

Importing Soil Type Maps from USDA NRCS Soil Survey Database

Farm Works has the capability to use the soil type maps that are available from the USDA/NRCS Soil Survey Database. Follow these steps to download the data and import it into Farm Works. Farm Works can also clip each soil type map to the boundary for each field.

1. From the Farm Works Website
 - a. Click on the “Links” on the left hand side
 - b. Click on the “Resources for Farm Site users”
 - c. Click on the “USDA NRCS Soil Survey Geographic Database”

Resources for Farm Site users

-  [Waypoint+](#) is a free software program that will convert Garmin waypoints to a text file that can imported into Farm Site using Generic Import.
-  [GeoCommunity - Translators](#) The Geo Community includes a number of useful GIS translator programs as well as other software available for download. Some of the translation software includes the ability to translate MapInfo Interchange Files (.mif files) and ArcView .e00 files into ArcView Shape Files (.shp files).
-  [USGS Website](#) - The USGS provides Digital Ortho Photo Quads (DOQs). These are high resolution image files that are available for a fee. When going to the website use "Photography (Aerial)" for the Category and "Digital Orthophoto Quadrangles" for the Data Set. If the maps will be used with **Farm Site** or **Site Pro**, be sure to order them in the "Geographic Tagged Image File Format". This data includes GPS referencing information that will be used to automatically calibrate the images in **Farm Site** and **Site Pro**. Note that maps can be ordered via CD or downloaded from the website.
-  [USDA NRCS Soil Survey Geographic Database](#) provides free digital soil map data for Geographic Information System applications via Internet download.

2. From the NRCS web page
 - a. Click on “Soil Data Mart” in the middle of the page

This map requires [Adobe Acrobat](#).

 [Status Map](#) (Revised: Daily; 1.25 MB)

- ◆ [Soil Data Mart \(download only\)](#)
- ◆ [Geospatial Data Gateway \(download, CD-ROM, or DVD\)](#)
- ◆ [General SSURGO Description](#)
- ◆ [Status Maps](#)
- ◆ [Previous Versions of SSURGO Data](#)
- ◆ [Soils Information](#)

- b. Now you can select your state, then county
- c. Next click on “Select Survey Area”

Please select a state or territory with at least one survey area:

State or Territory Code	State or Territory Name	Available Survey Areas
AL	Alabama	67
AK	Alaska	27
AZ	Arizona	44
AR	Arkansas	66
CA	California	93
CO	Colorado	63
CT	Connecticut	1
DC	District of Columbia	1
DE	Delaware	3
FL	Florida	68
GA	Georgia	95
HI	Hawaii	6
ID	Idaho	43
IL	Illinois	102
IN	Indiana	92
IA	Iowa	99
KS	Kansas	105
KY	Kentucky	83
LA	Louisiana	64
ME	Maine	16
MD	Maryland	25
MA	Massachusetts	19
...

- d. In almost every case you should have only one file appear that includes “tabular and spatial” under the Available Data. If you have more than one file listed, choose the one that includes both “tabular and spatial data”

IN183	Whitley County, Indiana	Tabular and Spatial
-------	-------------------------	---------------------

- e. At the bottom of the page click on “Download Data”

- f. The next page will verify the file you are about to order. Make sure the “tabular and spatial data” is marked. Verify that you are downloading in an “ArcView Shape file”. **Note and remember** the coordinate system listed such as “UTM Zone 16 Northern Hemisphere”. You will need this number when importing the file later.

Please select the class of data you wish to download: (Survey Area Version 9 , Tabular Version 7 , Spatial Version 3)

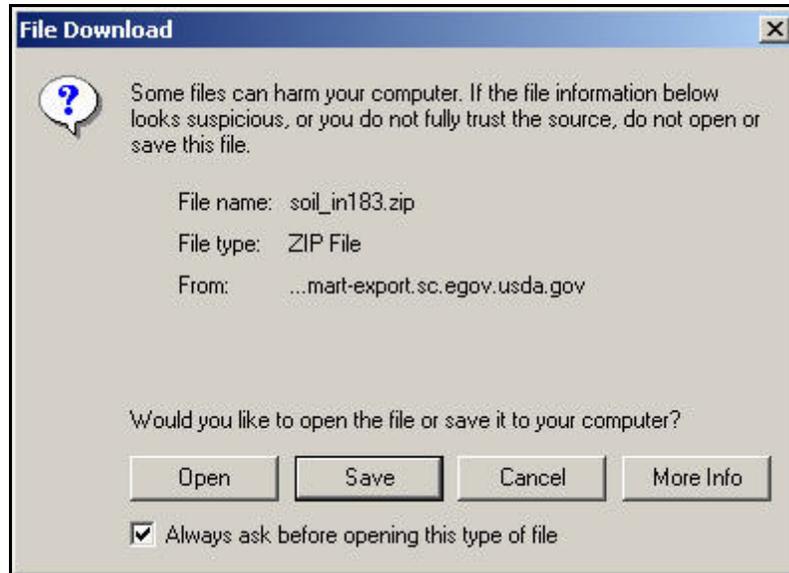
Tabular Data Only
 Tabular and Spatial Data
 Spatial Data Only
 Template Database Only

