

Spring Newsletter

May 2007

Version
12.17.308

Farm Works In The Press

Kelso-based farmer Tommy Clark has, once again, provided the press with an insight into how he uses Farm Works to increase the efficiency of his operations. He recently appeared in an issue of Farmers Weekly explaining the benefits of variable rate application.

Mr. Clark grows 270ha of winter wheat, winter barley, oilseed rape, spring barley and beans at Kerchesters in the Scottish Borders. His variable application system uses yield maps and crop biomass data to help him decide how much phosphate, potash and nitrogen to apply.

Six years ago yield mapping provided a series of contour maps showing the extent to which crop yield varied within each field.

“It was very interesting”, says Tommy, “but having got the maps, it raised the question of what I was going to do with the information and how I could benefit from it.”

An obvious option was to use the maps to apply fertiliser at different rates across each field instead of using the traditional blanket rate, although he recognised that fertiliser is not the only variable with an influence on yield.

“Drainage, lime levels, soil types and the weather itself all have a bearing on how a crop performs. You can only begin to control some of them and fertiliser placements only a small part of the whole scene.”

A striking feature of the Kerchesters Farm yield maps is that they show variances of as much as 30% within fields, with very little of the field area producing the overall average. It therefore followed, indicates Mr. Clark, that blanket rate application would significantly under and overdose the majority of the cropped area.

Phosphate and potash are applied in one February dressing at rates calculated to replace what has been removed by the previous crop. For nitrogen application, Tommy uses a Crop Circle biomass sensor in conjunction with Site Mate VRA in order to create a map that will indicate the location and degree of vulnerable areas.

Coupling a Quantron E controller to his Kuhn Axis spreader was the first step in maintaining a consistent application rate, based on implement width and target forward speed. Varying the rate within specific field zones then became an option with the addition of the Farm Works VRA solution.



Tommy's VRA solution connected to his Quantron E controller in the cab

“The proof of the exercise is in the yield”, points out Mr. Clark. “The evidence so far is that yield differential across fields is less than before, and without reducing the performance of high yielding areas.”

Based on several trials, he calculates an overall yield gain worth £15 to £20/ha, with the added benefit at harvest that crops tend to ripen more evenly.

Adding the cost of the controller to the spreader, yield monitor and his Farm Works VRA solution, Tommy calculates a 3% portion of his P and K fertiliser bill over five years.

“I'd say that's a modest investment for the potential returns - and it's been hassle-free”, he adds. “When the software and equipment were installed, it all worked first time!”

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X2 Update News

Are you running the latest version of X2 on your desktop? Version 12.17.308 is now available by way of the internet update feature, which appeared in version 12.11.268 and later updates. Update CDs for the current version are also available if you do not have access to the internet.

For those users who have recently purchased or upgraded to a Windows Vista OS-based desktop or laptop, we are pleased to be able to announce Vista compatibility for Farm Works desktop packages.

For a full list of features and options available in X2, please see the relevant sections on www.farmworks.com. The most recent update information is as follows:

Farm Trac & Site Pro:

- Added a number of new field reports that can be accessed by clicking on the "Reports" button and selecting "Fields"
- Changed Job Printing so you can go to the Job tab and select multiple jobs to print

- Changed Share Crop so you can enter a plan on a share-crop field, then complete the plan, then bill the landlord
- Enterprise and **Gross Margin** Statements are now available for users who don't have Farm Funds

Farm Site & Site Pro:

- Added a "Transparency Slider" in the lower right-hand corner of the Map tab for all layers
- Added the ability to copy and paste layers
- Added Patterns that can be assigned to Job Types
- Added a new section to the Map Tab for the boundary layer. This section allows you to change the way the boundary map is displayed. The options available are:
 - Enterprises - Select a year and see fields coloured based on the crop for the selected year
 - Farms - Boundaries are coloured based on what farm they are assigned to
 - Field Boundaries - All Fields have the

same colour

- Last Job - You can select a year and see fields coloured based on the crop for the selected year. They will also have the pattern that was assigned to the last Job for that year
- REI - Allows you to select a date range and see fields that have Restricted Entry (based on REI chemical usage)
 - Added support for writing Ag Leader MSF files with field names, supplies and other information
 - Added a merge option so you can hold down the shift or ctrl key on the keyboard and select two adjoining areas/polygons then right-click and select "Merge"
 - Added options to read and write Dickey John IntelliAg data
 - Added support for Micro Trak yield files
 - FGP file format now supported

Farm Funds:

- Added support for the Quarterly Wage Report and New Hire Report in Payroll

Irish GPS Market News

Phil recently attended the Irish Farm Machinery Show at Punchestown Racecourse near Dublin. There has since been an encouraging response to Farm Works in Ireland, one result being the appointment of a new dealer, Leslie Scott. Leslie can be emailed at lesliescott@eircom.net, further contact details are available on our website.

The Irish Farmers Journal has also taken an interest in the increasing popularity of precision farming in Ireland. It recently published an article on Variable Rate Application, the focus being on new Farm Works user Gerry Brett, at Brett Bros. Ltd. in County Kilkenny. Gerry's agronomist, Tony Nugent, introduced him and a

group of four other farmers to the system.

Gerry is mainly using Site Mate VRA for varying P and K but also for one-off applications of organic and inorganic fertiliser.

The group farm an average of at least 200ha of tillage crops each. This year, between them, they have sampled a total of 400ha and using the results in determining variable rate maps. Costing €40 p/ha for soil sampling, Tony is confident that it is a worthwhile investment.

Gerry, meanwhile, has found it easy to get used to variable rate spreading:

"When all the information is on the

card I found it very user-friendly. I think farmers want to specialise in farming properly and not in using computers.

"The samples are taken and the maps come back ready to be put in the computer. There's very little else for the operator to do other than just make sure the spreader is calibrated correctly.

"I spread grassland also and because of this I went for the parallel tracking GPS system with a light bar. With the GPS tracking showing where to drive and the computer taking care of the application rate it makes spreading straightforward and accurate."



Cereals 2007

We are planning to be in attendance for 13th and Thursday 14th June. Be sure to stop by to see the latest update to X2! If you or a friend have any queries on anything Farm Works, feel free to visit us at stand no. 447.

Farm Works Q & A

HOW DO I MANUALLY CREATE A VRA PRESCRIPTION MAP POINT-BASED DATA?

To begin, you need to have: a boundary imported to your field name record and a point-based layer imported to that particular field. Your Farm tab should then look something like the screenshot below:

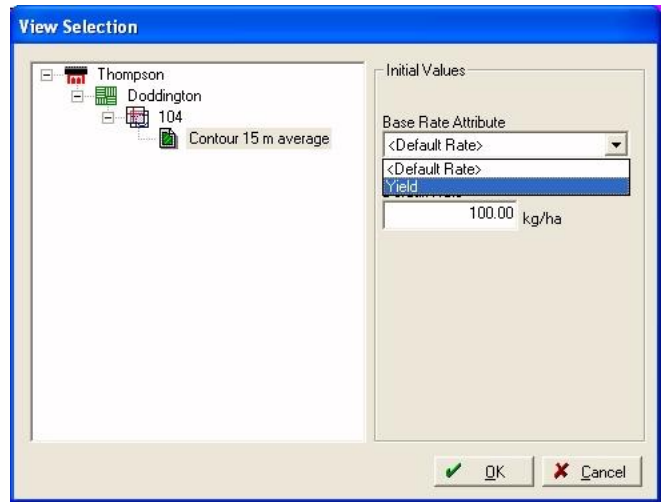


The next step is to ensure that the points layer is loaded to the displayed layers section (double-click), and then to select a working group from your Inputs tab. You should then choose to apply the group to one or more fields as a planned job. The Planned Job properties box will appear:

