Taxonomic Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. This table shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol.* An example is Alfisols.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalfs (*Ud*, meaning humid, plus *alfs*, from Alfisols).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalfs*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, active, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

References:
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. (The soils in a given survey area may have been classified according to earlier editions of this publication.)

Report—Taxonomic Classification of the Soils

[An asterisk by the soil name indicates a taxadjunct to the series]

Taxonomic Classification of the Soils–State of Connecticut	
Soil name	**Family or higher taxonomic classification**
Agawam*	Coarse-loamy over sandy or sandy-skeletal, mixed, active, frigid Typic Dystrudepts
Agawam	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts
Alden*	Fine-loamy, mixed, active, nonacid, frigid Mollic Endoaquepts
Alden	Fine-loamy, mixed, active, nonacid, mesic Mollic Endoaquepts
Amenia	Coarse-loamy, mixed, active, mesic Aquic Eutrudepts
Anguilla	Sandy, mixed, mesic Haplic Sulfiwassents
Ashfield	Coarse-loamy, mixed, active, frigid Aquic Dystrudepts
Bash	Coarse-loamy, mixed, semiactive, mesic Fluvaquentic Dystrudepts
Beaches	
Belgrade	Coarse-silty, mixed, active, mesic Aquic Dystric Eutrudepts
Berlin	Fine-silty, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Bernardston	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
Bice	Coarse-loamy, mixed, active, frigid Typic Dystrudepts
Billington	Coarse-silty, mixed, active, nonacid, mesic Thapto-Histic Sulfiwassents
Boscawen	Sandy-skeletal, mixed, frigid Typic Udorthents
Brancroft	Fine-silty, mixed, active, mesic Aquic Dystric Eutrudepts
Branford	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts
Brayton*	Coarse-loamy, mixed, active, nonacid, frigid Typic Humaquepts
Brayton*	Loamy, mixed, active, nonacid, frigid, shallow Typic Endoaquepts
Brimfield	Loamy, parasesquic, mesic Lithic Dystrudepts
Broadbrook	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
Brookfield	Coarse-loamy, parasesquic, mesic Typic Dystrudepts
Bucksport	Euic, frigid Typic Haplosaprists
Canton	Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Typic Dystrudepts
Canton	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Dystrudepts
Catden	Euic, mesic Typic Haplosaprists

Taxonomic Classification of the Soils–State of Connecticut	
Soil name	**Family or higher taxonomic classification**
Charlton	Coarse-loamy, mixed, active, mesic Typic Dystrudepts
Charlton	Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts
Chatfield	Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts
Cheshire	Coarse-loamy, mixed, semiactive, mesic Typic Dystrudepts
Copake	Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Dystric Eutrudepts
Deerfield	Mixed, mesic Aquic Udipsamments
Dummerston	Coarse-loamy, mixed, active, frigid Typic Dystrudepts
Dumps	
Ellington	Coarse-loamy over sandy or sandy-skeletal, mixed, subactive, mesic Aquic Dystrudepts
Elmridge	Coarse-loamy over clayey, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Enfield	Coarse-silty over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts
Farmington	Loamy, mixed, active, mesic Lithic Eutrudepts
Fluvaquents	Fluvaquents
Fort Neck	Coarse-loamy, mixed, superactive, nonacid, mesic Haplic Sulfiwassents
Fort Neck*	Coarse-loamy, mixed, superactive, nonacid, mesic Haplic Sulfiwassents
Fredon*	Coarse-loamy over sandy or sandy-skeletal, mixed, active, nonacid, frigid Aeric Endoaquepts
Fredon	Coarse-loamy over sandy or sandy-skeletal, mixed, active, nonacid, mesic Aeric Endoaquepts
Freetown	Dysic, mesic Typic Haplosaprists
Fullam	Coarse-loamy, mixed, active, frigid Aquic Dystrudepts
Georgia	Coarse-loamy, mixed, semiactive, mesic Aquic Dystric Eutrudepts
Gloucester	Sandy-skeletal, mixed, mesic Typic Dystrudepts
Groton	Sandy-skeletal, mixed, mesic Typic Eutrudepts
Hadley	Coarse-silty, mixed, superactive, nonacid, mesic Typic Udifluvents
Halsey*	Coarse-loamy over sandy or sandy-skeletal, mixed, active, nonacid, frigid Typic Humaquepts
Halsey	Coarse-loamy over sandy or sandy-skeletal, mixed, active, nonacid, mesic Typic Humaquepts
Hartford	Sandy, mixed, mesic Typic Dystrudepts
Haven	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts
Hero	Coarse-loamy over sandy or sandy-skeletal, mixed, semiactive, mesic Aquic Eutrudepts
Hinckley	Sandy-skeletal, mixed, mesic Typic Udorthents
Hogansburg	Coarse-loamy, mixed, semiactive, frigid Aquic Eutrudepts
Hollis	Loamy, mixed, active, mesic Lithic Dystrudepts
Holyoke	Loamy, mixed, superactive, mesic Lithic Dystrudepts
Ipswich	Euic, mesic Typic Sulfihemists