Please select a spatial format:
Please select a coordinate system:

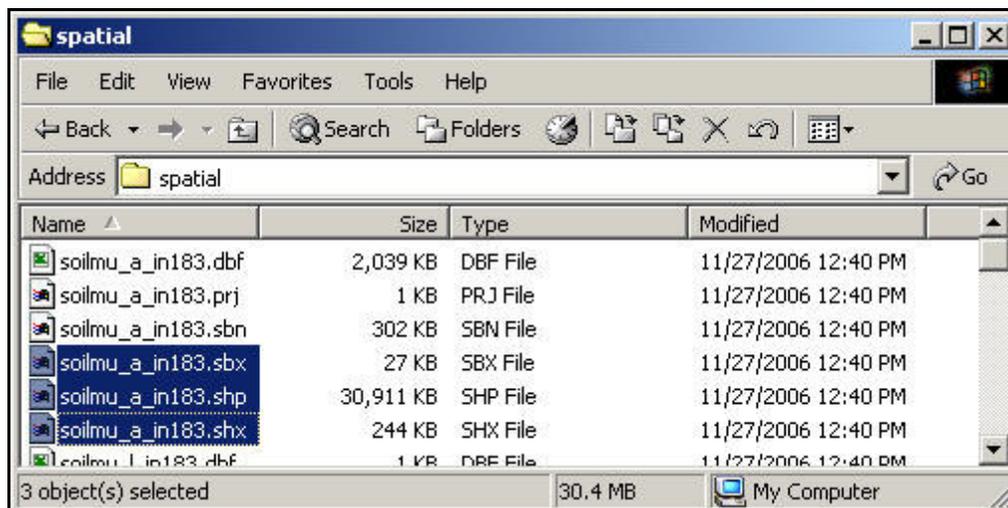
- g. Add your email address in the yellow box, as this order will be emailed to you when it is ready.
- h. Then click “Submit Request”.

- i. The next box will give you some idea of how long it will take to process your order.

3. After receiving your email
 - a. Click on the link provided
 - b. Click “Save” to save this file to your computer

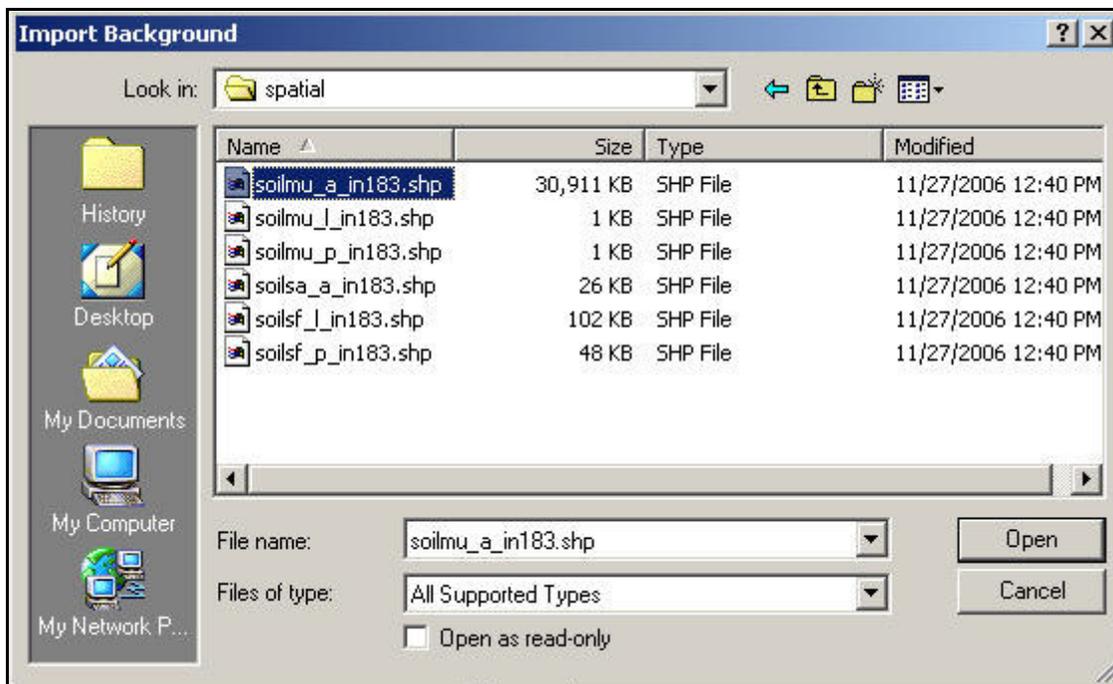
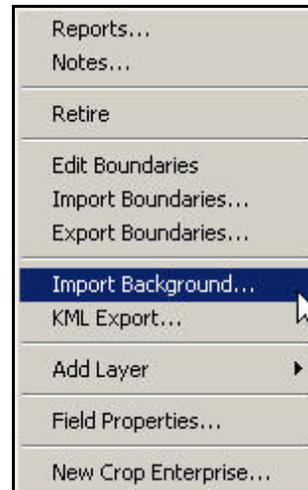


