

ISSUE 36 | APRIL 2026

DIRECT DRILLER

SOILS MAGAZINE

THE FUTURE OF YOUR SOILS

Riding the wave

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RIDING THE WAVE OF UNCERTAINTY

WRITTEN BY CHRIS FELLOWS

Welcome to the latest issue of Direct Driller. Alongside our usual in-depth farmer focus coverage, this edition features a preview of our favourite show, Groundswell, where the conversations around soil health, resilience and input reduction are set to be more relevant than ever. And looking at the current global situation, that relevance is not just ecological, it is acutely financial.

As we head into the spring of 2026, the agricultural sector is once again being reminded of its vulnerability to geopolitical shocks. The escalating conflict in Iran and the subsequent disruption to shipping through the Strait of Hormuz have sent ripples through the global energy and fertiliser markets. With approximately one-third of the world's fertiliser trade passing through this vital maritime chokepoint, the impact on prices has been swift and severe. Nitrogen costs have spiked, with urea reaching its highest price point since the post-Ukraine shock of 2022, and red diesel prices for farmers have surged by around 60 percent. The effects are already showing in Australia.

For many in the wider arable sector, this volatility brings a familiar sense of dread. Fertiliser traders are struggling to update their daily price lists fast enough, and there are widespread reports of farmers being unable to secure confirmed prices until the product is actually delivered to the farm gate. It is a precarious position for businesses already operating on tight margins, especially when average arable farm incomes have recently hit their lowest levels in two decades.

However, for those who have already committed to regenerative farming practices, the perspective is less dire. If you have spent the

last few years focusing on soil biology, integrating cover crops and systematically reducing your reliance on synthetic inputs, you are now in the strongest possible position to ride this wave of uncertainty. The regenerative approach is no longer just about environmental stewardship; it has become a robust risk management strategy. When the cost of a tonne of nitrogen jumps by £50 overnight, the farmer who has halved their application rates feels only half the pain.

In fact, given the current market dynamics, there has probably never been a better time to conduct that low-nitrogen trial you have been putting off. If you were looking for a financial incentive to see just how far your soil biology can carry a crop without reaching for the bag, the Strait of Hormuz has just provided it. Consider it an involuntary, geopolitically mandated on-farm experiment.

Jokes aside, the immediate outlook for the UK harvest remains largely positive. Despite the background noise of global markets, the reality on the ground is that crops are looking generally robust. The fundamentals of the growing season are sound, even if the economics of the inputs are volatile.

Furthermore, there is a reassuring buffer for the current season. The vast majority of growers have already purchased and taken delivery of their fertiliser requirements for the 2026 harvest. The immediate price spikes, while alarming, will not drastically alter the cost of production for the crops currently in the ground. The real concern lies ahead, in the purchasing decisions for autumn and the 2027 season.

The hope, of course, is that

diplomatic efforts will ease the tensions in the Middle East and supply chains will normalise before the bulk of the autumn fertiliser purchasing begins. The World Farmers' Organisation has already issued urgent calls for coordinated action to stabilise markets and protect global food security, highlighting the critical nature of the situation. But hope is not a strategy.

What is a strategy is the continued transition towards farming systems that are less dependent on the whims of international conflict and the chokepoints of global shipping. The farmers featured in this issue, and those gathering at Groundswell later this year, are proving that it is possible to build resilient, profitable businesses that are insulated from the worst of these input shocks. But none of us are immune.

So, as you read through this issue and prepare for the season ahead, take a moment to appreciate the resilience you have built into your system. The challenges of global agriculture are complex and ever-changing, but the solutions often start right beneath our feet.








Chris Fellows



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FEATURED FARMER

STEPHEN TEMPLE

**Copys Green Farm,
North Norfolk**

223 hectares, sandy loam over chalk with flint, pH averages 8, annual rainfall 600 mm.

Our family have been farming in Wighton since 1912, but I only started in 2005 after the death of my father. After university, I was at the Scottish Institute of Agricultural Engineering, where my work included direct drilling with the Bettinson 3D and other machines. (When writing about this work I came across a Babylonian direct drill picture – nothing new under the sun!) I went to work in Malawi from 1975 to 1998, trialling zero-till maize, amongst other things. On my return to Britain in 1998, I wrote up my research and applied some of my work to British grain storage, developing and producing the Barn Owl monitoring and control system, sold through Martin Lishman.



Direct Drilling in Malawi

On the death of my father in 2005, I became a farmer; as a novice, I relinquished about 800 acres of land rented from the Holkham Estate and concentrated on the 540 acres of land we own, plus a few acres of rented grazing. We were milking about 110 Holsteins, and my wife was making cheese for local sale with a proportion of it. We decided to break away from the black and white tradition, moving to



Babylonian direct drill 1316 BC

Brown Swiss for a more robust, lower cost animal, with milk quality benefits for the cheesemaking enterprise which my wife started in 2001.

As energy has always been an interest of mine, and we had a dairy slurry problem, in 2009 we installed a small (170kWe) anaerobic digester and increased our maize area to feed it as well as the cows. At an open day at Morley research farm in 2010, we saw a strip till drill used for sugar beet and rape and thought if it works well for beet on 20-inch rows, it would be even better for maize on 30 inches. I could not find a suitable machine in Britain, but a web search brought up Duro France, near Le Mans. After a long weekend visit, we ordered a four-row machine for the following year.



Initial use of Duro strip till

Thus began several years of experimenting on how to get the best tilth in the strip behind the tine, while also drilling some with conventional plough and power harrow. Some years one technique worked the best, other years the other. Eventually, after much trial and error, we settled on a home-modified strip rotavator, and now we have progressed to a Concept strip till



Concept strip till with band spray



Cultivator conversion with Metcalfe legs

from Crawfords at Boston. We now use this with a Bionalan cover crop crimper on the front and band spray pre-em herbicide at the same time, saving at least two-thirds of the chemical cost.

In 2018 and 2019 we had been really struggling to get decent tilth for maize drilling, eventually using an old Cousins subsoiler as its packer roller was the only thing that would break the lumps down, even on fields which had been generously mucked in the past. We urgently had to do something to improve our soils. Reading comments on TFF led me to one day at Groundswell in 2019, and it is now a major fixture in our calendar.

On my return from Groundswell, I sold our plough, power harrow, combi drill and spring tine cultivator and purchased a 3m Weaving GD on a used Caddy. We used this for our winter barley as well as our cover crops, including a 15-way trial of cover crop mixes for the Maize Growers Association. It worked really well, but in trying to establish winter beans, we found it was difficult to get the required depth as the many flints were keeping the coulters shallow. We went from partial cover cropping to covering everything to be spring cropped with a multispecies crop.

I saw on TFF a cultivator converted to a sabre tine drill for sale, not far from us, and went and bought it for the beans, running it on the Caddy. The reason we had not gone for a tine drill in the first instance was the issue of dealing with fallen maize stalks, but we found with four rows of tines and a good distance between them we had no problems. This

worked so well we decided to trade the GD and Caddy for a Weaving front drill hopper the following season and have been using the tine drill ever since. After a while, the welds on the Sabre tine adaptation decided that the going was rather harder on our flinty land than in the fens, so we converted to Metcalfe points and added tines to increase the width slightly to six metres.

Our cropping is designed to feed our cows as much farm-grown feed as possible and to keep the digester going, as we are not permitted to import any feedstock from off the farm. We grow three mixed varieties of winter feed barley, some of the grain going to the herd and the rest to the ABN mill two miles away. All the straw is required for the herd. We grow around 12 ha of winter beans and oats for the cows, using a two-stage Murska roller mill to handle the mixed crop, also using the straw for bedding.

We grow 80-90 ha of forage maize, mostly after cover crop with one field with Westerwolds/ryegrass drilled behind barley, silaged, then irrigated into late maize. We look for early ripening maize varieties, using MGA Group 9 and above for the main crop and Group 12 (Cito) for the late crop. This normally gives us a mid-September harvest and good time to get cover crops, winter barley and the oats and beans established before the weather turns; we would rather sacrifice some maize yield than damage the soil with late harvest. We tried undersowing the maize with cover crops but have never managed consistent results with our low rainfall, so try to get in as quickly as possible after maize harvest. We do not differentiate between dairy and digester maize in the clamp. When feeding out, the cows get first quality, digester the rest with no waste.

As well as grass and maize silage, we grow lucerne, my favourite crop, which loves our chalky high pH soils. We normally keep it in the ground for 4-5 years, feed it a little liquid digestate and a single winter herbicide keeps it going. We get 3-4 cuts a year, and when everything else is brown with drought, the lucerne stays green and still grows. The main issue with it is termination without ploughing as there is never enough leaf to carry adequate glyphosate to reach all the roots. We do use glyphosate but follow with a very shallow rotavator pass



Concept strip till with Monosem Drill

to chop the crowns off. We still get a little regrowth in the following maize, and in the subsequent barley, but without noticeable yield reductions.

Last year we had barley in one field, which was lucerne, then maize before the barley. The adjacent field was barley, maize then barley on the same soil type, fertiliser and herbicide regime. The field which did not have lucerne yielded just over 3 t/acre, while behind lucerne 3.89 t/acre.

After harvest I go round all my fields, using Soilmentor to record the soil status. I have noticed that on grassland and lucerne, I have much poorer levels of infiltration than on the arable crops. I have now established that this comes about through flat rolling the grass that is due to be silaged to put any flints out of the way of the mower and harvester. This is an operation that is essential for silaging. At Groundswell last year, I saw the Aerworx aerator roller, and shortly after was able to see it demonstrated locally. We were able to get one, with funding help through the Norfolk Rivers Trust. Unfortunately, the rain came just as it was delivered, and it really needs very dry soil for optimum effect. That is the opposite of the rainwater harvesting tank we installed last spring, which was followed by a distinct lack of rain.



Final configuration of Duro

Since we have stopped ploughing, I was not happy at spreading FYM onto cover crops ahead of maize planting, as it seemed to hang about for a long while on the surface. We bought a windrow composter from Compost Systems in Austria in 2022. It magically converts long straw muck into fine, friable compost which is quickly taken down into the soil.

The digester provides electricity and heating for the farm, grain drying, dairy and cheesemaking hot water, house, office, workshop and three farm cottages' heating and hot water. We can export a maximum of 130 kW to the grid due to connection limitations, so are always trying to electrify things to save fossil fuel. We have converted our irrigation pump to electric power, run three electric cars and an electric Gator. We also pump digestate one-and-a-half miles to a field lagoon by electricity, saving a lot of tankering. As our time on Feed in Tariff and Renewable Heat Incentive is drawing to a close, we have put in a 60 kW peak solar (89 kW peak of panels) to supplement the digester, so in future we can substantially reduce the crop area used for it. We are currently involved in a project to set up a local energy club, which would get people in our area who sign up a 25% reduction in their electricity costs, and a small boost to our own income.

The farm now operates as three interlinked enterprises of similar levels of turnover: the arable and dairy, the digester and the cheesemaking. This works well as the byproducts/coproducts from one section (I hesitate to term it "waste") become the inputs to another: slurry from the cows and whey from cheesemaking goes to the digester, digestate from the digester to the arable and so on.

When I first started direct drilling and full cover crops, I was anticipating a long transition period. I have been pleasantly surprised at how quickly our soil structure has improved on the arable fields. My challenge now is to improve our grazing practices; we already have herbal leys but our paddock rotation is rather short for good regeneration. We really need deep roots for drought resilience, which is our major challenge, and hope some of the seed mixes we are trying will prove worthwhile.

THE LAY OF THE LAND: FINANCING REGENERATIVE FARMING

Written by Ben Makowiecki, Agriculture Sustainability Director, Lloyds

Regenerative farming is rapidly becoming one of the most important strategic shifts in UK agriculture. At its core, it focuses on building healthier soils, reducing input dependency, strengthening biodiversity, and increasing the resilience of farming businesses to climate and market volatility.

Although approaches might vary, the underlying principles – minimising disturbance, keeping soils covered, maintaining living roots, increasing diversity, and integrating livestock where appropriate – are proving consistently beneficial across multiple farming systems.

Why regenerative farming matters

The UK food system is increasingly exposed to environmental risk. Extreme weather, shifting climate patterns and soil degradation threaten both production and profitability, and rising input costs exert additional pressure. For the financial sector, these challenges translate directly into higher volatility and increased risk across agricultural lending portfolios.

Supporting regenerative farming is, therefore, not only environmentally responsible – it is a strategic approach to risk reduction. Transitioning to resilient, lower-input agricultural systems enhances long-term business viability. Farms with healthier soils, diversified systems and lower cost bases should be better positioned to manage shocks and deliver stable financial performance. As such, facilitating the transition aligns both climate and nature objectives with the fundamentals of prudent agricultural lending.

Lloyds Agriculture Transition Finance

Transition requires time, experimentation and investment. Actions such as adopting direct drilling, redesigning rotations, implementing herbal leys or improving nitrogen efficiency each carry upfront costs – whether through capital expenditure or short-term yield uncertainty.



Agriculture Transition Finance offers arrangement fee-free lending for capital investment as well as cash flow headroom via an interest-only period of up to 5 years for new and existing lending, with the repayment period taking the total loan term to 25 years. This flexibility is designed to give farm businesses the confidence to find the regenerative practices that work for them.

Building resilience: the advantages of regenerative practices

Healthier soils underpin profitable farming. Actions such as cover cropping, herbal-rich leys, reduced tillage and direct drilling contribute to improving soil structure, increasing organic matter and enhancing water infiltration. These changes help soils cope better with floods, droughts and extreme weather. They also reduce compaction and erosion – two of the most costly and widespread challenges facing UK farms.

As soil ecosystems strengthen, farms

often find they can reduce their reliance on synthetic fertilisers and crop protection products without compromising long-term productivity. The benefits compound over time: healthier soils retain moisture for longer, improve nutrient availability and support more stable yields, even under challenging conditions.

Reducing input dependency is one of the strongest advantages of regenerative practices, particularly fertiliser, fuel and crop protection products. Many farms report that while yields can be variable during the early years of transition, the savings on inputs deliver a more favourable overall margin. Improved nitrogen efficiency, more targeted nutrient applications and greater reliance on natural fertility-building mechanisms mean that farms become less exposed to global price swings.

