

THIS LAND IS YOUR LAND--ALL 171 PAGES OF IT

Pres. - John Huguley - Charleston Trident C. FC.

Ch. Rep. C. H. - Sid Lindhouse - " Co. S. & W. Cons. Dist.  
St. Cons. Geo. H. - Surveys are popular--on a proliferation of topics; Ladies & Gentlemen

population, pollution, politics, permissiveness of people--and

other matters of interest to you and to me. This one is \*

different. It tells little you don't already know about your

neighbors. It tells much about that thin layer of mineral

particles, organic matter, living things, air and water on

the thin surface of this earth where plants grow. We live,

work, play, and travel on soil--our grain, grass, forests,

flowers, fruits, and vegetables grow in and on soil. Therefore,

I'm pleased to help you introduce this new Charleston County,

South Carolina Soil Survey to your community, county, and State.

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Material for remarks by Norman A. Berg, Associate Administrator,  
Soil Conservation Service, U.S. Department of Agriculture,  
Washington, D. C. at Meeting of the Charleston Soil and Water  
Conservation District at the Red Carpet Club of the Charleston  
Trident Chamber of Commerce, July 27, 1971.

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I'll say a few words on what it is, and what you can expect from it. However, the real experts are the people who made it, interpreted what they mapped, and wrote the publications. Luckily

*still around*  
they are ~~here~~--and will be available to help on details for a long time. *Mankie St. Soil Sc. Clarence Ellerbe*

*State Comm. Jim McDonald* *Ted Loue F. S.*  
*F. S. Scurry* *Dr. C. G. O. - E. K. Sta*  
Your new survey had a long gestation period. Part of

Charleston County was mapped back in 1904, in one of the earliest soil surveys on record. Cotton was your chief agricultural product then, and the entire first survey was devoted to farm matters. But times change, and as early as 1912 there was local interest in more complete mapping. We have early letters on file from planters, government officials, businessmen, and the Charleston Chamber of Commerce, requesting a survey of the entire county. The answers have a familiar ring even today--no money.

Work on a new Charleston survey began in the 1930's, but was a "go no-go" affair due largely to "go no-go" financing. Another delay occurred in 1940 when the soil scientist sprained his back while pulling a soil auger.

During World War II the work ground to a halt for several years. After the war, the city of Charleston began spreading out, and it was apparent that you needed soils information and interpretations for both farm and nonfarm uses. Marshy land can be extremely difficult to build on, as developers quickly found out.

An interim survey of ~~the~~ James Island, completed a number of years ago, has been widely used. Now, today, you have the final countywide, printed soil survey. Congratulations!

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These surveys are the product of scientific knowledge, laboratory analysis, and hard work. Soil scientists like to say they have the only profession where you need a college degree to dig dirt.

Surveyors around the country have been bitten by dogs, shot at by mountain moonshiners, had hand-to-claw combat with woodchucks, and been mistaken for telephone repair men, uranium prospectors, and gravediggers. They have discovered the bones of ancient animals such as the three-toed horse, and have broken a few of their own, more modern bones, while digging. In the process, they have mapped the soils on more than 40 percent of the United States, providing farmers, engineers, and other land users with invaluable information.

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In South Carolina, approximately 10.7 million acres have been soil surveyed according to present day standards.

Charleston County is the 12th modern survey to be published

in your State since 1960. In addition, field mapping has been

completed in <sup>7</sup> other areas *plus 3 more to be completed this Fy.*

What is a soil survey? Briefly, it's an inventory of soil resources in a given area. It shows the location and extent of different kinds of soils on aerial photos. Detailed descriptions of the properties of each soil and how they can best be used are also included. Soil surveys can look rather formidable, and we urge people who do not ordinarily deal with them to request interpretive help from SCS people or others experienced in their use. Obviously, your requests for help should come through your local soil and water conservation

district. *Soil Surveys have been the basis for over 600 conservation plans of the difference between "hard" marsh & "soft" marshes for one & a half,*

Mapping is done by professional soil scientists who walk over the land, digging up the soil in small bites to a depth of at least 60 inches--if they can--to observe the thickness and arrangement of each layer, the proportions of sand, silt, and clay and the structure, shape, and color. They observe unusual land features, estimate the soil's organic content, and they may test for acidity, alkalinity, or other characteristics.

