

Fact Sheet - November 2010

Introduction

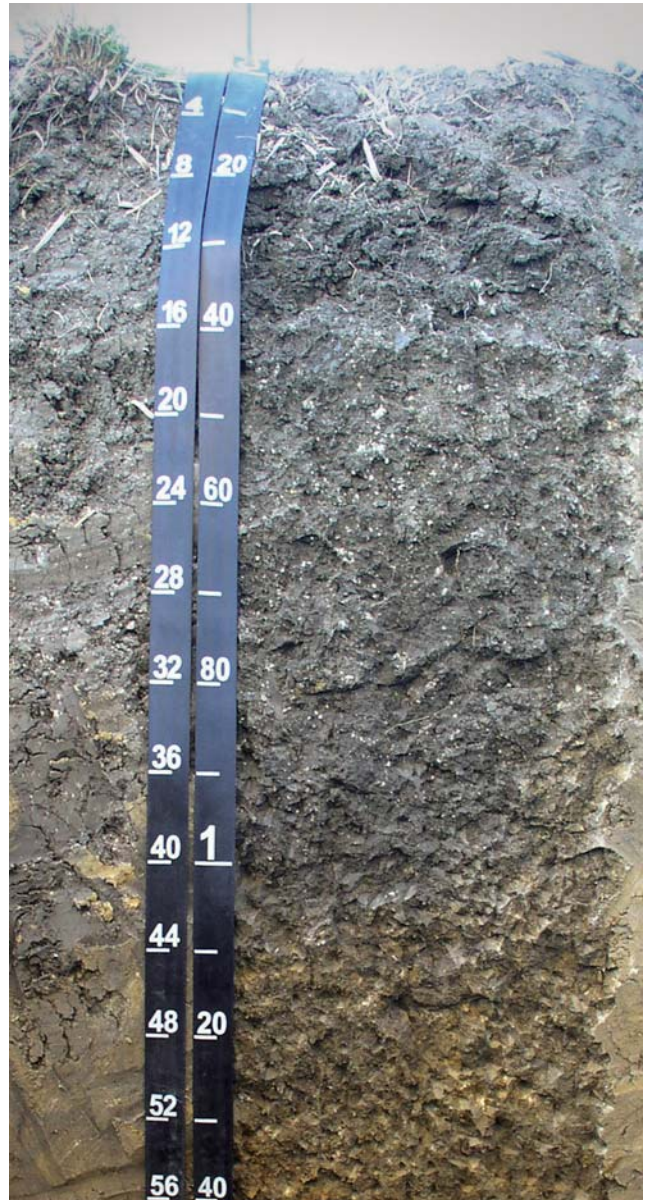
The soil is one of the foundations of Texas history, culture, growth, and inherent richness. Soil produces the food we eat and the fiber we wear. It filters and recycles the water we drink, and grows the lush forests that supply the lumber to build our homes. Soil provides the forage for livestock production, it sustains the habitat for wildlife, and supports the homes we live in. Texas is home to about 16 million acres of a unique class of soils (Vertisols) that are known worldwide. These very fertile soils are found from the High Plains to the Coastal Bend. Texas has 80 percent of this unique class of soils in the U.S. The soil known as Houston Black, which bears the name of Sam Houston, is an outstanding example of these types of soils.



Sam Houston

Houston Black

The Houston Black soil, recognized by its dark, rich color, occurs on about 1.5 million acres in the Blackland Prairie, which extends from north of Dallas to south of San Antonio. The Houston Black soil series was established in 1902 and is used extensively for the production of grain sorghum, cotton, corn, small grains, and forage grasses. It is one of the highest agricultural producing soils, generating between \$300 to \$500 million in annual revenue for farmers and ranchers in Texas. Millions of people live, work, and travel on areas of this soil, which occurs in three of the four largest metropolitan areas of the state.



Profile of Houston Black Clay in eastern Bell County, Texas

This soil is recognized by the National Cooperative Soil Survey both as a Hall of Fame Series and a Benchmark Soil Series. Hall of Fame Series are those that have a history of long use in the National Cooperative Soil Survey and represent a broad range of the types of soils in the United States. Benchmark Soil Series are those series of large extent, and that have special significance to farming, engineering, urban development and other uses.



Cotton growing on Houston Black soils in Texas



Houston Black soil develops a unique surface feature, which consists of microhighs surrounding circular microlows, which are filled with water.



Corn growing on the Houston Black soil in central Texas



The cracks in the soil can extend to depths greater than 80 inches when the soil is dry.

The Houston Black soil is recognized throughout the world because of its uniqueness as a classic Vertisol and is one of the most studied soils in Texas because of its extent and distinctiveness. Vertisols are soils that have a high content of expansive clays that shrink as they dry and swell as they become moist. Water enters the soils rapidly when they are dry and cracked, and very slowly when they are saturated with moisture. The soil develops a unique surface feature called gilgai, which consists of microhighs surrounding circular microlows.

For More Information

For more information regarding the Texas Soil Survey program, visit us online at www.tx.nrcs.usda.gov. For more information regarding soil data, visit: <http://websoilsurvey.nrcs.usda.gov> or <http://soils.usda.gov>.



Surface cracking during dry periods is one identifying feature of vertisols like the Houston Black soil.

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