UAV AGRICULTURE

FORESTRY, AGRICULTURE & ECOLOGY TOPOGRAPHICAL SURVEYS

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SAKURA

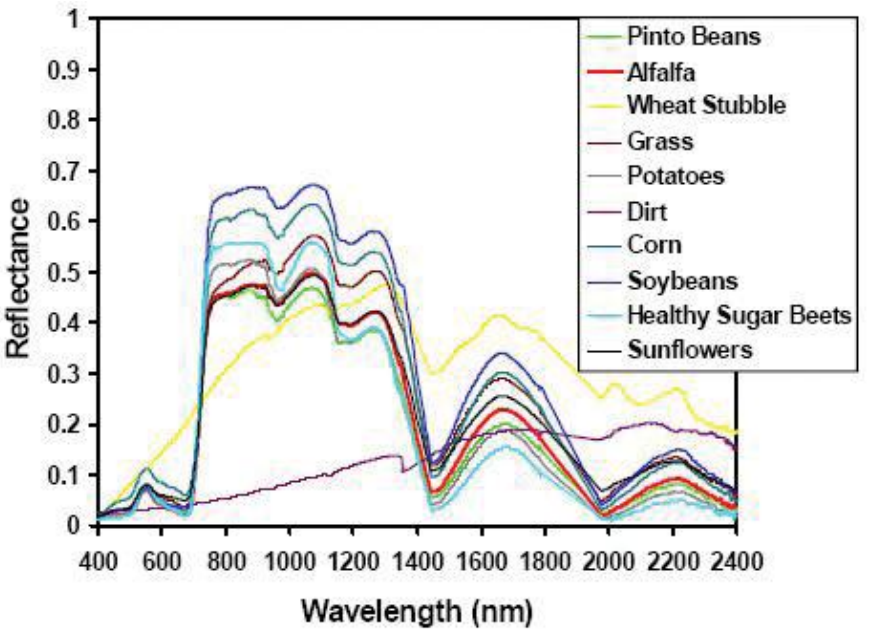
GEOINFORMATION SOFTWARE RESEARCH (P) LTD

ISO9001:2008 CERTIFIED

The ability to monitor crop development and forestry changes is crucial for management. By providing a cost effective solution to monitoring through UAV more frequent updates can be obtained without excessive spend.

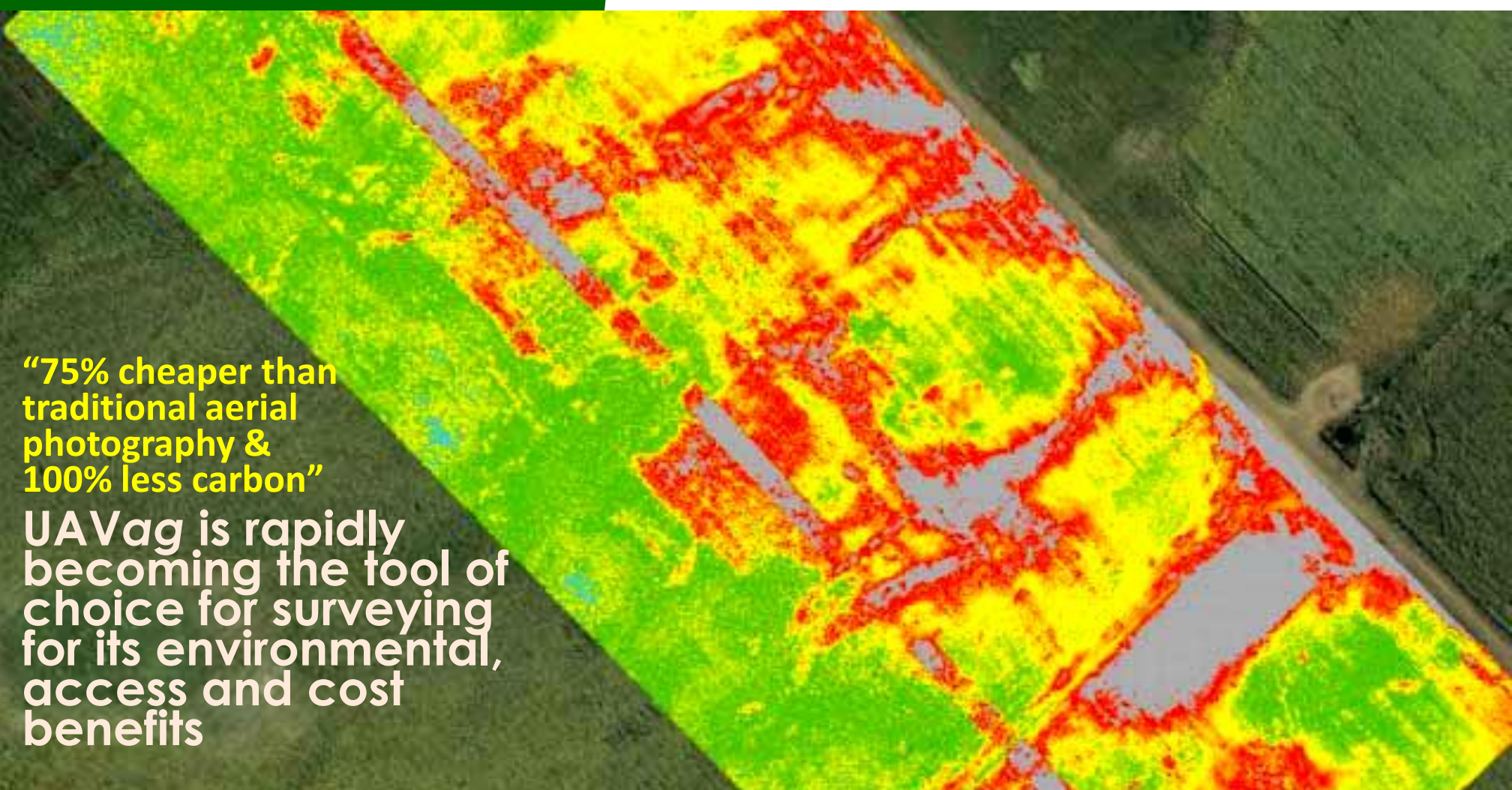
The ability to choose the time of observation is also important in agricultural applications and particularly for deriving suitable information to support crop yield prediction.