Practices such as direct drilling significantly reduce fuel use and labour requirements. Cover crops can reduce nutrient losses and support nitrogen fixation when legumes are

incorporated. Integrating livestock into arable rotations can create further efficiencies by turning cover crops into feed, recycling nutrients and replacing some purchased fertiliser.

Yield stability and long-term performance is not a quick fix. A transition period is typical – often around five years – where new practices are trialled, adapted and refined. In the early stages, yields may dip or fluctuate as soils recover and farmers adjust systems. This pattern is well understood: initial investment and learning are followed by operational savings, stronger soil performance and improved yield stability.

Over time, regenerative systems tend to reduce the severity of “bad years”. With more resilient soils and lower dependency on inputs, the troughs in performance shrink. As a result, the cumulative profitability across multiple seasons often exceeds that of more input-intensive systems. Many farmers also report an improvement in the consistency of crop establishment and fewer yield-limiting issues linked to soil structure.

Strengthening biodiversity and natural processes are at the centre of regenerative farm design. Simple actions such as field margins, hedgerows and beetle banks provide habitat for pollinators and natural predators of crop pests. Reducing pesticide use under an integrated pest management approach encourages populations of beneficial insects



to rebuild. In mixed and livestock systems, diverse pastures with herbs and legumes increase the abundance of pollinators, support soil microbial activity and improve sward resilience.

Greater biodiversity supports ecological stability, which in turn supports production, and over time, these improvements create landscapes that are more balanced, more productive and more resilient to stress.

A pathway toward a resilient future

It's clear that regenerative agriculture offers a practical and proven route to a more resilient, more profitable

and more sustainable farming sector. By improving soils, reducing input dependency and strengthening biodiversity, these systems create robust foundations for UK food production in an era defined by uncertainty. Agriculture Transition Finance can play a critical enabling role, helping to overcome early hurdles and unlocking long-term value for farm businesses across the UK.

If you'd like to know more, visit lloydsbank.com/agriculture or speak to your relationship manager if you already bank with us.

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LLOYDS

FARMER FOCUS

PHILIP BRADSHAW



Our last year of farming seems to be racing past. To make life easier while we are moving house and clearing the farm, we only have some winter wheat planted as a cash crop, and all break crops are SFI 23 options, mainly AHL1 pollen and nectar crops. The wheat is looking good, with just a very small area of blackgrass in one difficult field. We had a good clean-up with a year of AHL1 last year on the field in question, but with hindsight, a two-year break would have been better.

When we sold our small family farm, we had to simply move some of the “stuff” over to our farm to sort out another day, so we are now busy effectively tidying up some of the “souvenirs” of the previous generations of Bradshaws, as well as the incredible amount of gear that Jayne and I have amassed in our 36 years of farming together.

Our landlords, Cambridgeshire County Council Farms Estate, are planning to let the farm to new tenants, and we had an interesting open day a few weeks ago. Several interested parties travelled up to 150 miles to see the farm, people of all ages and with various current career situations. With a couple of extra later viewings, there should hopefully be some good applications put in, and I am looking forward to seeing who the new tenants are.

We are also looking forward to a quieter time after this busy year, and many people ask me what we will do in retirement. The answer is that we have many hobbies, together and independently. One of mine is music. I have always struggled to find time to practise, and hopefully, in retirement I will devote more time to it.

I mainly play guitar, and as I know a few chords, it is fair to describe me as a guitarist. Jimmy Page, best known as the founder of Led Zeppelin, can also be described as a guitarist. However, he is considered by many to be just one of the greatest and most influential guitarists of all time.

The difference in our musical abilities and success is massive. I can just about entertain a pub while strumming a few chords and singing a bit. Jimmy, however, has had an incredible lifelong career at the top of his musical game, played countless shows and festivals worldwide, sold millions of records, and was inducted into the Rock & Roll Hall of Fame twice!

Many of us can be described as “farmers”. There are, however, many differences in the skills and successes of us as farmers. The difference in abilities between a farmer who is not at the top of their game and a highly successful one is not as huge as the difference between mine and Jimmy Page’s musical skills, but they do have significant effects on the sustainability and profitability of the farming business.

Until recently, agriculture enjoyed a degree of protection afforded by support payments such as the Basic Payment Scheme, and more recently, Countryside Stewardship, the Sustainable Farming Incentive and similar schemes. With the reduction in support and the rising costs, times are getting harder for everyone, and particularly anyone struggling in some way.

While we have had some great times in our 36 years of farming, we had a very bad period about 25 years ago and managed to lose money two years running, mainly down to potato growing losses. This was a difficult time, and I still shudder when I think of it. However, we took control of the situation and planned with a consultant, went to our bank, who thankfully supported us, and happily got through and rebuilt our business on our terms. So, to anyone who may not be in the best position possible with their farming, please act sooner rather than later, get some good advice, make a plan, and please talk to friends and neighbours or support charities. Modern times are very stressful, and although it is hard to admit problems, talking really does help.

Having met many farmers and seen a lot of other farm businesses, one of the questions I am often asked is what makes a good farmer? Many factors affect this, of course, and sometimes luck plays a part as well. One important quality is an attention to detail. Details matter!

About 25 years ago, a very wise man once explained to a room of eager-to-learn farmers that we should aspire to a system of “No-Error Management” in our approach. He upgraded this a few years later and insisted we should adopt a “Culture of Excellence”!

We have tried for 20 years to farm with a Culture of Excellence, and our modest success in business, particularly 10 years of successful no-tillage cropping, is down to that very approach. I see some form of No-Error Management as a trait in the best farmers I know. In retirement, I will try to apply this culture to my music and other interests!

I am also trying to apply it to leaving the farm and preparing for our dispersal sale, which is going to be on Thursday, September 24th this year, on-site at the farm, but also online. We have a nice, slightly classic fleet of arable machinery, including a couple of direct drills and some low disturbance subsoilers. I’m hoping our nicely prepared and lightly used gear will fetch good money and also be useful for many years to new owners. There is a nice irony that 36 years ago, when we started with our first tenancy, most of our machinery came from farm dispersal sales, and now it is nearly time for ours!



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AGRONOMIST IN FOCUS...



ROB BOWES - FRONTIER

HOW AGRONOMY IS ADAPTING TO BETTER SERVE UK GROWERS

I've been an agronomist for over a decade, and I've seen my role change enormously over the years. A focus on crop health is simply one of the many hats I now wear as I collaborate with a range of specialist teams to better serve the growers I support.

At Frontier, we believe agronomists should view crop health as one part of the broader business picture on farm, ensuring growers receive genuine value for money from their agronomy service. Today, crop walking and applications planning form part of a much wider advisory role, providing strategic, holistic guidance to help growers manage their risk.

Caring for your crops

Of course, crop health is still central to what I do. With a background in environmental science, I'm passionate about helping growers to establish good soil health and track crop performance.

I advise on disease and pest control, variety choice and inputs programmes, and throughout the season I monitor crop performance through careful examinations that include soil testing, N-testing and leaf tissue analysis to ensure plans are always adjusted for best results. For growers who've adopted precision technology, I also bring in NDVI and LAI imagery to support data-driven, evidence-based variable application plans that optimise inputs, along with insights from Frontier's team of precision farming experts drawing on over 30 years of soil health data.



I'm there to help you interpret the results of those tests and advise on how to course-correct throughout the season to make sure you meet or exceed end market specification. If there's a way to achieve the optimum result more efficiently, I'm going to make that recommendation to save you time and money.

Tried-and-tested advice

I think one of the most valuable things an agronomist offers is the depth of knowledge on different crop production options and how those choices will practically work on farm.

Frontier invested over £6 million in R&D in 2024, with over 13,000 replicated trials plots across the UK where we're independently testing crop protection and nutrition programmes and monitoring variety performance. We combine this with data from NIAB and the AHDB to present recommendations that are data-driven and tailored to local farm conditions.

Digital tools can further support the decision-making process by amalgamating data to indicate risk levels sooner or create a more powerful overview of crop performance and business forecasts.

Equipped with these insights, I see an agronomist as a walking data bank interpreting results into meaningful actions on farm, as well as someone who understands the growers they work with, their needs and their goals. That kind of counsel and partnership is invaluable, and not something you can get from a product data sheet or online review. Although the data might point to one variety or product as "the best" on paper, I'm always analysing results in the context of the farm business I'm working with – how does it work on that land, in that rotation, in those conditions, and what does it mean for subsequent inputs and wider farm management?

Building more diversity into rotations

For many farms, looking at opportunities across the whole arable rotation is key to building business resilience. There are always risks and rewards when it comes to adopting new crop production strategies or approaches; I help growers weigh up those decisions and determine how much risk to accept.

Today, more of the growers I work with are exploring the increasing number of sustainable crop production programmes coming to the market, opting for reward-for-practice schemes to boost their earnings while growing crops more sustainably and delivering positive outcomes for the wider farm environment. Some have also turned to growing energy crops for different end markets too, while others have found profit by incorporating other products like pumpkins and sunflowers to support new commercial activities.

Throughout my time in the industry, I've seen how important it is to have an open mind to new opportunities, and, with that, it's important to bring a range of expertise to the table. As it becomes more challenging for farms to stay profitable, I've been given greater license to think outside the box and sometimes that's where I find the most worthwhile opportunities for the growers I work with. If they tell me they're up for the challenge, we then work together to build a delivery strategy, and I find that partnership really makes a difference in making change successful.

By looking ahead to end markets and supporting growers to find the grain marketing and funding opportunities that are right for them, I can provide focused advice throughout the season to drive productivity, support the implementation of agri-environment schemes and ultimately optimise margins as far as possible.

Helping growers prepare for the future of farming

Whereas a decade ago, cash crops were the primary and often only source of farm income, today's farmers often balance multiple priorities in their rotation to earn extra payments on their activity. With the retirement of the Basic Payment Scheme (BPS), we've seen agri-environment schemes such as the Sustainable Farming Incentive (SFI) and Environmental Land Management schemes (ELMs) offer new ways to top up



farm revenue. I have no doubt sustainable farming practices will become even more central to the future of UK agriculture, so I make sure I'm always on the front foot with the evolving public and private funding options available, and that I can provide the right technical support to ensure growers make the most of them.

This includes helping growers review what they're already doing on farm, assessing how far they can stretch to incorporate new activity, and advising on how to comply with the requirements of their chosen actions. Some growers might not realise how easy it can be to participate in a scheme, or that they're already ticking some boxes. Bringing in that outside expertise can really help with navigating the options that best suit their business rather than just chasing the highest payments, which – if tied up in long-term actions – might present risks of their own.

I'm a partner for your business

What growers need to achieve on farm has become more demanding, which means the role of an agronomist has had to evolve to help manage risk better. I still bring expertise to help monitor and advise on crop health, but I'm also there to help sense-check broader farm strategy. What's in the ground doesn't exist separately from the other aspects of farm management on a grower's mind: cash flow, compliance, storage, operator capacity, end markets, revenue and everything else.

At the heart of a great agronomy service is an advisor-grower relationship based on reducing risk, building trust and sharing experience. The scope of my knowledge has grown massively and, as the industry changes, sometimes that means learning to trust different ways of working if we are to help break new ground. It makes me incredibly proud of the role I play and the collaboration I have with growers; offering sound advice and human interaction in a data-driven world and sharing in new innovations as we help to shape the future of UK agriculture.

Frontier

FARMER FOCUS

TIM PARTON



Spring has always been my favourite month, with autumn being a close second. I just love the sights of things coming alive again and new life being born; it is natural regeneration in action. At the time of writing, spring crops have been going into nice conditions, with all the hope and expectation of a good growing season to come. I feel we must have that eternal optimism, or we just wouldn't bother under the present storm that agriculture finds itself in. What other industry would produce something where the end price is often out of its control? This is where I firmly believe that farmers should join together from around the world. Can you imagine the power that would bring to the agricultural industry? Alone, we are vulnerable and powerless, but together we would have a lot of power, and prices could not be dictated to us anymore. So, let's all stand firmly together! A big ask, I know, but anything is possible!

Winter crops have received their first nitrogen, which was also balanced out with a foliar feed in order to keep crops stable and strong to avoid using fungicides etc, which I have not used now for many years. Once the nutrition is right for the crop and it's growing well, why would you even think of using a fungicide? One of the biggest jumps in soil health here was when I stopped using fungicides. The difference in how quickly residue was mineralised was incredible. I go on many farms where I see residue that has been lying around for months, or even years, just rotting on top of the soil, which is a sure sign that you haven't got a working community within your soil. It's about keeping the plant balanced and photosynthesising to change that nitrate into amino acids and subsequently into proteins, which are the building blocks of life. Additionally, feeding microbes below ground with the rhizophagy cycle allows the plant to put out proteins, carbohydrates, amino acids, hormones, signalling chemicals and organic acids. The plant uses these elements to shift pH within the vicinity of its roots, by as much as two points, to mobilise the minerals that it requires. Then you also get mucilage, a sticky gel secreted by the root tips, which binds soil particles and microbes together. It also increases the water-holding capacity, which is very important in these dry years that we seem to be experiencing. Additionally, you have phytosiderophores, that mobilise iron, zinc, copper and manganese. With the help of biology, the plant has the capacity to reach out and take what it needs from the soil, which it has been doing for millions of years. This system works so well if the plant has the right nutrition and is not overloaded with nitrate, fuelling low Brix readings. (Brix readings measure the sugars within the plant.)

In a healthy plant that is working well, 70 per cent of its photosynthesised carbon can be put down as root exudates! This is where a healthy plant has the energy to look after itself and keep pathogens at bay. However, an unhealthy plant is the opposite and is going to require a lot of expensive



synthetic inputs in order to keep it healthy. That is a lot of energy being traded for nutrition, I know, but it is the exchange required in some cases for the plant to obtain the nutrition it requires to meet the demands of the growing season. This is a trade-off that has worked for millions of years until human beings thought they knew better! This system is monitored through sap testing to see if there are any deficiencies due to environmental or weather pressures (with our maritime climate, we never know what we are going to get), but it is where foliar applications come into their own for me to keep that plant at top performance. With the cost of fertiliser rising so sharply, I see foliar applications becoming far more cost-effective, where they can be 3-4 times more effective than soil-applied nitrogen, plus I can keep the plant perfectly balanced with other nutrients as required. My favourite way to feed the plant is with amino acids. The main reason for this is that the plant doesn't require anywhere near as much energy to convert into proteins, and obviously, I don't have to worry about nitrate build-up within the plant, creating problems.

