

NSSC Update

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National Leader – Soil Survey Research and Laboratory



Personnel

- ▶ 23 soil scientists
 - Conservationists, editors, computer specialists
- ▶ Cindy Stiles reported in November
 - Chemical analysis and research
- ▶ Larry West reported in February
- ▶ Rebecca Burt returned in February
 - 1 year detail in Iraq
- ▶ Expect several retirements in the next year
- ▶ Plan to fill at least 3 positions this year
 - There is hope

NSSC Projects

- ▶ Soils with high mica content
 - Report completed
 - Soil Taxonomy amendments proposed
 - Revised interpretations under development
- ▶ Plinthic soils
 - Methods for quantitative evaluation being developed and tested
- ▶ Soils with high gypsum (TX and NM)
 - Descriptive terms
 - Geomorphic relationships
 - Lab methods
 - Soil Taxonomy amendments
 - Interpretations

Interpretations

- ▶ Web Soil Survey enhancements
- ▶ NASIS 6.0 – release in Fall 2008
- ▶ Soil Data Viewer Enhancements
- ▶ K, T, I, WEG, HSG, Corrosivity – revised calculations for consistent, science-based interpretations
- ▶ Subaqueous Soil Interpretations – initial interpretations design/criteria

Interpretations

- ▶ WEPS model – problems with organic horizons
- ▶ Dynamic Soil Properties
- ▶ WSS marketing
 - American Society of Landscape Architects
 - American Planning Association
 - Alliance of Independent Crop Consultants
 - National Science Teachers

Standards

- ▶ Maintenance of Soil Survey Standards
 - Soil Taxonomy
 - Soil Survey Manual
 - Field Book
 - National Soil Survey Handbook
- ▶ 17 proposals for Soil Taxonomy under review
 - Release 12th edition Keys next year
- ▶ National Soil Survey Handbook
 - Major revisions to reflect MLRA restructure
 - Technical revisions
 - ▶ Rock Fragment calculations, NASIS algorithms, etc
- ▶ Provide expert assistance for complex national/regional database queries (Paul Finnell)
- ▶ Manage all SSD training

Training

- ▶ 11+ courses
 - All aspects of soil survey
 - Shift to distance learning format?
- ▶ Soil Geomorphology Institute
 - Soils are related to the landscape
 - 3 week intensive session
 - 6-7 days in field
 - Rotating locations across country
 - ▶ Penn State in fall
- ▶ Soil Scientist Institute
 - Alternant years with SGI
- ▶ Redesign MLRA Management of Soil Survey course
- ▶ New Tech Soil Services Course

