

## AgroView Crop Management Service

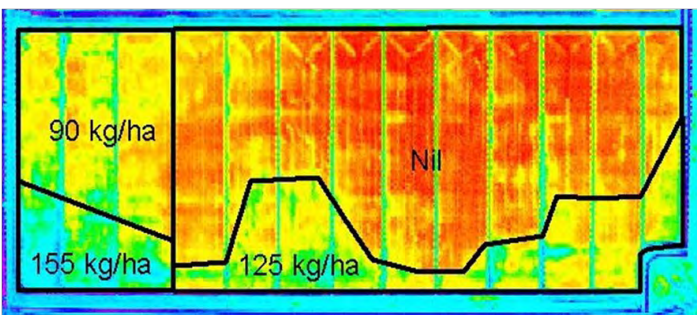
### Do you want to:

- **Increase productivity?**
- **Reduce nitrogen inputs?**
- **Increase your profits?**



### An Integrated Crop Management Service

After several years of low returns and significant increases in the cost of inputs such as nitrogen, water and fuel, it is crucial for growers to ensure that inputs and management decisions are optimised according to yield potential. Crop variability must be minimised so that every hectare of the crop makes a profit.



*A satellite crop vigor map and nitrogen recommendation*

Terabyte Services offers a range of practical applications for growers and consultants to assess the amount of variability within paddocks; the cause of the variability, and

optimise management decisions. These services can be used for:

- **Optimising site specific crop management**
- **Development of management zones or**
- **Optimising whole-of-paddock inputs.**

The AgroView Service can assist in planning fertiliser and other inputs at planting, and during key crop growth stages during the season using:

- **Yield mapping**
- **Soil mapping and nutrient analysis**
- **Remote sensing of crop status &**
- **Local knowledge**

The AgroView Service can also assist in detecting weed and pest problems, estimating yield potential, and water management.

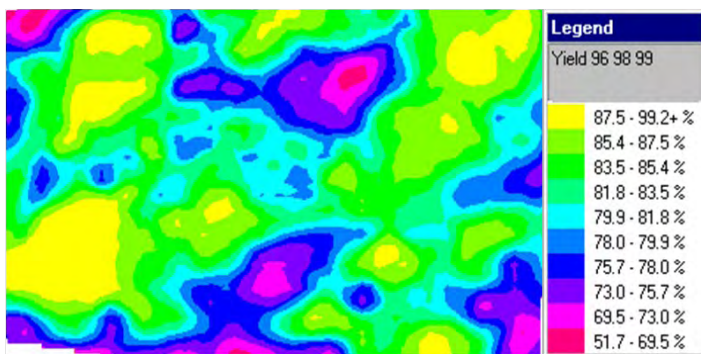
Our goal is to minimise your risk, and maximise your profits within a sustainable cropping system.



## Yield Mapping

Terrabyte Services provides a customised yield data processing service able to take data directly from data cards or previously downloaded files. After removing the unreliable data (overlaps, narrow cuts, headlands etc) the yield data is processed and mapped. When multiple years of data are available analyses can be undertaken to show:

- **Cumulative yield**
- **Yield stability**
- **Cumulative nutrient removal**



*A yield map showing the variability of yield over a 3 year period*

This information can be used to develop fertiliser application strategies such as: an optimum average rate across a paddock; dividing the paddock into blocks, or a full variable rate plan for automated application.