This year, the Green Farm Collective's annual conference is at the Great Yorkshire Showground. We are calling it Soil to Slice, as we are focusing on how to grow nutrient-rich food and follow that journey on to the baker and finally the consumer. Speakers include:

- Dan Kitteridge, from America, talking about a working soil and the food it produces.
- Dr Hannah Fraser, who has come from the medical industry and fully understands the importance of food. She has recently finished her Nuffield Farming Scholarship on nutrient-dense food.
- Lucy Williamson, a vet who has turned her attention to human health and the importance of eating nutrient-rich food.
- Ali Morpeth, speaking on food nutrition security and the whole landscape combined.



- Angus Gowthorpe, talking about his herbal leys for his cattle, along with his whole journey into regen ag.
- Verity Megginson, a new convert, sharing some of her trials and tribulations of starting out on the journey.
- Chefs talking about how good Rise flour (GFC members' wheat) is to work with. Of course, we will be eating food made from Rise flour on the day, along with a pizza chef again showing how good Rise is to work with, but more importantly, the taste of the finished pizza!

Anna Woodley from Trinity AgTech, talking about how Sandy, the platform for measuring carbon and biodiversity can give the manufacturers security that our products can be carbon neutral and help with their Scope 3 emissions... what a day!

- Hobbs House Bakery, a recent convert to Rise flour, and Collectiv Food, who are a London distributor of Rise. I look forward to meeting as many of you as possible on the day, as it should be a good learning experience along with a very enjoyable day of networking.

Going into spring, I had a busy few months of talking around the country, meeting lots of new people just starting on the journey of regenerating their soil. I am always happy to lend a hand on that journey, from on-farm consulting or through my website Timpartonfarming.com. I help farmers around the world, as we all face the same challenges and problems, from high-salt fertiliser use along with high tillage. In my opinion, everybody has got to change their farming methods if we want an industry and planet for generations to come. One positive from fertiliser prices going up is that it makes growers far more aware of how much N they are using and how to get maximum return on their investment, and there are many ways in which we can achieve that, as I have proved over the years. There are plenty of ways to achieve yield and profitability if you are prepared to put the work in. Like most things in life, the more you put in, the more you get out.

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IS RESTING YOUR PASTURES ALWAYS BEST FOR SOIL HEALTH?

NEW SCIENCE SAYS IT'S COMPLICATED

For decades, a common piece of advice for boosting soil health and fighting climate change has been to rest grasslands by removing grazing animals. The thinking is straightforward: less grazing means more plant growth, and more plants should mean more carbon stored in the soil. Many environmental programmes and carbon-credit schemes are built on this very idea. However, groundbreaking research from the UK, published in the prestigious journal *Proceedings of the National Academy of Sciences*, suggests the reality is far more complex and that this common practice might not be building the kind of long-term soil carbon we've been hoping for ^[1].

Think of your farm's soil carbon like two different bank accounts. First, you have a "checking account" of carbon. This is the fast-cycling, readily available carbon from recently deceased plants and surface litter. It's active, important for day-to-day soil life, but it's also spent and replenished quickly. Then, you have a "savings account". This is the stable, long-term carbon that's been locked away for decades, even centuries, by binding to minerals deep in the soil. This is the carbon that truly builds resilient, fertile soils and makes a lasting difference for the climate. The new study reveals that while removing grazers might boost your soil's carbon checking account, it could be shrinking the all-important savings account at the same time.

A deep dive into British grasslands

To get to the bottom of this, a team of scientists didn't just do a quick study. They analysed twelve different grassland sites stretching over 800 kilometres across the United Kingdom, from the moors of Scotland to the southern reaches of England. At each site, they compared two types of plots that had been maintained for over a decade: one that was continuously grazed by sheep, and another right next to it that had been fenced off to exclude all livestock.

By looking at these long-term experiments, the researchers could see the profound, slow-moving changes that happen in the soil when grazing pressure is removed. They didn't just

measure the total amount of carbon, they used advanced techniques to separate the "fast-cycling" carbon (what they call Particulate Organic Carbon or POC) from the stable, "slow-cycling" carbon (known as Mineral-Associated Organic Carbon or MAOC). This separation was the key to unlocking the surprising results.

More growth above, but a different story below

As anyone would expect, the fields where grazing was stopped looked lush. The study confirmed this, finding significantly more plant biomass and a much deeper layer of dead plant litter on the surface in the ungrazed plots. But the type of plants

had also changed dramatically. The familiar grasses and sedges that thrive under grazing pressure had given way to tougher, woodier dwarf shrubs, like heather.

This shift from a grass-dominated to a shrub-dominated landscape is where the carbon story takes an unexpected turn. While the total amount of carbon stored in the soil didn't change much between the grazed and ungrazed plots, its form did. The ungrazed plots had more of the fast-cycling POC—the checking account was fuller, thanks to the buildup of tough, slow-to-decompose shrub litter. However, they had significantly less of the stable, long-term MAOC. The critical savings account of soil carbon had been depleted.

The hidden workers: Why stable carbon was lost

So, why would a field with more plants end up with less stable carbon? The answer lies in the hidden world of soil microbes and their relationship with

Carbon Pool	Grazed Pasture	Ungrazed Pasture (Rested >10 years)	The Takeaway
Aboveground plants	Lower biomass	Higher biomass	Land looks lusher without grazing.
Plant type	Dominated by grasses	Dominated by woody shrubs	A fundamental shift in the ecosystem.
Fast-cycling carbon (POC)	Baseline	Higher	More carbon in the short-term, active pool.
Slow-cycling carbon (MAOC)	Baseline	Lower	Less carbon in the stable, long-term pool.

different plants.

Grasses co-exist with a type of friendly fungi on their roots called arbuscular mycorrhizal (AM) fungi. These fungi are excellent at helping grasses pull existing nutrients and water from the soil. It's a partnership that builds soil structure and helps lock carbon away.

Shrubs, on the other hand, partner with a different, more aggressive set of fungi known as ericoid mycorrhizal (ErM) fungi. These fungi are specialists at surviving in tough conditions. They release powerful enzymes and organic acids into the soil to break down complex organic matter, unlocking nutrients that would otherwise be unavailable. This has a dual effect on

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First, the aggressive enzymes from the shrub-fungi partnerships don't just break down fresh litter, they also "prime the pump", waking up other microbes that begin to attack and consume the old, stable carbon that was supposed to be safely locked away in the soil's savings account.

Second, the shift to shrubbery changes the soil's physical environment. The thicker plant cover leads to higher soil moisture. This, combined with the acids released by the shrub roots, reduces the amount of reactive iron and aluminium oxides in the soil. These minerals are like glue, binding to carbon and protecting it from being eaten by microbes. With less of this protective mineral "glue", the long-term carbon becomes vulnerable and is lost to the atmosphere as CO₂.

In essence, removing grazers set off a chain reaction: grasses were replaced by shrubs, which in turn changed the soil's microbial and chemical environment in a way that favoured the breakdown of the most valuable, long-lasting form of soil carbon.

What this means for your farm

This research challenges us to think more critically about how we manage our grasslands. It suggests that simply removing animals, a practice often encouraged for carbon sequestration,



might make our soils less resilient in the long run. By depleting the stable mineral-associated carbon, we risk making the entire soil carbon stock more vulnerable to disturbances and future climate change.

The study highlights that well-managed grazing is not necessarily the enemy of soil carbon. In fact, the presence of grazing animals maintains a grass-dominated ecosystem that appears to be better at preserving the most stable and valuable form of soil carbon. The key is management.

Overgrazing is undeniably destructive, leading to soil degradation and carbon loss. But a balanced, thoughtful grazing strategy can be a powerful tool for maintaining a healthy, carbon-rich soil ecosystem.

This doesn't mean we should abandon efforts to improve our pastures. Instead, it calls for a more nuanced approach. We need to look beyond just the total quantity of carbon and focus on its persistence. Management strategies should aim to foster a healthy balance of grasses, promote a thriving soil microbial community that protects carbon and ensure that our efforts are building the long-term savings account, not just the fleeting checking account. The next time you look out at your fields, remember the complex and vital work happening beneath the surface. The right kind of grazing is a part of that ancient, intricate dance, helping to build the fertile, resilient soils that will sustain us for generations to come.



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[1] Zhou, L., Liu, S., Schrama, M., Ashworth, D., & Bardgett, R. D. (2026). Grazer exclusion is associated with higher fast-cycling carbon pools but lower slow-cycling mineral-associated carbon across grasslands. *Proceedings of the National Academy of Sciences*, 123(6), e2512048123. <https://doi.org/10.1073/pnas.2512048123>

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A DISPATCH FROM THE FRONT LINE: TWO DAYS AT THE BASE-UK ANNUAL CONFERENCE

The annual BASE-UK conference has always been more than just a series of presentations; it is a shared journey for a community united by a shared belief in a different way of farming. This year, under the banner of “Growing without Government Support”, the gathering in Huntingdon felt particularly vital. It was a chance to step away from the day-to-day grind and immerse ourselves in the ideas and innovations that are shaping the future of conservation agriculture.

Over two packed days, we were challenged, provoked and inspired in equal measure. We delved into the hard science of soil health and human nutrition, wrestled with the complexities of the carbon market and confronted the uncomfortable truths about farm profitability in a post-subsidy world. The speakers (a mix of farmers, scientists and business leaders), provided a comprehensive and unflinching look at the new landscape that is emerging for UK farming.



But, as always, some of the most valuable insights were found not in the lecture hall, but in the conversations that flowed between the sessions and late into the evening. The chance to catch up with old friends and colleagues, to share stories and swap ideas, is what makes the BASE conference so special. It is in the lively debates in the bar, over the excellent dinner and the snatched conversations between presentations

that the real work of building a resilient and supportive community is done.

This was a conference that challenged the mind and nourished the regen spirit. It was a powerful reminder that while the challenges we face are significant, we are not facing them alone. Hopefully, everyone left with heads full of new ideas, notebooks full of practical advice and our spirits renewed by the energy and camaraderie of the BASE-UK community.



GROWING WITHOUT GOVERNMENT SUPPORT:

A SUMMARY OF DAY 1 AT THE BASE-UK ANNUAL CONFERENCE 2026

The first day of the BASE-UK Annual Conference 2026, titled “Growing without Government Support”, brought together a diverse group of farmers, researchers and legal experts to confront the realities of a post-subsidy agricultural landscape. The sessions provided a frank, practical and often challenging look at the strategies and mindsets required to build resilient and profitable farm businesses in a new era. From the 45-year journey of a first-generation farmer to the cutting-edge science of variety mixtures and the hard-nosed economics of Maximum Sustainable Output, the day was a deep dive into the challenges and opportunities that lie ahead.

The farmer's journey: adaptation, diversification and the courage to change

The day began with a series of personal stories from farmers who have navigated the turbulent waters of modern agriculture. Jock McFarlane, a first-generation farmer from

Perthshire, provided a candid account of his 45-year career. His story was one of continuous adaptation, from a traditional mixed farming system to a diversified business with interests in soft fruit, holiday cottages, Christmas trees and, most recently, a truffle orchard. McFarlane's experience with the soft fruit industry was a sobering

reminder of the power of the market. Despite significant investment and initial success, the collapse of the Scottish Soft Fruit Growers cooperative and the relentless downward pressure on prices from supermarkets ultimately made the enterprise unviable. His journey back to a purely arable system, this time with a focus on no-till and low-input

methods, demonstrated a willingness to make hard decisions and to constantly re-evaluate the profitability of every aspect of his business. Today, with half of his farm's income derived from non-farming activities, McFarlane's story is a powerful testament to the importance of diversification in building a resilient rural business.



Ryan McCormack

Ryan McCormack, the farm manager at Dennington Hall Farm, offered a different perspective on the future of family farming. He argued that the single-income farm is no longer a viable model. His own business is built on four distinct pillars: Food & Farming, Environment, Energy and Development. This multi-faceted approach has allowed him to create a business that is not only profitable but also deeply integrated into the local community and the wider environment. His 12-year arable rotation, which includes a diverse range of crops and a two-year grass and clover ley, is designed to build soil health and reduce reliance on artificial inputs. The integration of livestock, including a suckler herd and a novel pig-based system for managing turtle dove habitat, further enhances the ecological and economic resilience of the farm. McCormack's ventures into renewable energy, with a biomass boiler and a solar park, and his development of a wedding and events business, demonstrate a forward-thinking approach to maximising the value of the farm's assets. His message was clear: the future of family farming lies in a holistic, entrepreneurial approach that embraces complexity and seeks out new opportunities beyond the farm gate.

Martin Caunce, a farmer from Lancashire, brought a characteristically direct and humorous perspective to the proceedings. A long-time advocate of regenerative agriculture and a



Martin Caunce

pioneer of online sales (he has been selling his produce direct to consumers since 1997), Caunce challenged the audience to think differently about their relationship with the market. He was scathing in his criticism of the commodity mindset, arguing that farmers should not be producing a raw material for a system that consistently fails to reward them. His own business is built on creating a high-value, branded product – the Brow Farm range of pasture-fed meat and heritage grains – and selling it to a customer base that appreciates its quality and provenance. He spoke of the cultural challenges of changing farming practices, recounting a story of the local outcry when he stopped mowing the ditches on his farm. This, he argued, is a powerful illustration of the social and psychological barriers that can stand in the way of progress. His overriding message was one of empowerment: farmers need to take control of their own destiny, to build their own brands and create their own markets.



David Wheatley

Rounding out the farmer-led sessions was **David Wheatley**, a flower and apple grower from Cambridgeshire, who shared his raw and honest account of saving his farm from bankruptcy through the power of social media. His story was a powerful reminder that sometimes the greatest opportunities are born from the deepest crises.

