

# Soil Resource Assessment(Chapter 7, Troeh et al)

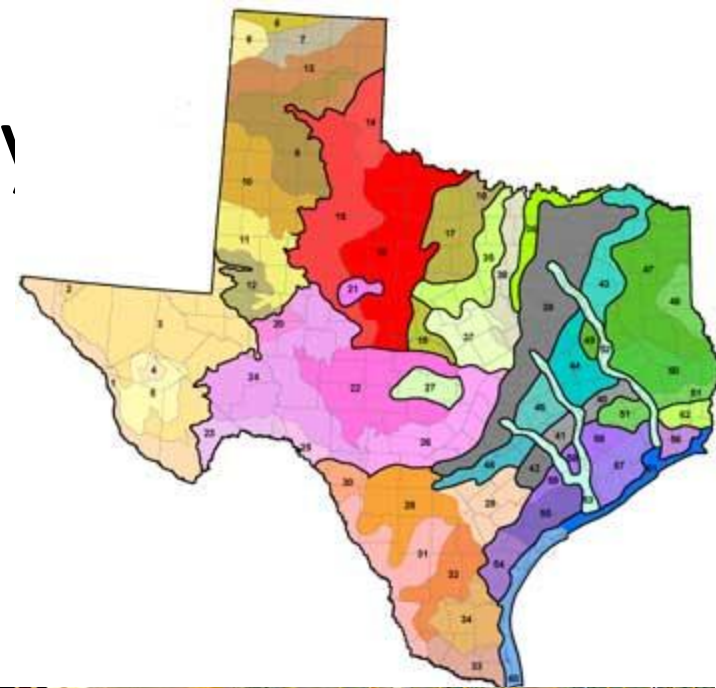
- The soil survey is one of the most widely used natural resource data sets.
- Initially soil surveys were conducted to assess productivity of soils for Ag production.
- Now data is used to provide suitability assessments for most land uses.

# Kinds of Soil Surveys

- Detailed:
  - Sufficient work is done to observe all soil mapping units and to trace all soil boundaries.
- Reconnaissance:
  - Only intermittent field observations
  - Much of the information is interpreted from aerial photos

# Soil Maps in a Soil Survey Report

- General Soil Map:
  - 1:190,080 (1 inch = 3 miles)
- Detailed Map:
  - 1:20,000 or 1:15,840
  - 3.168 or 4 inches = 1 mile



# Soil Mapping Units

- Most Mapping represent Polypedons
- PolyPedons are composed of adjacent pedons of the same soil series
- A pedon is a unique unit of soil large enough to grow a plant
  - Usually a minimum of 1 m<sup>2</sup> or up to 10 m<sup>2</sup>
- Other mapping units contain multiple soil series
- Some urban mapping units are so disturbed that they are simply call urban soil



# Land Use Capability subclasses

- e = hazards of accelerated erosion and sedimentation
- w = hazards of excessive wetness
- s = hazards of plant root restrictions, including excessive shallowness, extremely fine or coarse texture, stoniness, salinity, or sodicity
- c = climatic hazards of excessive coldness or dryness for the normal growth of crop plants

# Websoilsurvey

- Link:

<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

# SoilWeb

- <http://casoilresource.lawr.ucdavis.edu/drupal/node/902>



# NRCS Soils Website

- <http://soils.usda.gov/>
- Provides:
- Official soil series descriptions
- Soil lab data
- Soil series extent mapping tool
- Soil survey geographic database (SSURGO)