



## **PRESS RELEASE**

# **Using a PSR+ field spectroradiometer to measure nitrogen content in soil**

*Lawrence, MA – August 3, 2017* – Using a field spectroradiometer such as the Spectral Evolution PSR+, a researcher can get an estimate of nitrogen content in a soil an important macro-nutrient for plant growth.

Proximal soil analysis using a PSR+ provides a window into the health of the soil and subsequent health of vegetation growth. By taking *in situ* measurements rapidly and without preparing or effecting the sample in any way, spectral information related to the main nitrogen absorption features near 1450, 1850, 2250, 2330, and 2430 nanometers provides an indication of nitrogen content. In addition this data can be used to derive quantitative information on total nitrogen using chemometrics software.

The PSR+ is a lightweight, reliable high resolution spectroradiometer designed for field use. The PSR+ covers the full UV/VIS/NIR range from 350-2500 nanometers with unmatched sensitivity and accuracy. It is easy for a single user to operate with an optional handheld microcomputer and direct screw-on lenses or fiber optic cable connection to a pistol grip with FOV lenses, contact probe, or benchtop probe with sample compactor for lab use. The PSR+ includes our exclusive DARWin SP Data Acquisition software with access to the USGS spectral library and 19 vegetation indices. Since DARWin saves all data as ASCII files it can easily be imported into third party analysis programs including chemometric software. The PSR+ can work in standalone mode to store up to 1000 field scans before offloading. It is supplied with two rechargeable lithium-ion batteries each capable of up to 4 hours of use.

Optional EZ-ID sample identification software includes access to mineral identification libraries – very useful for identifying clays in soil.

The ability to measure nitrogen in soil can be a key to promoting a better approach to prescription fertilization as part of precision agriculture.

For more information:

[http://www.spectralevolution.com/applications\\_nitrogen\\_soil.html](http://www.spectralevolution.com/applications_nitrogen_soil.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.

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