

# Soil Change Working Group Report

Co-Chairs:

Drs. Susan Andrews, NRCS  
and Joey Shaw, Auburn Univ.

# Activities This Week

- ◆ Meeting Monday afternoon-
  - 16 attendees
- ◆ Field Trip demonstrating DSP plot sampling
- ◆ Second meeting Wed. jointly with Research Agenda Committee
  - Additional 9 members joined

# Activities cont.

- ◆ Brief presentation of soil change by Arlene Tugel (Mon)
- ◆ Round Robin of interests
- ◆ Approved Objectives and Charges, with one modification
- ◆ Discussed challenges, concerns, and knowledge gaps
- ◆ Made recommendations

# Soil Change Working Group

## Objectives:

- ◆ To evaluate and initiate ongoing and planned soil change activities as part of the National Cooperative Soil Survey.

# Charges

- 1. Review and evaluate** soil, landscape, and vegetation/biomass **parameters to be collected as part of the soil change inventory**, especially for pasture and cropland management systems. Properties are currently identified in the Soil Change Guide (2009).
  1. Parameters suitable for field data collection
  2. Parameters measured in laboratory
  3. Hydraulic properties
  4. Biological properties
- 2. Propose criteria for selection of soils and management systems** that should be highest priority for soil change inventory. **Recommend specific management information that should be collected and stored in the database.**

# Charges

3. Recommend methods to directly **relate soil change data to soil function and ecosystem services**.
4. Recommend **methods to extend or extrapolate soil change data** to soils where measured data are not available. Include identification of soil variables needed for such interpolations for various soils and management systems.
5. **Recommend soil and landscape interpretations** that incorporate management dependent soil change data **as related to soil function and ecosystem services**.
6. **Partner with the SSSA Soil Change Working Group** wherever objectives overlap

# Challenges Identified

- ◆ How to identify steady states, especially in cropland
- ◆ Need to include both a management narrative and a limited set of classes for comparison among projects in the database
- ◆ How to handle natural disturbance
- ◆ Need further input & consensus on Minimum Data Set

# Recommendations

- ◆ Add text to Charge #2 to reflect capture of management data (completed)
- ◆ Develop a concept statement of the NCSS' role in soil change, i.e. define the role of pedology at the human time scale
- ◆ Review & comment of NRCS Strategic Plan for Soil Change Implementation
- ◆ Develop appropriate definition(s) of landscape for soil change

# Recommendations cont.

- ◆ Use properties that reflect information needs; continue work on MDS
  - ◆ Consider availability of LT research when choosing soils (and defining benchmarks)
  - ◆ Consider extending initiative to include subaqueous soils
  - ◆ Report outcomes to the SSSA WG
  - ◆ Continue the Soil Change Working Group
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If interested in joining the  
Soil Change Working Group...

Contact:

[susan.andrews@gnb.usda.gov](mailto:susan.andrews@gnb.usda.gov)