Facing financial ruin, Wheatley began to document his life on the farm, sharing his struggles and his small victories with a growing online audience. He discovered that there was a market for products that the conventional supply chain had deemed worthless: reject Christmas trees, “commercially unviable” apples, and his beloved peonies. His success is built on a simple but powerful principle: authenticity. He doesn't try to be something he's not, and his followers respond to his honesty and his passion. His advice to other farmers was equally direct: just start. Don't worry about being perfect, don't be afraid of the “haters” (who, he argued, are often your most engaged followers), and don't underestimate the power of a good story. His journey is a testament to the fact that in the digital age, it is possible for a single farmer, with a mobile phone and a willingness to be vulnerable, to build a thriving business and a loyal community.

The science of resilience: data, diversity and the soil

The afternoon sessions shifted the focus from personal experience to scientific evidence, with two leading researchers presenting their findings on the practical application of ecological principles in agriculture.



Dr Joe Collins

Dr Joe Collins of Harper Adams University provided an update on the long-term Conservation Agriculture Systems Research Experiment. This trial, sponsored by BASE-UK, is providing a wealth of data on the real-world performance of conservation agriculture in a UK context. Dr Collins reported that after several years of establishment, the commercial and environmental benefits of the no-till system are now

becoming clear. The data showed significantly higher levels of phosphorus and potassium in the CA plots, as well as a 30% increase in soil carbon stocks. From an economic perspective, the CA system was also a clear winner, with diesel consumption down by two-thirds and total expenditure reduced by 20% over the five-year period. This research provides a powerful, evidence-based case for the long-term benefits of conservation agriculture, demonstrating that it is possible to build soil health, reduce input costs and enhance profitability.



Dr Adrian Newton

Dr Adrian Newton of the James Hutton Institute delivered a thought-provoking presentation on the importance of diversity in building resilient cropping systems. He challenged the conventional wisdom of modern plant breeding, arguing that the focus on creating high-yielding varieties for high-input systems has led to a loss of resilience. His research has shown that variety mixtures consistently outperform monocultures in terms of disease suppression and yield stability. He debunked the myth that maltsters will only buy a single variety, arguing that their primary requirement is for consistency, which a well-designed mixture can often deliver more reliably than a single variety. Dr Newton also presented striking data on the profound impact of cultivation on the soil microbiome, showing that plough-based and zero-till systems create entirely different ecological communities in the soil. His take-home message was simple but profound: "Diversity is worth the effort."

The business of farming: profit, BNG and the hard realities of the market

The final sessions of the day brought a sharp focus to the business of farming, with two presentations that tackled

the thorny issues of profitability and diversification.



Chris Clark

Chris Clark of Nethergill Associates delivered an uncompromising and deeply challenging presentation on farm profitability. Drawing on a database of over 370 farm businesses, he revealed the stark reality that 80% of UK farms are not profitable on a pre-support basis. He argued that the industry has become addicted to a high-input, high-output model that is fundamentally uneconomic. His solution is the concept of Maximum Sustainable Output (MSO), which he defined as the point at which a farm's profitability is maximised by optimising the use of solar energy and minimising the reliance on industrial inputs. He presented data showing that 93% of the farms in his database are operating beyond their MSO, effectively losing money on every additional unit of production. His message was a powerful call for a radical shift in mindset, away from a focus on yield and towards a rigorous, data-driven approach to financial management.

Finally, **Alex Waples** of Tees Law and Suffolk farmer James Bucher provided a practical guide to Biodiversity Net Gain (BNG) as a diversification opportunity. Bucher shared his own experience of converting 20 hectares of underperforming land into a habitat bank, generating a long-term, index-linked income stream from the sale of biodiversity units. He explained his

decision to work with the Environment Bank, who offered a straightforward land-rent model that de-risked the project and removed the administrative burden of finding a buyer. Waples provided the legal context, outlining the key considerations for landowners entering into a BNG agreement. The session was a clear-eyed look at a new and emerging market, demonstrating that for the right farm in the right location, BNG can offer a genuine opportunity to generate a reliable income from environmental stewardship.

A day of challenge and opportunity

As the first day of the conference drew to a close, a number of clear themes had emerged. The need for a fundamental shift in mindset, away from a reliance on subsidies and towards a focus on profitability, was a constant refrain. The importance of data, whether it be from a long-term research trial or from a farm's own management accounts, was another key message. And the power of diversity, whether it be in a cropping system, a business model or a landscape, was a recurring theme.

But perhaps the most powerful message of all was one of agency. In a world of uncertainty, the speakers at the BASE-UK Annual Conference demonstrated that farmers are not simply passive recipients of policy or prisoners of the market. They are active agents in their own destiny, with the power to innovate, to adapt, and to build a more resilient and profitable future for themselves and the industry as a whole. The day was a powerful reminder that, even in the most challenging of times, there is always a path forward for those with the courage and the creativity to find it.



The panel

GROWING WITHOUT GOVERNMENT SUPPORT:

A DETAILED SUMMARY OF DAY 2

Day 2 of the BASE-UK Annual Conference 2026 built on the foundations of the first day, moving from the practicalities of on-farm diversification to the deeper scientific, economic and political currents that are reshaping UK agriculture. The sessions provided a comprehensive and challenging exploration of what it means to farm in a post-subsidy world, with a clear focus on building resilience, embracing innovation and taking back control.

The science of sustainability: a deep dive into soil and human health

The morning was dedicated to a rigorous examination of the science that underpins sustainable farming, with Dr Stephan Haefele of Rothamsted Research providing a two-part masterclass on the intricate links between soil, plant and human health.

Fertilisers, plant nutrition and soil health

Dr Haefele's first presentation was a pragmatic and evidence-based look at the role of fertilisers. He was unequivocal that "without fertilisers, people suffer", but he was equally clear that their use



must be managed with precision and a deep understanding of the soil system. He highlighted the "good-news story" that UK nitrogen fertiliser use has halved from 150kg/ha to 75kg/ha since 1985 with no corresponding reduction in yield, a testament to the industry's increasing efficiency. He also sounded a note of caution on fertiliser quality,

particularly in relation to heavy metals and microplastics in both mineral and organic fertilisers, and urged a critical, evidence-based approach to the plethora of "miracle cure" products on the market.

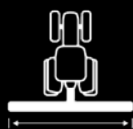
The relationship between crop nutrition and quality for human consumption

In his second presentation, Dr Haefele turned his attention to the nutritional quality of the food we produce. He painted a stark picture of the "hidden hunger" of micronutrient deficiencies that affects over two billion people globally. He explained how processing can strip vital nutrients from our food, using the example of flour milling, which

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dramatically reduces the content of fibre, magnesium, zinc and manganese. He also introduced the concept of “bioavailability” and “antinutrients” like phytic acid, which can block the uptake of essential minerals. His case study on selenium, where UK levels are significantly lower than in the US due to naturally selenium-poor soils in eastern England, was a powerful illustration of the direct link between soil health and human health. He concluded by highlighting the potential of biofortification, both through breeding programmes like HarvestPlus and agronomic interventions like Finland’s successful nationwide selenium fortification programme.

Agri-health opportunities for the UK farmer

Dr Tom Pearson, a farmer and medical doctor, built on this theme, presenting a compelling vision of farmers as key players in the public health arena. He argued that the UK’s diet-related ill-health crisis, costing the economy an estimated £268 billion per year, represents a massive opportunity for farmers to be part of the solution. He showcased the success of “fruit and veg on prescription” schemes, where participants have seen dramatic improvements in their health, and argued that farmers could be commissioned by the NHS to deliver a wide range of health-related services, from producing nutrient-dense food to providing “green social prescribing” opportunities on their farms.



The business of transition: navigating the new economic landscape

The afternoon sessions shifted the focus to the economics of the agricultural transition, with a series of presentations on private finance, the carbon market and the business mindset required to succeed in a post-subsidy world.

Filling the BPS hole at Yattendon Estate

Nick Down of Yattendon Estate provided a practical, on-the-ground perspective on how to adapt to the new economic reality. He explained how he has used a “carbon lens” to scrutinise every aspect of his business, and how this has led to significant cost savings. His presentation was a powerful demonstration of how a focus on carbon can be a proxy for efficiency, with a move to single-pass no-till drilling reducing autumn establishment fuel use from 43 litres/ha to 23 litres/ha, and allowing for a smaller, less capital-intensive tractor.

Farming beyond the scheme - who needs subsidies anyway?

Elliot Taylor of GFW delivered a provocative and challenging presentation that questioned the very foundations of the subsidy system.

He argued that decades of reliance on subsidies have created a culture of dependency and that the real challenge for farmers is not just to survive without support, but to grow beyond it. He urged the audience to embrace a more entrepreneurial mindset, to take control of their own destinies and to build businesses that are resilient and adaptable enough to thrive in a rapidly changing world.

How value chain collaboration and blended finance can reward farmers

Ben Makowiecki of Lloyds Banking Group offered a perspective from the financial sector. He explained that banks have a vested interest in the long-term viability of UK farming and that they are actively seeking ways to support farmers through the transition. He highlighted the potential of “blended finance”, where public money is used to leverage private investment, and showcased innovative financial products, such as loans with two-year capital repayment holidays, that are designed to de-risk the transition for farmers.

Through the looking glass: lessons learned from private funding for agricultural transition

Louise Rezler of the Soil Association



Exchange provided a clear and comprehensive overview of the different types of private funding schemes available. She was candid about the challenges of aligning the needs of farmers and funders, but she was also optimistic about the potential



for these schemes to provide a new and valuable income stream for farmers. Her presentation was a valuable guide to navigating the complex and often confusing world of the carbon market.

The carbon conundrum: a lively Q&A

The day concluded with a lively Q&A session with the afternoon's speakers, which focused on the practical challenges of the carbon market. The discussion ranged from the thorny issue of "additionality" and how to reward early adopters, to the equally complex question of data ownership and value. There was a clear consensus among the panellists that there is a need for a common standard for measuring and verifying soil carbon, and that collaboration between all actors in the value chain will be essential if the market is to reach its full potential.

A new era of opportunity

Overall, Day 2 of the conference painted a picture of a sector in the



midst of a profound and far-reaching transformation. The old certainties of the subsidy system are gone, and a new and more complex landscape is emerging. However, the overwhelming message from the day's speakers was one of opportunity. From the new markets for environmental goods and services to the growing recognition of the role of farming in public health, there are a wealth of new opportunities for those farmers who are willing to embrace change and to think differently. The future of UK agriculture, it seems, is not in the hands of the government, but in the hands of the farmers themselves.

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FARMER FOCUS

ANDREW JACKSON



It's the middle of March already; this year is flying by. Even though in my last article I complained bitterly about the drought, the rain that fell in the latter half of 2025 brought our annual rainfall to just above the 30-year average, and of course, there has been an abundance of rainfall at the start of 2026. However, the drought did severely affect our yields, especially on the light sandy land. I was somehow hoping that by increasing our soil organic matter, our crops would have been more resilient to the drought, but I am not sure that it helped at all. We had grown hard and soft wheat on contract for Wildfarmed and adhered to their reduced nitrogen policy. Unfortunately, none of our wheat met the required protein, and we may never know if the problem was a lack of rain to mobilise the nitrogen or just not enough nitrogen.

The boats (beans and oats) were also destined for Wildfarmed. (The year before last was our first year of growing boats.) We were advised not to apply any fertiliser or spray; this strategy contained production costs, but there was no bushel weight in the oats when harvested, so the oats ended up in the animal feed market. Last year, we applied 100Kg/N/Ha, the oats became dominant, and the beans nearly disappeared. This time, I am not sure if the problem was an increased rate of nitrogen, which encouraged



the oats to smother the beans, or just the lack of rain. The oats nearly hit the desired bushel weight, and this week we are cleaning them to meet contract specifications.

The spring beans, which were grown on their own as a break crop, were a disappointing yield, leading me to conclude that spring beans are not financially viable in the succession of dry springs that we tend to have. We have just about tried every break crop in the toolbox and failed to make money. It does pose the question: are we bad farmers, are we failing due to the succession of dry springs, or is the market price too low? It may be a combination of all three factors.

To find a break crop which might not lose money, for this year's cropping, we were able to add in a significant area of over-winter bird feed to our already quite big SFI commitment. This late addition to our SFI was only possible because we had participated in the SFI pilot. Rather than try to fit this option into the rotation, we have been advised to square up fields and utilise less productive areas. This year will be the first year where the combine will not be working on our home farm, which has sandy and drought-prone ironstone soils; a true sign of the times for a farm which in 1929 employed 29 full and part-time people.

The final change in this year's cropping is the introduction of spring wheat. I have never been a fan of spring wheat because it looks great when growing, but then the yield can be disappointing. We wanted to grow a crop which will command a premium and have a home

to go to, and we have been told that there will be an increased chance of hitting the protein with spring wheat. There are some other advantages. We have been getting a build-up of rat's-tail fescue, and this problem began when we started growing grass seed. Spring-sown wheat provides a chance of controlling the grass weeds with a well-timed pre-drilling, spring spray application. Another income stream can be gained by an autumn-sown cover crop within the SFI agreement; this also creates an overwinter grazing option. Finally, to improve the chance of hitting the desired protein, Wildfarmed has moved the goal posts a little to permit more nitrogen fertiliser to be applied, if it is applied in 40Kg/N/Ha dollops. As ever, one must be optimistic and hope that all the variables come together to allow you to produce a profitable crop.



Three years ago, we were lucky enough to be granted a Countryside Stewardship Capital Grant to help finance 15 kilometres of stock fencing on our Elsham farm. We have shared the work with our fencing contractors to hit the required 5km/ year, and this year will be the year of completion. During the period, we have carefully navigated around three gas pipelines, a high-pressure oil pipeline and two sewerage pipes, all of which we were aware of because the likes of Cadent and Fisher



German remind us annually where the pipelines are. Unfortunately, the electricity supply companies are not so conscientious; we have hit two electric cables, one of which I was unaware of.

