Soil Texture of the Agricultural Area of Alberta

Description

This map illustrates the distribution of soil parent material textures in the agricultural region of Alberta. Soil texture is defined by the relative proportions of the sand, silt and clay particles present. Soil textures are identified by classes using the Soil Texture Triangle illustrated below. The Soil Texture Triangle identifies the textural class of a soil at the intersection of the percent sand (x-axis) and the percent clay (y-axis). The percent silt of the soil is the remainder to add up to 100 percent.

Textural Class Groupings

Textural Group

Fine

HC - Heavy ClaySiC - Silty ClayC - ClaySC - Sandy Clay

Medium

SiCL - Silty Clay Loam

CL - Clay LoamSCL - Sandy Clay Loam

Si - Silt SiL -Silt Loam

L - Loam



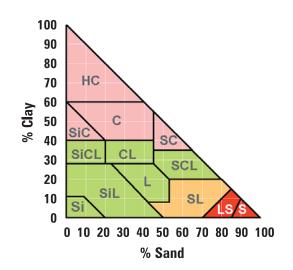
Moderately Coarse

SL - Sandy Loam

Very Coarse

LS - Loamy Sand

S - Sand



Example Textural Class - Clay Loam CL

% Clay - 28 to 40 % Sand - 20 to 45 % Silt - 15 to 52

For presentation on this map, the texture classes of soil parent materials identified with each Agricultural Region of Alberta Soil Inventory Database (AGRASID) soil landscape polygon were combined into four more general groups — fine, medium, moderately coarse and very coarse. These are represented on the map by solid colors when the areal extent of the texture group occupies more than or equal to 60 percent of the soil area. Textural groupings with patterned symbols are complex areas where texture groups occupy more than or equal to 30 percent, but less than 60 percent of the area.

Other groupings identified in the map legend are *Peat*, *Undifferentiated* and *Water Bodies*. Peat soils have greater than 30 percent organic matter and are greater than 40 cm thick. Undifferentiated soils refer to soils where the textural group is unknown. Water Bodies refers to permanent bodies of water.

Data sources

AGRASID 3.0 was used to produce this map. AGRASID is a digital database describing the spatial distribution of soils and associated landscapes within the agricultural region of Alberta.

Potential uses

Soil texture will influence the water holding capacity of the soil and is useful information when considering the potential for wind and water erosion. Soil texture along with other factors including topography, climate, vegetative cover and agricultural practices will influence the degree of soil degradation that may occur in a particular area. For example, water erosion potential is generally higher for unconsolidated clays and silts than for sands and gravels.

Limitations

Soil texture will vary within each soil landscape polygon.

Further information

AGRASID provides extensive soil information and is available to download from the Alberta Soil Information Centre at the Alberta Agriculture, Food and Rural Development website. www.agric.gov.ab.ca/asic

Scroll down to view map