## Soil Mapping and Nutrient Analysis

Assessment of soil characteristics is central to understanding crop variability and yield potential. Terrabyte Services routinely uses EM31/38 electromagnetic survey techniques

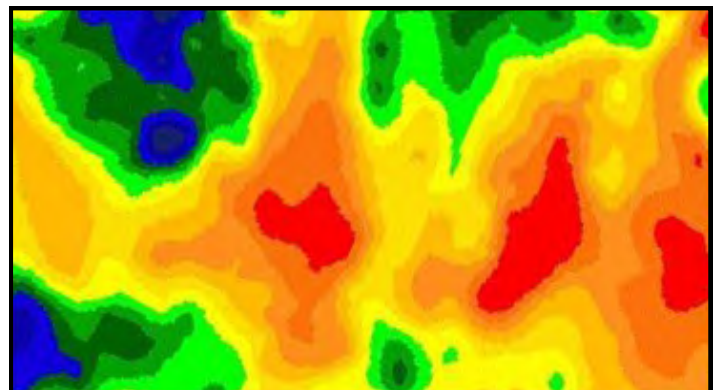


*EM31/38 soil survey rig can be mounted on a 4WD or quad bike.*

to undertake detailed assessments of the variability in soil properties that can be linked to moisture and nutrient retention.



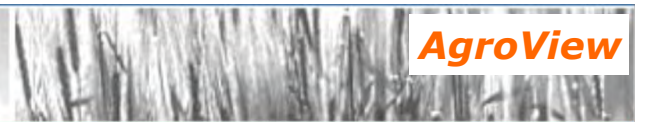
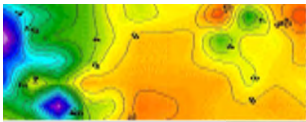
*Targeting soil sampling allows soil properties to be rapidly assessed. The high conductivity soil at the (top) as 170kg/ha of available nitrogen. The lower conductivity soil (bottom) has 110kg/ha of available nitrogen.*



*A map of apparent soil conductivity derived from an EM31/38 survey used to assess variation in soil properties*

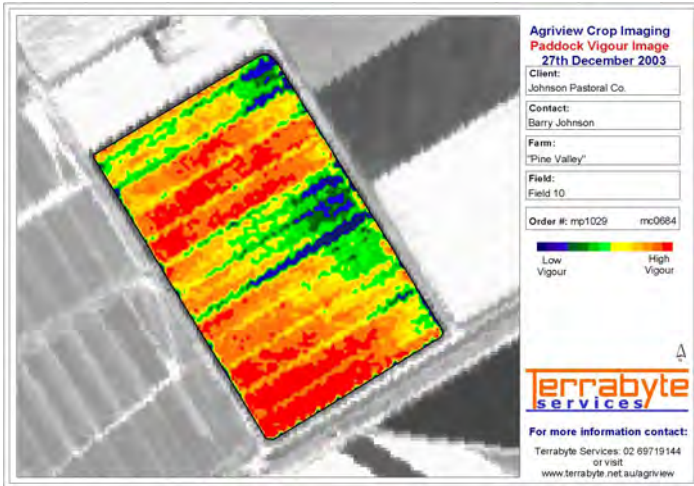
Together with targeted ground-sampling, comprehensive and accurate soil maps can be rapidly and cost-effectively generated which describe specific soil properties.

Terrabyte Services can also assist with soil sampling and chemical and physical analyses for developing pre-season or in-season nutrient budgets. For those growers only requiring a basic soil map over large areas, Terrabyte Services can also provide interpreted map products from satellite imagery and aerial photography captured during fallow periods which identify possible soil variability. Targeted paddock surveys can then be used to derive generalised soil maps.



**Remote Sensing of Crop Status**

The AgroView crop imaging service is based on imagery from a range of satellites and advanced processing techniques that provide quantitative information on in-season crop growth status, variability and yield potential before it is visible to the human eye.



*Crop vigour image highlighting variability in crop growth*

or as digital GIS data files for display and analysis in mapping software. Field scouting time can be cut in half by identifying problem areas.

Growers and consultants are able to target in-season crop assessment, soil sampling or tissue analysis at specific growth stages, allowing nitrogen application to be delayed until the seasonal outlook and yield potential is better defined.

