

SpectraVue Leaf Spectrometer

■ CI-710s

Fast and highly portable -
plant & crop data analyzed
instantly in the field.

The newly redesigned SpectraVue Leaf Spectrometer gives plant researchers and agronomists the ability to collect, analyze or view plant data in real time. Using preloaded indices or by creating custom indices, Spectravue can measure the effects environmental variables have on nutrient and pigment quantification. Spectra can be used for the quantification of chemical concentrations, color analysis, and the study of photochemical reactions. Raw spectra can also be used to deploy chemometric techniques such as PLS modeling.

A powerful spectrometer paired with a leaf probe attachment, on-board software and display screen, SpectraVue measures the transmission, absorption and reflection of light within a wide range of wavelengths that cover visible and Near Infra-Red (NIR) light.

FEATURES

- Upgraded with an all new spectrometer and wider spectral range - **360-1100nm**
- Handheld form factor with a 7" 1024 x 600 IPS touchscreen display
- Measures **reflectance, transmittance and absorbance simultaneously**
- Easy portability for remote operation
- A full suite of built in analysis software
- GPS-enabled

APPLICATIONS

Agronomists use SpectraVue to analyze the effects of different nutrient applications.

Plant Physiologists use SpectraVue to evaluate environmental changes on plant stress.

Educators use SpectraVue to demonstrate spectral measurements of leaves.

Ecologists use SpectraVue to compare changes in pigments across elevations.

Five spectroscopic measurements can be performed:
**Intensity | Transmittance | Absorbance
Reflectivity | Irradiance**

SPECIFICATIONS

| | |
|-----------------------|---|
| Dimension | 220 mm x 150 mm x 30 mm |
| Weight | 952 g |
| Operating Environment | -30° to 70° C storage, -10° to 50° C Operation, 0% - 90% noncondensing humidity |
| Minimum Leaf Size | 20 mm x 20 mm |
| Display | 7" 1024 x 600 IPS Display |
| Languages | English, Spanish |
| Measure Modes | Reflectance, Transmittance and Absorbance |
| Memory | 64GB |

Detector Specifications

| | |
|---------------------------|------------------------|
| Detector | CMOS Linear Array |
| Wavelength Range | 360-1100 nm |
| Pixels | 2048 pixels |
| Pixel Size | 14 µm x 200 µm |
| Pixel Well Depth | 100,000 electrons |
| Signal-to-Noise Ratio | 330:1 (at full signal) |
| A/D Resolution | 16bit |
| Dark Noise | 16 counts |
| Corrected Linearity | >99.8% |
| Sensitivity | 337.500 |
| Wavelength Data Increment | 0.55 - 0.7 nm |

Spectroscopic

| | |
|--------------------|----------------------------|
| Grating | 300 lines/mm, Slit = 55 µm |
| Optical Resolution | 2.4 FWHM in nm |
| Integration Time | 30 ms – 60 seconds |
| Dynamic Range | 3300:1 |
| Stray Light | 0.2 – 1.0% |

Electronics

| | |
|---------------|-----------------------------|
| Power Supply | Two 18650 batteries & USB-C |
| Battery Life | 3-4 hours |
| Trigger Modes | Automatic & Manual |