GREEN VEGETATION MAPPING

Green vegetation mapping is based on the pigment Chlorophyll, with healthy green vegetation strongly absorbing red versus green wavelengths; making vegetation appear green in colour.

Left: Image of East Anglia, UK, with the land coloured green according the amount of vegetation and water coloured from black to white as suspended sediment increases.

Applications

- Mapping land cover and land usage changes, including the impacts of drought.
- Identification and monitoring of agricultural crops.
- Forestry management.
- Carbon storage assessments
- Supporting Local Authority planning applications.

Benefits

- Maps developed using different sensors, depending on the spatial resolution required, with global coverage available.
- Landsat 8 mosaics of the UK from 2013 / 14 / 15 data.
- Ability to monitor changes over the long term (Landsat datasets from the 1970s) to seasonal variations.
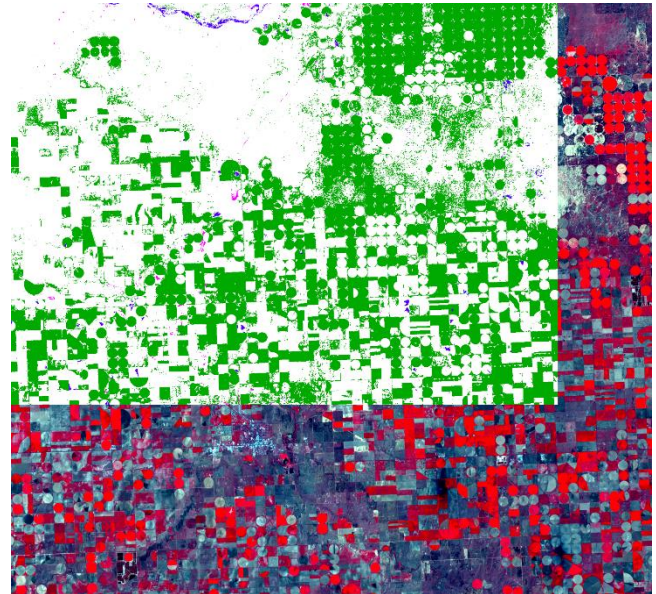
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Green vegetation mapping can be undertaken in multiple ways. Low absorption in the near-infrared creates what's called the 'red edge'. Algorithms, such as the Normalised Difference Vegetation Index (NDVI), and optical signature classification techniques, capitalize on this.

On the front was an NDVI image, whereas on the right is a classification image for fields in the United States with the vegetation is shown in green. The background false colour composite has the near-infrared, red and green wavebands showing vegetation in red. Classification techniques can be used to detect areas of interest when they have distinct absorption features.

If you're interested in exploring how you could use Green Vegetation Mapping imagery and data to benefit your organisation, contact us by telephone on + 44 (0)1752 764407 or email at enquiries@pixalytics.com.

Pixalytics can also provide a variety of Earth Observation services including data collection and processing products, scientific research, training and in-house scientific consultancy on tenders or projects.

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