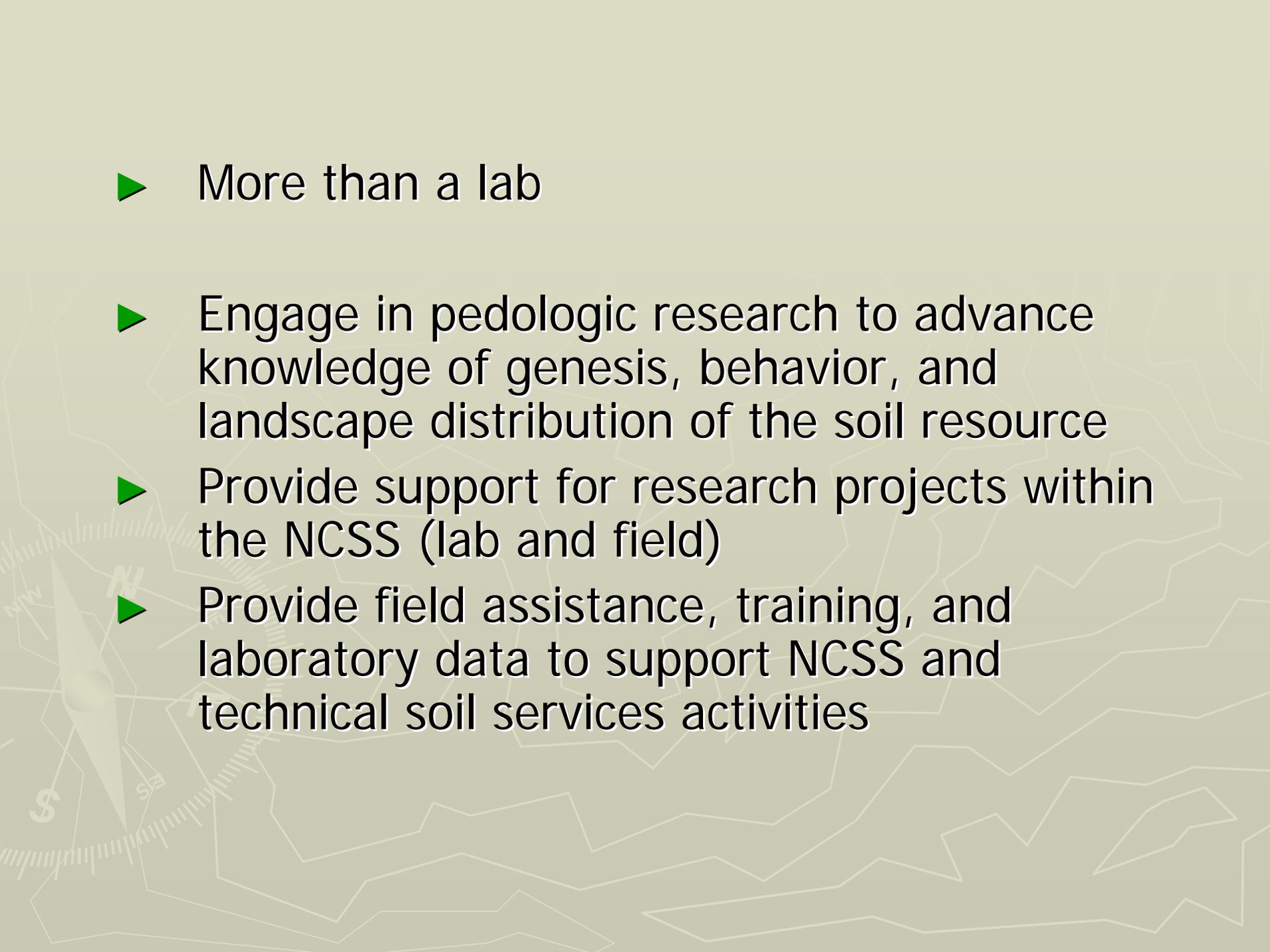
Soil Survey Research and Laboratory

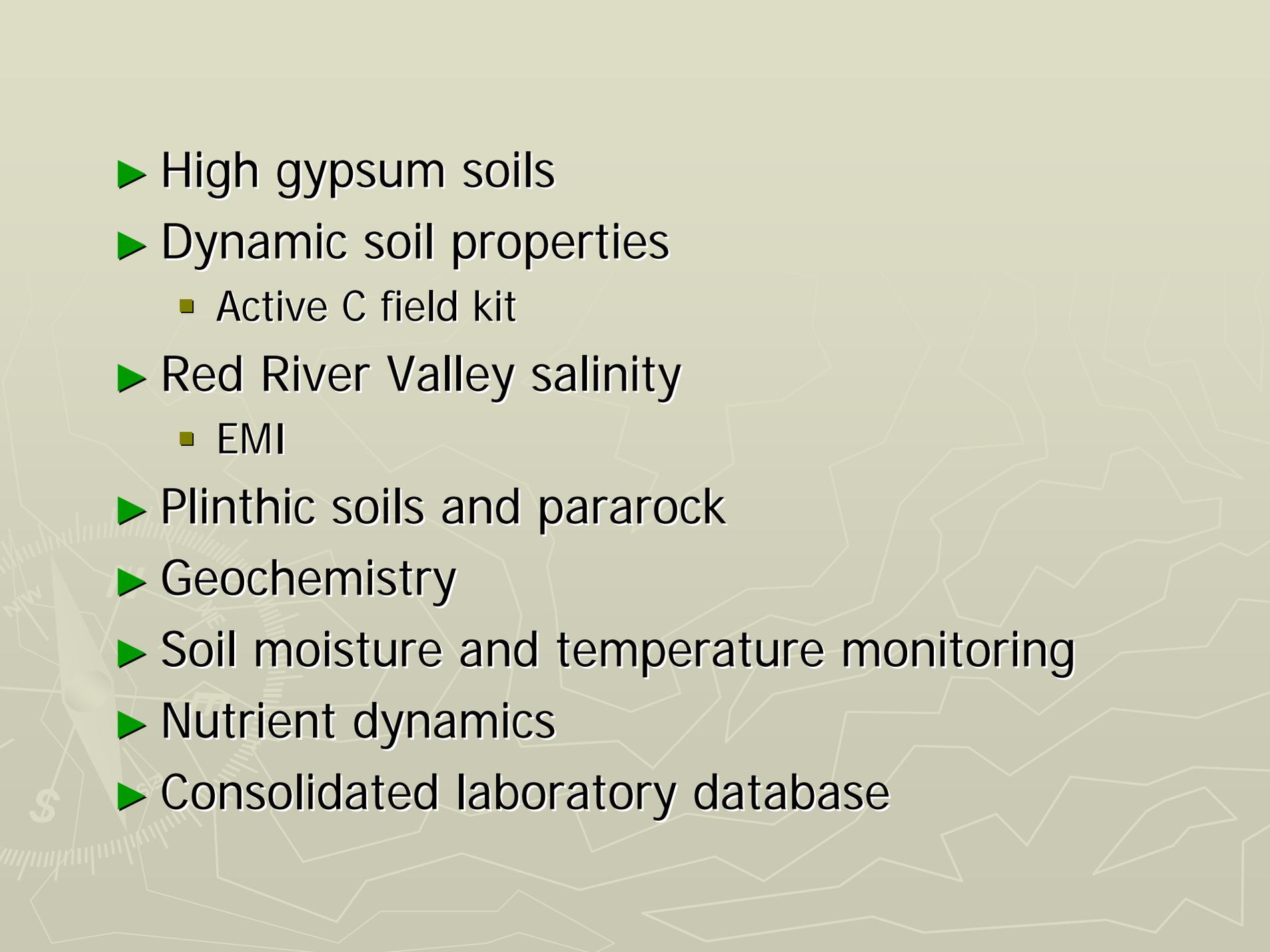