Taxonomic Classification of the Soils–State of Connecticut	
Soil name	**Family or higher taxonomic classification**
Lanesboro	Coarse-loamy, mixed, active, frigid Oxyaquic Dystrudepts
Leicester	Coarse-loamy, mixed, active, acid, mesic Aeric Endoaquepts
Leicester	Coarse-loamy, mixed, superactive, acid, mesic Aeric Endoaquepts
Lim	Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts
Limerick	Coarse-silty, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts
Loonmeadow	Coarse-loamy, mixed, active, nonacid, frigid Mollic Endoaquepts
Ludlow	Coarse-loamy, mixed, semiactive, mesic Aquic Dystrudepts
Macomber	Loamy-skeletal, mixed, active, frigid Typic Dystrudepts
Manchester	Sandy-skeletal, mixed, mesic Typic Udorthents
Marshneck	Coarse-loamy, mixed, superactive, nonacid, mesic Haplic Sulfiwassents
Maybid	Fine, mixed, semiactive, nonacid, mesic Typic Humaquepts
Medomak*	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive, nonacid, frigid Fluvaquentic Endoaquepts
Menlo	Coarse-loamy, mixed, active, mesic Typic Endoaquolls
Merrimac*	Sandy, mixed, frigid Typic Dystrudepts
Merrimac	Sandy, mixed, mesic Typic Dystrudepts
Millsite	Coarse-loamy, mixed, active, frigid Typic Dystrudepts
Montauk	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
Montauk	Coarse-loamy, mixed, subactive, mesic Oxyaquic Dystrudepts
Moosilauke	Sandy, mixed, frigid Aeric Endoaquepts
Mudgepond*	Coarse-loamy, mixed, superactive, frigid Typic Endoaquolls
Mudgepond	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
Napatree	Coarse-loamy, mixed, superactive, nonacid, mesic Aeric Haplowassents
Narragansett	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Typic Dystrudepts
Natchaug	Loamy, mixed, euic, mesic Terric Haplosaprists
Nellis	Coarse-loamy, mixed, superactive, mesic Typic Eutrudepts
Ninigret*	Coarse-loamy over sandy or sandy-skeletal, mixed, active, frigid Aquic Dystrudepts
Ninigret	Coarse-loamy over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts
Nipmuck	Coarse-loamy, parasesquic, mesic Typic Dystrudepts
Occum	Coarse-loamy, mixed, superactive, mesic Fluventic Dystrudepts
Ondawa	Coarse-loamy, mixed, active, frigid Fluventic Dystrudepts
Pawcatuck	Sandy or sandy-skeletal, mixed, euic, mesic Terric Sulfihemists
Paxton	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
Penwood	Mixed, mesic Typic Udipsamments
Pishagqua	Fine-silty, mixed, superactive, nonacid, mesic Fluventic Sulfiwassents
Pits	
Pootatuck	Coarse-loamy, mixed, active, mesic Fluvaquentic Dystrudepts
Pyrities	Coarse-loamy, mixed, active, frigid Dystric Eutrudepts

