

The Winmarleigh carbon farm

Growing a permanent non-harvested crop of sphagnum moss for the purpose of storing and protecting carbon in peat soils

January 2020



May 2020



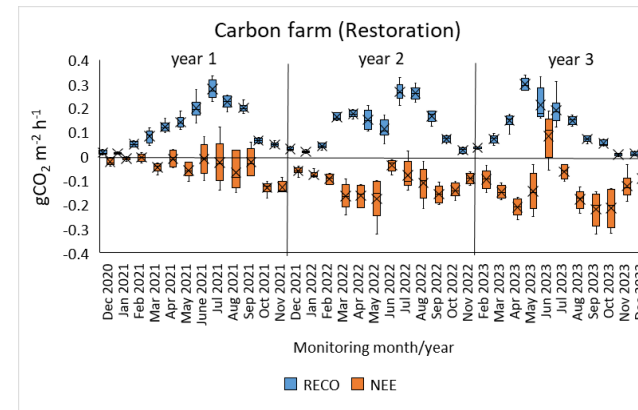
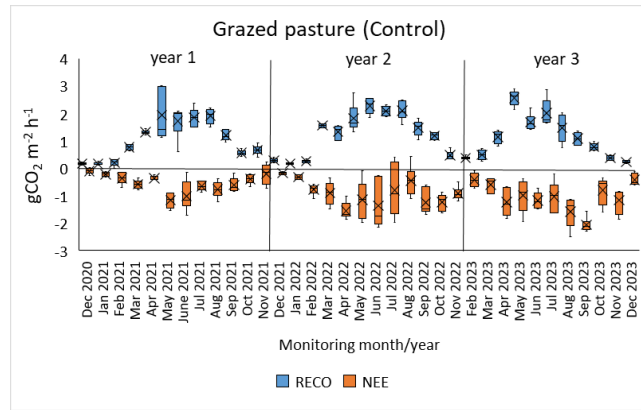
September 2020



August 2022



The science bit



Carbon emissions reduction

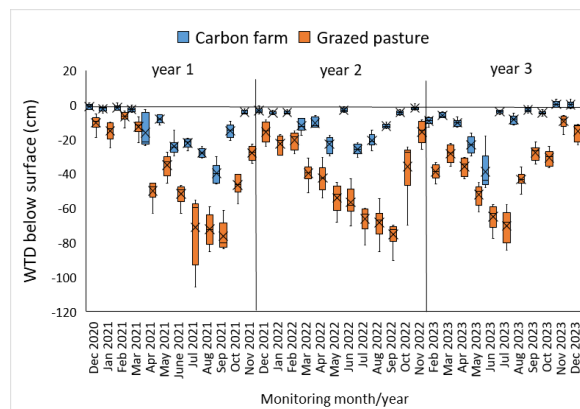
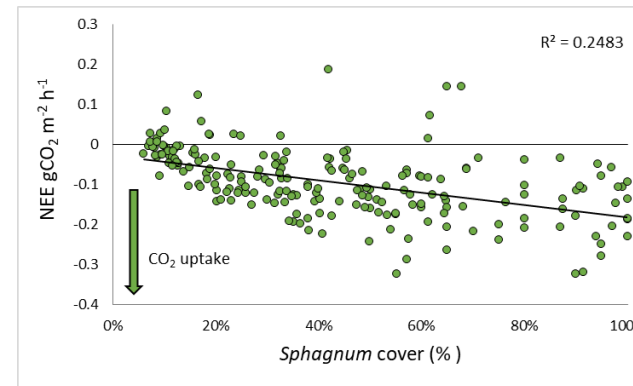
Carbon farm 3.43 t CO₂e ha⁻¹ yr⁻¹

Grazed pasture 40.17 t CO₂e ha⁻¹ yr⁻¹

Emission saving = 91.5%

Sphagnum growth

Sphagnum is resilient! There has been some good growth of sphagnum despite the prolonged dry periods esp. during establishment phase in 2021.



Hydrology/water table

Deep trench bunding techniques have been effective in separating hydrology on carbon farm from surrounding farmland; the solar power pump irrigation system is working after a few teething problems to move water throughout the site

Challenges



Top soil removal

10cm of nutrient enriched topsoil and seed bank was removed

- Removed peat can be used for bunding/ditch-blocking elsewhere to reduce carbon losses
- Crop rotation / plant a nurse crop instead of stripping soil



Water levels

Requirement to maintain consistent water levels across the site

- Future proof – backup water supply and enlarge water storage area
- Use of overhead/surface water irrigation system as alternative



Weed control

Higher than expected levels of weed growth

- Fencing & grazing up to edge of carbon farm
- Contract /volunteer weeding - brush cut and hoe
- Considering steam treatment
- Are weeds really a problem?

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Find out more

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