Luckily, this tripped out, and nobody was hurt or killed. However, this resulted in a huge insurance claim to cover the inconvenience and damage which Northern Powergrid kindly sent me a bill for. I eventually located the easement for the underground cable in our safe. It had been there since 1985. For those of you who endeavour to carry out your own fencing, may I advise you to use Line Search to avoid death and costly insurance claims.

Last June, I suffered a minor heart attack. I was taken to Castle Hill Hospital in Hull, where I was given two stents in an operation which took place at midnight. I have made a good recovery, but I am now on a shedload of tablets, some of which may be removed after my review. This, coupled with other lifestyle changes, helped me to take the decision to semi-retire at the age of 66. My daughter Anna has been working alongside me for the last five years, and even though she has received very little formal training in agriculture, I would consider her five-year apprenticeship as a good base to work from. Now Anna is in control of all day-to-day management decisions, and together with Carl, who



has been with us nearly thirty years, RegenBen and Ben Treadgold, our local agronomist, is planning the cropping and overseeing all daily farm operations. This will be good for her to accelerate her learning and gain from experiences, good and bad.

About a month ago, I received the dreaded phone call that no farmer wants to receive. It was the RPA inspector, and he wanted to visit us in three days' time. A couple of years ago, we changed our crop recording package to Omnia from Gatekeeper. I had grown up with Gatekeeper, but Anna complained that it was like something out of the ark. We made the change. However, while I knew my way around Gatekeeper pretty well, I do not find Omnia very user-friendly (despite going on a course). On the first day of the inspection, I therefore sat in the room with the RPA inspector and let Anna and Ben answer all the questions. My contribution was to supply copies of seed invoices. Between the two of them and the fact that Omnia has the facility to marry up the required photographic evidence and, more to the point, that they had used this facility, the three of us were able to satisfy the two inspectors on that first meeting. In fact, I was proud that Anna and Ben had navigated this dreaded inspection so well. The follow-up highlighted that one of the main non-compliances was that we had not notified the RPA about the small area which has been taken out of production for the Anglian Water pipeline, which will run from Elsham to Colchester down the eastern side of the country.

Retirement in any form is not something that comes naturally to most farmers. I guess the worst feeling for me was the one of career failure; the last three years have been tough in respect of the weather, the markets, the increased cost of inputs and the removal of most government support. Essentially, I am fully on board with the regenerative principles that Gabe Brown has set out in his book, *Dirt to Soil*, and on the back of that, I have been trying to take our farm in that direction. In theory, we have good enough soils and a kinder climate than many other countries around the world, so there should not be a problem. I have got on well with the direct drilling.

In fact, in some fields where drainage had been a problem, the soil is healing itself. Dropping insecticides has not been a problem. I feel that we have probably built up predator populations, and we are weaning ourselves off fungicides without too much downside. The one major hurdle has been reducing nitrogen, and this reduction, coupled with a succession of dry springs and summers, has not produced the yields that I would have hoped for.



I feel that the direct drilling system has permitted a simplified and lean cost structure. We only have one main tractor, a drill and a sprayer, and all are relatively new. In 2004, I visited some farms in North America. They were not big prairie farms but small family farms, a bit like ours. What struck me was that they were all using what I considered to be quite old tractors and machinery. I then realised how spoilt British agriculture had been to permit us to replace our tractors, combines and machinery on quite a regular basis. Today, British arable farming has probably ended up in a similar place to those North American farms. For us, in the current financial climate, tractor replacement will be foremost, but everything else will have to be annually maintained, and replacement priority will come to those machines where repair bills are escalating. If the current harsh financial conditions endure, this will not be a good place if you are manufacturing or selling any type of farm equipment or even producing and selling farm buildings.

This spring, Anna has hosted two events, one for the Farm Carbon Toolkit and the other for the Wildfarmed Northern Regional Cluster Group, both of which have been educational and successful. I hope that you have enjoyed my ramblings. Now that I am semi-retired, I may not be asked to contribute to future editions of the *Direct Driller* magazine.

FARMING WITH TREES MADE EASIER WITH **AGRICOLOGY**

Agroforestry is an agroecological-based approach that combines trees and shrubs with crops, livestock or both, to help create diverse, productive and resilient farming models. Farmers are increasingly looking at integrating trees to help with climate resilience, biodiversity benefits and farm productivity, but knowing where to start can feel daunting. Agricology have produced an online Agroforestry Hub which has been designed with an emphasis on making agroforestry more accessible and helping guide the practical application of it according to each unique farm circumstance. The Hub helps farmers and land managers explore, plan and implement agroforestry in the context of all the various agroforestry types: silvopasture, silvoarable, silvohorticulture, woodland grazing and hedgerow management.

Structured as a learning journey, it is shaped to help farmers navigate the complexity that is often involved in applying specific practices to a particular farming system. It brings together a wealth of practical knowledge, case studies and research from Agricology's extensive archive and partner organisations, including the Woodland Trust, Wakelyns, Organic Research Centre, University of Reading, Groundswell, Innovative Farmers, and the Soil Association. By showcasing examples ranging from Wakelyns' pioneering alley-cropping system to upland crofters planting thousands of native trees, it demonstrates the wide variety of ways agroforestry can be adapted to different contexts and scales.

The Hub features farmer profiles, research summaries, podcasts, videos and toolkits, highlighting both the opportunities and challenges of farming with trees. Divided into easily navigable sections with step-by-step resources, the user can begin with exploring content that offers an introduction to the key components of agroforestry, followed by content relating to some of the different types



One of many fruit and nut trees growing in a silvoarable system at Hall Farm in Knettishall, Suffolk, as featured in the Agricology farmer profile for James Bucher. Photo credit Duncan Elliott. All Rights Reserved



James Bucher in his silvoarable site at Hall Farm in Knettishall, Suffolk, as featured in the Agricology farmer profile. Photo credit Duncan Elliott. All Rights Reserved

of agroforestry systems, providing a flavour of the characteristic features of each category. Case studies unique to Agricology, of farmers across the UK practising agroforestry in different forms are showcased, digging into design and management, benefits and challenges, and what motivates and inspires.



Cattle browsing leaves in the spring, as featured in the Barbour family Agricology farmer profile. Photo credit Patrick Barbour. All Rights Reserved

The user can also find guidance on design, establishment and maintenance to feed into planning an agroforestry system, which includes information on tree species selection, and topics to support long-term system health, such as pruning and maintenance, livestock integration

and overcoming common challenges. The all-important economic benefits agroforestry can bring, and diversification of farm income are covered, as is information on how trees can support wildlife on your farm and the wider benefits that can come from this. The user can also delve into some key considerations in relation to policy, payment and advice.



The agroforestry field in June 2025 at Denby Hall Farm, West Yorkshire. As featured in the Agricology farmer profile for Alex and Hannah Fraser. Photo credit Janie Caldbeck

To explore the free Agroforestry Hub, visit <https://agricology.co.uk/resource/agroforestry-hub/>.

For those interested in tree fodder (a livestock feed derived from trees and shrubs), there is another hub and accompanying technical guide focused on this topic that have just become live on Agricology. They bring together peer-reviewed research and anecdotal evidence of what farmers might need to know when considering integrating tree fodder as a supplementary feed into farming systems.



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BIOFUNGICIDE PERFORMANCE PILOT FOR WHEAT



AHDB-funded trials will provide independent information on the potential of biofungicides in winter wheat. Jason Pole, AHDB Technical Content Manager, explains.

Options are good for disease management because they provide flexibility, add strength to integrated pest management (IPM) and help reduce fungicide resistance risks.

Biofungicides are an emerging area of interest, but they must get the job done or, at least, make a useful contribution to disease management to be taken seriously by most farmers and advisors.

This is why we have invested in a new biofungicides test pilot to establish how to integrate them in spray programmes.

What are biofungicides?

Before I detail the trials, it is worth exploring some definitions.

Biofungicides are biopesticides and, as such, are regulated as plant protection products.

Product labels can only make control claims if the authorisation holder/marketing company has submitted sufficient evidence to back them up.

This means you can have confidence in the product (proving you follow the usage information on the label).

Although also based on natural ingredients, different regulations apply to biostimulants. For such products, no disease control claims should be made, although they may indirectly reduce diseases by improving overall crop health, for example.

The Fungicide Resistance Action Committee (FRAC) classifies fungicides by their mode of action (MoA) group, which defines how and where the fungicide works and reveals four key groups that cover biofungicides.

Three of these cover biological



Jason Pole ©AHDB



Fungicide performance trial

products with multiple modes of action (the BM group), which mainly have a direct impact on pathogen targets. Some may also induce plant defence mechanisms.

Plant extracts (BM 01 group)

These plant-derived products are associated with several pathogen target sites, which include the ability to disrupt fungal structures. This group includes several plant oils, such as tea tree oil.

Living microbes (BM 02 group)

This group is associated with organisms that compete with or disrupt plant diseases. As they are living, they are relatively sensitive to environmental changes. For example, temperature often underpins their performance. This group covers fungal and bacterial organisms, with fungal competitors and antagonists most interesting (from a disease-control perspective).

Metabolites (BM 03 group)

Metabolites are associated with the substances that form following metabolic processes. It is also possible to create synthetic versions of natural metabolites. This group mainly targets cellular processes. At present, FRAC only cites cinnamaldehyde (contributes to cinnamon's flavour) in this group.

Host plant defence induction (the P group)

This group covers substances that are associated with triggering or amplifying natural defence responses. As such, these products tend to indirectly impact on pathogens. The group is relatively diverse, featuring ten sub-groups: P 01 to P 10, which include various elicitors.

Biofungicide adoption

AHDB Horticulture invested in biopesticide research until levy collection ceased in this sector earlier this decade.

For instance, the AMBER and SCEPTREplus projects screened biopesticides to control commercially important diseases (and pests).

The former focused on protected edible, protected ornamental and hardy nursery stock crops, as biopesticide potential is often established in controlled environments.

The latter also considered field crops and, for example, assessed the potential of *Bacillus amyloliquefaciens* (formerly *subtilis*) strain QST 713.

Since then, a wide range of agricultural and horticultural crops have been added to the associated product labels for the management of various fungal diseases.

The work in horticulture laid a foundation for the arable sector, not only by compiling products, but

also by developing trial approaches and improving understanding of biopesticide application.

Initial work (not funded by AHDB) has also looked at cereal biofungicides, such as trials that compared conventional programmes with purely biological programmes (Crop Health North project, 2017-20) and ongoing novel biofungicide screens (DEFRA/UKRI work).

It is early days and very few products are available for commercial UK wheat crops. One example is laminarin



Septoria Tritici symptoms

(an elicitor of host-plant defences) products, which have label claims for disease control (such as for septoria tritici).

There is clear levy-payer demand for robust biofungicide data, particularly for information on efficacy in field conditions, which needs to consider many factors, such as weather, varietal resistance, disease progression and the wider spray programme.

Wheat pilot

Following a competitive research call in 2025, we awarded a contract (£178,467) for the biofungicides test pilot to a consortium of organisations: SRUC, Niab and ADAS.

This group already manages our extensive network of fungicide performance trials in wheat, barley and oilseed rape and has excellent connections with the agrochemical industry, which will help identify the strongest products to trial (whether they are at or approaching the market).

The researchers will use replicated winter wheat trials over two cropping years (2025/26 and 2026/27) to generate disease and yield data and determine how best to integrate biofungicides in crop protection programmes.

The pilot focuses on septoria tritici because of its economic importance, the availability of biofungicide products with disease-management potential and the relatively high number of preliminary research findings.

The work will be carried out at three trial sites, which have a good geographical spread and historically high rainfall and septoria pressures.

They are also co-located with AHDB fungicide performance trial sites (so we can make use of the septoria tritici data).

The trial in Lothian will be managed by SRUC, which has managed fungicide efficacy trials every year since 2003.

The trial in Hampshire will be managed by Niab at their Sutton Scotney site, which has hosted fungicide performance trials since 2007 (and septoria trials since 2001).

The trial in Herefordshire will be managed by ADAS at their centre of septoria research, which has produced robust septoria data for many seasons.

At each site, we will apply the treatments to two varieties, which are locally relevant, vary in their septoria resistance and have good resistance to other diseases (to minimise the risk of them confounding the results).

For harvest 2026, LG Astronomer and Graham are being grown at the sites in England, whereas LG Skyscraper and RGT Hexton have been sown in Scotland.



Winter wheat biofungicide trials (before treatment in Scotland (Hexton))



Winter wheat biofungicide trials (before treatment in Scotland (Skyscraper))



Spraying cereals

Wheat treatments

The trials will answer one key question: is it better to add a biofungicide or increase the rate of the standard fungicide programme?

It is not about chemistry vs biology, but the merit of using biofungicides alongside chemistry.

To answer the question, we are using five control treatments – where no biofungicides are applied.

This includes completely untreated plots to provide baseline disease pressure data (treatment 1).

The other four control treatments will use a progressively more intensive base spray programme at the T1 and T2 spray timings: 25% (treatment 2), 50% (treatment 3), 75% (treatment 4) and 100% (treatment 5) of the field application rate.

With the controls set, we will test up to seven biofungicides, applied alone and in addition to the base programme at the 50% field application rate.

Due to the biological nature of the products, we will closely follow optimum rates and timings (as advised by the manufacturers).

The trials will reveal, for example, how much control the biofungicide adds to the 50% base programme and how this compares with the 75% and 100% base treatments.

If we can't identify seven promising biofungicides to trial, the researchers will fill the gaps with other alternative products, such as those based on copper and sulphur.

We will also consider programme costs, where appropriate.

The results will be communicated throughout the project, including at events organised by AHDB, SRUC, Niab and ADAS, with the full results published on the AHDB website: ahdb.org.uk/biofungicide-research

DRILL MANUFACTURERS IN FOCUS...



GOVERNMENT AND DEFRA MUST REGAIN FARMERS' TRUST

With lacklustre world commodity prices squeezing profitability, the situation in farming today parallels that of 2002, when Jeff Claydon was forced to reduce production costs or see his family's arable enterprise in Suffolk go out of business. The crop establishment system he invented then has ensured that the Claydon farm has made a profit every year since, even before taking account of government payments.



