United States Department of Agriculture

Root Zone Depth

Root zone depth is the depth within the soil profile that commodity crop (cc) roots can effectively extract water and nutrients for growth. Root zone depth influences soil productivity significantly. Soil component horizon criteria for root-limiting depth include: presence of hard bedrock, soft bedrock, a fragipan, a duripan, sulfuric material, a dense layer, a layer having a pH of less than 3.5, or a layer having an electrical conductivity of more than 12 within the component soil profile. If no root-restricting zone is identified, a depth of 150 cm is used to approximate the root zone depth (Dobos et al., 2012). Root zone depth is computed for all map unit major earthy components (weighted average). Earthy components are those soil series or higher level taxa components that can support crop growth (Dobos et al., 2012). Major components are those soil components where the majorcompflag = 'Yes' (SSURGO component table). NULL values are presented where data are incomplete or not available.

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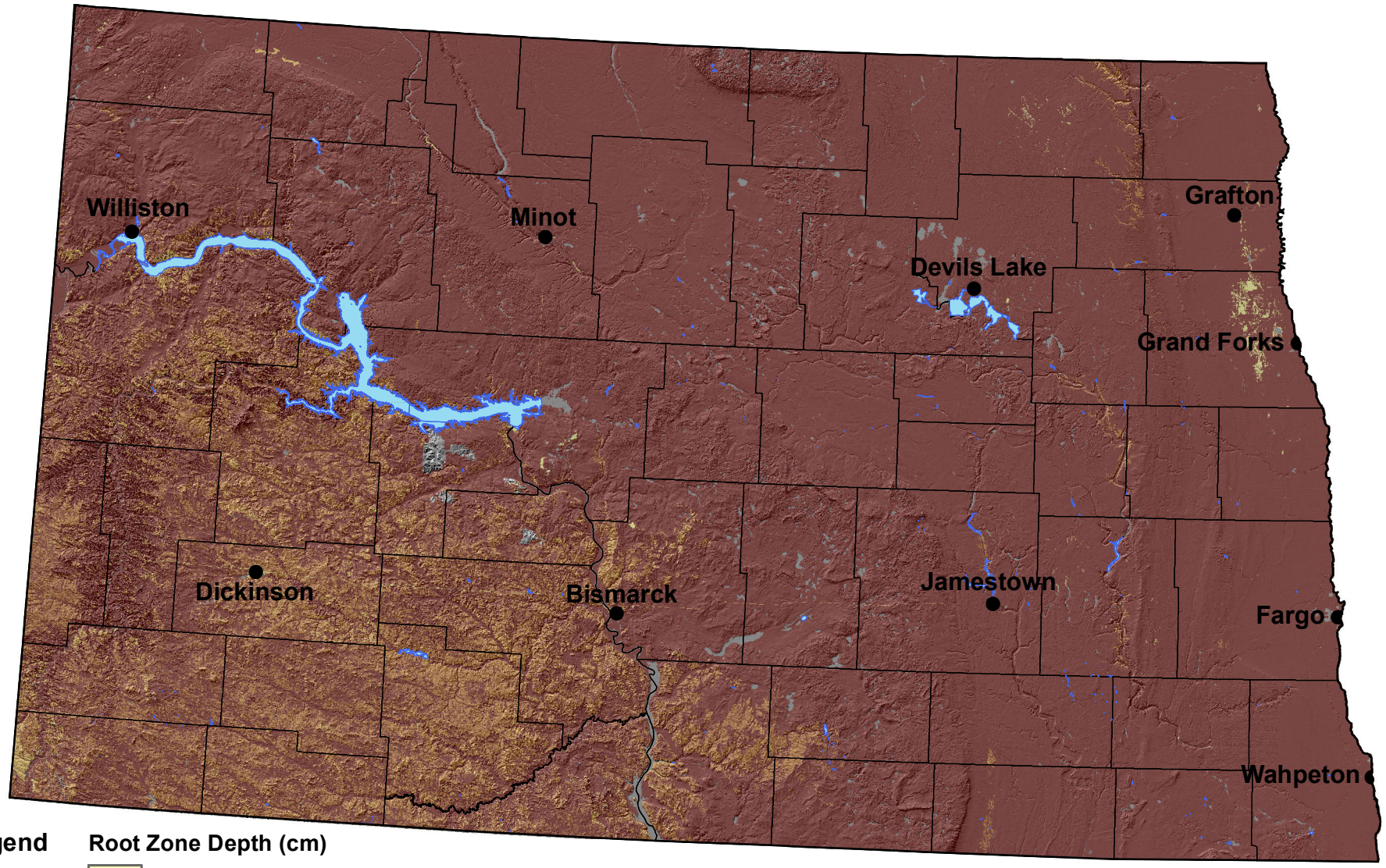
Root Zone Depth (cm)



Legend

	Root Zone Depth (cm)
City	0 - 20
County	20 - 50
State	50 - 100
Water	100 - 150

0 20 40 80 Miles

1:2,500,000

N W E S

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Soil Survey Staff. The Gridded Soil Survey Geographic (SSURGO) Database for North Dakota. United States Department of Agriculture, Natural Resources Conservation Service. Available online at http://datagateway.nrcs.usda.gov/. January 19, 2016 (FY2016 official release).