

New Technology

New Technology Charges

- Identify potential new technologies to support field activities in the processing of existing digital spatial data.
- Identify new technologies and methodologies that can support and/or enhance digital soil survey activities.
- Need direct access to GIS trained individual to work with MLRA offices.
- LIDAR – continued work on application to soil survey work, emphasis on elevation models and degree of accuracy (submeter to 5 meter)

New Technology Charges

- Investigate ways to propose methods to provide end users with accuracy measurements for soil maps.
- This charge was not clear. The current metadata addresses how the survey was made and to what scale it can be used.
- Some thought it might be trying to address a confidence interval for a component of a map unit.
- No recommendation is made.

New Technology Charges

- Gridded SSURGO
- Identify the need for soil property maps, the required map scales for soil property maps, and what soil properties to map
- Identify customers who require soil property maps.

New Technology Response

- The committee voted to pursue development of a gridded SSURGO layer with the following conditions:
- Develop protocol standards for development of gridded SSURGO
- Develop gridded SSURGO product with top ten soil properties already linked
- Provide metadata that provides a description of whether dominant condition or weighted average is used and how major and minor components are addressed. Remind user data is only as good as vector data from which it was created.

New Technology Response

- Scale to be used: 10m, 30m or 90m or all three
- Format delivery? Through existing site such as WSS or SDM or through link to NCGC
- Format recommended was Albers
- Other agencies and entities are creating this layer and NRCS needs to produce and release a gridded SSURGO layer
- Customers include: Federal and State agencies, Private industry and modelers

Research

- Gridded surveys :
- Need standards, protocols
- Proper scale representation
- Description of data and comparisons of data representations at multiple scales

Research

- Rapid C
- Organic soil method development
- Add to database for developing RV's for mapping units
- Research on other properties where VNIR can be useful

Research

- ESD and dynamic properties
- Relate to water quality, soil erosion, soil quality, etc.
- Develop a protocol for high intensity agriculture soils for the North Central Region.

Research

- Digital mapping
- Standards protocols and method development
- Training on currently used methods
- Scale relationships
- Predictive ability of digital mapping with associated uncertainty.
- Use of LiDAR and terrain attributes.

Research

- Water table research and reduction
- Argillic vs. Cambic
- Illitic mineralogy class
- Global issues – Phosphorus related issues, hydraulic conductivity, bulk density scaling, North American Node of Global Soil map.
- Develop methods for stratifying pedotransfer functions
- Hazards research – high intensity rains, soil slippage.
- Urban soils – much needed research for predictions and estimating properties