

Malemesbury Monitor Farm

Meeting title: Healthy soils, healthy crops, less inputs, more margin

Date: 4 November 2019

Speaker: Joel Williams (Integrated Soils)



Healthy soils, healthy crops

Take-home messages:

- It's not just the physics, chemistry and biology of soils – need to consider the plants too
- More plant diversity is good for ecosystem benefit.
- Living roots are emerging as a key soil health strategy.
- Different species and even different varieties have different rooting architecture
- More plant diversity gives more root exudate diversity driving microbial processes (nutrient recycling) and soil organic carbon sequestration (farm resilience)
- Need to redesign production systems so ecological processes support plant production, ecosystem services and farm profitability

'Roots not Shoots!'

Strategy checklist:

- How diverse is the rotation?
- Can inter-cropping and companion cropping be considered?
- How much of the year are there living roots in the soil? How can this be extended?
- Is soil movement being minimised to reduce the disturbance to soil microbial activity? Good soil structure helps maintain what you create.
- If all of the above apply to promote nutrient recycling, are the benefits being realised with less artificial inputs?

Options for increasing nutrient use efficiency:

- Seed treatment
- Foliar sprays
- Carbon based inputs
- Integrated nutrient management
- Cover crops
- Plant species diversity

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
- [Nutrient Management Guide \(RB209\)](#)
- [Webinar: Crop yields and how to maximise potential](#)
- Impact of cultivations on crop rooting at [Strategic Cereal Farm – West](#)
- [Farmbench](#)
- David Pett, Regional benchmarking officer (AHDB) – david.pett@ahdb.org.uk / 07813 454 537

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

Contact details

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