

Welcome

to the Winter 2010 edition of our *E-Newsletter*, which provides up to date information about our business activities and the global development of Precision Agriculture.

As many of you know we want these updates to be interactive so please send us any photos or videos of your precision agriculture experiences and we will add it to the next newsletter, or our website.

If you also have any questions regarding Precision Agriculture you would like answered, then please email to: info@precisionagriculture.com.au

Through our travels we are finding that there is a strong level of interest in Precision Agriculture technologies.

Success for our business can be attributed to partnerships with you, and our flexible approach of using information to make better decisions.

It is fair to say that Precision Agriculture is changing from a tool to do variable rate, into many tools to “learn more about agronomy and the farm”.



www.precisionagriculture.com.au

ABN 61 567 291 569 ACN 132 568 784

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Crop Sensors—mapping for knowledge

There are many crop sensors on the market—but there seems to be little work being done to understand how they can be used. Most conversations people are having about crop sensors is real-time variable rate nitrogen applications. This is certainly the holy grail of crop sensing technologies, however there is much we need to learn about these sensors before we can use them with confidence.

We are fortunate to be working with some of the worlds leading experts in crop sensor technology Dr Eileen Perry and Dr Glen Fitzgerald both of DPI Victoria. We are ground-truthing what these sensors are telling us.

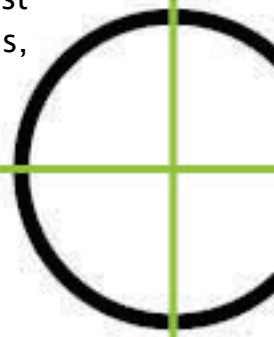


Crop Circle 470 mounted to the nose of tractor mapping during each spraying and spreading application in 2010 (bit wet eh?!)

Being able to map your paddock several times throughout the year produces a number of key benefits:

- Allows you to keep a better track of crop growth
- Allows you to direct scouting/tissue testing
- Allows for the exploration of poor growth areas.

The sensor is a powerful tool for measuring responses of trials—this is best done by creating change detection maps from before and after applications, we believe this process will play a key role in advancing crop nutrition.



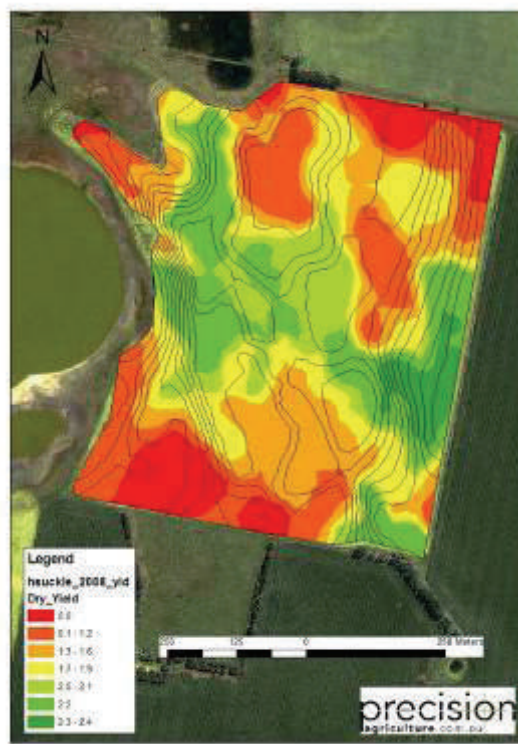
What's driving variability???

It is difficult to answer the question of how much money can variable rate applications make or save me? This is because every farm is different with a different set of issues. Nevertheless we are recognising patterns across the various farming regions of Australia.

Poor drainage is a constant problem, highlighted in wetter years such as this one and something which is easily measured and quite often easily corrected.

The yield map on the right is from 2008. The 10cm contour overlay starts painting the picture for understanding variability in this paddock.

Soil acidity and high exchangeable sodium are other key issues in certain areas—again very easy to map and develop variable rate applications. Lime and gypsum are also great inputs to start spreading variably as they are often spread by contractors, many of whom already have the ability to variable rate spread.



Low potassium corrected by products such as potash is another common area of interest for variable rate. Most of this work is being done in areas with significant topography effects.

Variable rate phosphorus is a widespread practice and quite easy to vary based on previous crop yields either as a blanket application or variable rate of the actual yield map. Significant financial savings can be made especially after droughts.

