



SPECTRAL EVOLUTION participates in Inaugural Global Workshop: Digital Soil Morphometrics

Hosted by the University of Wisconsin-Madison Spectral Evolution demonstrated the PSR+ spectroradiometer for soil analysis and clay identification in soil pit.

Lawrence, MA – June 12, 2015 – A group of 70 soil scientists attending the University of Wisconsin-Madison's first global workshop on Digital Soil Morphometrics had an opportunity to see an XRF instrument and a Spectral Evolution PSR+ spectroradiometer at work in two soil pits. The fieldtrip on the first day of the workshop allowed the scientists to see the two complementary technologies in action, take scans and talk about the results.

Nate Bloomingdale represented Spectral Evolution and provided a hands-on demonstration of soil sampling *in situ* with the full range PSR+. This UV/VIS/NIR field portable spectroradiometer has a spectral range from 350-2500nm and delivers high resolution and enhanced sensitivity for exceptional collection of soil spectra. Using the PSR+ with a shoulder strap, lithium-ion battery for power, and a handheld contact probe, Nate quickly scanned the vertical layers of the test soil pit and stored the scans on the instrument. The spectroradiometer is well-suited for field use – no sample prep is required, there's no taking samples back to the lab, and the sample remains unaffected by the scanning process.

Once collected, the scans could be analyzed, highlighting features of interest. In addition, the PSR+ was equipped with EZ-ID sample identification software. EZ-ID matches target samples against known spectra from the USGS and SpecMIN libraries. This is very helpful in analyzing clays. EZ-ID also includes Custom Library Builder software so that researchers can create their own library for specific projects and regions.

While an XRF and XRD instrument can provide information on elements, the spectroradiometer can identify and measure clays, carbon, sodium, nitrogen, hydrogen,

and phosphorous in a single scan – all important properties for complete soil characterization.

The workshop was organized by the IUSS Working Group on Digital Soil Morphometrics. Digital Soil Morphometrics is defined as the application of tools and techniques for measuring and quantifying soil profile attributes and deriving continuous depth functions. In addition to the soil pit analysis instruments, the fieldtrip also gave researchers and opportunity to inspect some agricultural drone technology. The fieldtrip was followed by a three day symposium that cover soil profile attributes, soil profile imaging, soil depth functions and use and application topics.

For more information on the PSR+ and identification of clays in soil, visit: http://www.spectralevolution.com/applications_soil_clays.html

About SPECTRAL EVOLUTION

Established in 2004, SPECTRAL EVOLUTION is a leading manufacturer of laboratory and handheld portable spectrometers, spectroradiometers and spectrophotometers. SPECTRAL EVOLUTION spectrometers are used worldwide for many mission-critical lab and field applications in mining, remote sensing, vegetative studies, ground truthing, environmental and climate studies, developing satellite calibrations, and more, due to their reliable, robust, rugged design and user-friendly one-touch features.

SPECTRAL EVOLUTION maintains a facility in Lawrence, Massachusetts which houses design, prototyping, manufacturing and service facilities for the instruments that it markets and sells worldwide, either through direct sales, OEM sales or through distributor agents. EZ-ID and oreXpress are trademarks of SPECTRAL EVOLUTION.

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