

Taxonomic Classification of the Soils

Steuben County, Indiana

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

Soil name	Family or higher taxonomic classification
Adrian	Sandy or sandy-skeletal, mixed, euic, mesic Terric Haplosaprists
Boyer*	Coarse-loamy, mixed, superactive, mesic Typic Hapludalfs
Brookston	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Casco*	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Hapludalfs
Cohoctah	Coarse-loamy, mixed, active, mesic Fluvaquentic Endoaquolls
Crosby	Fine, mixed, active, mesic Aeris Epiaqualfs
Crosier	Fine-loamy, mixed, active, mesic Aeris Epiaqualfs
Edwards	Marly, euic, mesic Limnic Haplosaprists
Eel	Fine-loamy, mixed, superactive, mesic Fluvaquentic Eutrudepts
Houghton	Euic, mesic Typic Haplosaprists
Kosciusko	Fine-loamy, mixed, active, mesic Typic Hapludalfs
Martisco	Fine-silty, carbonatic, mesic Histic Humaquepts
Miami	Fine-loamy, mixed, active, mesic Oxyaquic Hapludalfs
Millgrove	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Muskego	Coprogeous, euic, mesic Limnic Haplosaprists
Ormas	Loamy, mixed, active, mesic Arenic Hapludalfs
Palms	Loamy, mixed, euic, mesic Terric Haplosaprists
Palms*	Loamy, mixed, euic, mesic Terric Haplosaprists
Riverdale*	Loamy, mixed, semiactive, mesic Aquic Arenic Hapludalfs
Shoals	Fine-loamy, mixed, superactive, nonacid, mesic Fluventic Endoaqupts
Sloan	Fine-loamy, mixed, superactive, mesic Fluvaquentic Endoaquolls
Udorthents	Udorthents

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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. 2003. Keys to soil taxonomy. 9th 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.)