

PROJECT FACT SHEET

Project Title: Field Truthing of USDA Soil Survey Geographic (SSURGO) Data in Erath County

Project Lead: College of Agriculture and Human Sciences, Tarleton State University

Project Website: <http://www.tarleton.edu/~dweindorf/Weindorf%20Research.htm>

Funding Source(s): Tarleton State University and Natural Resources Conservation Service

Project Partner(s): Texas Cooperative Extension

Project Description: Advances in technologies such as Geographic Information System (GIS), Global Positioning System (GPS) and mapping techniques have provided for increased accuracy of soils and natural resource maps. Soil Survey Geographic data (SSURGO) represents the most detailed level of digital soil data currently available from the United States Department Of Agriculture-Natural Resource Conservation Service (USDA-NRCS). The SSURGO data for Erath County is a digitized form of the published soil survey from 1973. Map data provided by SSURGO includes soil boundaries, water boundaries, and special soil features. It also contains attribute data with both estimated and measured physical and chemical properties. Such advanced technologies are being used by agencies like the USDA-NRCS to decrease the expense of data collection, increase the accuracy of the mapped data, and promote easy distribution of the data via the internet. Although the USDA-NRCS and other agencies are embracing the technological advance, the value of the completed data and its uniformity remain a concern. In areas where the soils, vegetation, and topography are highly diverse the accuracy of the data is restricted by the experience of field personnel mapping the soils, accessibility of private land, and resolution of the remotely sensed data.

Project Benefits: Knowing where SSURGO data is error prone will allow modelers to incorporate other data to verify soil properties in the said areas. Additional field sampling or on site verification may be warranted in those areas to assure the quality of the model being proposed. However, in areas where SSURGO data is shown to be highly accurate, time and expense associated with field verification can be minimized.

Project Schedule:

- All laboratory analysis was completed by March 31, 2003
- Statistical analysis to be completed by May 31, 2004
- First draft of thesis to be completed by June 31, 2004
- Final draft of thesis to be completed by August 1, 2004

Project Status: Completed.

Zylman, J., D. Weindorf, R. Wittie, A. McFarland, and T. Butler. 2004. Field Truthing of USDA-NRCS SSURGO Data in Erath County, Texas

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