dynamic soil properties, and benchmark catenas of Iowa's Late Wisconsinan-aged Des Moines Lobe. Like any pedology tour, this field trip began with a discussion of the location's physical geography, soil-forming factors, and major human issues. The trip had four stops: the Altamont Moraine uplands; Doolittle Prairie State Preserve and Greg Stindt's field within the lakebed of glacial Lake Wright; the Jewell Bog, where R.V. Ruhe and his student P.H. Walker quantified the spatial relationship of soil properties across closed basins; and Lost Lake Farm, including the drained area that was historically under Lake Cairo. The speakers were ISU's Mary Tiedeman, Ethan Dahlhauser,

Jenny Richter, and Tom Fenton as well as the conference hosts, Rick Bednarek and Lee Burras. The critical observations of the trip involved the differences between Mollisols under natural and quasi-natural vegetation and Mollisols under long-term cropping. The differences are significant in both rolling and flat landscapes. The resulting question was “How can our next generation of soil maps, classification, and interpretations best capture these differences?” The field trip ended with a meal and an informal tour of ISU’s Field Extension and Education Laboratory.

Mike Konen, professor of geography at Northern Illinois University, kicked off the final day of the conference with twin presentations about northern Illinois. The presentations illustrated that the natural and human-affected pedology of Iowa and Illinois are very similar. The five subsequent speakers were USDA–NRCS regional leaders who gave updates about their areas of responsibility. The speakers were Mike Jones, Region 6; Dave Zimmermann, Region 12; Cleveland Watts, Region 5; Michael Whited, Region 10; and Travis Neely, Region 11. The conference wrapped up with reports from the New Technology, Research Needs, Standards and Technology, Interpretations, North Central Education/Extension Research Activity (NCERA–3), and Business committees. Regarding soil taxonomy, John Allen (MLRA project leader, Indiana) reported that the committee liked the “Illustrated Guide to Soil Taxonomy,” supported the modifications for “kalkic” Histosol and for Wassists and Wassents, but did not at that time support changing the definition of densic horizons or Aquic Hapludults. Lee Burras reported that NCERA–3 is maintaining a strong pedologic presence in the region’s universities. Rick Bednarek reported a change in the by-laws that replaced “MO” with “RO.” He announced that in 2016 and 2018 the North Central Region conferences will be in Illinois and Minnesota, respectively, and he invited everyone to the 2014 National Soil Survey Conference in St. Paul.

Overall the conference was a success. ■

2014 Southern Regional Conference

By Paula M. Gale, professor of soil science, University of Tennessee at Martin.

The 2014 NCSS Southern Regional Cooperative Soil Survey Conference was held June 23–26 in Jackson, Tennessee. Over 65 soil scientists and cooperators attended the conference, which included discussions and information sharing related to the theme “Soil Science—Partnerships for Ecological Deliverables and Sustainability (PEDS).” Speakers on Monday and Tuesday provided updates regarding issues and priorities relative to soil survey interspersed with topics of particular importance to West Tennessee. Region-specific topics included: “Bottomland Forest Management in a Changing Environment” by Dr. Alan Houston; “No-tillage and Soil Erosion in West Tennessee” by Dr. Don Tyler; and “Soil Moisture Studies in the Mississippi Delta” by Dr. Kris Brye. Tuesday afternoon included lively discussions in the committee breakout sessions.



Partnerships for Ecological Deliverables and Sustainability