The concept of addressing drivers of variability is the story of fixing the leaky bucket— fix the most limiting factors first then work your way around plugging the more subtle issues.

Developing an understanding of what's driving your variability is very easy—the first step is to review old soil tests (you probably have this info in your head), secondly pick a paddock which has variable yield and do a few soil and/or plant tests.

Finally, implement a trial. The only way to really find out how much you can improve yield and reduce costs is by having a go.

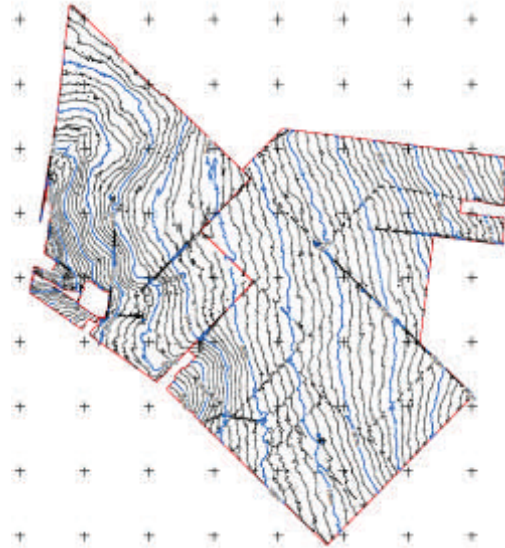
Getting the more out of your autosteer

Many people have invested \$1000's in machine guidance and are reaping the benefits of input efficiencies and ease of operation. We however are also realizing that very few farmers are getting the most out of their autosteer.

Extra Benefit #1:

Convert the point data collected in with your coverage/application maps into digital elevation maps. By merging all your paddock maps together we create a whole farm contour map enabling the design of whole farm drainage. Water-logging and erosion can cost \$'00's/ha, especially in wet years.

Investment starts at just \$2/ha to get a contour map of your farm. More advanced options are also available once we have the data.



Extra Benefit #2:

Use your coverage maps to create a highly accurate digital farm/paddock map—these maps are easily extracted from your desktop or data card and files are very small and able to be emailed. Send us these maps and you will have a professional farm map in no time! This will allow you to produce maps for contractors/workers, measure areas and distances with confidence, and help with planning. Investment from \$500 for the whole farm.

Extra Benefit #3:

You have the ability to return the same wheel pass time and time again; why not match wheel spacing's and machinery widths to minimise effects of wheeled compaction. Get started by setting a plan and move in that direction at your own pace. See our website for an online CTF machinery form. We can help you get to CTF quicker and cheaper.