- c. Saving to a new folder such as “NRCS Soil Types” would be advised
- d. Unzip the downloaded file into this folder
- e. Open the “soil_xxx/spatial/ folders
- f. The soil types .shp file will be the largest file such as “soil_mu_oh171.shp”

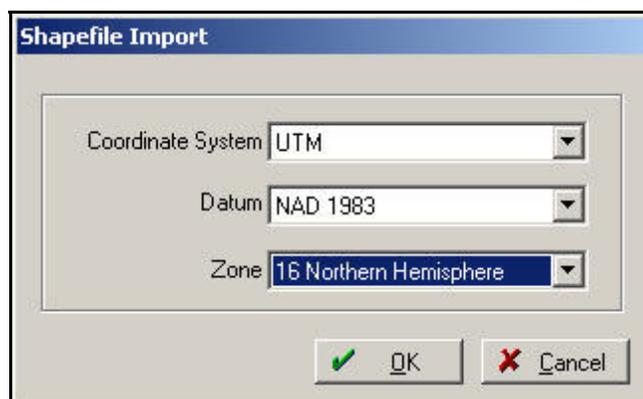


4. In Farm Site or Site Pro

- a. We must have a boundary drawn or imported for the field we want to import the soil types to. This allows the program to “clip to boundaries”.
- b. From the Farm and Fields tree on the left side, be sure to right click on the **Field Name**, and go to import background.
- c. Select the “soil_mu_oh171.shp” file that you opened earlier



- d. Now enter the Zone that you remembered from the downloading process. (Step 2-f)
- e. Click Ok, and it will take some time to clip these soil types to the field.
- f. Opening the “MUSYM” under Views will allow you to see the soil types.



5. To label these polygons for soil sampling:
 - a. Right click on the soil type layer located under your field name
 - b. Go to layer properties
 - c. Add another row and name it something like “Regions”
 - d. Type should be a text, 40 for size
 - e. Click OK, and the Regions now appear in your View box

	Description	Type	Size/Decimals	Units
	AREASYMBOL	Text	20	
	SPATIALVER	Number	0	
	MUSYM	Text	6	
	MUKEY	Text	30	
	Regions	Text	40	



- f. Click on the pencil tool  at the top to enter the edit mode for this layer.
- g. Right Click on one of the polygons and go to properties.
- h. Now you can add a label for this polygon under the “Region”.
- i. This should be the same labeling type that you will use for naming the soil sample bag that will represent the soil sample for this polygon. You may use letters or numbers or combinations of both. Do this for all the polygons.

Define Data

Description	Data
AREASYMBOL	IN183
SPATIALVER	3
MUSYM	Pw
MUKEY	161809
Regions	Pewamo

- j. To add the labels to the map, open the “Display Option” icon  at the top
- k. Check mark the “Show Labels” and the “Region” and click OK
- l. Now rubber band around all the polygons to select them.
- m. Right click inside the selected area and go to “Add Label”.

6. This layer can now be exported to a handheld device for pulling the soil samples.