Taxonomic Classification of the Soils–State of Connecticut	
Soil name	**Family or higher taxonomic classification**
Rainbow	Coarse-loamy, mixed, active, mesic Aquic Dystrudepts
Raynham	Coarse-silty, mixed, active, nonacid, mesic Aeric Epiaquepts
Raypol	Coarse-loamy over sandy or sandy-skeletal, mixed, active, acid, mesic Aeric Endoaquepts
Rhodesfolly	Mixed, mesic Fluventic Psammowassents
Ridgebury	Loamy, mixed, superactive, acid, mesic, shallow Aeric Endoaquepts
Rippowam	Coarse-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts
Rock outcrop	
Rumney	Coarse-loamy, mixed, active, nonacid, frigid Fluvaquentic Endoaquepts
Saco	Coarse-silty, mixed, active, nonacid, mesic Fluvaquentic Humaquepts
Scarboro*	Sandy, mixed, frigid Histic Humaquepts
Scarboro	Sandy, mixed, mesic Histic Humaquepts
Schroon	Coarse-loamy, mixed, superactive, frigid Aquic Dystrudepts
Scitico	Fine, mixed, semiactive, nonacid, mesic Typic Endoaquepts
Shaker	Coarse-loamy over clayey, mixed, semiactive, nonacid, mesic Aeric Epiaquepts
Shelburne	Coarse-loamy, mixed, active, frigid Oxyaquic Dystrudepts
Stockbridge	Coarse-loamy, mixed, semiactive, mesic Dystric Eutrudepts
Sudbury*	Sandy, mixed, frigid Aquic Dystrudepts
Sudbury	Sandy, mixed, mesic Aquic Dystrudepts
Suncook	Mixed, mesic Typic Udipsamments
Sutton	Coarse-loamy, mixed, active, mesic Aquic Dystrudepts
Taconic	Loamy-skeletal, mixed, active, frigid Lithic Dystrudepts
Timakwa	Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists
Tisbury	Coarse-silty over sandy or sandy-skeletal, mixed, active, mesic Aquic Dystrudepts
Udifluvents	Udifluvents
Udipsamments	Mesic Udipsamments
Udorthents	Udorthents
Urban land	
Walpole	Sandy, mixed, mesic Aeric Endoaquepts
Wapping	Coarse-loamy, mixed, active, mesic Aquic Dystrudepts
Watchaug	Coarse-loamy, mixed, semiactive, mesic Aquic Dystrudepts
Water	
Wequetequock	Coarse-loamy, mixed, active, nonacid, mesic Fluventic Sulfiwassents
Westbrook	Loamy, mixed, euic, mesic Terric Sulfihemists
Westminster	Loamy, mixed, active, frigid Lithic Dystrudepts
Wethersfield	Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts
Whitman	Loamy, mixed, superactive, acid, mesic, shallow Typic Humaquepts
Wilbraham	Coarse-loamy, mixed, active, nonacid, mesic Aeric Epiaquepts

Taxonomic Classification of the Soils–State of Connecticut	
Soil name	**Family or higher taxonomic classification**
Windsor	Mixed, mesic Typic Udipsamments
Winooski	Coarse-silty, mixed, active, mesic Fluvaquentic Dystrudepts
Wonsqueak	Loamy, mixed, euic, frigid Terric Haplosaprists
Woodbridge	Coarse-loamy, mixed, active, mesic Aquic Dystrudepts
Yalesville	Coarse-loamy, mixed, active, mesic Typic Dystrudepts

Data Source Information

Soil Survey Area: State of Connecticut
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