▶ Research

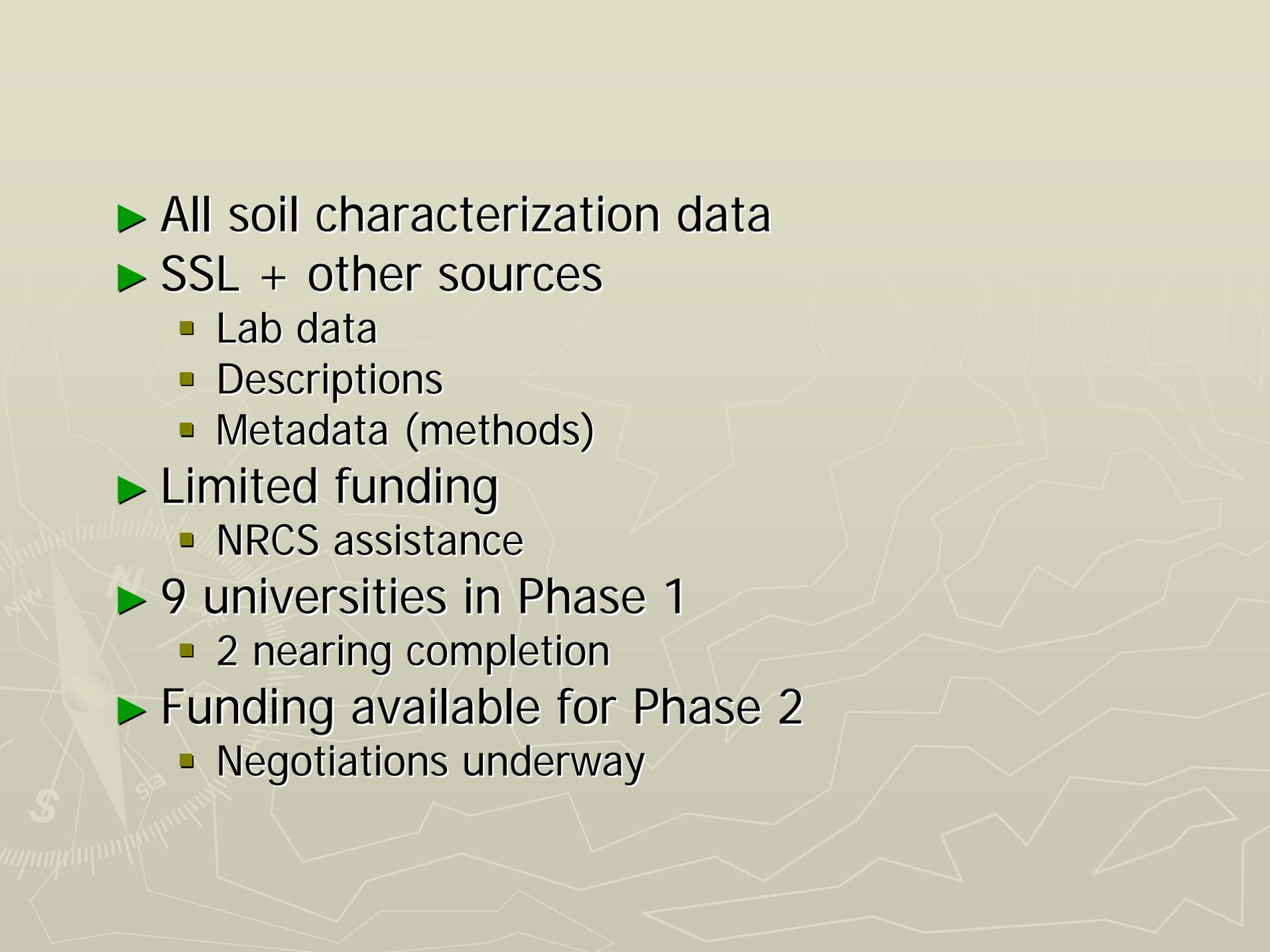
- 12 Soil Scientists; 1 Chemist
 - ▶ Geomorphology
 - ▶ Soil chemistry
 - ▶ Hydropedology
 - ▶ Geophysics
 - ▶ Climate soil moisture and temperature

