

CARBON ACCOUNTING & PAYMENTS

THOMAS GENT

Thomas is the founder of Gentle Farming.

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I’m a fourth generation farmer living and working on our mixed family farm on the Lincolnshire/Cambridgeshire border. We produce free range eggs and arable combinable crops.

Around 12 years ago our family took a collective decision to focus on the soil – to farm regeneratively. This approach to agriculture has a key role to play for all farms and farming systems.

Soil is one of our planet's most crucial ecosystems and supports almost all life on Earth. 95% of global food production comes either directly or indirectly from soil. Its degradation poses a major threat to global food security and to delivery of the Sustainable Development Goals (SDGs). A third of the Earth’s soils are already degraded, and according to the UN FAO this could reach 90% by 2050. Intensive farming practices are pushing humanity’s food producing capacity to the brink, with desertification becoming a huge problem around the world. We need to take decisive action today.

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Most farmers love their work, but our land is our livelihood, and wherever possible we need to get

paid for what we do. To ensure that we can continue farming for quality, rather than just volume, we need to find ways to monetise sustainability so that our efforts to restore nature and draw down carbon are rewarded. I founded Gentle Farming to do precisely this. I wanted to reward and recognise the work of farmers who are delivering sustainable farming practices, and in particular sequestering carbon back into our soils. Carbon farming is critical if society is to effectively combat climate change while also restoring biodiversity and improving water management.

The basics of soil carbon offsetting

Regenerative agriculture draws down and locks in carbon by using crop rotation, heavy impact from livestock, and long rest periods to ensure high levels of land recovery. For example, as pasture plants grow, they absorb CO₂ into their roots, stems and leaves. These grasses are eaten by livestock and turned into muscle or manure, the latter of which is trampled into the Earth, helping to stimulate growth and cycle nutrients. In the sward, a diversity of plants break up the soil as their roots grow, restructuring the Earth and creating channels for water, bugs and microbes – and then when the plants die, they decay, providing nutrients for the soil zoology. These various processes help to transfer carbon from above ground and into the

land – and as the organic matter grows, so does the amount of carbon stored in the soil.

Carbon offsets are an important tool in our global transition to net zero, but should be used by companies only as a last resort once they have reduced emissions as far as possible. Soil offsets from regenerative agriculture can be used to help reduce the direct impact of unavoidable carbon emissions, while financially supporting a farming transition to regenerative agriculture. Of course, what is unavoidable will change as experience, technology, and government policy change, and ideally companies will buy fewer soil carbon certificates each year as their carbon footprint reduces.

The carbon offsetting market is well-established and proven. Soil carbon certificates are simply a new product on the shelf, and one of the most exciting because soil carbon sequestration can be delivered both rapidly and locally.

Gentle Farming has now partnered with Agreeena, who help deliver accountability and straight-forward functionality. Agreeena's online assessment tool works on a field-by-field basis and takes account of everything that goes on in that field, one crop year at a time. We measure cover cropping, tillage rates, straw management as well as the use

of any synthetic fertilisers, diesel and chemicals. We award farmers with a number of certificates per hectare, depending on the mix of practices they use, as well as other factors, such as their underlying soil type.

Around forty UK farms are already using the Gentle Farming system, powered by Agreeena – and companies are already pre-ordering soil carbon certificates, which will be produced for the first time towards the end of 2021. Certificates will be awarded directly into each farmer's carbon wallet, creating a new asset class that the farmers can keep, sell, or use for trading. (We're now open for farmers to join up for the 2022 harvest.)

We anticipate that soil carbon payments will form a substantial part of a farm's income in the UK as we move towards a financial support system based on public goods.

I truly believe that this is the best time ever to be a farmer. There are so many opportunities coming, not just in terms of carbon, but in the whole sustainability world. Those farmers that take up the challenges and push ahead will be the winners in this new digital and sustainable world of food production.