

GNHS

University of Wisconsin–Extension

Wisconsin Geological and Natural History Survey 3817 Mineral Point Road • Madison, Wisconsin 53705-5100 Adapted from Hole, F.D., et al., 1968, Soils of Wisconsin: Wisconsin Geological and Natural History Survey, scale 1:710,000.

Soil Regions of Wisconsin

For this map, Wisconsin's 520 soil series were grouped into fifteen general regions. On the landscape, many of these regions appear distinctly different from each other because differences in land form and use are often related to the characteristics of the soils.

Soils of northern and eastern Wisconsin

Region *E*. Forested, red, sandy, loamy soils. Uplands are covered by soils that have loamy surfaces over calcareous silt loam or loam till (Onaway, Emmet, Solona, Tilleda). Hortonville and Symco soils have developed in less than 20 in. of silt over calcareous, loamy till; Waymor soils have developed in 10 to 30 in. of silt over calcareous sandy loam or loam till. Sandy soils found primarily in glacial lake beds include Shawano, Rousseau, and Wainola.

Region Er. Forested, red, loamy or clayey soils over dolomite bedrock or till. Soils that formed in 20 to 40 in. of loamy materials over limestone include Longrie, Bonduel, and Kolberg; thinner loamy coverings are found on Summerville (10 to 20 in.) and Namur (<10 in.) soils. Omena soils have 12 to 20 in. of loamy materials over limy, sandy loam or loam till; Emmet soils have 24 to 50 in. of loamy materials over the same type of till. Kewaunee soils, developed in less than 20 in. of silt over calcareous, clay till, occur on uplands.

Region F. Forested, silty soils. On uplands, Withee and Loyal soils have formed in 12 to 36 in. of silt over very dense, acid, loam till. Where the silt coverings are 36 to 60 in. deep, Otterholt, Spencer, and Almena soils are found. Soils developed in up to 12 to 36 in. of silt over acid, sandy loam till include Magnor, Freeon, Santiago, and Amery. In areas where up to 40 in. of loamy materials cover acid sand and gravel, Rosholt and Chetek soils have formed; where 20 to 36 in. of silt cover outwash, Antigo and Brill soils occur.

Region G. Forested, loamy soils. On uplands, soils formed in up to 36 in. of silty materials over acid, friable sandy loam or loam till include Champion, Goodman, Kennan, Wabeno, and Sarona. Gogebic soils formed in 20 to 60 in. of loamy materials over the same type of glacial till. In outwash areas where loamy materials overlie acid sand and gravel, Rosholt, Pence, Cromwell, and Padus soils are found. The Wisconsin state soil, Antigo Silt Loam, is found in areas where 20 to 36 in. of silt overlie sand and gravel.

Region H. Forested, sandy soils. Soils of the northern outwash plains are formed in deep sand (Vilas, Menahga, Rubicon) with little gravel. Where the sand contains 15% to 35% gravel, Sayner soils are found. Pence soils developed in 10 to 20 in. of loamy materials over acid sand and gravel.

Region I. Forested, red, clayey or loamy soils. Near Lake Michigan and Lake Winnebago, Kewaunee, Manawa, and Poygan soils have developed in thin (<15 in.), silty materials that overlie calcareous, red, clay till or lake deposits. Where up to 18 in. of loamy materials overlie the same type of clay till, Briggsville soils occur. If up to 20 in. of silts overlie somewhat coarser-textured red till (clay loam, silty clay loam, and loam), Hortonville soils occur. Oshkosh and Winneconne soils formed in calcareous, red, clay lake deposits. Near Lake Superior, soils with clayey surfaces that overlie calcareous, red, clay till include Hibbing and Pickford. Clay soils developed in lacustrine basins include Ontonagon and Berglund.

Soils of central Wisconsin

Region C. Forested, sandy soils. Soils of the bed of glacial Lake Wisconsin (Plainfield, Friendship, Meehan, Tarr, Impact) are primarily formed in deep sands. Moderately deep (<40 in.) loamy (Wyocena) or sandy materials (Okee) overlie limy till on uplands. Lapeer soils formed in less than 20 in. of silty or loamy materials over limy till.

