

Multi Spectral Sensors

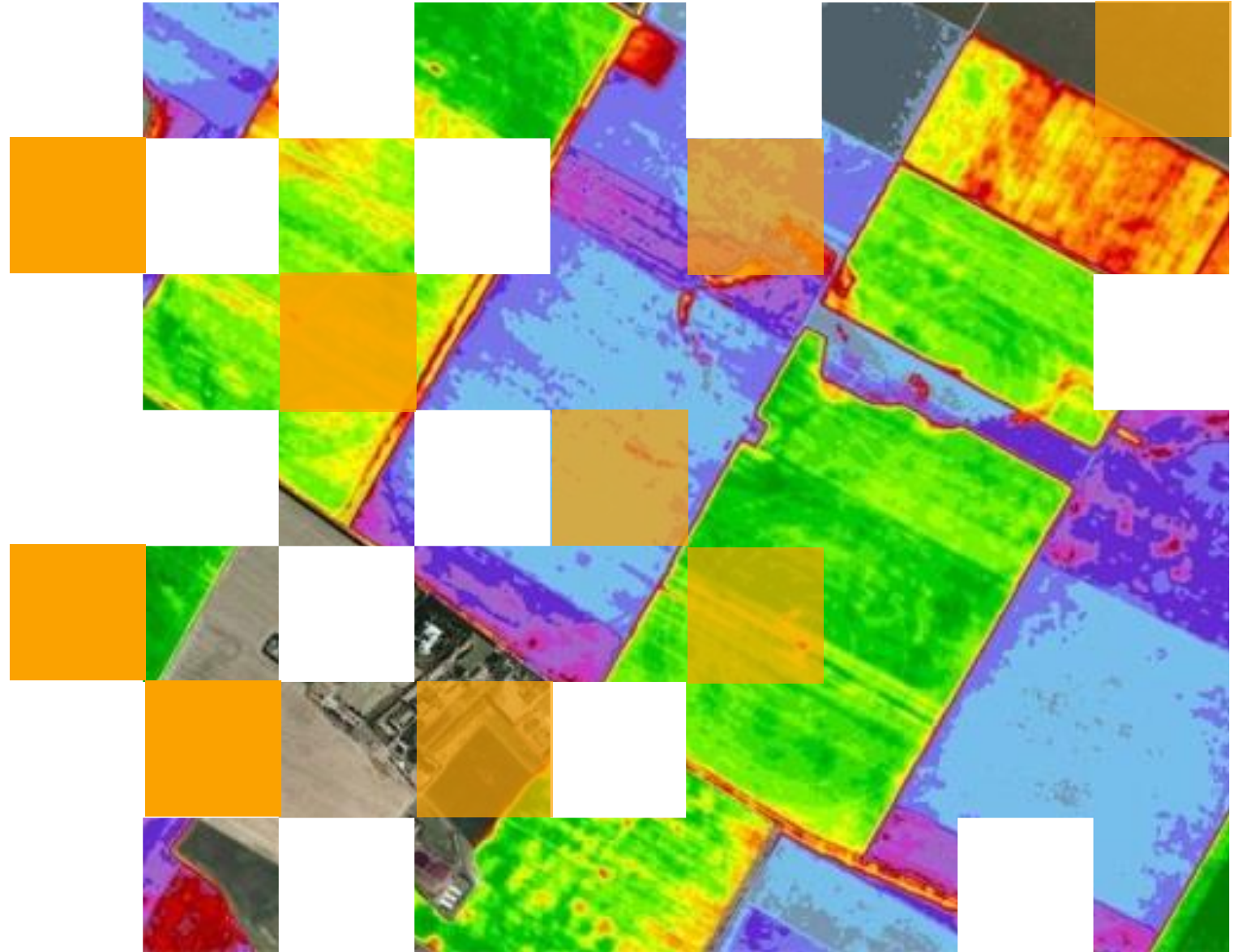


