

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?**

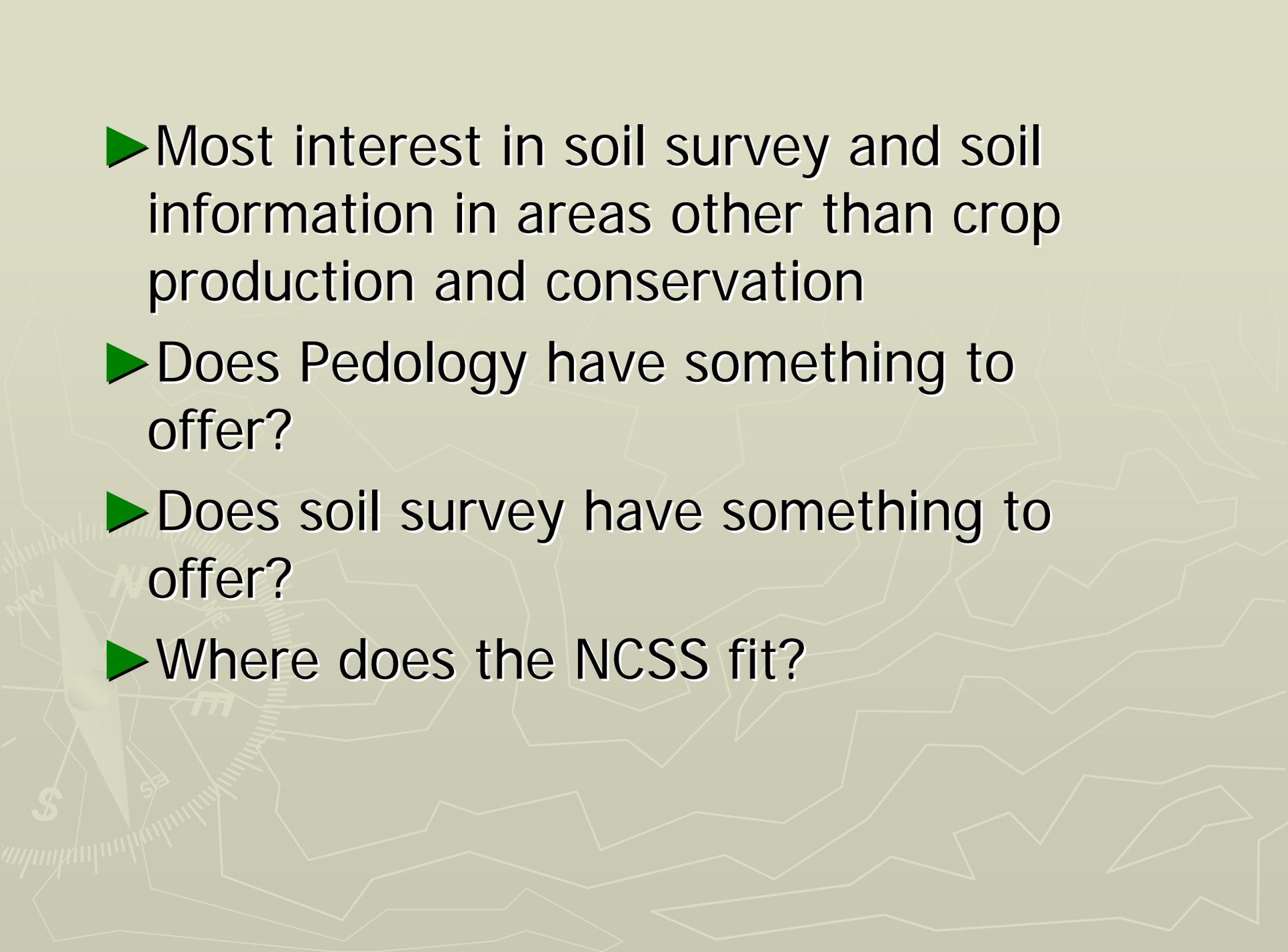
Soil Related Issues in the Southeast

▶ 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

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- The background of the slide features a light-colored topographic map with white contour lines. In the lower-left corner, there is a faint compass rose with a dollar sign (\$) and the letters 'NW' and 'SE' visible. The text of the list is overlaid on the map.
- ▶ 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 collect 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**