The apparent lack of understanding of the agricultural sector by government / Defra is making it almost impossible for farmers to operate viable businesses and do their job of feeding the nation, says Suffolk arable farmer Jeff Claydon.

23 February 2026

Since the start of 2026 it has rained virtually every day here on the Claydon farm. The prolonged dull, drab conditions have meant little has been happening in the way of field work, but at least we've had time to get machinery out of hibernation and ensure that it's in tip-top condition for the busy spring drilling period. We have also had an opportunity to reflect on the current state of farming and contemplate the future, although that has done little to lift the mood.

One can't help but think about how poorly farmers are treated by government and the food manufacturing sector, despite all the talk. Commodity prices are now so low that one must question whether it's even worth growing food crops at these levels.

A visit to our village pub brought home to me just how

easy it is to "spend" a tonne of wheat on a meal and a few drinks. It also highlighted that farm-gate prices are but a tiny fraction of what consumers pay in shops and restaurants. Someone is making a lot of money out of what farmers produce, but unfortunately, it's not us. How did we get to this point and how can we change it for the better?

The government and Defra appear to be like confused rabbits in the headlights, not knowing which way to turn or what to do. No business that must make a profit to survive could be so inept, and the situation would be funny were it not so serious. It's no surprise that they held back publication of Baroness Minette Batters' comprehensive Farming Profitability Review, which outlines why farming is different from any other part of the economy and the need for financial/policy certainty for our industry to thrive and deliver the expectations which society has of it.

Preserving the countryside

The government's recent grand raid on the country's "silver" through increases in Inheritance Tax and Business Property Relief means that businesses throughout the country, including farmers, are bearing the burden. It makes me question whether their goal is to do away with family farms altogether and over time force them to sell out to large faceless institutions which have no inherent interest in the vitality and wellbeing of rural communities.

Over the last two years, within four miles of us, seven other farmers have retired or packed up because they can't make the job pay and the land is being "redeployed" to four existing businesses. That indicates just how tough farming is right now. The situation has been made worse by increases in the minimum wage and National Insurance, which make it incredibly difficult for small businesses to turn a profit, including my friends at the village pub.

Many farmers would not even make the minimum wage if they divided what they draw from the business by the hours worked. How can it be that people with a lifetime's experience and specialist knowledge earn less than someone with few qualifications who flips burgers in a fast-food franchise?

During the last few weeks, I have noted various advertisements highlighting the government's mental health awareness campaign. How ironic is that, at a time when its own policies and red tape are creating so much concern throughout the farming community and rural business sector?

It is painfully obvious that those who work in government are not on the same wavelength as those of us who operate in the real world. Seemingly, most have little or no idea how to run a business and are either unaware or do not care about the devastating impact their actions are having on rural villages, towns and communities. Nor do these officials appreciate the value of rural businesses or their potential to increase employment given a favourable legislative and economic environment.

Every area where politicians of any party are involved has progressively become unnecessarily complicated and could be simplified dramatically. There must be a better way, because the country cannot go on being led by people with no experience of working in a business which must make profit to survive.

With the government sucking the financial lifeblood from the countryside, where will the funding come from to ensure that it remains the great place we all want to see? Should they carry on down this reckless path, it will change forever, so future generations will miss out on the things we love about living and working in a rural environment.

Certainty needed

The cheap food policy that successive governments have maintained since World War II has reduced the percentage of consumer food spending that goes to farmers. With good

harvests all over the world in 2025, commodity prices have dropped to such low levels that farmers in every nation are in much the same dire predicament, as governments seek to make up for budget shortfalls caused by their own failure to control spending in other, often wasteful and non-productive, areas.

Under the previous Integrated Administration and Control Scheme (IACS), which was introduced in 1993 to manage and control payments to farmers under the MacSharry Common Agricultural Policy (CAP) reforms, there was a known budget for farming, which was paid out at the same level across all farms.

Currently, there is no clear direction from government as to whether farmers should produce food, go for Biodiversity Net Gain (BNG), regenerative farming, rewilding or the many other schemes which Defra has been tasked with delivering. That makes it incredibly hard to plan for the future, even for someone who has been in the farming industry for as long as I have. Currently, buying land at £10,000+ per acre, just to gain an income from producing food, is a complete non-starter, while any young person considering a career in our industry will think long and hard when they see farmers struggling to even make minimum wage. There are easier options!

Given the current volatile global geopolitical situation, where does that leave the country's food security, which should surely be any government's main priority? Instead,



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it is just another one of the many things that make no sense these days, as our so-called leaders prioritise other areas which are directly opposed to the interests of the population they are meant to serve.

Really!

There is a woeful lack of understanding of our industry within government and Defra. A recent article in The Telegraph entitled “Clueless’ civil servants sent to farms to learn how they work” detailed how the government is to spend £650,000 on field trips (presumably only between the hours of 9 and 5!) to “upskill” Whitehall in the countryside. Really? How are people in these highly paid positions which affect the future of an entire industry to do this if they don’t understand even the basics of what they are doing?

With those who make the rules obviously knowing little about the industry, they are regulating how farmers are supposed to stay in business and maintain an income? Making a loss might be acceptable in one year, but no business can sustain multiple years in the red.

The months of January and February 2026 have given us time to think about and discuss with others many thought-provoking issues. Now, as my family’s arable farm comes out of winter hibernation, we are hoping for more favourable weather.

We like to keep things as simple as possible because it reduces the risk of mistakes and makes it easier to manage. As outlined in my previous article, the Sustainable Farming Incentive (SFI) scheme has taken us down the route of cover crops, wheat and spring oats.

The winter wheat, which was established in exceptionally good conditions, has come through winter extremely well given the wet conditions. The new drainage has certainly paid off; the fields we have mole drained in the last two years with our new Claydon Mole Drainer are walking dry and well, with the most even crop. We are looking forward to refreshing the mole drainage this spring in the few fields where needed, either through the crop or over the spring drilling. The weed control and crops are far better with the improved drainage, making the investment so worthwhile.

We rolled over-wintered cover crops following a frost at the beginning of January, but since then there’s been so much rain that we’re still waiting to spray them off. Now we just need a spell of warm, dry weather so that the spring oats can be direct drilled.

The lack of direction from government and Defra with the SFI and other grants and their poor timings are certainly detracting our attention from farming. Most farmers considering SFI would like to plan it in for this season coming, but how is that possible when we do not know what is on offer? Also, we will only be allowed to apply in September, with no certainty of getting SFI. This really means farm/crop application of SFI in season 2027 but we need the payments for it in 2026.

FETF grants certainly confuse buying decisions and easily result in missing the opportunity to have the machine when needed. This creates indecision and takes us away from thinking positively about how we can change what we do to remain profitable on farm without these offers. Perhaps we should consider them like winning the lottery?

We really need to think very carefully about every action we take and how much money we invest to produce our crops. It is crucial to only make investments where we can see benefits which give us a return. My goal has always been to achieve the highest possible yields with the lowest possible costs. My wish for grants would be for drainage improvements, as we in the countryside well understand how tired and inefficient drains and rivers have become at all levels. This would be the best long-term investment for future food security.

Hopefully, you will have read my last article in which I outline the Claydon “Think” campaign and the benefits of the Claydon Opti-Till® System, which we have used successfully since 2002. That should help you to make the changes necessary to produce crops in the most cost-effective, more environmentally friendly way, which maximises yields and helps you to achieve a positive bottom line in these difficult times. We have many customers here and abroad already benefitting from the advantages, ideas and techniques developed here in Suffolk; as well as the fantastic savings and brilliant soil health, it’s well worth watching their experiences too.

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Conditions in the autumn were exceptionally good when this Elsoms Bamford winter wheat was established using the Claydon Opti-Till® System following a catch cover crop. Herbicides were applied in good time, and the crop emerged from winter looking a picture of health.

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CAN CERTIFICATION TRULY PAY FOR UK FARMERS?

Written by Chris Fellows

The term “regenerative agriculture” is on everyone’s lips, from the halls of government to the supermarket aisles. With it comes the tantalising promise of premium prices for our crops and livestock. But as the market floods with a dizzying array of certifications, standards and claims, many of us on the ground are left wondering: is this a genuine opportunity to build a more profitable and resilient farming future, or are we heading for a great divide that leaves farmers footing the bill for corporate greenwashing?

This isn’t just a hypothetical question. I wrote about this in the last Direct Driller; we are seeing a split between two distinct visions of regenerative agriculture [1]. On one side, we have the corporate-friendly, “checklist” approach, which focuses on a few easily marketable practices. On the other, a more holistic, farmer-led vision of whole-system transformation. The danger is that the shallow, corporate-led model, with its deep pockets and marketing muscle, could drown out the authentic, farmer-driven movement, leaving us with a system that ticks boxes but fails to deliver real change on the ground.

Into this complex and often confusing landscape comes a new tool designed to help farmers navigate the maze: the RegenCompass. Published in February 2026 by the European Alliance for Regenerative Agriculture (EARA), a farmer-led organisation, this report provides a critical, farmer-centric analysis of 29 of the most prominent



Monitoring, Reporting and Verification (MRV) systems currently vying for our attention [2]. This article will delve into the key findings of the RegenCompass, explore what they mean for UK farmers and examine whether certification can genuinely lead to a more profitable and sustainable future for our industry.

The certification maze

The RegenCompass doesn’t pull its punches. It acknowledges that the proliferation of MRV systems has created an “alphabet soup of acronyms, a confusing, costly and fragmented landscape” that can stifle innovation and burden farmers with complexity rather than empowering them. The report’s core mission is to cut through this noise and provide a clear, farmer-led framework for evaluating these systems.

Why true regeneration matters

The RegenCompass’s emphasis on a journey-based approach is a direct challenge to the shallow, checklist model of regeneration that is becoming increasingly prevalent. The report warns of the “double threat” of greenwashing (co-opting the language of regeneration for marketing purposes) and greenhushing (failing to

Criterion	Description	Why it matters for farmers
Context-specificity	The ability of the system to adapt to local conditions, farming systems and regional contexts.	A one-size-fits-all approach from a desk in London or Brussels is useless to a farmer in the Welsh hills or the Fens. A good system must be flexible enough to account for the unique challenges and opportunities of your farm.
Systemic integration	The extent to which the system integrates the ecological, social and economic pillars of regeneration.	True regeneration isn’t just about soil carbon. It’s about building a resilient and profitable farm business that supports your family and your community. A good certification system must recognise and reward all three pillars of sustainability.
Cost-effectiveness & purpose-fit	The affordability of the system and its alignment with its intended purpose.	Certification shouldn’t be a financial burden. The costs must be proportionate to the benefits, and the system must be designed to achieve its stated goals, whether that’s accessing premium markets, securing carbon payments or simply improving your farm’s resilience.
Agronomic enabling value	The tangible value and support the system provides to farmers in their regenerative journey.	A good certification system should be more than just a tick-box exercise. It should provide you with valuable insights, practical support and a clear pathway to improving your farm’s performance.

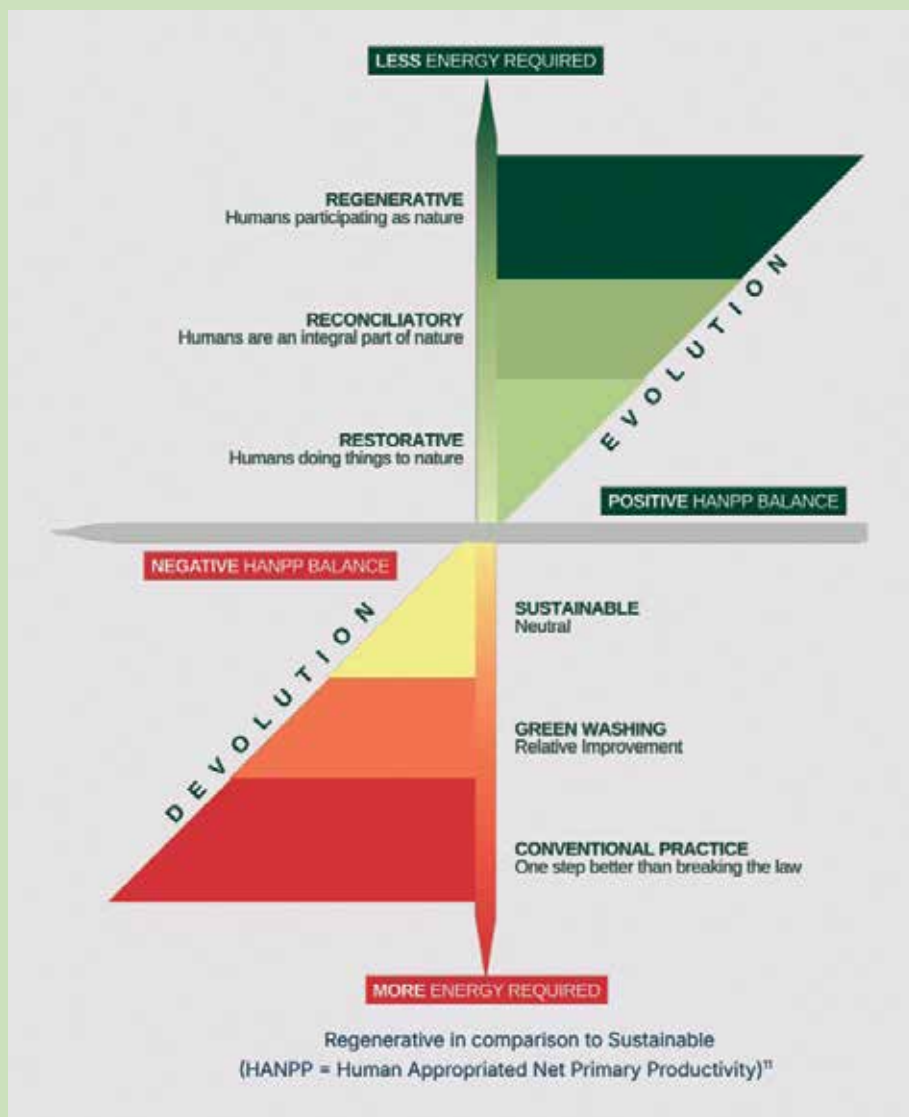
be transparent about unsustainable practices). These trends, the report argues, are not just a marketing issue; they are a fundamental threat to the integrity of the regenerative movement.