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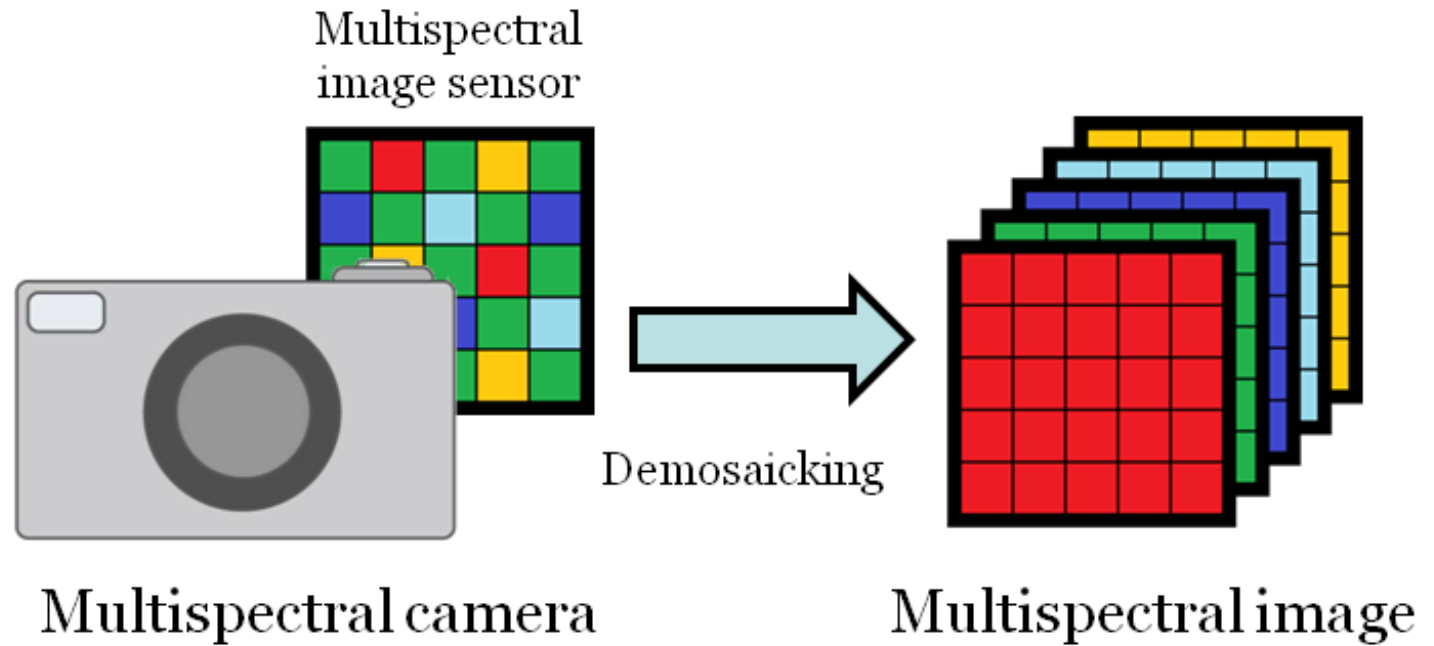
Rajitha Athukorala

