

# 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 spectrum 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
- Integrated PLS modeling
- Measures **reflectance, transmittance and absorbance simultaneously**
- Easy portability for remote operation
- A full suite of built in analysis software

## 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 the CI-710 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