



## **PRESS RELEASE**

# Using a PSR+ field spectroradiometer to measure potassium in soil

*Lawrence, MA – November 7, 2017* – Using a field spectroradiometer such as the Spectral Evolution PSR+, a researcher can get an estimate of potassium content in soil - a key ingredient for plant health.

Spectroscopy can be a useful tool in measuring the amount of potassium in soil. It is fast, inexpensive, non-destructive and measurements can be taken *in situ*. Potassium has a distinctive spectral absorbance feature in a reflectance scan between 2450 and 2470nm. The depth and breadth of this feature can indicate the relative amount of potassium contained in the soil sample.

The PSR+ is a lightweight, reliable high resolution NIR 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 one person in the field to use with an optional handheld microcomputer and direct screw-on lenses, or fiberoptic connection to a pistol grip or sample contact probe. The PSR+ includes our exclusive DARWin SP Data Acquisition software with access to the USGS spectral library and 19 vegetation indices. DARWin saves all data as an ASCII file for use with other analysis and chemometric software tools.

The PSR+ can work in standalone mode to store up to 1000 field scans before offloading or use it with the optional GETAC minicomputer with GPS, altimeter, voice notes, digital camera and unlimited data storage. The PSR+ is supplied with two rechargeable lithium-ion batteries each capable of up to 4 hours of use for a total of 8 hours of scanning. The PSR+ is also available with a benchtop probe and sample compactor for soil analysis use in the lab.

Optional EZ-ID sample identification software includes access to mineral identification libraries – very useful for identifying clays in soil. There is a Custom Library Builder module so you can build your own library of soil scans.

The ability to measure potassium 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\\_potassium\\_soil.html](http://www.spectralevolution.com/applications_potassium_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.

EZ-ID is a trademark of SPECTRAL EVOLUTION.

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