Terrabyte Services is also able to coordinate tissue analyses and provide advice on the most efficient paddock sampling techniques to reduce time and effort

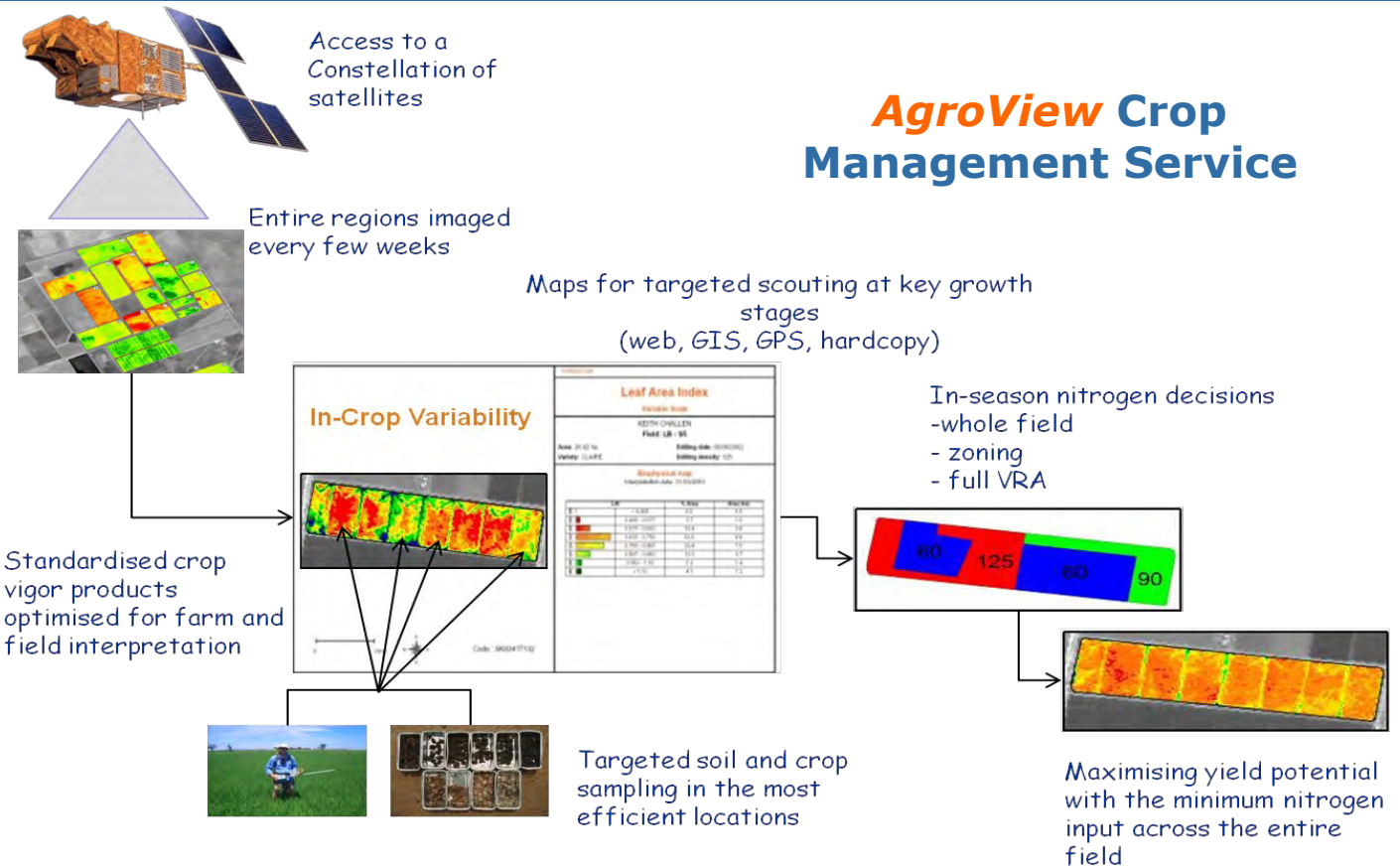
AgroView provides growers and consultants with the ability to assess in-season:

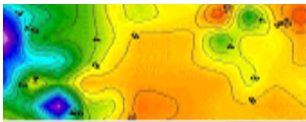
- **Crop establishment**
- **Crop nutrition and water status**
- **Weed impacts**
- **Pests and diseases**

Products are delivered during key crop growth stages via the internet as ready to print maps



**AgroView Crop Management Service**





*An aerial photo showing management induced variability.*

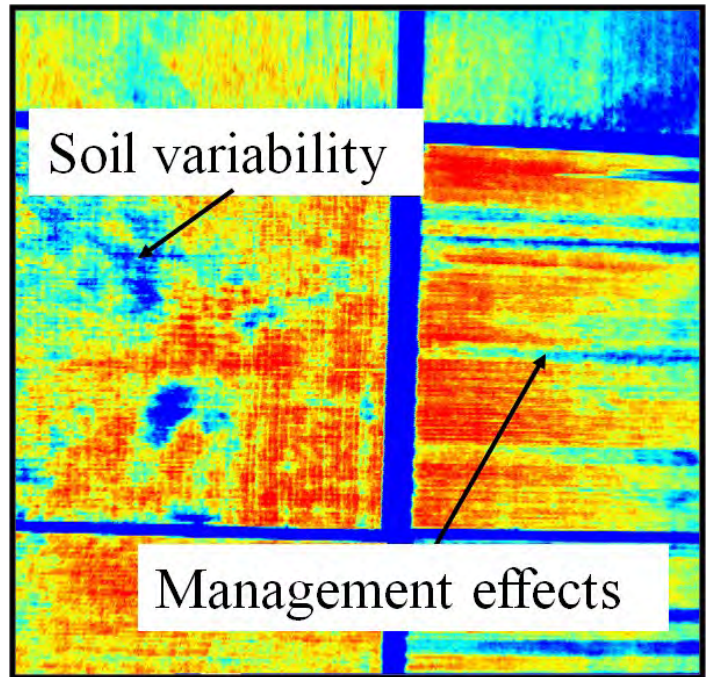
The AgroView crop management services can be offered according to two product levels:

**Basic Package**

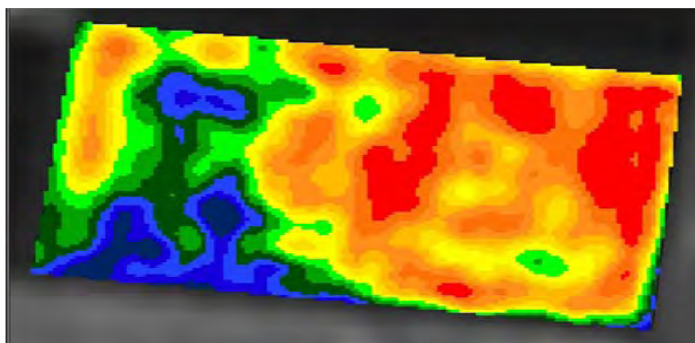
- **Standard NDVI Crop Vigour Indices optimised for paddock and whole-farm application**
- **Scouting maps for targeting paddock sampling**

**Advanced Package**

- **Green Leaf Area Index (LAI) estimates at paddock and farm level suitable for direct input to crop growth models such as APSIM**
- **Integration of yield data, soil maps and imagery to derive management zones for site specific management**
- **Total Biomass and Tissue Nitrogen (%) products (*under development*)**



*A satellite crop vigour image showing soil variability and management effects in adjacent paddocks.*



*Paddock-level Green Leaf Area Index (LAI) map suitable for input to crop growth models such as APSIM*

**Local Knowledge**

We believe that local knowledge is a critical ingredient in maximising the value of our services to growers. Terrabyte Services is fostering an extensive network of commercial agronomic service providers who have been trained in the use of our products and services to maximise the Return on Investment to growers.

Call your nearest commercial agronomist or Terrabyte Services to find out more, and tailor the **AgroView** services for you and your neighbours.