

Truro Monitor Farm meeting report

Farming soil, lowering costs, raising margins



Speaker: John Martin (Deverill Farm, Dorset)

Location: Tregairewoon Farm, Portscatho, Truro, Cornwall, TR2 5EP

Date: 13 December 2018

Key messages

- The biggest asset on your farm is the soil. How do you manage it?
- It takes a long time to build soil organic matter so it is a long-term project to improve it
- Carefully choose a cropping regime, considering the effect on both above-ground and below-ground biology
- Machinery management is part of the system – look at the effect of machinery use on soil health and business costs

Soil quality at Deverill Farm

- Since his exit from cows 18 years ago, John realised a long-term approach is required to maintain soil quality
- To assess your soil, dig a hole after heavy rain!
- Future climate change management will mean water management – the key to this is organic matter management which is a long term project. Lifting 1% organic matter levels in 10 years would be good going but an extra 1% holds an extra 17mm rainfall
- Like a good fire needs kindling and logs, soil needs bacterial population (quick acting) and fungal population (slower acting)

Cropping

- Key is variation in cropping for above-ground and below-ground biology management
- Heavy emphasis on spring cropping and cover crops
- ‘Phased’ cover crop mixes for speed of destruction and nutrient recycling
- Beware higher carbon:nitrogen ration materials eg straw take more nitrogen to break down
- Target £30/ha cover crop seed cost
- All straw ploughed in
- Requires 0.6t/ha yield return to cover cost of cover crop and opportunity cost of straw
- Sheep grazing can generate extra income and accelerate nutrient recycling but be aware some nutrient being removed in sheep, and beware over grazing. More information can be found in [Livestock in the arable rotation](#).
- Cover crop destruction – early if you are looking for nitrogen, later if you are looking for organic matter benefit

Cultivations

- Ploughing is avoided if at all possible but John accepts that it may be needed as ‘reset button’ if grass weed problem. It may be needed more if Glyphosate banned.
- Machinery management also part of system – pay attention to tyre pressures and axle weights

- Benefit is now being seen in less HP and diesel requirement on farm. The [Machinery cost calculator](#) can be used to calculate the cost of machinery per hectare or per hour to gain an understanding of the system efficiency.

Aims for Deverill Farm

- Increase soil organic matter by 1–2%
- Maintain a balanced soil
- Move less soil when making a seedbed
- Harvest more sunshine
- Lighten axle loads
- Minimum soil exposure to sunshine
- Make farm more adaptable to extreme weather conditions such as droughts or heavy rain

Find out more – Links to AHDB information sheets or research

For more information on soil health and sampling methods, please visit ahdb.org.uk/greatsoils

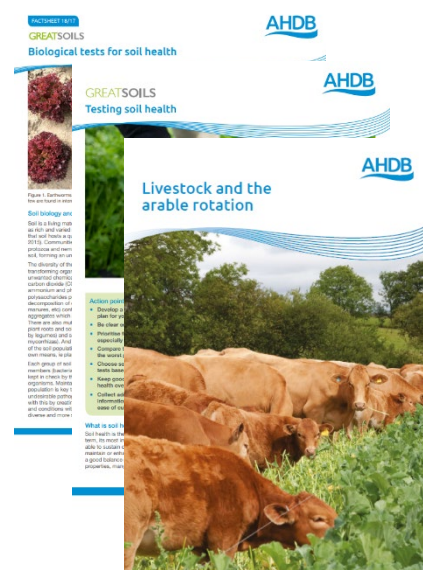
- [Soil assessment methods](#)
- [Biological testing for soil health](#)
- [Testing soil health](#)
- [Opportunities for cover crops in conventional arable rotations](#)
- [Livestock in the arable rotation](#)
- [Machinery cost calculator](#)

Next meeting

Date: 7 February 2019

Topic: Health soils, healthy crop

Location: Tregairewoon Farm, Portscatho, Truro, Cornwall, TR2 5EP



For more information contact:

Philip Dolbear
 Knowledge Exchange Manager – South West
 E: philip.dolbear@ahdb.org.uk
 M: 07964 255614
 @Cereals_SW

AHDB
 Stoneleigh Park
 Kenilworth
 Warwickshire
 CV8 2TL

T 024 7 669 2051
 E info@ahdb.org.uk
 W ahdb.org.uk
 @AHDB



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