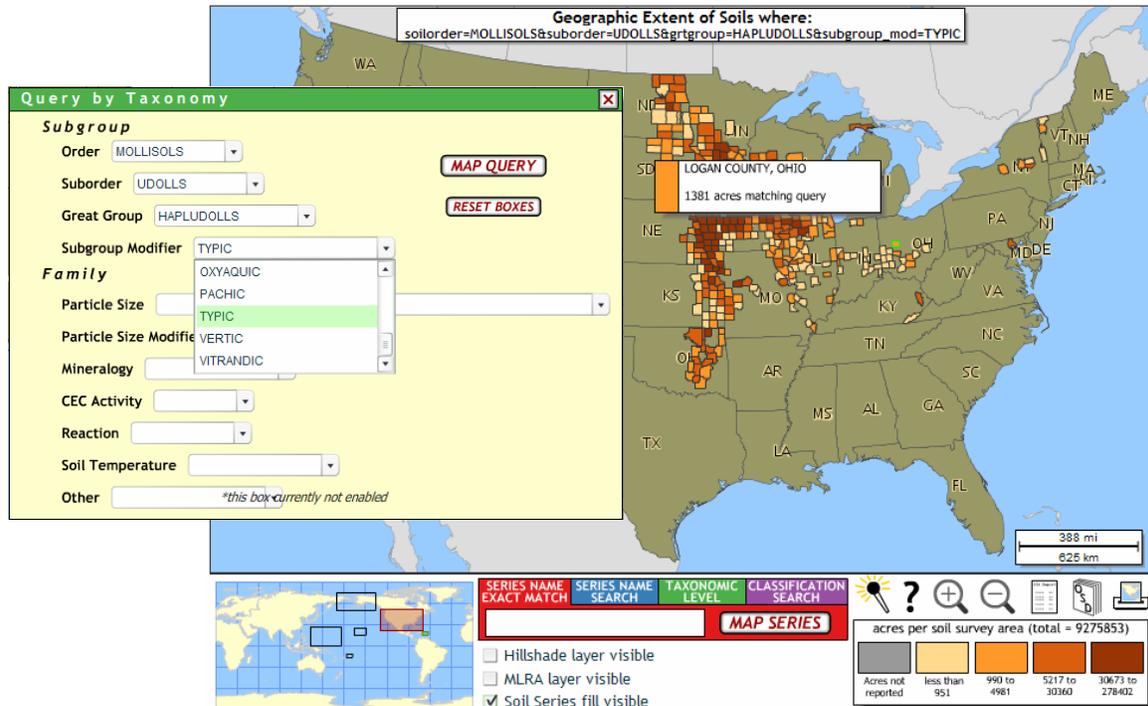


# Soil Extent Mapping Tool

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## What is the Soil Extent Mapping (SEM) Tool?

- The SEM Tool provides interactive national maps of soil series and other soil taxon extents based on the land area of mapped series.
- Data are extracted from SSURGO 2.1 provided by the Soil Data Mart.
- Basic units depicted on the maps are soil survey areas (SSA) symbolized according to series acreage mapped within the areas.
- Maps are created with Adobe Flash and Geoserver internet map services and accessed with a standard web browser.

## Why build this tool?

- Map-based interface provides a geographic context to information currently provided only in tabular and text format.
- Geographic expression enhances the understanding of soil series concepts and Soil Taxonomy in relation to the natural divisions of physical land resources.
- Tool enables closer scrutiny of soil series and soil taxonomy concepts by soil data creators.

## What are the features of the tool?

- Multiple options for querying soil series and other taxa:
  - Type all or part of a series name
  - Select taxonomic elements from pick-lists

- Type free-form text to search against taxonomic classification string
- Print/save search results as maps and sorted tabular reports
- Link to Official Series Descriptions

How do I access the tool?

<http://soils.usda.gov/survey/geography>

## Major Land Resource Area (MLRA) Explorer

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The image shows a screenshot of the MLRA Explorer web application in a Mozilla Firefox browser. The interface includes a search bar, a map of the United States with various regions highlighted in different colors, and a sidebar with navigation options. The main content area displays a report for the 'N - East and Central Farming and Forest Region'. The report title is 'Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin'. The report content includes a description of the region's geography, climate, and land use, along with a map of the region and a list of MLRA codes.

What is the MLRA Explorer?

The MLRA Explorer is a World Wide Web application that presents USDA Agriculture Handbook 296, Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin (2006), in an online interactive format. Through the use of Adobe Flex and internet map services technologies, the tool enables users to:

- search for MLRAs using geographical and textual queries
- select which handbook sections to display
- print and save a customized subset of the handbook

What search methods are supported?

- browse an interactive map and identify a point or area of interest
- choose an LRR ID/name from a list
- choose an MLRA ID/name, once an LRR has been chosen
- select a state or territory name from a list
- select a county name, once a state has been chosen
- type an 8-digit hydrologic unit code (HUC-8)
- specify a Public Land Survey System township
- choose a federal land managed by USFS, NPS, BLM, or DOD

How do you use the tool?

- Visit the MLRA Explorer web site to browse LRRs and MLRAs in the context of other spatial data or create a selection query.
- Execute a search for MLRAs based on geographical or textual criteria.
- MLRAs matching the criteria will be selected and displayed on the map.
- Select which sections of the handbook to display on the report.
- A customized Adobe PDF document will be prepared to print/save.

What are the sources of data?

- To this point the rich narrative content of the handbook has been maintained in desktop publishing formats. In order to enable real-time report creation, we built a simple Access database from the PageMaker documents. This database also will enable more efficient maintenance of the LRR and MLRA information.
- The primary LRR/MLRA dataset was provided by the National Geospatial Development Center.
- Ancillary geospatial datasets were provided by the Web Soil Survey team.

How do I access the tool?

[www.cei.psu.edu/mlra](http://www.cei.psu.edu/mlra)

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