Region Cm. Prairie, sandy soils. Region is dominated by dark, deep, sandy soils (Sparta) or soils formed in 20 to 40 in. of loamy materials over sand (Dakota, Dickinson). Lighter colored, deep sandy soils (Gotham, Plainfield) are also present.

Region Fr. Forested, silty soils over igneous and metamorphic rock. Soils are formed in silty, loamy, or sandy materials overlying a mixture of older glacial till and residuum from igneous and metamorphic rock. Meadland and Rozellville soils are found where thin (<15 in.) silt coverings overlie till and residuum; in the same setting but with bedrock between 40 and 60 in. deep, Fenwood and Rietbrock soils occur. Marathon, Dolph, and Altdorf soils occur where the silt covering is 15 to 35 in. thick. In areas where up to 40 in. of loamy materials overlie the till and residuum, Mosinee soils are found. Where the upper materials in the soil are sandy loam in texture, Dancy and Point soils occur.

Soils of southwestern and western Wisconsin

Region A. Forested, silty soils. On the uplands are deep, silty soils (Fayette, Seaton, Rozetta), deep silty and clayey soils (Valton, Willdale, Palsgrove), and silty and clayey soils that overlie limestone bedrock and are moderately deep (New Glarus) or shallow (Dunbarton, Elizabeth). Silty, loamy, and sandy soils occupy foot slopes and bench lands; stony and rocky soils are found on steep slopes.

Region Am. Prairie, silty soils. Deep, silty soils (Tama, Downs, Muscatine) cover uplands. Overlying limestone bedrock on

broad ridgetops are deep, silty, clayey soils (Ashdale) and silty, clayey, moderately deep (Dodgeville), and shallow (Edmund) soils. Worthen soils occur on foot slopes and fans.

Region Dr. Forested soils over sandstone bedrock. Soils of the western sandstone uplands include those that have developed in 20 to 40 in. of silt (Gale) or 10 to 40 in. of loamy materials (Hixton, Eva, Elkmound) over sandstone or those that have developed directly in the sandstone (Boone). In areas of glauconitic sandstone, soils with silty (La Farge, Norden) or loamy (Urne) surfaces are found; where the silts are thicker than 48 in., Seaton soils are found. Hiles and Kert soils have formed in thin silts (<30 in.) over acid, shaly sandstone; Humbird, Vesper, and Merrillan soils developed directly in residuum from acid, shaly sandstone.

Soils of southeastern Wisconsin

Region B. Forested, silty soils. Soils that formed in up to 36 in. of silty and loamy materials over limy till include Kidder, McHenry, Dodge, Miami, Hochheim, and Theresa. In deep silts (40 to 60 in.), St. Charles and Batavia soils have developed. Loamy soils underlain by limy sand and gravel outwash (Fox, Boyer, Casco, Rodman) are widespread. These loamy till and outwash soils are common in the hilly Kettle Moraine area that extends in an irregular belt from western Waukesha County to central Manitowoc County. Near Milwaukee and Racine– Kenosha are clayey soils underlain by limy till (Morley, Blount). In depressions, organic soils (Houghton) have formed where plant materials accumulated.

Region Bm. Prairie, silty soils. Deep, silty (Plano, Elburn), loamy (Griswold, Ashkum) soils overlying limy till cover rolling uplands. Mendota, Ringwood, Ripon, and Rockton soils have formed in up to 36 in. of silt over limy till over limestone bedrock. Loamy soils overlying limy, sand and gravel outwash (Warsaw, Lorenzo) occur throughout the region. Clayey soils over limy till (Varna, Elliot) are common near Milwaukee and Racine–Kenosha.

Statewide

Region J. Streambottom and major wetland soils. These soils occur in depressions and drainageways throughout the state; only the largest of these soil areas are shown on this map. Mineral soils include those found in silty (Pella), clayey (Poygan), loamy (Ettrick), and sandy (Newson) materials. Extensive areas of organic soils (Houghton, Adrian, Cathro, Markey, Loxley, Ryle, Greenwood) are included in this region. Organic soils are separated on the basis of their thickness, on the nature of the organic materials in which they form, and on the soil temperature in the areas where they occur.