Soil surveys also include the results of laboratory analysis. A uniform system of soil classification is followed throughout the Nation, so that all similar soils have the same names and can be interpreted the same way.

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SCS has mapped over 70,000 different kinds of soils in the United States. They vary tremendously in appearance, general suitability for different purposes, and reactions to different uses. For example, Capers silty clay loam, called "cat clays," is a soil type here in Charleston County. When this soil is drained, the soil <sup>develops a high</sup> acidity ~~goes so high~~ that PH 2.8 that nothing--no plants at all--will grow. The extreme change in the soil when drained, presents serious problems to anyone not aware of this peculiarity.

In making the new Charleston County survey, scientists discovered and named several soils never before found in the United States. They include soils called Yonges, Seabrook, Edisto, and Charleston. <sup>Yours</sup>

Seeley  
Santee

The subject of soil science is less than a hundred years old and still growing and developing. The scientific use of soil by farmers and others certainly accounts for part of our high living standard in this country. America has abundant natural resources. But abundance has made us careless. Some of us think that all soil is good for all purposes, or that a bulldozer can push it into any shape for any use. That's a tragic mistake, as people are finding out.

Good farmers have always recognized the relationship between their soils and their crops. More recently, soils information has been "discovered" by housing developers, engineers, bankers--for loans--and other people who may not know corn from cotton, but who do see what happens when metal pipes corrode from acid soils, or septic tank filter fields don't work, or home foundations crack from shrink-swell soils.



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Although your published soil survey is new, the information itself is already being used by many groups.

The Charleston County Health Department uses survey information to help locate good sites for septic tank drainage fields and sewage lagoons. And the information is helping implement the Charleston County ~~Drainage Feasibility Study~~ *Water Mgt Plan*.

Building contractors in the county use the information to help select good sites, or to become aware of potential problems or assets on current site locations.

A popular use of soils information is to help people locate good pond sites here in Charleston County. Many landowners also select good drainage ditch locations after looking at the soils map. Some of your land has a sand layer within three feet of the surface. A ditch through these soils will sluff-off so badly that the top will be three times as

wide as it was meant to be. *Soils info. has helped implement several RC&D project measures.*

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Survey information is also used by local military installations. Earlier this month, the district conservationist in Charleston was asked to check soil conditions and make recommendations for conservation improvements at your Air Force

Base.

*We've also worked w/ the Naval Base and the Ammunition Depot thru species survey*  
Soils information was also used to help locate part of planning

of interstate highway 95 in your State. In the original plan, part of the highway would have gone through an area of high shrink-swell, or unstable, soils. After highway engineers

*checked* soils maps *influenced* they changed the route *planning* a few miles and

saved a considerable amount of public money *(about over \$1 Mil 5 times the cost of the survey)*

Studies show that soil surveys nationwide have a favorable cost-benefit ratio of from 1 to 46 to 1 to 123.

The lower benefit ratio is often western rangeland with low intensity use. The higher benefits occur in urbanizing areas, where land use mistakes can be extremely costly.

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Soil survey information has saved many individuals or communities large amounts of money. A Massachusetts town-- Cohasset--saved more than a quarter million dollars on its sewage system by using survey information, while an urbanizing county in Virginia lost a quarter million dollars in avoidable costs when it chose a school site without checking survey information. After building was underway, some problems surfaced and school officials made a belated phone call. They discovered--then--that a potential school site only 500 feet away had much better soils for their purpose.

I want to emphasize that surveys are not land use plans. They are predictions of how soil will behave under different conditions and land uses. They are essential data needed by land use planners and users.

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Surveys are gold mines of information. They are literally worth 200 times their weight in gold--based on two pounds for a survey, the price of gold and a conservative estimate of annual savings.

But no survey is worth a copper penny if it sits unloved, unsung, and unused on a dusty shelf. The more you use it, the better your county will grow. We should all encourage their use--I, because conservation and good land use is my business, and you, because you are leaders of this area who care about your community. A soil survey is a basic tool for good community development.

Thanks for the opportunity to be here today and talk about your new survey. You are using it already and I am certain it will be increasingly valuable as Charleston City and County grow and prosper in the years ahead.

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