The danger of the checklist approach is that it allows large corporations to claim the mantle of regeneration without making any fundamental changes to their extractive business models. They can simply bolt on a few high-profile practices, like cover cropping or no-till, and use them to market their products as “sustainable”, while continuing to profit from a system that degrades our soils, pollutes our water, and squeezes farmer margins.

This is not just a theoretical concern. The RegenCompass points to the history of the organic movement, which started as a farmer-led initiative but was gradually co-opted by large corporations, leading to a dilution of its original principles. The same forces are now at play in the regenerative space, and it is vital that we learn the lessons of the past.

So, what does a genuine, journey-based approach to regeneration look like in practice? The RegenCompass offers some helpful examples. It tackles some of the most frequently asked questions about regenerative agriculture, such as:

- Can I be regenerative while using herbicides? Yes, says EARA, as long as your outcomes prove you are on a regenerating journey and you intend to continuously reduce your herbicide and pesticide use.



- Can I be organic and regenerative while ploughing? Yes, as long as your outcomes prove you are on a regenerating journey and you intend to continuously reduce your tillage.
- Can I be regenerative while raising livestock partly inside with

supplementation? Yes, as long as you are raising your animals increasingly on pasture, grazing more adaptively and increasing the proportion of their diet that comes from pasture.

These answers are not a free pass to carry on as before. They are a



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recognition that regeneration is a process of continuous improvement and that the journey is just as important as the destination. They challenge us to be honest about where we are, to set ambitious goals for the future and to continuously learn and adapt as we go.

The £20/tonne question

All of this is well and good, but for most of us, the bottom line is the bottom line. Can certification actually pay? The good news is that there is growing evidence from the UK market that it can (although not included in the 29 systems in the EARA report). A prime example is the new regenerative wheat standard launched by the Green Farm Collective, which offers a £20/tonne premium for compliant farmers.

This standard, which is certified by Food Integrity Assurance (FIA), provides a concrete example of what a farmer-led, journey-based approach to certification can look like in practice. The requirements are clear and practical, focusing on outcomes rather than rigid prescriptions. They include:

- The use of strip-till or no-till practices
- A maximum of 180kg N/ha
- A diverse crop rotation with a minimum of six crops
- No pre-harvest glyphosate
- A maximum of two fungicide applications and one plant growth regulator
- No insecticides

What is particularly interesting about this standard is its approach to auditing. Stephen Sanderson from FIA explains that the audits are designed to be a “meaningful conversation”, focusing on continuous improvement rather than fault-finding. This is a world away from the top-down, punitive approach of many conventional certification schemes, and it reflects a genuine commitment to supporting farmers on their regenerating journey.

The Green Farm Collective standard is not the only game in town. There are a number of other certification schemes operating in the UK that are worth considering, including:

- A Greener World’s Certified Regenerative: A UK-based certification that is unique in its requirement for audited, high-welfare production, transport and slaughter practices.
- Fair to Nature: The only UK certification scheme that is specifically focused on biodiversity.
- LEAF (Linking Environment and Farming): A long-established scheme that promotes and supports more sustainable farming practices.

These schemes, and others like them, are creating a new market for regeneratively produced food and drink in the UK. They are providing a clear signal to farmers that there is a real and growing demand for products that are not only good for the planet, but also good for our health and our communities.

Navigating the divide

The emergence of these new, farmer-focused certification schemes is a welcome development, but it does not mean that the threat of greenwashing and co-option has gone away. The “great divide” between the two visions of regenerative agriculture is real, and it is up to us, as farmers, to ensure that the authentic, farmer-led vision prevails.

This is where tools like the RegenCompass become so valuable. They provide us with the knowledge and the framework we need to ask the right questions of certification bodies, food companies and policymakers. They empower us to demand a system that is transparent, credible and genuinely supportive of our efforts to build a more regenerative future.

As we navigate this complex landscape, we must be guided by a healthy scepticism. We must be wary of any scheme that promises a quick and easy path to regeneration, or that focuses on a few isolated practices rather than whole-system transformation. We must be prepared to challenge the claims of large corporations and to hold them to account for their environmental and social impacts.

But we must also be guided by a sense of optimism and opportunity. The regenerative agriculture movement is gaining momentum, and there is a growing recognition that farmers are the key to solving some of the most pressing challenges of our time. By working together, we can build a food system that is not only more sustainable and resilient, but also more profitable and rewarding for us, the farmers who make it all possible.

Conclusion

The journey towards a more regenerative future will not be easy. It will require us to challenge old ways of thinking, embrace new ideas and work together in new and creative ways. But as the RegenCompass makes clear, it is a journey that we must embark on, for the sake of our farms, our families and our planet.

The certification maze can be daunting, but it is not impassable. By arming ourselves with the right knowledge, asking the right questions and demanding a system that is fair, transparent and farmer-led, we can ensure that certification becomes a powerful tool for building a more profitable and sustainable future for UK agriculture. The £20/tonne question has been answered. But with Organic worth a £160 a tonne premium – is £20 enough?

The real question now is: are we ready to seize the opportunity?

Read the full EARA report by scanning the QR code.

References

- [1] Direct Driller. (2026). Regenerative Agriculture: Are We Heading for a Great Divide? <https://directdriller.com/regenerative-agriculture-are-we-heading-for-a-great-divide/>
- [2] European Alliance for Regenerative Agriculture. (2026). RegenCompass: A Farmer-Led Guide to Frameworks, Certification & Claims in Regenerative Agriculture. https://eara.farm/wp-content/uploads/EARA_RegenCompass_20250204.pdf

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THE MECHANICS OF SOIL

Written by Tony Gent

The unseen foundation: decoding the mechanics of your soil

Most modern farmers possess an enviable mastery of complex technology. They command massive combines, sophisticated cultivation tools, precision seeders and satellite-guided guidance systems with ease. Yet, an alarming number, especially younger generations, possess little true understanding of their most vital asset: the mechanics of the soil itself.

The common assumption seems to be that after harvest, we must "start again", engineering a new structure and seedbed for the next crop. This approach overlooks a fundamental principle: if a field has produced a strong crop and hasn't suffered significant damage during harvest, it is likely capable of supporting another robust crop without major soil disturbance. Soil loosening does not necessarily aid root development; it only offers benefit if it addresses artificial or smeared panned layers. The real key to a healthy soil system

lies in understanding and respecting its intrinsic mechanics, particularly regarding water management.

Cultivation's disruption: a Case of creating and collapsing structure

Cultivation, even using modern, low-disturbance (min-till) tools or deeper tine-disc combinations with scrub action, fundamentally changes soil mechanics. While these operations achieve good aeration and fine tilth on the surface, this seemingly ideal environment is fleeting. The loosened soil acts like a temporary holding tank. As water enters, it displaces air, filling the created voids.

Crucially, the inherent strength of the soil structure has been compromised. The aggregates (clods) have been broken apart. The resulting fine particles, when wetted, turn the soil soft, eventually becoming something resembling thick soup in extreme conditions. Trafficability is destroyed; working such soil causes significant damage.

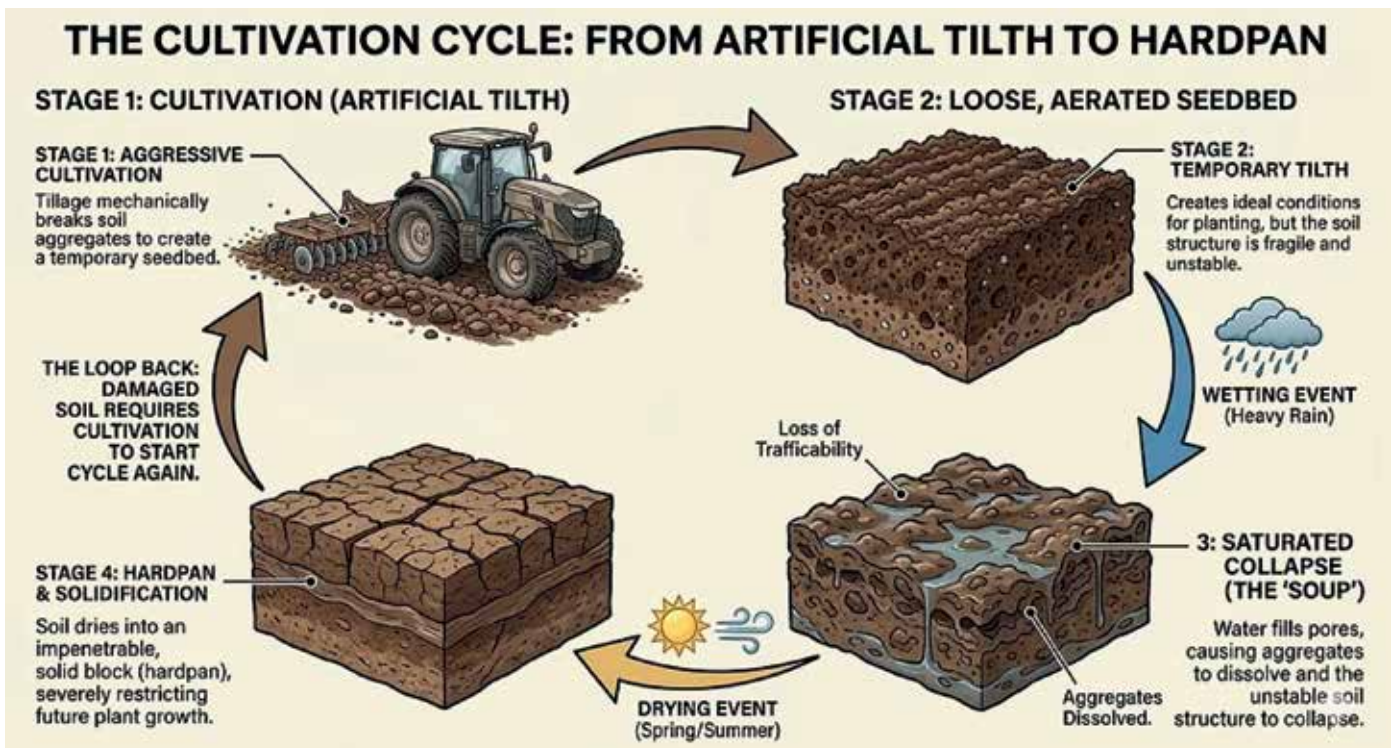
The problem of water dynamics in loosened soil

Furthermore, water management in this loosened soil is profoundly compromised. Because the natural structural channels have been pulverised, the water does not drain with gravity as one might expect. Instead, it is held by surface tension (globular retention effect). This water is only displaced as the soil structure, now unstable, collapses back into a dense, solid state or is reconsolidated with further, highly damaging cultivation.

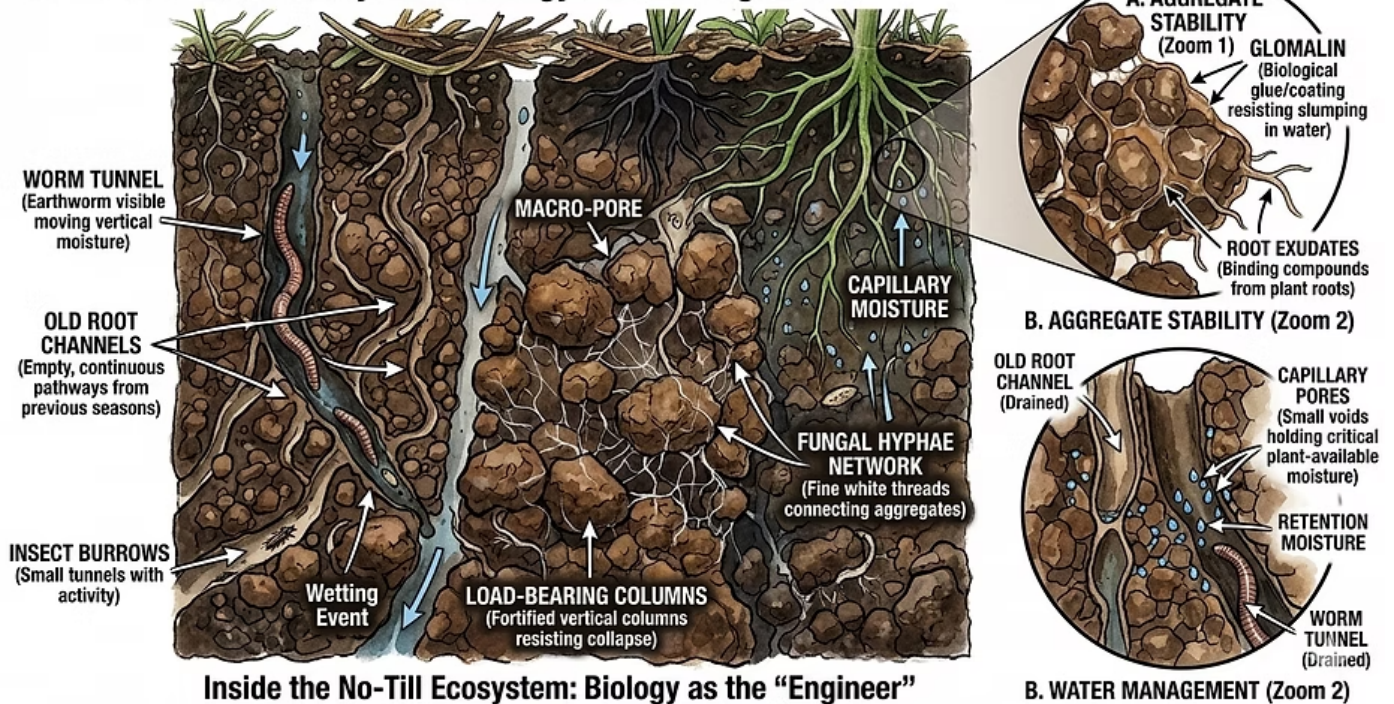
This collapse creates a devastating cycle. Going from autumn/winter wet to spring/summer dry, this structurally destroyed soil dries into an impenetrable, solid block. All soil structure, which takes time and biology to build, is lost. This soil lacks the resilience to support a robust crop through extreme weather. For the next season, the entire costly and damaging cycle must begin again.

