country : USA
object : Soils
scale : /Legend/

map ref. : US 1.2 (a)
libr. ref. :

ALFISOLS — Soils having a subsurface horizon that contains an accumulation of clay and has base saturation of more than 35%; formed in humid to semi-arid climates; mostly farmed, but where not farmed the soils carry forest under humid climates and shrubs under seasonally dry climates

A1 AQUALFS — (seasonally wet Alfisols), plus Albolls and Udalfs; gently sloping

A2 BORALFS — (cool Alfisols), plus Fibrists and Psamments, gently or moderately sloping

A2S BORALFS — (cool Alfisols) plus Orthods, Orthents and Rock land; steep.

A3 UDALFS — (Alfisols that are usually moist) plus Aqualfs, Aquolls and Udolls; gently ore moderately sloping.

A4 USTALFS — (warm Alfisols that are seasonally dry) plus Usterts, Ustols and Psamments; gently sloping

A4S USTALFS — (warm Alfisols that are seasonally dry) plus Usterts and shallow Orthents; steep.

ARIDISOLS — Soils having a thin ore light-colored surface horizon and (1) an horizon in which soluble materials such as gypsum or salt having accumulated or (2) in the absence of soluble materials, an accumulation of clay; formed in arid and semi-arid climates; mostly sparsly covered with shrubs, grass or both, except for irrigated farming areas.

D1 ARGIDS — (Aridisols having an accumulation of clay in the subsurface horizon), plus Orthents shallow Orthents and Ustolls; gently or moderately sloping.

D1S ARGIDS — (Aridisols having an accumulation of clay in the subsurface horizon) plus Orthents shallow Orthents and Rockland; gently sloping to steep.

D2 ORTHIDS — (Aridisols lacking an accumulation of clay in the subsurface horizon), plus Orthents Ustolls and Rock land; gently or moderately sloping.

D2S ORTHIDS — (Aridisols lacking an accumulation of clay in the subsurface horizon), plus Psamments shallow Orthents and Rock land; gently sloping to steep.

ENTISOLS — Soils having very faint or no horizons; formed in humid to arid climates; vegetation varies according to climate; some deep soils are farmed.

E1 ORTHENTS — Entisols of texture finer than loamy fine sand) plus Argids , Orthids and Ustolls; gently or moderately sloping.

E2 SHALLOW ORTHENTS — (Entisols shallow to bedrock) plus Ustalfs and rough stony land; gently or moderately sloping.

E2S SHALLOW ORTHENTS — (Entisols shallow to bedrock) plus Argids , Orthids , Ustolls and Rock land or Badlands; gently sloping to steep.

E3 PSAMMENTS — (sandy Entisols), plus soils of other suborders depending on location; gently or moderately sloping.

HISTOSOLS — Organic soils; formed in many climates; wet; some drained areas are farmed

H1 FIBRISTS — (Histosols in which plant remains are not decomposed), plus Boralfs, Orthods, and Psamments gently sloping.

H2 SAPRISTS — (Histosols in which plant remains are decomposed) plus Aquepts and Aquerts; gently sloping.

INCEPTISOLS — Soils having weakly expressed horizons; formed in humid climates; mostly forested but some areas farmed.

I1 AQUEPTS — (wet inceptisols), plus Aquods and Psamments; gently sloping

I2 OCHREPTS — (Inceptisols having thin or light-colored surface horizons) plus Aquepts; gently or moderately sloping

I2S OCHREPTS — (Inceptisols having thin or light-colored surface horizons) plus Rock land on slopes and Udults in valleys; gently sloping to steep.

I3S UMBREPTS — (Inceptisols having thick dark colored surface horizons) plus Andepts and Orthods; steep.

MOLLISOLS — Soils having a friable surface horizon, darkened by organic matter, and a base saturation of more than 50%; formed in humid to semi-arid climates; mostly farmed but partly grass-covered.

M1 AQUOLLS — (Wet Mollisols), plus soils of the suborders depending om location; gently sloping

M2 BOROLLS — (Cool Mollisols) plus Aquolls and Ustolls gently or moderately sloping.

M3 UDOLLS — (Mollisols that are generally moist) plus Aquolls and Udalfs; gently or moderately sloping

M4 USTOLLS — (Dry Mollisols having a subsurface horizon in which base-saturation is more than 80%) pus Orthents and in Montana Borolls; gently or moderately sloping.

