

SENSORS & SYSTEMS



NDVI

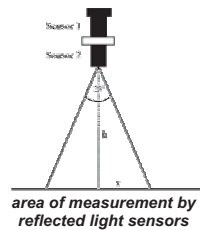
RVI

FOR PRECISION AGRICULTURE

Sensors



- ☀ Wavelengths are available for NDVI, RVI, etc to match Earth Observation satellites such as MODIS, SPOT, AVHRR, Landsat, etc.
- ☀ Wavelengths can be chosen for studying Biomass Cover, Vegetation Indices & Red Edge Inflection Point for example
- ☀ Use our expertise and knowledge to select the correct filtering for your application
- ☀ A pair of identical 2-channel sensors are mounted to measure incident & reflected light simultaneously for accurate readings in all daylight conditions
- ☀ Sensors are supplied with detailed calibration certificates, showing that calibration is fully traceable to National Standards
- ☀ Sensors are completely waterproof & designed for 'life in the field'



Logger

- ☀ DataHog2, SpectroSense2+ & SpectroSense2.GPS meters/loggers are designed specially for light measurements and in particular for the low signal measured from narrow-band filtering. We are specialists in designing light measurement systems and we have over 20 years experience in building specialist systems
- ☀ SpectroSense2 meters are portable. They include an NDVI display & mapping function



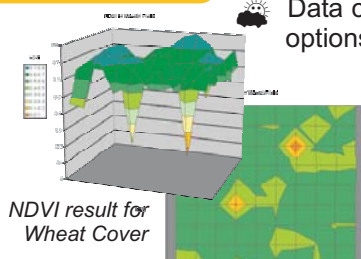
Logging Meter

Logger Choices

The System



- ☀ Sensors can be mounted on the top of an adjustable pole for variable ground area measurements
- ☀ Sensors can be mounted on long horizontal poles above a forest canopy or on tractor booms
- ☀ Sensors & logger can be added to Flux Towers or Eddy Covariance Towers
- ☀ Data can be used with any graphing package, especially those with complex 3D options



MobiLas CANOPY SENSOR - A.Thomsen



Applications

Studies of vegetation productivity & stress



Light-use efficiency



Red Edge Inflection Point



Monitoring the effects of climate change



Mapping land cover & land use



CO₂ Flux Towers



Vegetation Indices



Ground Truth Studies



Biomass cover



BSSES expedition to Greenland. NDVI system used for the study of vegetation characteristics for low arctic vegetation



Skye 2-channel sensors on an Eddy-Covariance Tower. Courtesy: Dr Caroline Nichol



4-channel sensors being used as part of a GIS based analysis of ground water quality in Senegal. Courtesy: Dr Rasmus Fensholt



Skye 4-channel sensors are mounted on this microlite aircraft for studying aerosol & radiation interaction. Courtesy: Dr Wolfgang Junkermann



MobiLas CANOPY SENSOR - A Thomsen, Danish Institute of Plant & Soil Science

Overview of Skye Loggers

	SpectroSense2+	SpectroSense2.GPS	DataHog2
Plot location log	X	✓	X
Sensor inputs	8	8	16
Incident / reflected measurements	✓	✓	✓
Designed for low reflected light levels	✓	✓	✓
Any daylight conditions	✓	✓	✓
LCD display	✓	✓	X
NDVI display	✓	✓	X
Logging function	✓	✓	✓
Waterproof rating	IP54	IP54	IP65
Suitable for long term logging	X	X	✓
Portable measurements	✓	✓	X
GPS mapping	X	✓	X
Traceable system calibration	✓	✓	✓
Other wavelengths available	✓	✓	✓
Sensor Library	✓	✓	X
2 & 4 Channel ratios displayed	✓	✓	X

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