

Web Soil Survey Embraced by Clemson University Professors and Students

Clemson University students recently enjoyed a hands-on experience with USDA's Web Soil Survey. Sixty-seven students, majoring in various fields such as horticulture, forestry, agricultural mechanization and agricultural education, used the application in *Crop and Soil Environmental Science 202*. The introductory soil science course, led by Clemson faculty Dr. Elena Mikhailova, Assistant Professor of Soil Science, and Dr. Christopher Post, Assistant Professor of GIS, required the students to use the on-line tool in their coursework.

Last summer, USDA announced the launch of the Web Soil Survey site that would provide public access to the national soils information system. "The site is a simple yet powerful way to access and analyze soils data that contributes to every aspect of public and private land use and development," explained USDA-Natural Resources Conservation Service (NRCS) State Conservationist Walt Douglas.

Clemson University students conducted two laboratory exercises utilizing the tool created by USDA-NRCS. The assignments were: Using *the NRCS Web Soil Survey to evaluate soil physical properties, septic suitability and basement suitability*, and *Using the NRCS Web Soil Survey to evaluate soil chemical properties*. The course assignments can be viewed at (<http://www.gis.clemson.edu/elena/SoilsandEnvironLab.htm>).

Student responses to the laboratory exercises were positive. "I liked using the website to explore the concept of soil science. The tool is very useful because we learned how to judge if a soil is good for a septic system or a basement. I liked that we could actually use this information in our daily lives," said student Andrea Koppenheffer.

The tool has even led some students, like John Hollis, to envision how the Web Soil Survey will assist them in their careers. "When I graduate, I plan to open a lawn-maintenance and landscaping business. I'll use the Web Soil

Survey to check soil properties and make necessary adjustments to my landscape plans. This will give me an advantage over my competitors in understanding the way water moves into and through soil, which will then assist me in making good management decisions.”

Prior to the launch of the Web Soil Survey, maps were printed and bound into soil survey books that were free to the public at local NRCS offices. These will be phased out with the creation of the new site. “Currently, NRCS has soils maps and data available online for more than 95 percent of the nation’s counties and should have 100 percent very soon,” said Douglas. “We are excited that Clemson University students and professors are using this innovative tool in the classroom, and that they are seeing first-hand how useful it can be in real-life situations.”

The USDA-Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve natural resources and the environment. Visit the Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov/app>.