

# Huggate Monitor Farm

Meeting title: Soils and cover crops

Date: 13 November 2019

Speakers: Anne Bhogal (ADAS), David Blacker (ex-York Monitor Farm host)



## Soil health

Anne Bhogal

- Soil health: The ability of a soil to act as a living system to sustain, in the long term, its most important functions
- Soil quality: fitness for use
- Soil sustainability: continued ability of soils to function; resistance and resilience to change
- Assessing soil health can be aided by using the soil health scorecard which is being developed and tested in the Soil Biology and Soil Health Partnership
- The scorecard uses a traffic light system to indicate where elements of soil health compare against a benchmark. Amber and red scores indicate where further soil testing may be beneficial or an altered management practice may be required (more information can be read in [case studies of farmers testing the soil health scorecard](#))

### Take-home messages

- Assessment of soil health requires an integrated approach linking chemistry, physics and biology
- To evaluate the impact of management practises, track changes over time by assessing on a rotational basis and from same location/timing
- A scorecard approach is being developed and evaluated in the Soil Biology and Soil Health Partnership; it aims to provide benchmark data to guide an assessment of soil health
- Cover crops are excellent at providing nitrogen uptake, erosion control and soil structural benefits
- Considerations:
  - Species choice – what do you want to achieve and does it fit with your rotation?
  - Drill as early as possible
  - Leave a good window between destruction and spring crop establishment
  - Be prepared for variable yield impacts – needs to be a long term investment

### Further information

- [Testing soil health](#)
- [Soil assessment methods](#)
- [Soil health and biology partnership \(91140002\)](#)
- [Using the soil health scorecard case studies](#)
- More information from the GREATsoils programme can be found at [ahdb.org.uk/greatsoils](http://ahdb.org.uk/greatsoils)

## Moving to no-till and cover crops

David Blacker

- 'I'm not running a health farm for soil microbes – it's a tool to improve soil health and crop yield'
- Used compost for 3 years
  - Bigger, lusher crops, forward through the season
  - 3 years of keeping bagged N the same and take extra yield
  - 2017 N levels reduced using Yara N tester
  - If there's no extra yield, I'll make a saving in N
  - £50/ha saving

### Take-home messages

- Compost benefits
- Ask yourself why are you growing cover crops? Different objectives will need different species.
  - Long-term soil health – Lignin, higher C/N ratio
  - Nutrient boost to following crop – leafy growth, low C/N ratio, legumes
  - You need to know what you want to achieve

### Further information

- [Research project 21140009: Maximising the benefits of cover crops through species selection and crop management \(Maxi cover crop\)](#)
- [Cover crops in conventional rotations](#)
- [Measuring and managing soil organic matter](#)
- [Taking cover crops on farm](#)
- To find out more about the cover crop demonstrations at Strategic Cereal Farm – East, see [ahdb.org.uk/farm-excellence](http://ahdb.org.uk/farm-excellence)

## AHDB resources

- Understand your business costs with AHDB's benchmarking tool Farmbench at [ahdb.org.uk/farmbench](http://ahdb.org.uk/farmbench)
- Monitoring tools are available at [ahdb.org.uk/tools](http://ahdb.org.uk/tools)
- Sign up to market information and research newsletters at [ahdb.org.uk/keeping-in-touch](http://ahdb.org.uk/keeping-in-touch)
- Find out what's going on at other Monitor Farms and Strategic Farms at [ahdb.org.uk/farm-excellence](http://ahdb.org.uk/farm-excellence)
- All AHDB events can be found at [ahdb.org.uk/events](http://ahdb.org.uk/events)
- For guidance on how Brexit will impact your business, see [ahdb.org.uk/brexit](http://ahdb.org.uk/brexit)

## Contact details

For more information contact: Rose Riby

E: [rose.riby@ahdb.org.uk](mailto:rose.riby@ahdb.org.uk)

M: 07741 892 283

 [@Cereals\\_NE](https://twitter.com/Cereals_NE)