

## **Soil Mapping**

SSURGO, Soil survey geographic database was established by Natural Resources Conservation Service for soil mapping. The attribute data base contains physical and chemical soil properties for approximately 18,000 soil series recognized in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The scale of the map and the complexity of the soil patterns determine what can be shown on the soil map. In this activity you will overlay field boundary on an image, import publically available SSURGO data and reduce large data files to the extent of the field.

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### ***Helper's Guide***

#### **How to Prepare**

Each instructor must complete this activity prior to his/her work with explorers. The data for this activity should be copied in your C directory. Browse to 4H-GISyear2\Data to view Boundary.shp, 4109653SW.jpg and all the data needed to complete this activity. The final map of this activity is located in C:\4H-GISyear2\Map\_soil

To simplify the activity, the original ssurgo.e00 file was converted to a shape file. You can add just the poly feature in ssurgo.e00 to get the same results. Doing so will take time and computer memory.

#### **Need to Emphasize**

- Soil data (SSURGO) is important to make different land use decisions.
- It is a typical "shape" file that contains geographic features represented as polygons.

#### **Related Links**

- The Precision Farming Guide for Agriculturists by Dan Ess , Mark Morgan , Ralph Reynolds (John Deere)
- <http://www.ianrpubs.unl.edu/epublic/live/ec154/build/ec154.pdf>
- <http://soa.utexas.edu/crp/gis/tips/soils/relate-assign-c.html>

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*Viacheslav Adamchuk and Shana Thomas  
Phone: 402-472-8431  
E-mail: vadamchuk2@unl.edu  
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