

CHCx3 Summer Report: Data Collection at FarmED and Fieldwork Preparation



Visitors to FarmED are often curious to see scientists around the fields, armed with spades and various sampling and measuring tools, digging holes in the soil. They are part of the Centre for High Carbon Capture Cropping research project (CHCx3 for short). Reducing greenhouse gas emissions and improving resilience to extreme weather, are global challenges for farming and land management that have been particularly front-of-mind during the heat waves and drought this summer. The

CHCx3 scientists are researching crops and farming systems that may increase carbon capture and could help farming and associated industries address climate change.

*FarmED and Cotswold Seeds are proud to be associated with this vital project and every quarter we will share an update from CHCx3 soil scientist, **Jed Soleiman**.*

We have analysed the next round of fieldwork data, providing more evidence and context to the changes we are observing in the herbal ley plots and we've analysed above ground biomass and root biomass results.

We're now preparing for the next round of fieldwork to take place (weather dependent) during the w/c 13th October. We have finished the process of finding assistants for this work and are gathering the necessary equipment.

We have also taken on another group of young people who are excited about food system transformation and how it can mitigate the biodiversity and climate crises. We are providing work experience to boost their development and future career prospects in this space. We are also purposefully trying to engage as many young people as possible, helping to encourage the next generation and equip them with the skills to take these new approaches forward.

Exploitation: Legume Legacy

We recently hosted the Legume Legacy project at FarmED for a day full of exciting talks, farm walks, and learning exchange between the two projects. Twenty PhD students attended to show off what they had been working on, largely paralleling the CHCx3 project by understanding the role legumes have to play in systems such as herbal leys, their impacts and longer-term effects.

We gave presentations about the general CHCx3 project and the specific experiments and data produced so far for FarmED. Many productive discussions were had, setting up possible future projects/collaborations. Comparing and sharing our perspectives will create a more comprehensive piece of work.

Groundswell 2025

Jed was invited to join the panel, 'Uncovering Limiting Factors on your Farm,' with podcaster Abby

Rose, agronomist Ian Robertson, and regen consultant Tim Williams. Many common issues were discussed, such as compaction and nutrient declines, and Jed talked about the role of herbal leys in helping fix some of these problems and showed how our investigations in CHCx3 are contributing to push forward this field.

Farmers Weekly Article

The Groundswell panel was covered in *Farmers Weekly* helping us reach new farming and associated audiences on a much larger scale. The article looks at the need for short and longer term changes to the farming system, and the benefits of introducing herbal leys.

(<https://www.fwi.co.uk/arable/land-preparation/soils/4-ways-to-overcome-limiting-factors-on-farm>)

Jed recommends a major rotation shift-up, perhaps integrating herbal leys and livestock into the rotation to break up compaction and improve soil diversify. This will help to introduce more conventionally-minded farmers to these ideas, and slowly bring them on this agroecological journey.

Next Quarter

We will have completed our next round of fieldwork and sample processing and we should have collected all the data for 2025! Work will be underway to analyse this data and produce new figures to add to our time series. We will continue to work on our dissemination activities to ensure we are reaching as wide an audience as possible, bringing all food system stakeholders together to encourage this transition.

CHCx3 WEBSITE

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