Multi Spectral Sensor

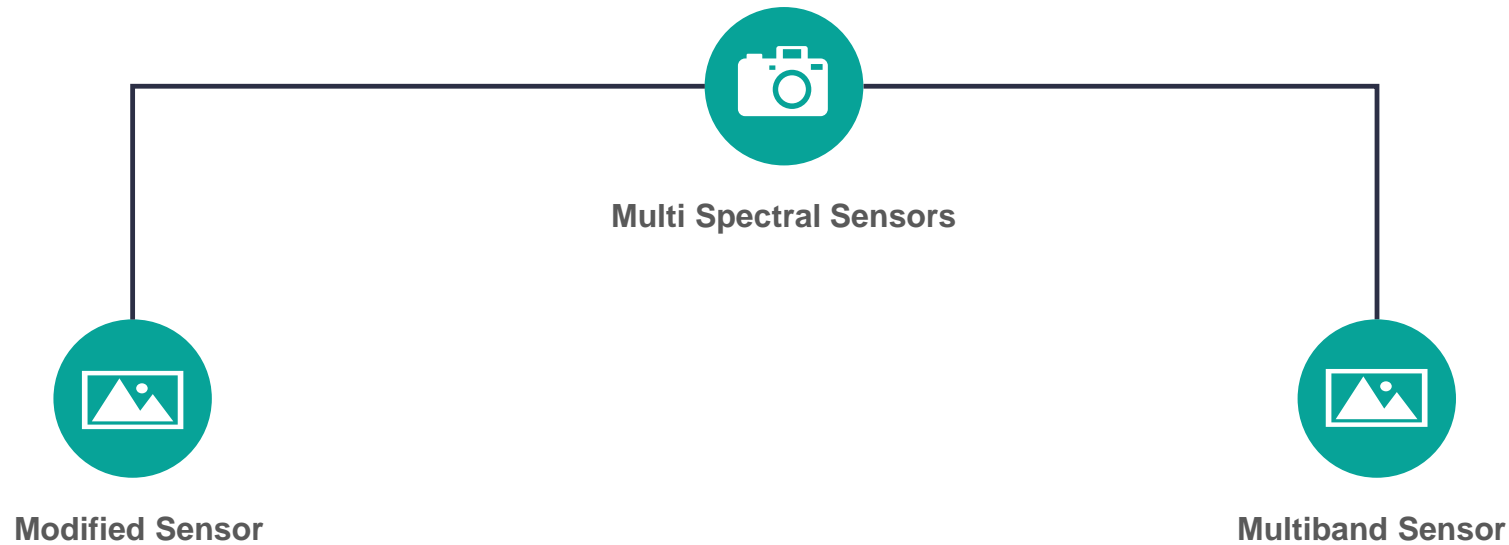
A standard visual sensor collects red, green and blue wavelengths of light. Multispectral sensors can collect these visible wavelengths as well as wavelengths that fall outside the visible spectrum



Types of Multi Spectral Sensors



Classification



A special filter is placed on a standard visual sensor. As a result, modified sensors collect three bands of light at once through the same lens. Filters can come in many different formats to display different combinations of spectral bands. The most common formats sacrifice one of the visual bands to record near-infrared information (NIR). For instance, an R-G-NIR filter sacrifices blue in order to collect near-infrared energy (~700 - 800 nm).

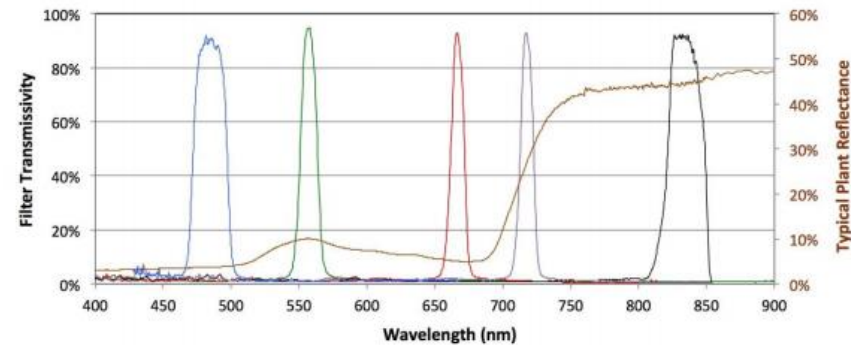
Multiband sensors are manufactured specifically for multispectral data collection. Each band is collected by a dedicated sensor so there is no need for multiple flights. Multiband sensors also enable you to mix different band combinations to meet your needs.

MicaSense RedEdge

RedEdge-M™
by MicaSense



The MicaSense RedEdge-M is a professional multispectral camera capable of simultaneous capture of five discrete spectral bands to generate precise and quantitative information on the vigor and health of crops.

