NRM SPATIAL HUB FACT SHEET

Online Property Planning and Information System

TIME SERIES SATELLITE DATA PRODUCTS

30 years of global satellite imagery products to support on-ground decision making

The NRM Spatial Hub is a new world-first capability that provides property managers and extension staff with an easy to use solution for mapping, assessing and monitoring property infrastructure, land resources and ground cover. In addition to property infrastructure mapping, planning and analysis, the system provides intuitive access to nearly 30 years of 30m resolution satellite data, and tools for analysis. With local knowledge, the products can assist in understanding current land condition and the impacts of management or investment decisions over time.

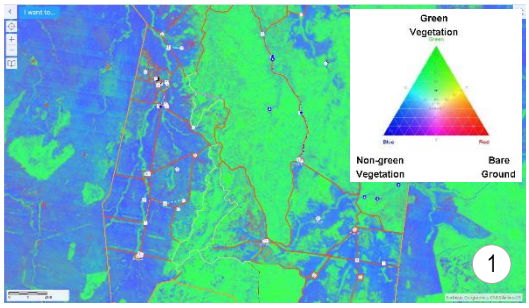
OPPIS Fast Facts

- Secure online access for land owners to their data
- Map and monitor ground cover, on-ground works or the impact of changes in management practices
- Powerful time series satellite data available through a simple interface
- Support decisions on long term safe carrying capacity
- Systematic monitoring of ground cover dynamics

TIME SERIES SATELLITE DATA

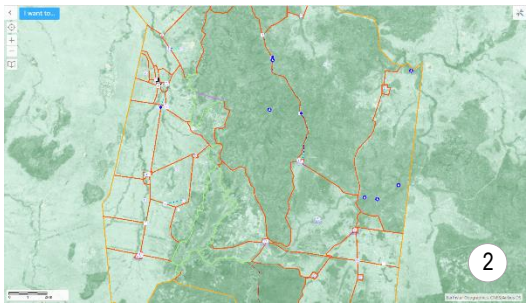
1: Seasonal Fractional Cover

This product provides a representative estimate for each season of the proportion of green, dry, and bare cover in each pixel. Represented by colours green, blue and red respectively. It provides a consistent means of monitoring land cover dynamics over time.



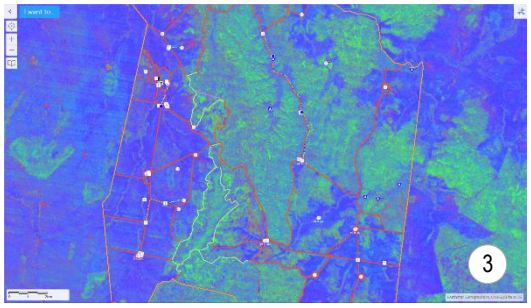
2: Persistent Green

This product provides an estimate of the vertically-projected green-vegetation fraction where vegetation is deemed to persist over time. These areas are nominally woody vegetation. Understanding the density and distribution of woody vegetation is important for environmental management and understanding of pasture growth potential.



3: Seasonal Fractional Ground Cover

This product provides a representative estimate for each season of the proportion of green, dry, and bare ground cover in each pixel. The estimates of ground cover are restricted to areas of <60% woody vegetation (adjusted using the persistent green product). The product provides a consistent measure of ground cover dynamics to support decisions on safe long-term safe carrying capacity and monitoring of land condition.



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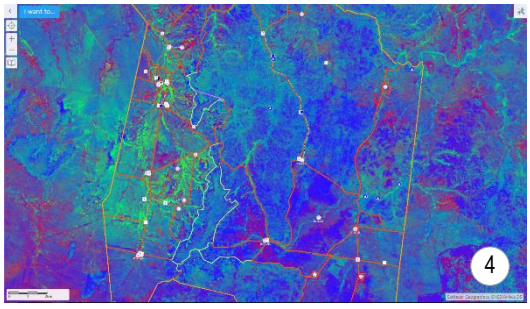
If you would like to register an expression of interest in the Hub please email the team at: nrmhub@gmail.com

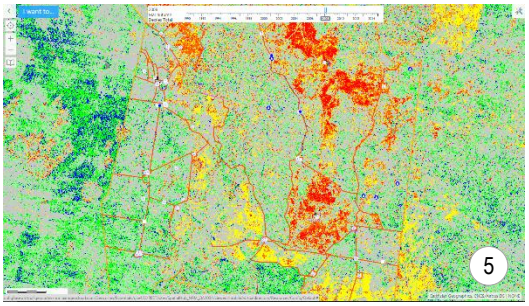
4: Single Date Fractional Cover

- This imagery displays the estimated fractional cover for individual dates every 16 days for recent months. This product can be used to track the progression of the current season and assist with understanding the impact of management decisions or assess indicators of paddock condition, or erosion risk. It may also assist managers in better understanding within-paddock variability of available pasture biomass or pasture utilisation.



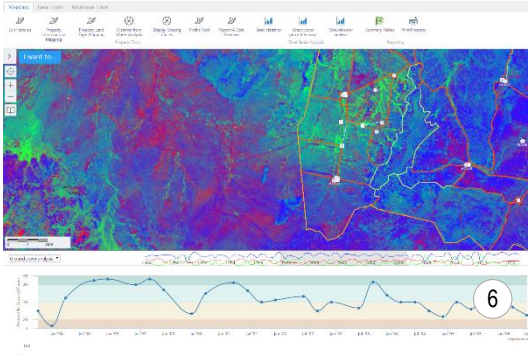
5: Seasonal Deciles (Total Cover and Green Cover)

- These products compare, at the pixel scale, the level of cover for the specific season of interest, against the long term cover for that same season. For each pixel the cover values over the entire seasonal time-series are classified into deciles. This is an excellent way of identifying areas of low or high cover relative to what may be "normal" at that time of the year. These products might be used for highlighting the impacts of fire disturbance, comparing the impacts of management across seasons, or communicating the impacts of drought.



6: Ground Cover Analysis

- OPPIS provides a range of tools for analysing and reporting on changes in ground cover (i.e. the percent of bare ground) for any period over the last 30 years. Users can generate statistics for a paddock or their property. They can also establish "benchmarks" and compare their paddocks or property to the surrounding neighbours or to specific area of interest. These tools allow managers to understand the interactions between seasonal conditions and the impacts of management practices, and potentially identify where management of ground cover might be improved.



7. Total Cover Percentile Analysis

- Users can analyse the level of ground cover for any specified period, and rank every pixel across their property or each paddock over any time period. The image on the right shows areas that are consistently low (red) or high (green) in ground cover. This may highlight areas being over or under utilised by stock or perhaps identify issues such as weeds.