iSAT5—the newest satellite for Ag

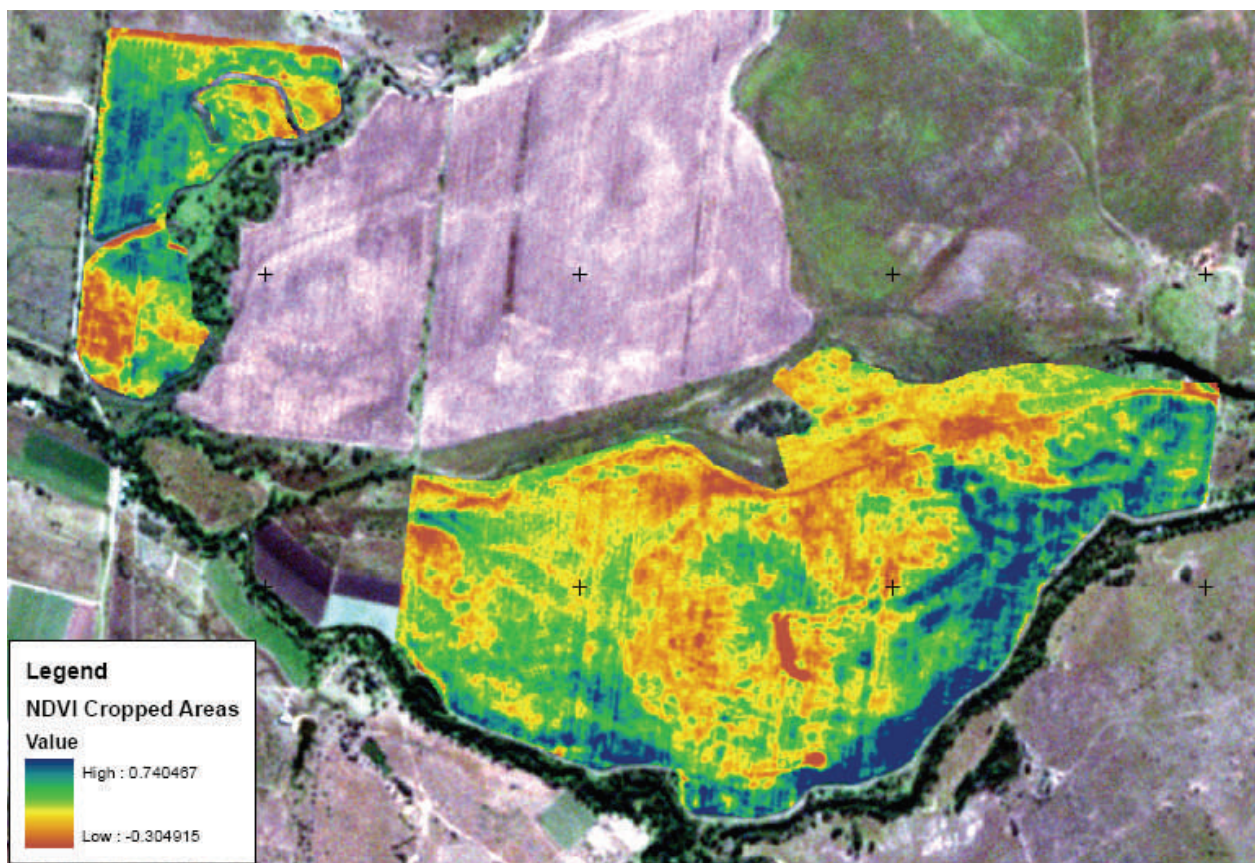
This season, we are very excited to be offering the latest generation of satellite technology for Precision Agriculture. So far we have booked in over 2M hectares from South Australia, Tasmania, Victoria, NSW and Queensland.

Some of the results have been impressive, especially delivery times. Early imagery this season was delivered the night after capture—getting close to the ideal product for crop imaging!!!; where we can get images out to customers ASAP to enable rapid ground truthing.

The benefits of our new iSAT5 are:

1. 5m pixel, so you can see the detail of the crop
2. **Extremely cheap prices (\$0.75/ha for cropped hectares only)****
3. Rapid capture times (daily revisits by the satellite over Australia!)
4. Rapid delivery, so you can get out and ground truth
5. Images shows us the crop response to a wide range of factors
6. Ability to match with yield mapping
7. High spatial accuracy—imagery is in the right spot!
8. You can book it in on our website www.precisionagriculture.com.au

Below is an example from Central Queensland, showing how well the images pick up the crop detail.



*** Please contact us for details about this offer.*

Training Courses

FarmReady Workshop Precision Agriculture: Introduction to variable rate & spatial data management

This workshop is targeted for growers interested in PA, but are seeking direction to get started. We cover all key aspects of PA including collection and utilisation of yield maps, applications for satellite and proximal crop sensor imagery, virtual tour of FarmWorks software, conducting on-farm trials to understand spatial responses.

We offer this workshop throughout Eastern Australia with a minimum number of 10 applicants. The workshop costs \$330incGST which is refundable through FarmReady (FRTC00495). www.farmready.gov.au

On-line FarmReady Workshop Precision Agriculture: Introduction to variable rate & spatial data management

The content of this workshop is the same as the face-to-face workshop, however we run it as an on-line training option. The course is delivered as three 1.5hr sessions, which can be delivered at timings which suit the group.

We offer this workshop throughout Australia with a minimum number of 5 applicants. The workshop costs \$330incGST which is refundable through FarmReady (FRTC00682). www.farmready.gov.au

Introduction to Precision Agriculture & CTF for Advisors

In-house training and user manuals tailored to suit individual businesses. Training includes overview of GPS guidance systems, crop scouting with a hand-held GPS, implementing on-farm trials with PA tools and analysing yield data.

Please contact us if you would like to enquire about running a workshop in your area: info@precisionagriculture.com.au

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