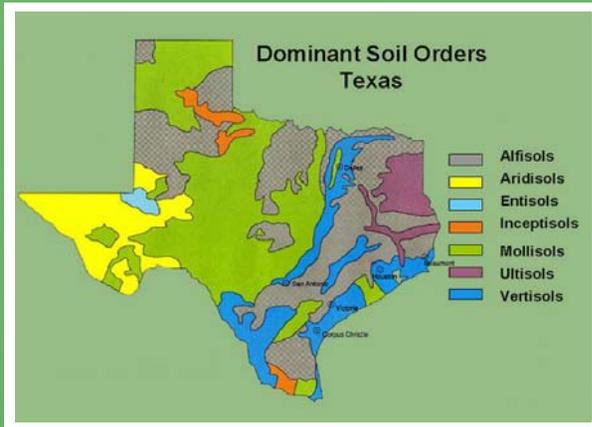


# The Soil Orders of Texas



The system for classifying soils, Soil Taxonomy, is used worldwide. The highest level of Soil Taxonomy is the Soil Order. There are 12 recognized soil orders in the world. Of these, the state of Texas has 9. There are more than 1,300 soil series in Texas, and each series is classified in one of these 9 soil orders.

The Dominant Soil Orders map represents the general distribution of 7 of the 9 soil orders in Texas. The 7 soil orders, Alfisols, Aridisols, Entisols, Inceptisols, Mollisols, Ultisols, and Vertisols, are mapped extensively in the state. The other 2 soil orders, Histosols and Spodosols, which are mapped in the southeastern part of the state, are not shown on the map because they cover relatively small areas. The soil orders not found in Texas are Andisols (volcanic soils), Gelisols (frozen soils), and Oxisols (highly weathered tropical soils).



## Alfisols

The Duval series is an example of an Alfisol. Alfisols have a subsurface accumulation of clay and have greater than or equal to 35 percent base saturation. Duval soils occur in the Northern and Western Rio Grande Plain on nearly level to gently sloping uplands.



## Inceptisols

The Weswood series is an example of an Inceptisol. Inceptisols are soils with weakly developed subsurface horizons. These soils may be shallow to bedrock, occur on steeply sloping land, or they may be very deep soils in areas subject to intermittent flooding. Weswood soils occur along the flood plains of the Brazos and Colorado Rivers in central Texas.

## Aridisols

The Upton series is an example of an Aridisol. Aridisols are the dry soils of the deserts. They have horizons with accumulations of carbonates, gypsum, or sodium chloride. Upton soils occur in the Trans-Pecos region on nearly level to moderately sloping uplands.



## Mollisols

The Pullman series is an example of a Mollisol. Mollisols have a distinctive dark colored surface horizon that is enriched with organic matter. They formed under grassland and are naturally fertile. Pullman soils occur in the High Plains on nearly level to very gently sloping uplands.



## Entisols

The Galveston series is an example of an Entisol. Entisols are soils with little evidence of soil formation. Galveston soils occur on nearly level to strongly sloping coastal terraces, dunes, and offshore barrier islands along the Texas Gulf Coast.



## Spodosols

The Babco series is an example of a Spodosol. Spodosols are acid soils with a subsurface accumulation of iron and organic matter. These soils generally form under forests. Babco soils occur in the Flatwoods of southeast Texas. Spodosols are not mapped extensively in Texas.

## Histosols

The Allemands series is an example of a Histosol. Histosols are composed almost entirely of organic matter in all stages of decomposition. Allemands soils occur in southeast Texas in the coastal freshwater marshes. Histosols are not mapped extensively in Texas.



## Ultisols

The Bowie series is an example of an Ultisol. Ultisols are highly weathered soils that have a subsurface horizon enriched with clay. They have less than 35 percent base saturation. Bowie soils occur in the East Texas Timberlands on broad, very gently sloping to moderately sloping uplands.



## Vertisols

The Houston Black series is an example of a Vertisol. Vertisols are characterized by the presence of a mineral in the clay fraction called smectite. This mineral swells markedly when moist and shrinks when dry. Houston Black soils occur in the Blackland Prairie in the central part of the state from Bonham south to San Antonio.

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