

# MESSY FARMING

## CLARE HILL

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*'Becoming a regenerative farmer is about paradigm shift. In the old mechanistic paradigm, long, messy grass equalled wasted feed, but in the new paradigm – this is productivity. Now that we're able to hold onto so much more of the water from the winter and grow spring grass right through the summer, we've become more productive, finishing our animals on grass between 18 and 24 months, and we've used no additional inputs.'*

'Messy,' is how most farmers would describe our farm now.

'Recovering beautifully,' is how I describe it.

Soil, water, natural nutrient cycling and sunlight have now become central to our decision making. And considering the fact that these things are all free, it seems strange to me now that this wasn't always the case.

I've worked on and around the farm at FAI in Oxfordshire for 18 years, managing it for the last four. We'd always worked to follow best practice, taking note of new research and driving our system to produce more from less. But despite farming having the opportunity to help in the fight against climate change and biodiversity loss, our emissions were increasing, and biodiversity loss was accelerating. Something wasn't working.

Becoming a regenerative farmer is about paradigm shift. The first time my brain moved up a gear was after working with a grazing consultant. After following his advice, we grew a lot more grass – so much so that he suggested we could increase the number of livestock, spreading our overhead and improving our profitability. That sounded like a

great idea, but when I delved a little deeper I realised we faced some problems.

First and foremost was that we would need to build a new shed to house the extra stock over the winter. This was going to be a sticking point. The farm is just one part of FAI's consultancy, so a full business case would be needed to demonstrate a return on investment – and on a tenanted farm with seven years left on the lease, and a landlord who was likely to write the value down to zero on any tenant investment, I felt that I had a pretty good sense of what the answer would be.

There was also a part of me that thought, 'Surely there needs to be a more sustainable solution than just laying more concrete.' But what was it?

I knew another farmer who out-wintered his cattle on bales, and while I was intrigued, I had a nagging demon in the back of my head reminding me of the words I'd heard repeated on the farm for the last 18 years: 'it'll never work here, our soil is too heavy to out-winter.'

But Humphrey, then the assistant farm manager, told a story about visiting the out-wintering farm and walking over the field towards the cows. There was soil and water squelching under foot and he

thought it must be drier at the other end of the field where the cows were. Instead it was wetter – but because of the abundance of biomass (grass and plants) above the ground, there was a ‘messy’ green carpet over the soil to prevent the cow’s hooves causing any damage.

That was it. I clapped my hands together and we decided to give it a go ourselves, but with a small number of animals so that we could bring them back inside if it didn’t work. This experiment served two purposes during the winter of 2019. Firstly, it gave us confidence, and secondly, it taught us a lot about water infrastructure and how our farm was not immediately set up for this type of grazing.

That meant we needed to invest in new fences and water infrastructure to feed more troughs, but somehow that felt a lot more progressive than investing in a new shed. The cattle needed to be moved on frequently – every two days – so that even in a really wet winter, with water standing on the soil surface, they’re not there long enough turn it all to mud. Outdoor in a field – this is where our cattle are at their happiest and healthiest, without the problems that are common in housed cattle sheds, such as respiratory disease or lice.

### *Redefining Productivity*

The second gear shift in my brain was refining what I thought waste looked like.

In the old mechanistic paradigm, long, messy grass equalled wasted feed. When there were hay bales stored outside and rolled out onto the ground, the first question was always ‘how much utilisation are you getting?’ or ‘how much is wasted?’ But now I’ve learned to see the bales in a different way – it’s not waste, it’s carbon - and it’s getting trampled into the ground, feeding the microbes and keeping the soil warm so that it carries on growing throughout the winter. In the new paradigm – this is productivity.

We’ve now come to the end of our second summer of Adaptive Multi-Paddock grazing, and it’s working

so well that we recently won the Compassion in World Farming Sustainable Food and Farming Award, with our partner McDonald’s UK & Ireland.

There’s an easy experiment that anyone can do to see how well the system is working. If you put your hand under the grass and onto the soil it will feel cool and moist, even when the hot summer days are topping 28C in the shade. The soil is more resilient to hot summers as well as cold and wet winters – it’s alive, vibrant, and the grass is growing all year round.

The FAI farm land is on the River Thames flood plain. It’s always described as ‘wet in winter, burns off in the summer.’ But where does all that water go? Now that we’re able to hold onto so much more of the water from the winter and grow spring grass right through the summer, we’ve become more productive, finishing our animals on grass between 18 and 24 months, and we’ve used no additional inputs. This is our focus now. We work to improve soil health and its water holding capacity, to grow more grass to feed more animals, and to help reduce flood risk for the city of Oxford, nestled on our doorstep.

### *Biodiversity*

All this change is also fantastic for biodiversity. When our grasses are going to seed, butterflies fly up with every step. There is more wildlife, and there are comments on local Facebook groups, from walkers who’ve used rights of way across our farm, that the fields are buzzing with insects the like of which people haven’t heard since their childhoods.

We have achieved this by learning that we are part of an ecosystem, rather than in charge of one. We’ve learned to read the feedback our ecosystem is providing.

We still produce organic cattle, but the way that we rear them has changed – in a nutshell, it’s a high density of animals, fed in smaller parcels of grazing land, moved on frequently, with the land left for a long rest period. The long rest period is what

differentiates AMP grazing from many other systems – that and the fact that our reliance on external inputs is minimal.

Importantly, it's not just us saying that we are regenerative. We're measuring our outcomes and monitoring our impact regularly. We're gathering data to assess whether the ecosystem processes of water cycle, nutrient cycle, air flow and photosynthesis are working effectively. We also dig holes and visually assess our soils, we measure our

infiltration rate and we count our worms. All of those measures are uploaded into our Soil Mentor app so that we can track our progress each time we assess. And finally we send soil samples to laboratories for analysis. On top of the usual nitrogen, phosphorous and potassium tests, we do soil carbon analysis, and look at soil biology, including organic matter and fungi/bacteria ratios. Like a jigsaw, each one of these tests pieces together a deeper understanding of our soil.