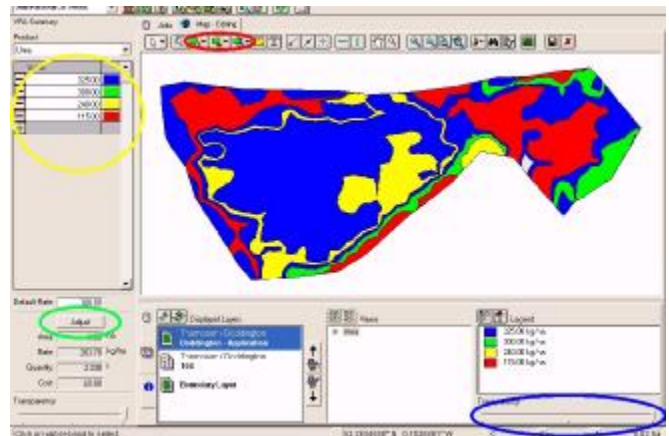
Operator	Phil	
Notes/Instructions	Notes	
Phil	Delete	
Quantity (hours)	0.000	
Costing Rate (£/hours)	6.00	
Massey Ferguson	Delete	
Quantity (hours)	0.000	
Costing Rate (£/hours)	10.00	
Sprayer	Delete	
Quantity (hectares)	10.520	
Costing Rate (£/hectares)	0.00	
Urea	Delete	
Variable Rate Application	<input checked="" type="checkbox"/>	
Machine	Sprayer	
Applied Area	10.52	
Planned Rate (kg/ha)	100.00	
Qty. Used (t)	1.052	
Costing Rate (£/t)	0.00	

You should tick the Variable Rate Application box.

The box below will then appear, giving you a choice of layers and their attributes upon which to base the map that you are about to create. The option of a contour view is listed because it had previously been created.



Clicking OK returns you to the Planned Job box, once more confirms the job and will display the VRA prescription map in Edit mode (as shown below).



Using the mapping tools (red circle) will enable you to create, split and modify the polygon zones. Rates may be entered in the left hand box (yellow circle) manually, or calculated by using the Adjust button (green circle) to enter a total expected amount of product or cost of application. The effectiveness of this will be determined by the level of detail that has gone into setting up the particular product you are working with (i.e. default rate setting, distributed units and unit conversion ratio). Highlighting a zone and clicking a rate button will assign the rate/colour to the particular zone.

Once an appropriate prescription map has been created it can be saved by choosing the Save (disk) icon. Right clicking on the layer under the field name will give the option to export the map.

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**New customers 1st year free*

For a limited time only, any upgrades to or purchases of Variable Rate Application systems will come with a free SD Card Reader - no need to worry about synchronising files!

Farm Works Owner Buyout

At 1st January 2007 the parent company of Farm Works, CTN Data LLC, was purchased by the current management team. The buyout was achieved with no external financing and there has been a smooth operational transition.

Ian Harley (MD Europe), Scott Nusbaum (VP USA), Tony Bowers (Development), Claudia Weesner (Finance), Mike Purny (Sales), Brain Stark VP (Marketing) and Deb Hurraw (Support) are all co-owners.

Thanks go to the founders, Norm and Margo Teegardin, for their support. We look forward to continuing with the same excellent personnel and providing innovative products for our valued, growing customer base.

SI MA 2007

Farm Works software was displayed widely at the SIMA show. With complete localisation for the French market, Site Mate is the default solution for variable rate application with several equipment manufacturers.

The solution shown below is combined with the latest Amatron + spreader controller using a standard serial interface.

With more opportunities to vary Nitrogen application rates, providing VRA for liquid applicators is increasingly important.

The Tecnomat range, shown above, is widely used in France in conjunction with Site Mate on the Pocket PC. This makes for an economic solution. In this set up a ISOBUS-Serial Converter has been used.



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