Use of NDVI (Normalised Difference Vegetation Index) has been common practice for many years to measure and monitor plant growth (vigour), vegetation cover, and biomass production. Using UAVs to collect this data provides a cost effective solution for up to date view of any given area.



Typical applications include:

- Strom and Fire Damage
- Soil Analysis
- Tree growth
- Plant stress assessment.
- Yield monitoring
- Chlorophyll indication
- Senescence analysis
- Drought assessment
- Biomass indication
- Leaf area indexing
- Nitrogen recommendation
- Phenology
- Growth monitoring
- Crop discrimination
- Leaf area indexing
- Tree classification
- Plant counting



"75% cheaper than traditional aerial photography & 100% less carbon"

UAVag is rapidly becoming the tool of choice for surveying for its environmental, access and cost benefits

From Drone To Tractor – How Using A Precision Farming UAV Can Improve Crop Management

SAKURA

Discover the latest precision agriculture technology...

NIR Sensor

The precision agriculture drone

Our UAV*ag* is a precision farming UAV. With its full drone-to-tractor workflow you can scout your crops, analyse plant health, create prescriptions and begin treatment all on the same day.

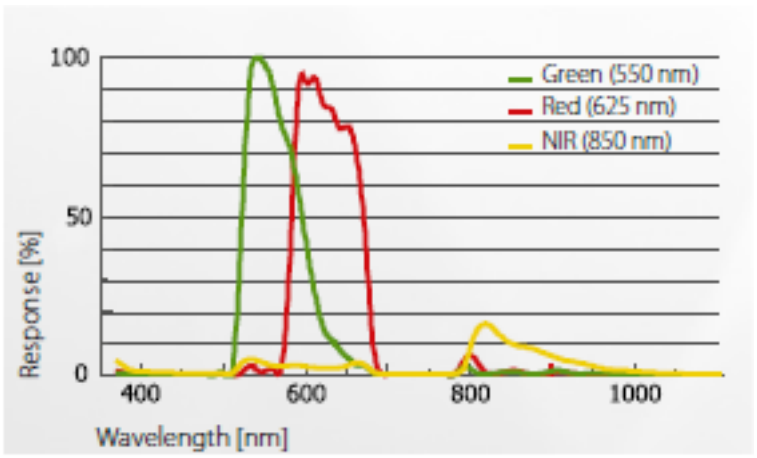
High resolution NIR images

The S110 NIR provides Green, Red and NIR band data, allowing vegetation indices to be computed at a high-grained resolution. NIR data for example is used by indices such as NDVI to assess biomass and plant health, commonly indicated by high levels of reflectance in the NIR region.

Technical Features

Resolution	12 Mp
Ground resolution at 100m	3.5cm/pix
Sensor size	7.44 x 5.58 mm
Pixel pitch	1.33 um
Image format	JPEG and/or RAW

Band responses



**** In-house Image processing (ERDAS, ENVI, SocetGXP) and GIS analysis of data exportable to ArcGIS, MapInfo, Google Earth and AutoCAD packages.*

Characteristics

High wind & low light condition	★★★
Usability	★★★★★
Mission flight time	★★★★★
Optimzied aerodynamic profile	★★★★
Orthoimage & DSM	★★★★★
Ground sampling distance (GSD)	★★★★★
Band precision	★★★

Like all UAV sensors, this customised 12 MP Camera has been adapted so that it can be controlled by the drone's autopilot. It acquires image data in the near infrared (NIR) band, the region where high plant reflectance occurs. Its exposure parameters can be set manually and its RAW files are fully supported by the Ag's software.***

SPEAK/ WRITE TO US

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