M4S USTOLLS — (dry Mollisols having a subsurface horizon in which base saturation is more than 80%) plus Xerolls, Udalfs and shallow Orthents; gently sloping to steep.

M5 XEROLLS — (seasonally dry mollisols having a subsurface horizon in which the base saturation is less than 80%) plus Ustolls Albolls and Udalfs; gently or moderately sloping.

M5S XEROLLS — (seasonally dry Mollisols having a subsurface horizon in which the base saturation is less than 80%, plus shallow Orthents; steep.

SPODOSOLS — Soils having an accumulation of free sesquioxides and organic matter in a subsurface horizon; formed in humid climates; mostly forested but some areas are farmed

S1 AQUODS — (wet spodosolls) plus histosols and psamments; gently sloping

S2 ORTHODS — (well drained spodosols) plus Aquods, Histosols (Inceptisols and in the Nothern Lake States Boralfs and Psamments gently or moderately sloping.

S2 ORTHODS — (well-drained spodosols) plus Rock land and in Wasington and Oregon, Umbrepts steep.

ULTISOLS — Soils having a subsurface horizon that contains an accumulation of clay and has base saturation of less than 35 % ; formed in humid climates mainly forested but many areas are farmed.

U1 AQUULTS — (wet Ultisols), plus Udults, Psamments, Tidal marsh and in Louisiana , Aqualfs; gently sloping

U2S HUMULTS — (Ultisols having a surface horizon rich in organic matter) plus Umbrepts, Udolls and Xerolls and Shallow Orthents; gently sloping to steep.

U3 UDULTS — (Ultisols that are usually moist), plus Ochrepts and Udalfs; gently or moderately sloping

U3S UDULTS — (Ultisols that are usually moist), plus Ochrepts and Udalfs; gently sloping to steep

U4S USTULTS — (seasonally dry Ultisols) plus Umbrepts and Orthents; steep.

VERTISOLS — Soils that contain a large amount of swelling clay and that crack when dry; formed in semiarid to humid climates with distinct wet and dry season; mostly farmed but some areas are grass-covered.

V1 AQUERTS — (seasonally wet Vertisols) plus Aquepts and Ustalfs ; gently sloping.

V2 USTERTS — (well-drained Vertisols) plus Ustalfs and Ustolls; gently sloping.

NONSOILS AREAS — Formed in arid climates; bare or sparsely covered by shrubs

X1 SALT FLATS — plus Aridisols in playas; gently sloping

SOIL ORDERS OF THE NEW CLASSIFICATION AND APPROXIMATE EQUIVALENTS OF THE CLASSIFICATION (AS REVISED AFTER 1938) IN SOILS AND MEN 1938 YEARBOOK OF AGRICULTURE USDA.

Order	Approximate equivalents
Alfisols	Gray-brown podzolic soils, Gray wooded soils, Non calcic Brown soils, Degraded Chernozem, and associated Planosols and some Low Humid Gley soils.
Aridisols	Desert soils, Reddish Desert soils , Sierozem, Solonchak, some Brown and Reddish Brown soils and associated Solonetz.
Entisols	Azonal soils. (Regosols, Lithosols, and Alluvial soils)
Histosols	Bog soils (Peat and Mucks)
Inceptisols	Andosolls; Sols bruns Acides, some Brown Forest, Low humic Gley, Humic Gley, and wet Alluvial soils
Mollisols	Chestnut soils, Chernozems, Brunizems Rendzinas, some Brown, Brown Forest, and associated Solonetz and Humic Gley soils.
Spodosols	Podzols, Brown Podzolic soils and Ground-Water Podzols.
Ultisols	Red-Yellow Podzolic soils, Reddish-Brown Lateritic soils, and associated Planosols, and Low Humic Gley soils
Vertisols	Grumusols and some clayey Alluvial soils.

Only a selected key facts are given for the orders and suborders. For explanation of the new classification and complete definetions of the taxa see: Soil Survey Staff, USDA, Soil Classification A comprehensive System, 7th Approximation, U.S. Govt. Printing Office Washinton DC 1960, and revisions of June 1964. (Unpublished) Brief statements on climate and land use are given for the orders.

SLOPE CLASSES

Gently sloping = slopes mainly less than 10 %. Moderately sloping = slopes mainly between 10 and 25 %. Steep = slopes mainly steeper than 25 %