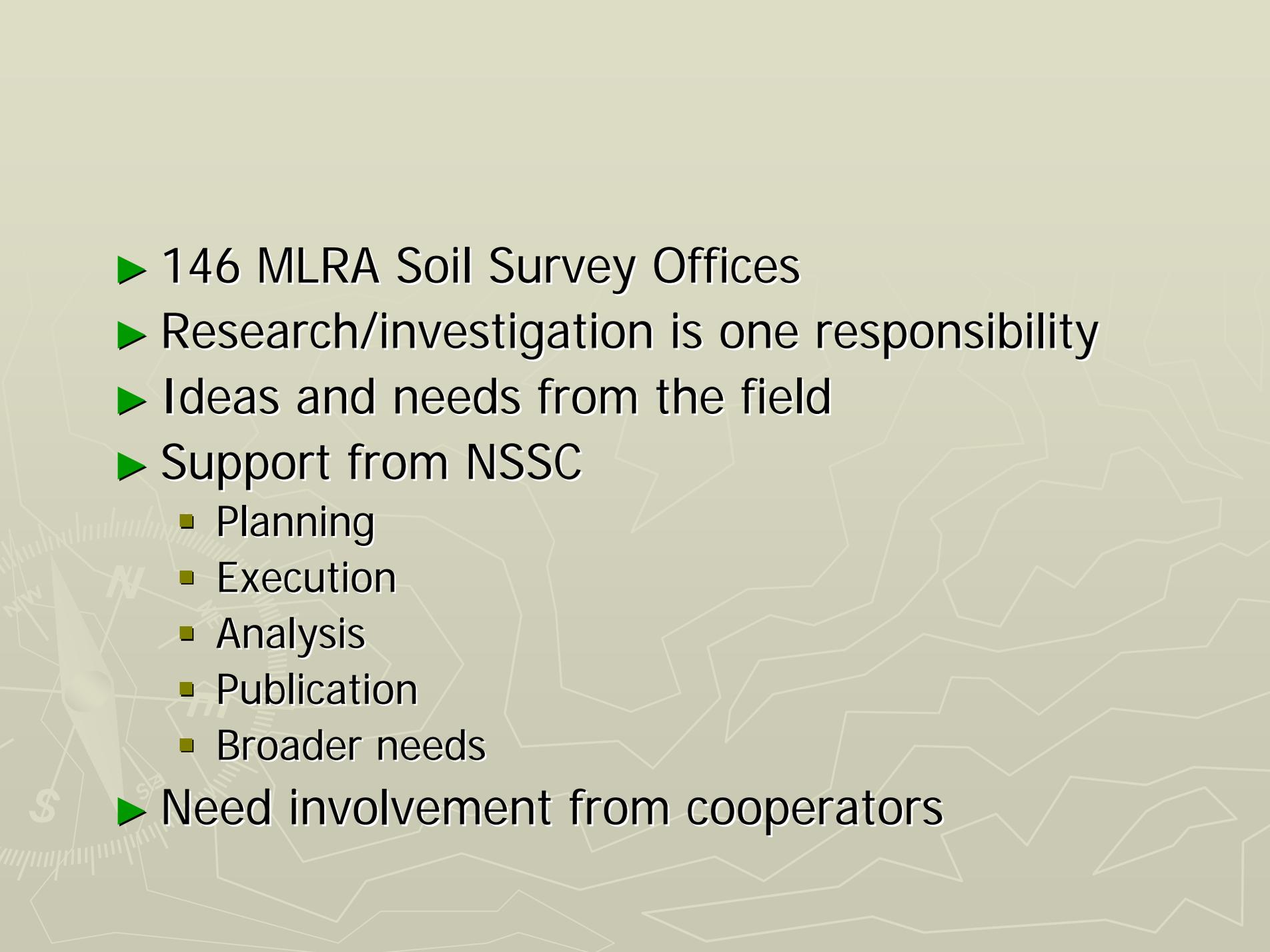
▶ Laboratory

- 19 technical staff
- State of the art analytical equipment
- We can measure anything

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- ▶ More than a lab
 - ▶ Engage in pedologic research to advance knowledge of genesis, behavior, and landscape distribution of the soil resource
 - ▶ Provide support for research projects within the NCSS (lab and field)
 - ▶ Provide field assistance, training, and laboratory data to support NCSS and technical soil services activities

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- ▶ High gypsum soils
 - ▶ Dynamic soil properties
 - Active C field kit
 - ▶ Red River Valley salinity
 - EMI
 - ▶ Plinthic soils and pararock
 - ▶ Geochemistry
 - ▶ Soil moisture and temperature monitoring
 - ▶ Nutrient dynamics
 - ▶ Consolidated laboratory database

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- ▶ All soil characterization data
 - ▶ SSL + other sources
 - Lab data
 - Descriptions
 - Metadata (methods)
 - ▶ Limited funding
 - NRCS assistance
 - ▶ 9 universities in Phase 1
 - 2 nearing completion
 - ▶ Funding available for Phase 2
 - Negotiations underway

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- ▶ 146 MLRA Soil Survey Offices
 - ▶ Research/investigation is one responsibility
 - ▶ Ideas and needs from the field
 - ▶ Support from NSSC
 - Planning
 - Execution
 - Analysis
 - Publication
 - Broader needs
 - ▶ Need involvement from cooperators

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- ▶ Regional and National Conferences
 - Hydropedology
 - Dynamic soil properties
 - New technologies and techniques for inventory and evaluation
 - ▶ Goal is to focus on benchmark series
 - Maximum extrapolation
 - ▶ A few cooperative projects funded

▶ Funding

- Yes, we have no money (today)
- Not true every day
 - ▶ Often no time for RFP and review
- National Research Priorities Committee

▶ MLRA SSA research projects

- Want and need all the help we can get

▶ In-kind cooperation

- Laboratory analyses
- Geophysical
- Other

Questions and Comments?