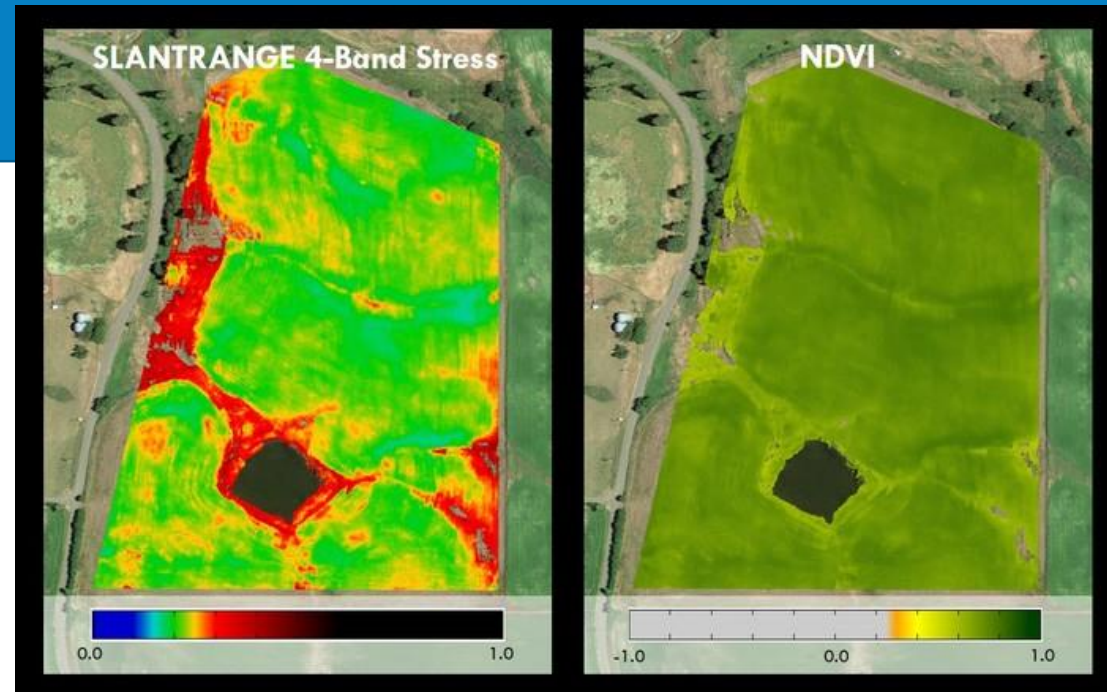


Band Number	Band Name	Center Wavelength (nm)	Bandwidth FWHM (nm)
1	Blue	475	20
2	Green	560	20
3	Red	668	10
4	Near IR	840	40
5	Red Edge	717	10

SlantRange

6 Spectral Bands with True Color RGB

Information value is created through an engineered balance of spatial and spectral resolution with spectral diversity. Narrow spectral bands isolate key markers of evolving plant health condition while delivering true color RGB for the ever-important value of human visual context.

