University Involvement in the NCSS: A Southeastern Perspective

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Not easy to see into the future, especially when your cloudy crystal is cloudy
Don’t Whine
Soil Survey in Georgia

- Rapid population increase
- Major use of soil information is related to housing development
- Detailed soil maps (1:1,200 or larger scale) and/or morphological evaluations required for:
  - Onsite system permitting
  - Erosion and sediment control plans
  - Infiltration basin siting and design
  - Wastewater LAS permits

- Numbers in GA
  - 15 NRCS soil scientists
  - 75 soil scientists in private sector
NCSS: 50+ Years of Cooperation

- Genesis/behavior/distribution research
- Field support
- Laboratory support
- Standard development and revision
  - Soil Taxonomy
  - Soil Survey Manual
- Level of involvement varied
Declining Budgets

- Federal agencies
- State and Federal funding for Experiment Stations and Extension
  - Fewer positions
- Faculty support
  - 1989 – salary, technician, grad student, reasonable discretionary funds
  - 2007 – salary, technician
    - Technical support probably will be lost soon
    - Cost of this meeting more than annual allocation of research funds
- Grants necessary to support research programs
University Pedology and NCSS

- LTW is well supported compared to many others
- 9-10 month appointment
  - Summer salary from grants
- No allocation to support research, travel, and other activities
- Choices have to be made
  - Do I go to the meeting or write a grant?
  - Do I do analyze this pedon or complete the lab work needed to finish the project
Driving Forces for Faculty Hires

- Indirect cost generation
  - Can you pay your own salary?
- Political pressure
  - Agricultural commodity groups
- Teaching needs
- Expertise to develop and/or support programs important to the State (Impact)
  - Food safety
  - Biofuels (alternant use of commodities)
  - Waste and wastewater management
  - Agricultural and ecological sustainability
- Where does pedology fit?
Faculty Reward System

- Publications
- Grants (indirect cost return)
- Teaching
- Impact of outreach programs
- Scholarly activities
- Where do NCSS activities fit?

As a new faculty, where do I spend my time?
Soil Related Issues in the Southeast

► Water quality and quantity
  ▪ Animal, industrial, and municipal waste management
  ▪ Nutrient management
  ▪ Household wastewater management
  ▪ Urban/suburban erosion and sediment control
  ▪ Stormwater management
  ▪ Irrigation

► Ecological sustainability
  ▪ Soil quality
  ▪ Wetlands
  ▪ Carbon and nitrogen dynamics
Most interest in soil survey and soil information in areas other than crop production and conservation.

Does Pedology have something to offer?

Does soil survey have something to offer?

Where does the NCSS fit?
How to Encourage University Involvement in the NCSS

- Grants
- Other support
  - Employees as graduate students
- In-kind assistance
  - Research site selection
  - Database manipulation
  - Laboratory support
  - Field data collection
How to Encourage University Involvement in the NCSS (con’t)

► Involve students
  - Field trips
  - Internship programs

► Involve graduates
  - Both Federal employees and private sector

► Training

► Ask for assistance
  - We have a problem, can you help?
    - Can it be published?
Find an Interesting Mission

▶ We are not entirely slaves to the system
▶ Development of Soil Taxonomy was an interesting mission
  ▪ Revision is less interesting
▶ The interesting mission may not be the same everywhere or for all people
  ▪ Dynamic soil properties
  ▪ New and revised interpretations
  ▪ Mapping technologies
▶ “We welcome cooperator involvement”
▶ What is the outcome?
  ▪ Are recommendations and findings being implemented? Can data be published?
Is the “New” Soil Survey an Opportunity?

- Shift from map production to other activities
- ~144 Soil Survey Offices
  - Intelligent, energetic, and interested staff
- Ability to collected needed field data
  - Hydraulic properties
  - Seasonal saturation dynamics
  - Dynamic soil properties
  - Detailed distribution of soil horizons
- Populate database and relevant research data
  - Cooperator involvement from beginning
    - Is there interest and how do we collect the data?
    - Is the data publishable and where?
What is the Answer?

► The crystal ball is still cloudy
► Things are not the way they were
► There has to be a tangible reason for University involvement in NCSS involvement
► Many opportunities to encourage involvement
  ▪ Grants for research projects
  ▪ Internal research projects
    ► Interest from all parties involved
    ► Involvement by all from start to finish
  ▪ One size doesn’t fit everyone
Soil Science Education at UGA

- Soil science major for last 15 years
- About 60 graduates
- Where are they now?
  - 6 NRCS soil scientists
  - 1 NRCS soil conservationist
  - 40 in private sector as soil scientists
What Attracts Students to Soil Science?

- Majority of students from suburban background
- Interest in environmental/ecological management
- Opportunity to work outside
  - Most not interested in database management
- Opportunity have an independent business
  - 1 person – 1 auger
  - Larger operation
Public or Private?

► Public
- Know about soil survey program, but don’t know anyone involved
- Lower starting salary
- Better benefits
- Sporadic/poorly-timed employment opportunities

► Private
- “I talked to this person…..”
- Higher starting salary (usually not much)
- Fewer benefits
- More consistent employment opportunities

► If you are 22 and single, salary is the driving force