

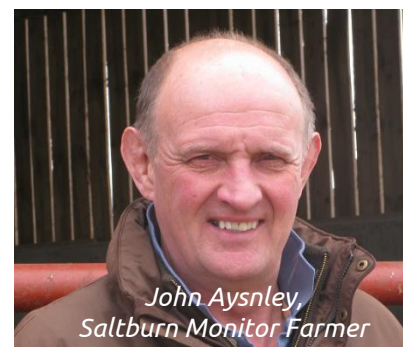
Saltburn Monitor Farm Meeting Report

Meeting 7 – Farm Walk and First Year Review

8th November 2018

Barns Farm, Guisborough

For more information, visit: cereals.ahdb.org.uk/saltburn



Meeting Summary – Key Messages

- Dig holes in field, to look at soil structure, smell, rooting and infiltration.
- Analyse soil sampling results further to look at relationships of chemistry in the soil.
- Benchmark costs and look at margins across a full rotation.

Barns Farm – Farm Walk

The farm walk at Barns Farm included a discussion on a number of areas, related to the cropping and soil management. John Aynsley and Steve Townsend (Soil First Farming) talked the group through the key areas to look at and question with farm practice. The key areas that were discussed and recommendations were:

- Soil health – need to have soil biology, chemistry and physics in harmony.
 - Food source is the carbon (organic matter).
“Treat your carbon like a bank account – you need to be putting more in than you are taking out”.
 - We’re not able to change the physics of soil, so we need to focus on the carbon
 - Cultivations create an oxidation of carbon, therefore a reduction in cultivations enables a reduction of oxidation, which is better for the soils.
- Take a spade and soil compaction tester out to have a look at your soil structure
- Only use soil compaction tester when soils are at the correct moisture, ie when drains are running
- How does the field ‘walk’? Can you feel the difference under your feet of different management, eg. establishment?



- 'Become a root reader' – look at rooting – are they impeded by soil structure? Grow a bit of mustard seed – how does it grow? A good way of assessing a plants ability to root on your soil conditions.
- 'Smell your soil' – is it aerobic and healthy? How does it compare to underneath the hedgerow?
- Aim for 30 worms/m²
 - Use this [factsheet](#) for how best to sample your earthworms and identification
- Water infiltration is a good test for soil structure
 - Find out how to do a water infiltration test [by watching a video here.](#)
- Think about your Mg:Ca ratio – needs to add up to 80% - think about your soil type, especially important for silty soils.
- Sulphur is crucial for protein production – enables nitrogen to work better.
- How often are you soil sampling? Is this being done through the same laboratory and at the same time of year?
- How do you know your organic matter is improving?
 - Better tilth
 - Carry out an organic matter test, using Loss on Ignition (LOI) – sample at the same depth and in the same situation for a replicated sample.
 - Smells right.

Field Examples:



Establishment: MZURI HORSCH
TERRANO

The group discussed if there was too much cultivation from the Mzuri? Would this be a benefit for sterile brome control?

Direct drilled wheat after beans

Costing

The group discussed the costings with John Aynsley and Robert Sullivan from GCS Grays.

A summary of the average costs for each crop are shown below. All crops were direct drilled in harvest 2019. The aims of this Monitor Farm is to look at improving the soil, controlling sterile brome, looking at direct drilling and to look at rotations, as the farm has previously been in continuous wheat. However, above all else, margin is important.

	Winter Wheat Average (22.9 ha)	Winter Beans Average (35.5ha)	Green Cover/Spring Barley Average (32.29ha)
Yield (t/ha)	6.12	2.89	4.82
Price (£/t)	160	220	150
Total variable costs (£/ha)	615.48	369.06	447.16
Total fixed costs (£/ha)	105.61	80.61	108.63
Margin (£/ha)	270.11	164.50	112.37

**Note – total fixed costs does not yet include depreciation or overhead fixed costs.*

Harvest 2018 was characterised by lower yields, due to the wet and cold early season, but higher prices were gained.

The overall margin for the winter beans and the spring barley margin, compared to the continuous wheat, leaves a shortfall of £100/ha over the two years in the rotation. The following winter wheat needs to generate this margin, in order to make a difference over the continuous wheat.

However, the beans and cover crop option do provide more options for chemistry, which is an advantage for brome control.

Find out more..... AHDB Information and Research Links

GREATsoils website for all soils related information: ahdb.org.uk/greatsoils

[How to count earthworms](#)

[Infiltration test: video](#)

[Farmbench](#) – free online tool for input of costings and calculation of cost of production for each enterprise.

Further Information

For details about the Saltburn Monitor Farm and past meeting information, please visit: cereals.ahdb.org.uk/saltburn.

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