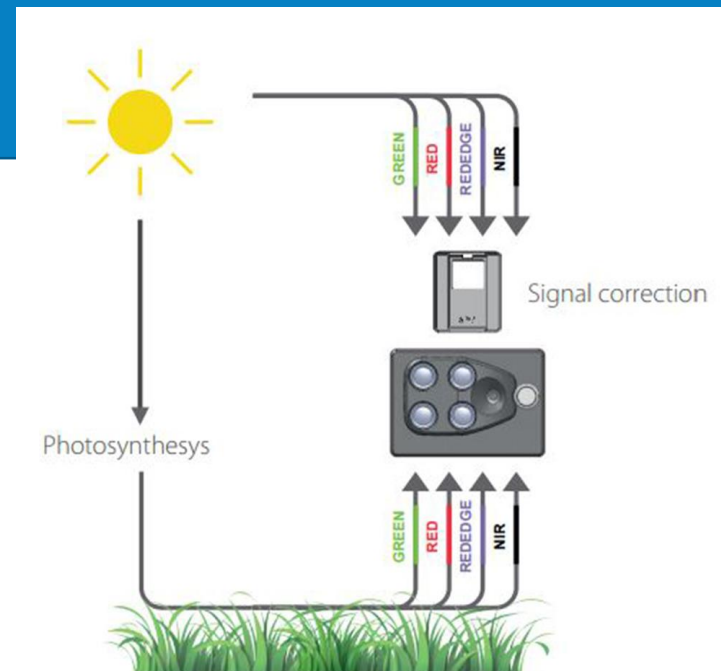


Parrot SEQUOIA

Parrot
SEQUOIA

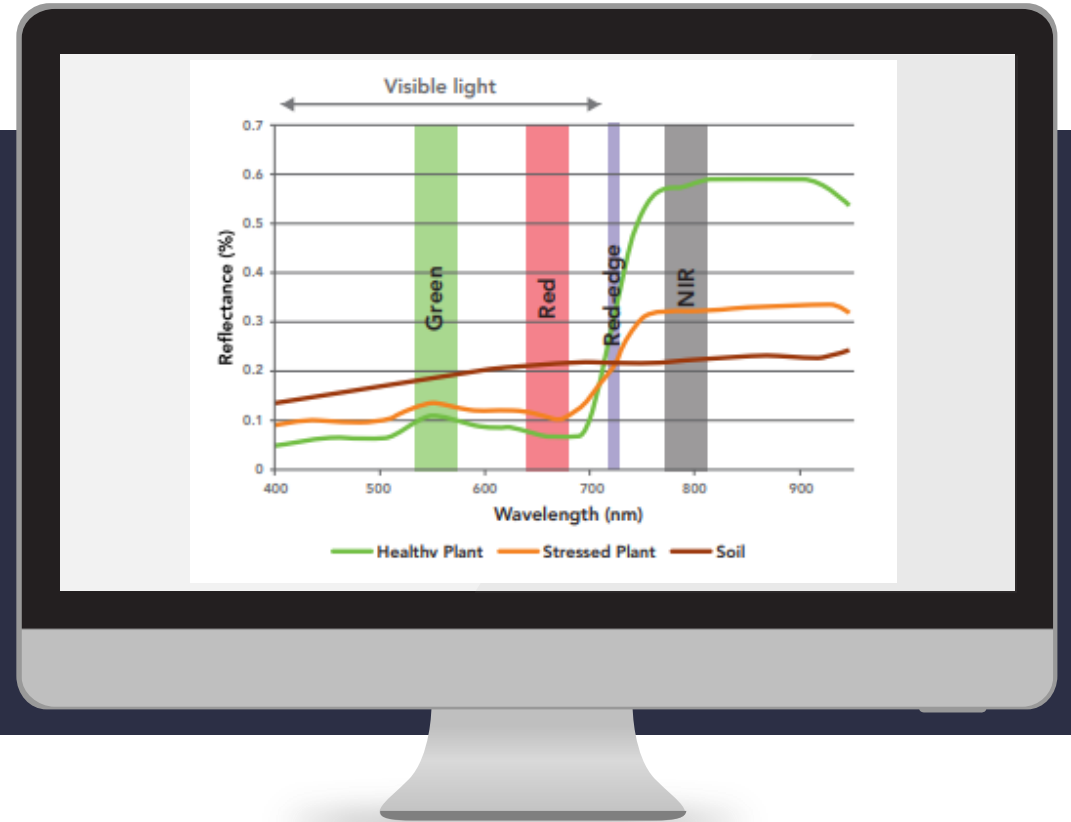


With its two sensors, multispectral and sunshine, Parrot Sequoia+ analyses plants' vitality by capturing the amount of light they absorb and reflect. Collecting this data means that farmers can do what's best for their fields.

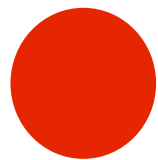


Technical specifications of Parrot SEQUOIA sensor

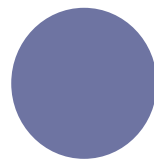
- ✓ 4 separate bands
- ✓ 16 Megapixel RGB camera.
- ✓ Sunshine sensor with GPS and SD card slot.
- ✓ 4, 1.2 Megapixel Global shutter single band cameras.



Green



Red



Red Edge



Near Infrared