

United States Department of Agriculture

Natural Resources Conservation Service

Dear Students,

My name is Jim Lathem and I am a soil scientist with the USDA Natural Resources Conservation Service (NRCS). Let me tell you a little about my career background and current job.

My area of professional expertise is a field of science called "Pedology". Pedology is the study of soil in its natural environment. Pedology deals with soil formation (the process by which soil is created), soil morphology (the structure and make-up of natural soils), and soil classification (a system of taxonomy used to categorize soils based on morphology).

I graduated college in 1980 with a bachelor's degree in Agronomy. My major field of study was soil science. In January of 1981, I went to work with NRCS as a field soil scientist.

I have spent most of my career studying and mapping soils throughout Georgia for the National Cooperative Soil Survey Program. Also, I studied and mapped soils near the Canadian border in North Dakota. The soil survey maps that I made are utilized to assist farmers, foresters, developers and others in understanding soils and helping land users to make wise land use decisions. You can look for soils maps in your area by visiting the Web Soil Survey online at <http://websoilsurvey.nrcs.usda.gov/app/> or by contacting your local USDA NRCS office.

The last few years, I have been employed as a resource soil scientist. The resource soil scientist position is one that involves a variety of work such as soils education assistance, maintaining soil information in computer databases, providing training, and technical support for USDA programs. This job includes many different assignments and involves making recommendations about many resource areas.

One of the features that pedologists study in the field is the depth to the seasonal high water table (SHWT). SHWT levels can be estimated during the drier times of the year by observing soil features such as patterns of soil colors, presence of thick organic layers, or the presence of layers of certain minerals in the soil such as manganese. During the wet seasons, SHWT can be directly observed through boreholes or can be directly recorded using special devices such as piezometers. Piezometers are tools that read water pressures and groundwater elevations within a borehole. Data loggers are used along with piezometers to record and store the data until it can be downloaded for processing.

The information that soil scientists collect and publish is vital to helping people understand soils and make wise use of this important resource. Studying seasonal high water tables is an important part of the work that a soil scientist does. For more information on soils and/or the Natural Resources Conservation Service, visit our Web site at <http://soils.usda.gov/>. For more information on the job of NRCS soil scientists, click on "Teachers and Students" - "Soil facts" - "Careers".

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