decisionag Variable Rate Technology

What is Variable Rate Technology?

Variable rate technology refers to technology that enables the variable rate application of crop-inputs within the sphere of Precision Agriculture. These materials can be applied for a variety of reasons: growth regulation, defoliation, soil amelioration, seeding, pest control, fertilising etc. Variable rate application of these materials allows you to respond to intra-field variability in crops and soils.

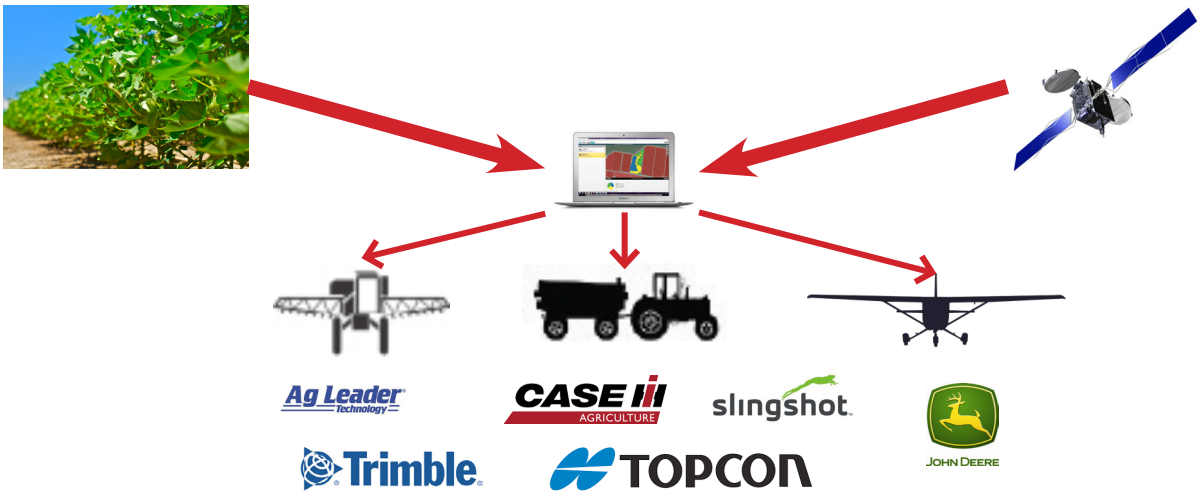
How does it work?

In order to perform a Variable Rate Application (VRA), data must first be acquired that can be interpreted into different rates of material that need to be applied. Examples include soiltests to determine the soil amelioration needed and NDVI imagery to determine a growth regulator application. For data that has been collected electronically (like NDVI imagery), it is imported that ground-truthing takes place before any conclusions are drawn.

A wide variety of data can be utilized for creating VRA scripts: soil depth, soil type, nutrient profile, EM Survey, Veris, NDVI etc. After this data has been collected, analyzed and ground-truthed, it is used to divide the field into management zones. Depending on what is being applied and which type of equipment is getting used, a certain number of management zones get created within the field boundaries. These individual management zones then get a specific volume of product assigned to it.

The final step in this process is to generate a variable rate script in the format that suits your specific brand and type of equipment. Your CGS agronomist will then send this file to you or your contractor via e-mail, usb-drive or whichever way works best in your operation. Once the file is loaded into your monitor, you can start attacking that infield variability!

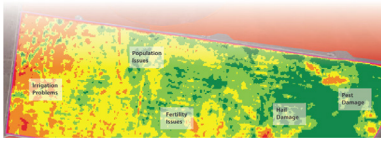
Tel. (02) 6795 3100 fax. (02) 6795 3183 email. info@cgs.com.au web. www.cgs.com.au 52 Boolcarrol Rd, Wee Waa, NSW, 2388 PO Box 61, Wee Waa, NSW, 2388



Why use Variable rate technology?

Variable rate technology allows you to rectify intra-field variability by applying inputs in varying amounts accross the paddock. Next to saving on the amount of inputs ultilised, the potential yield increase that can be achieved is most important. In a cotton crop for example, the following variable rate applications can be utilized to increase yield:

- **Ameliorating the soil** to achieve the perfect soil conditions
- Measure the nutrients present pre-season and **spread the exact quantity of fertiliser** needed in each zone of the field
- Perform tissue tests and apply **variable rate foliar fertilisers**
- Measure plant growth with NDVI Imagery and **vary the amount of growth regulator applied**
- **Variable rate apply your defoliants** according to the canopy density measured by NDVI images



All crops benefit from an even plant stand, a specific and measured amount of nutrients available and a balanced crop management strategy during the season. Applying your inputs with variable rate technology allows you to achieve the optimum conditions for the whole field, not just small parts of the field. Optimum conditions for a larger portion of the field lead to higher profit.... Can you afford not to?

Utilising variable rate imput applications can have a strong effect on the outcome you can expect at the end of the season; whether you apply your inputs in the correct spot or not, will show up on your yield map!

How do I get started?

Contrary to popular belief, starting with variable rate applications is not hard or difficult and most machinery used on farms around Australia is already able to handle variable rate scripts... There's no time like today to get started!

For more information that is specifically targeted to your situation, contact your local **CGS agronomist.**

Tel. (02) 6795 3100 fax. (02) 6795 3183 email. info@cgs.com.au web. www.cgs.com.au 52 Boolcarrol Rd, Wee Waa, NSW, 2388 PO Box 61, Wee Waa, NSW, 2388