



PlantSpec™ 10 Whole Plant Imaging System

Overview

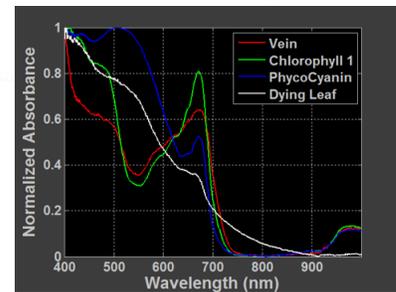
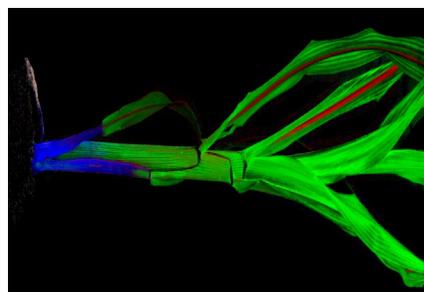
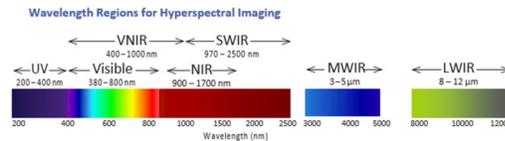
PlantSpec™ 10 is a hyperspectral system optimized for whole plant imaging. A hyperspectral camera can be positioned to image the canopy of plants up to four feet high. The camera can also be configured to scan plants from the side. Different lens options allow for a variety of field of views depending on the plant being scanned.

The system comes with a large frame that can accommodate hyperspectral, RGB or thermal cameras. An 80-inch drive moves the hyperspectral camera. The system comes with illumination, hyperspectral camera, referencing panels, PC and frame.



Multiple wavelength ranges

PlantSpec™ 10 can support up to two spectral cameras for sequential imaging. These include VNIR and NIR spectral cameras covering a range from 400 to 1700nm.



The power of Hyperspectral Imaging

Single point spectroscopic measurement instruments are capable of producing high quality spectra which are critical to understanding or solving problems presented to the lab. This helps to resolve questions like "What is it?," "How much is there?". These techniques can be cumbersome to use and relatively uninformative with respect to the non-uniformities when looking at the entire area of a sample or product. Using a hyperspectral camera, an image of the whole sample area can be captured and interrogated quickly to understand from the entire sample. A hyperspectral image contains a full spectrum for each pixel in the image. This can be extremely useful for identifying pure components, monitoring uniformity across a sample, looking for contaminants or quantitative measurements of sample components.



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Common Illumination System

PlantSpec™ 10 uses a large dual line light halogen illumination. The response is very uniform from 400nm out to 2500nm. An ideal system for either VNIR or NIR spectral cameras. Each line light has 13 35w halogen bulbs which are easy to replace if one burns out. Light switches give the user the option of turning all the lights on or every other bulb when less light is required.



White Reference panel

A white reference panel is mounted on the right side of the frame. Move the spectral camera into position to capture the reference image. The height of the white reference panel can be adjusted to match the height of the samples. A shutter closes for the dark measurement.



Specifications

System

Camera options VNIR 400-1000nm
 NIR 900-1700nm

Illumination Dual line light halogen with power supply module

Referencing White reference bar -located at the right side of the scanner. The height of the white reference bar is adjustable

Dark Reference - Shutter

Computer Industrial fanless PC, Windows 10 Professional 1 TB SSD

Mechanical

Frame Extruded Aluminum

Mobility Yes, industrial casters that can be locked in place

Dimensions (inches)

Length 110

Height 86

Width 48