



**Celebrating 100 years of
the Soil Survey Program
in the United States**

Without soil, the world would be a different place. Imagine a day without food, clothing, shelter, fuel, roads to drive on, buildings to work and live in, or a solid foundation to walk on. Believe it or not, the soil beneath your feet provides us with all this and more. That is why it is important to protect the soil. Soil scientists at the USDA-Natural Resources Conservation Service (NRCS) study the soil and collect data so that we can understand its characteristics and find ways to protect it. Thousands of different soil types are present, containing certain characteristics such as color, texture, stoniness, wetness, slope, organic matter, and permeability that help classify the various types. The first USDA soil classification system was published in 1938. Advances in digitized soil information allow soil scientists to convey 10 to 20 times more detail than 100 years ago. Today, NRCS maintains several databases with digital soil survey data. To find out more about soil conservation and how you can protect this important resource, call your local USDA Service Center.

DID YOU KNOW?

- Nature takes up to 1,000 years or more to make ONE inch of topsoil.
- Over time, soil forms layers (horizons) in the following categories:



TOPSOIL

SUBSOIL

BEDROCK

- Soil scientists can determine a soil's erodibility using these factors: texture, slope, structure, and organic matter content.
- Soils in South Carolina are generally infertile and need added nutrients to produce good crops because they are older and very weathered (nutrients tend to be washed out).
- Soils in the piedmont and mountains are formed from weathered rocks like granite, slate, and schist. Soils in the coastal plain, flatwoods and tidewater areas are formed in marine deposits that eroded from higher areas. Soils in the sandhills formed basically as old sand dunes along the edge of old seas.
- South Carolina has about 300 different types of soils.

Designed and produced by the South Carolina NRCS Public Affairs Team

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South Carolina's Soil by the Sea

Did you ever wonder what keeps the plants afloat in a marsh or tidal creek? It's not just floating on water, as it appears. Fortunately, there's a foundation of soil called Bohicket! If you've ever visited one of South Carolina's coastal counties, you were probably standing near it.

Bohicket is the soil where the life cycle for most all sea life begins. Animals such as shrimp, crab, and many species of birds, fish and even mammals such as dolphin, are common to South Carolina's marshes and tidal creeks. **Bohicket** provides direct food and shelter to many life forms in the sea. Marshes, with their lush plant community, also serve as a filter to rid waters of many pollutants, and of course, these marshes serve as peaceful grounds for humans to visit and relax.

There are 400,000 acres of **Bohicket** soils from northern Virginia to southern Georgia, and half of this acreage is located in South Carolina. The soil is found in all of the state's coastal counties and is generally dark gray to greenish gray silty clay and is flooded twice a day by tides.



South Carolina has about 300 different types of soil. They are older and tend to be washed out, and need added nutrients to produce good crops.



The Soil Survey Program: One Hundred Years of Progress

Tremendous progress has been made with one hundred years of the soil survey. The first soil survey in South Carolina took place in Abbeville and Darlington Counties in 1902



All 46 South Carolina counties have published soil surveys
60% of South Carolina consist of the soil order *Ustisols*



The Future of Soils Data

South Carolina NRCS is in the progress of equipping field offices with a Geographic Information System, or GIS technology. This will allow data, such as soil data to be digitized, making it easy to cross-reference with other types of data for more precise land and conservation planning.