

Bridgnorth Monitor Farm

Topic: Variable rate farming

Date: 3 March 2017

Venue: Norton Village Hall

Speakers: Andrew Williamson & Mark Wood

**For more information, visit
cereals.ahdb.org.uk/Bridgnorth**



Adrian Joynt, Bridgnorth Monitor Farm

Meeting summary – key messages

1. Don't underestimate the time required to set up precision farming software. If set up correctly to begin with then this will save a lot of work later on.
2. Decide what data is useful to you and your business and concentrate on this. Don't get bogged down in the mass of work which can be produced.
3. Data analysis has to be good enough to determine the cause of variation not just measure it.
4. Talk to people who are already using variable rate equipment and learn from their lessons.
5. Precision agriculture has to be based on good agronomy. Precision agriculture will not make a bad farmer into a good farmer, but can make a good farmer into a better farmer.

Realising the full potential of precision agriculture Andrew Williamson Nsch

Variable rate farming; a dairy farmer wouldn't treat each of their cows the same so why do arable farmers treat their fields the same?

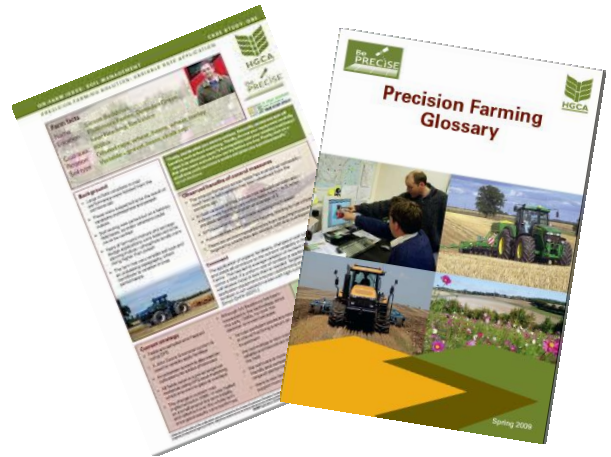
- **Auto steer** is a good entry point into precision farming. It is tangible and easy to see the effects of
- **Right product, place, rate and time;** how often is it possible to get all of these things right?
- **Requirement** – establish whether you would like an even yield map or for each area of the field to be achieving at its best?
- **Caution required** when using one layer of data in isolation.



Find out more about precision farming [here](#)

Read about farmer experiences with precision farming solutions to on farm issues, including:

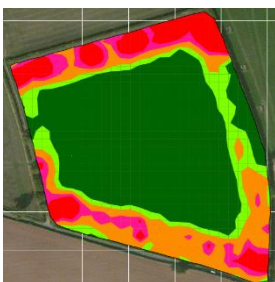
- [Soil management and variable rate application](#)
- [Nutrient management and variable rate application](#)
- [Input costs and variable rate nitrogen](#)
- [Variable soil types and yield mapping](#)
- [Field operation efficiencies and autosteer](#)
- [In-field accuracy and autosteer](#)
- [Nutrient variability and yield mapping and variable rate](#)
- [Soil management and controlled traffic farming](#)
- [Crop variability and N-sensor to vary nitrogen rate](#)
- [Variable soils and nutrient and yield mapping](#)



Are cost benefits of variable rate farming quantifiable? Mark Wood - Hereford Monitor Farmer

- Cost analysis at JPF Clay Farms (AHDB Hereford Monitor Farm) established cost of £16/ha per annum.
- Have the farm yields increased enough to cover this?
- No comparison with pre VR as yield mapping not started till 2014.
- Even if there is a yield increase, how can definitively say it is down to variable rate and no other factors such as weather?
- Base fertiliser costs had increased over the first 4 year period as decision taken to lift indices.

Signal Costs		
Item	Amount	per ha
SF2 signal - Combine	546	0.96
SF2 signal - Tractor	592	1.04
Tractors hardware	11500	4
Combine hardware	5846	2.1
	18484	8.1
Variable rate costs		
Item	Amount	per ha
SOYL	15383	5
Kuhn Drill	4000	1.4
Horsch drill	480	0.2
Gatekeeper	368	0.65
Contractor	2100	0.74
	22331	7.99
Grand total	40815	16.09



- Gross margin map has allowed Mark to identify that headland required planting into maize due to compaction problems.
- The benefits are there for any size farm, improves efficiencies even on a smaller scale with more pressures on resources such as time & labour.

Arable Business Group - Benchmarking

Farmbench collections will be taking place in the Autumn. Megan will be contacting all those who participated last year. If you wish to be contacted please contact Megan on the below details.



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Next meeting

8 June 2017

Summer meeting

To attend meeting, please contact your AHDB Cereals & Oilseeds Knowledge Exchange Manager:

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