

The only lowland farm run directly by the National Trust is now carbon negative

(From Farmers Weekly report 4th Sept 2020)

On Wimpole Estate, Cambridgeshire, the "total organic carbon - which is related to soil organic matter - has risen about 0.14% a year to see average levels on the farm's heavy clay soils move from 2.01% to 3.43% - a clear sign of improving soil health and fertility." This is being driven by a six-year rotation of crops, which starts however with a two-year, fertility-building ley grazed by cattle and sheep and is also used for making organic silage. "The idea is to make the leys 'work hard' and put down deep roots, and Mr Weir avoids topping, as he believes that the roots become lazy and feed off the mulch produced."

A key change has been the use of minimal tilling and ploughing only once every 6 years to reduce organic matter oxidation. the crop rotation is:

- Two-year grass ley
- Winter wheat
- Spring oats/winter oats/winter rye
- Peas
- Spring barley

A pulse crop was introduced for its nitrogen-fixing qualities, however the yield has been poor and it is a very weedy crop, so ploughing was needed afterwards.

The wheat is milled for scones in NT tea rooms, oats are destined to make organic porridge and the rye goes for specialist breads.

All of the livestock are pasture-fed, provide additional income and allow the farm to use its wildflower meadows to make hay for winter forage. On the grazed parkland surrounding Wimpole Hall organic matter readings are particularly high. "If we ploughed up the 300 year old parkland that would release 50,000t of carbon". Typically, well-managed, permanent pasture stores huge amounts of carbon deep into the soil. Mature woodland and hedges, which are allowed to grow tall and wide, are also important contributors to the carbon sequestration on the farm.

The profitability on this organic farm are comparing well with that on non-organic farms.

My comment

This farm specific assessment of carbon balance makes absolute sense - looking at whole farming cycles over several years and the multiple related outputs that are integral to keeping the soil healthy and able to store carbon. By contrast, the carbon footprint of individual foodstuffs considered in isolation (and where the emissions only are calculated and not the positive or negative effects on soil carbon storage or soil fertility), makes no sense at all, and should not be taken as a measure of sustainability as they are misleading.

Ros Edwards 12.09.20