

Saltburn Monitor Farm



Meeting title: Review of year 2 at Saltburn Monitor Farm

Date: 12 November 2019

Speakers: Robert Sullivan (GCS Grays),
Steve Townsend (Soil First Farming)

Costing out the rotation

Robert Sullivan evaluated the benchmarking data at Barns Farm, looking at costings associated with direct drilling and rotations over previous conventional methods.

- 250 acre block on poor land historically in continuous wheat
- Significant sterile brome issues with variable levels of control
- The aims are to a) improve profitability b) control sterile brome?
- After rotation
 - Brought in winter beans
 - Use of cover crops followed by spring barley
 - Use of no till-drill
 - Altered nutrition – calci-fert
- Variable costs are relatively static across years
- Winter beans followed by winter wheat not surprisingly produced the highest margin/ha
- Variability in yield between the years the majority impact with price the next most important:

	Yield (t/ha)	
	2018	2019
Continuous wheat	6.25	10.75
Winter beans	2.81	5.46

- Margin of wheat after beans 23% higher than continuous wheat – yield 0.6t/ha higher
- Winter bean margin increased by 369% between 2018 and 2019 – yield doubled in spite of using contractors to drill in 2019
- Financial performance over the whole rotation not available until year 3
- Would appear that the economic returns similar between the two rotations

Take-home messages

Questions to consider are:

- Which rotation gives the greater certainty of yield?
- Which rotation has given the better grass weed control?
- Which rotation has improved soil health the greatest?
- Which rotation is the more physically, environmentally and financially stable?

Further information

- [Farmbench](#)

Cropping and soil management

Steve Townsend discussed key areas related to cropping and soil management

Take-home messages

- Cover cropping can capture, fix and recycle nutrients left over from the previous crop, rather than being leached away
- Improve soil structure by root penetration at different depths, which is subject to the species used. Channels created by the roots open up the soil allowing free movement of air and water through the soil profile, even breaking up compacted layers at depth
- Protect the soil from erosion by water and wind by holding soil in place by root and foliage growth
- Help to suppress weed growth by direct competition
- Create a large biomass of organic matter which, when returned to the soil, will over time release nutrients to the following crops and improve soil structure
- Aid in increasing the quantity of bacteria, earthworms, fungi, insects in the soil over time by having a growing crop and increased organic matter available for more of the year. This will then speed up the breakdown of the organic matter and the release of nutrients
- Potential to save on spring cultivation costs by direct drilling following a cover crop
- Encourage farmland wildlife by creating autumn cover and a food source for insects and birds

Further information

- For more information on cover crops, visit ahdb.org.uk/cover-crops
- 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

AHDB resources

- Understand your business costs with AHDB's benchmarking tool Farmbench at ahdb.org.uk/farmbench
- Monitoring tools are available at ahdb.org.uk/tools
- Sign up to market information and research newsletters at 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
- All AHDB events can be found at ahdb.org.uk/events
- For guidance on how Brexit will impact your business, see ahdb.org.uk/brexit

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