AgriSpec™ — the rugged, field portable NIR analyzer designed specifically for analysis of a wide range of organic and inorganic materials, including nutrient and moisture properties in soil, monitoring the composition of manure and other biosolids applied as fertilizer to agricultural lands, animal forage, food products, wood products, paper, textiles, and petrochemicals.

While NIR is typically performed in the laboratory, AgriSpec™ makes field use of NIR not only possible, but practical. Many studies have established that NIR provides a means for rapid non-destructive soil analysis. Several studies have found that it is not necessary to dry or grind the samples, rather, measurement of intact soil samples provides results similar to more processed samples for a wide range of soil properties. In a study funded by Agri-Food Canada, the soil sample collection at the Canada/Manitoba Soil Survey was used to develop NIR calibrations for organic carbon, total nitrogen, cation exchange capacity, sand fraction, silt fraction, clay fraction, copper, zinc, chromium, nickel, cadmium, and manganese.

AgriSpec™, among its many applications, is also ideally suited for rapid in-field analysis of both living foliage and dried plant materials for the determination of nitrogen, lignin, cellulose and soluble sugars in plant tissue. It is possible to model more complex attributes such as herbivore feeding rates from foliage and prediction of crop yield. AgriSpec™ is well suited for rapid in-field chemical and mineralogical composition analysis of sediments, which, when measured by NIR, are similar to those measured in soils, including, total carbon, organic carbon, total nitrogen, phosphorus, percent organic matter, and moisture.

With ASD’s unique modular Goetz Spectrometer design providing a 350-2500 nm spectral range, wider than other NIR instruments available, your collected spectra are more robust and they allow for a greater range of applications and more reliable analysis. AgriSpec™ works with ASD’s full line of sampling accessories and easily interfaces with a standard SMA fiber optic connector.
Spectral Range
A108900 350-2500nm

Features and Advantages
• Built in handle for easy transportation
• AC or battery power (comes standard with Electrolyte battery belt, charger, and 6’, or 1.83 m. power cable)
• CE & CU certified
• 10/100Base T Ethernet interface

Accurate & Precise
• High signal-to-noise ratio for superior repeatability of results
• Better discrimination among materials

Rugged
• Designed from the start to be a portable instrument operating in harsh environments
• Not affected by vibration or changes in temperature or humidity
• Use it with confidence in virtually any environment

Fast 10 spectra per second data collection for the entire 350 - 2500 nm range
• 0.1 second scanning time provides an accurate average every second
• Allows the user to quickly scan several areas when analyzing bulk samples

Light weight and compact footprint
• 14.5” x 5” x 11.5” (LxHxW) 36.83 x 12.7 x 29.21 cm
• 12 lbs or 5.44 kg

Portable near infrared technology
• Ideal for testing samples in their original habitat with no sample preparation required
• NIR energy penetrates several millimeters into many organic substances including solids
• NIR measures many properties simultaneously
• Quick, accurate non-destructive testing

Fiber Optic Input
• Standard SMA fiber optic connector
• Flexible cable allows the probe to go to the sample for easier product sampling
• Allows remote monitoring in challenging environments
• Easily interfaced to a wide variety of sampling devices