No-till: harnessing the power of stability and biology

In stark contrast, a no-till system



Inside the No-Till Ecosystem: Biology as the “Engineer”



Inside the No-Till Ecosystem: Biology as the “Engineer”

works with soil biology, resulting in vastly more stable soil mechanics. This stability hinges not on particle structure at a molecular level (which remains constant), but on the arrangement of particles into aggregates and pores. A healthy, undisturbed soil contains an intricate network of stable voids: microscopic tunnels created by microbes, earthworms, beetles and decaying root systems.

Think of the soil around these stable voids as strong, load-bearing columns. They resist collapse from rainfall and traffic, maintaining the critical system of pores needed for life and function. Cultivation destroys these vertical support columns. While creating temporary, artificial voids, it removes the very capacity of the soil to maintain that space. Consequently, the temporary space collapses, the soil collapses, and water-holding capacity is lost.

Mastering water in a no-till environment

The water management profile in no-till soil is radically different. Extremes of soil moisture are significantly reduced. Excess water is rapidly removed through established, continuous macro-pores: the uninterrupted drainage channels left by old root paths and worm holes.

Meanwhile, critical moisture is

retained within the smaller, stable voids. Because the overall structure is strong, the soil does not collapse together as it dries. Undisturbed capillary action ensures a continuous supply of moisture is available, preventing the extremes of bone-dry conditions. This results in stable, consistent soil moisture that plants can depend on.

Resilience and root development: the plant perspective

This inherent structural and moisture stability directly impacts plant performance and resilience. We often notice that in extreme drought conditions, no-till plants, like oilseed rape, can establish remarkably vigorous development using just their fibrous root systems in the topsoil. They aren't forced to waste energy frantically developing a single, deep taproot simply to find water.

Furthermore, no-till systems retain crucial nutrients within the topsoil, where they are not diluted by soil mixing. Plants can therefore make much more efficient use of their natural fibrous root networks to access these nutrients. This combined efficiency in water and nutrient access makes no-till crops significantly more resilient to both extreme wet and prolonged drought. Within a single season, cultivated soil can fluctuate from an aerated

"soup" of excessive water to a solid, collapsed, dry block. A stable no-till system avoids these extremes, building lasting structural health year after year. Understanding the mechanics of soil is not just technical knowledge; it is the absolute foundation for resilient and profitable farming.

Conclusion: from soil engineering to soil stewardship

The transition from a high-disturbance cultivation mindset to a no-till approach is more than just a change in machinery; it is a fundamental shift in how we perceive soil mechanics. We must stop viewing soil as a passive medium that needs to be reset every season and start seeing it as a living, structural asset that gains value through stability.

When we cultivate, we are essentially engineers trying to manufacture a temporary environment. When we move to no-till, we become stewards of a biological system that manages itself far more efficiently than any tine or disc ever could. The soup-to-solid cycle of cultivated land is a precarious way to farm in an era of increasingly volatile weather. By contrast, a stable soil structure held together by biology and undisturbed pathways offers the resilience required to thrive in both the wettest winters and the driest summers.

BUILDING RESILIENT FORAGE SYSTEMS

Written by Lisa Hambly

What we know about the seasons is that there is no “normal” year. Last year saw droughts in many areas, causing forage shortages that have challenged production and affected the bottom line. Traditional cropping systems of ryegrass, maize and whole crop are not meeting the dry matter yields needed to sustain essential forage supplies, which is crucial for achieving the best margin over purchased feeds. While risks can be minimised by planning for our mainstay crops, it's time to increase the variety of species being grown across the farming platform. Homegrown energy and protein are the most economical way to feed livestock.

Protein in silage has been reducing over the years, largely due to a reduction in sulphur in the air, thanks to cleaner air. Sulphur is essential to facilitate the plant's utilisation of nitrogen into protein and amino acids. It is also important in legumes, such as clover, to help with nitrogen fixation. In 2025, Mole Valley Farmers conducted trials using SAP analysis in grassland and found, particularly in newer leys, that the crop was being underfed in both nitrogen and sulphur. This leads to the crops running out of steam before harvesting, and going into crop stress, which can result in poor quality and yield. This risk is even higher in sandy soil and multi-cut systems.

Plant breeding has progressed to provide the opportunity for higher yields. Plan nutrient applications in advance. If the opportunity to split applications arises in early spring, applying a smaller amount of nitrogen and sulphur to wake the crop up, followed by a second, larger application, will provide dividends in yield, mitigating the overall cost of application. With varieties bred to yield more and achieve better quality, the nutrition must be adapted to match. Focusing on crop nutrition for your high-yielding newer leys will gain extra milk/meat with very little extra effort. Ensuring that clovers are included at the very minimum will improve crop diversity, provide nitrogen to the grass sward as the season progresses and deliver quality protein in silage to help reduce the amount of bought-in proteins required to balance the animals' diet. If planting

Table A. Sulphur deficiency risk categories

Soil type	Winter rainfall (Oct-Mar)		
	Low (<175 mm)	Medium (175-375 mm)	High (>375 mm)
Sands and shallow soils	High		
Sandy loams	Low	High	High
Other mineral soils	Low	Low	High

whole crop, add legumes such as peas, beans or lupins, or undersow with a clover ley, providing a complete package of energy and protein in one feed. Choose a clean field and be prepared for a few weeds – it's not the cleanup programme for a weedy area. Working through weed issues as they arise rather than delaying will reduce future challenges and allow flexibility in the rotation. Weeds are symptomatic of issues with soil health and/or nutritional imbalances.

Increasing homegrown energy through growing higher quality leys and ensuring cutting is done at the right time by knowing your grasses are achieving clamp silage pushing 12 ME is possible. Young new grass can have a D value of 80; this is the genetic potential being offered. Consider multi-cut, following the same cutting pattern as a grazing platform. Deciding the cut date early, getting two cuts while ryegrass is growing vigorously is essential, especially in lower rainfall areas. Work back from that date to calculate the amount of nitrogen to be applied using the rule of thumb 2.5kg/ha, not forgetting the value of slurry applications. Using book figures for slurry can mean that a level of inaccuracy develops, so getting it

tested is an essential part of the plan. Slurry results can vary according to the diet the animals are fed; it can be as much as 1kg of nitrogen per metric cube differential. This adds up to a significant difference when slurry is optimised as a crop nutrient.

Maximising starch yield from maize relies on feeding the crop correctly. Maize SAP analysis in 2025 showed many areas where the crop was unable to access the nutrients it needed: nitrogen levels were often low when needed, sulphur was critically low or low, and magnesium, essential for the formation of chlorophyll, which is crucial for photosynthesis, was also low. With lower starch in maize this year, and most results coming in below the optimum 30%, we mustn't miss the opportunity to address major nutrient deficiencies. Nutrient planning is key. Test the soils, FYM, know what yield you are aiming for and feed accordingly. Getting the crop off to a flying start can help give the crop more resilience, and it's not all about phosphorus; giving the crop a balanced starter fertiliser which addresses the soil deficiencies and offers the seedling a range of readily available nutrients ensures better rooting and quicker crop development.



and 25%, complementing maize silage and has a good scratch factor for ruminant diets, without reducing the nutrient density of the diet. Working closely with nutritionists ensures that the diet is balanced and will help create a sustainable solution with a focus on soil, crop and animal health. Carrying out a forage review with your agronomist and nutritionist will ensure that the focus is on the right crops. Energy is often cheaper to buy in than protein, so getting the grass right with a multi-cut system will pay dividends. Newer grass leys and the right crop nutrition are a good place to start.

As we saw last year, a week's growth can make all the difference to the success of the crop. Follow this up with a SAP test at the 3-4 leaf stage and address any deficiencies. Repeat at 6 leaves if necessary to see if corrections or further nutrition should be applied. If you want performance out of these crops when it comes to animal nutrition, they must be fed correctly.

Forage systems need planning, and when there are challenges on the farm, for example, the field that is south-facing and dries out, this is a good opportunity for multi-species leys, as they are more resilient to dry conditions. Is there a place for Lucerne on the farm on the sandy drier fields? Deeper roots will ensure that it continues growing in drier conditions. It has excellent proteins between 18%

Top tips for better forage

- ✓ Walk fields early, plan cropping, reseed and complete any patching following winter damage.
- ✓ Check for compaction. Use a grassland slitter if necessary.
- ✓ Test the slurry and use it to fine-tune the nutrient management plan.
- ✓ Split applications of fertiliser, if possible. Use sulphur.
- ✓ SAP test to check for crop nutrient gaps.
- ✓ Pre-cut test grass to ensure nitrate-free.
- ✓ Ensile within five hours of cutting.
- ✓ Ensure use of quality silage additive.

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FARMER FOCUS

TOM MARTIN



Holding Our Nerve

There's a certain satisfaction in early spring when the farm looks well, before the dreaded blackgrass rears its ugly head and takes the edge off my favourite month of May. Things aren't perfect, but they're alright. Crops are clean, gaps are few and far between, and though growth stages are hugely variable, roots are moving. The rapeseed will be eye-burning yellow by Easter, and the forage rye is already reaching for the sky. It feels like we've got away with it. So far.

This year comes with a caveat: it's been a bit wet. Not as wet here in the east as friends further west, who've been flooded seemingly for months, but enough to make patience the main job. Spring barley went in at the end of March, held back until we could just about get a tilth on the surface. On this sort of clay, a day too early and you're smearing, slotting, and setting yourself up for cracks later on.

I remember the spring drilling campaign of 2018 (I think). A twelve-day operation, with the lowlight being two fields: one of spring oats sown first and written off as too wet and failing to establish, and the other of the drilling campaign of a field of spring barley I should have written off, as the ground was

parched by the time I got to it and it floundered.

So, we waited. The drill rarely rewards eagerness on heavy land.

Nitrogen: the uncomfortable question

The bigger question this spring has been nitrogen.

Not what the crop needs, but what we're prepared to spend. With nitrogen prices where they are, you're not just making an agronomy decision; you're well aware it's more financial than usual.

And this isn't just a normal price wobble. It's a "big, beautiful" spike, to coin a phrase from America's commander-in-chief. Thanks, Donald.

A spike like this really sharpens things, and we're seriously considering holding back the final applications and effectively carrying over around 30 tonnes of AN, bought and paid for in late 2025, into next season. Not as a punt, but as a hedge. Of course, if prices can rise that quickly on geopolitics, they can fall just as quickly. Buying nitrogen this spring feels as much about reading world events as reading the crop.

Biology, not blind faith

Part of answering that N question sits in a field this year.

One field – Low Meadow, high organic matter and prone to sitting wet – is being run as a proper test. A third wheat, good organic matter in a silty clay loam, with a largely biological approach. Herbicides still in, because we live in the real world. The only conventional nitrogen was the first pass, applied into cold soils where biology wasn't doing much yet.

After that, we're stepping away from bagged N, and a costly fungicide programme.

We applied Mega-Fos from Soil Fertility Services (though – in BBC tone – other products are available) in early March. It's a phosphite-based product, so not feeding the crop directly, but helping it help itself: root development, energy movement, getting the plant up and away so it can access what's already in the soil.

Then, much of the rest of the nitrogen programme will come via Bio-N, again from the SFS guys. This is a biological nitrogen product, aimed at fixing atmospheric nitrogen and improving how nutrients cycle in the soil. It's not a like-for-like replacement for AN, and it's certainly not instant, but the idea is to support a steadier, more demand-led supply of N through the season.

Disclaimer: SFS make the products we're using, but there are similar biological and phosphite-based options on the market. The principle is the same: rely less on what you bring



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in, and more on what your soil can do; it's multiplication instead of boring old addition and subtraction. And with war and world prices sharpening minds, I hear others are filling the Bio-N order books.

Whether it works in our system this year is the question. We've had good results with biologicals over the years, but every year is different, and biology responds very differently to a simple chemical reaction.

Learning from the plots

This hasn't come out of nowhere.

At Cereals, over the past few years, the message has been fairly consistent. The biological programmes don't always win on yield (though they often do), but they almost always win on margin.

Lower input, slightly lower output, and more profit to go with your better soil at the end.

In some cases, those systems have outperformed both conventional and hybrid regen approaches like ours on

gross margin. That's hard to ignore, particularly with input prices where they are.

The question is whether those plots are a one-off, or something repeatable on farm.

This year, we'll find out.

A system under pressure

All of this is happening alongside a slightly different kind of work. I've spent part of March at the High Court as part of the challenge to the government's handling of changes to agricultural and business property relief.

It's an odd contrast. One day, you're looking at roots and nitrogen; the next, you're in a courtroom discussing whether family farms have been properly considered in policy.

What stood out was how much of the case, in both numbers and presence, was carried by farmers themselves. For something that stretches well beyond agriculture, we seemed to be doing a fair share of the lifting.

Holding our nerve

Either way, the crop doesn't wait. You come back, walk a field, and crack on.

So, where does that leave us? Another year of heightened uncertainty, and some (as ever) experimental farming. As the UK asks if she can wean herself off fossil fuels and embrace a renewable-based energy system, we're doing the same on the farm; not eliminating artificial N altogether, but asking whether we can use less of it, and use it better. Whether healthier soils and decent organic matter can carry more of the load. And whether it's worth holding our nerve a bit when everything – prices, markets, geopolitics – is pushing the other way.

It won't all work. Some of it definitely won't. But farming has always been about making decisions with imperfect information. This year just happens to include a bit more uncertainty than usual, and a slightly closer eye on the Strait of Hormuz than we're used to.

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SOIL IMPROVEMENTS UNDER COVER

Cover crop establishment has been a serious challenge for many this season, with the extreme dry soils after the long hot summer. However, years of soil improvement and a minimal soil movement strategy have achieved good results at low cost for Northamptonshire grower, David Beesley, even on his light, free-draining ironstone soil

“It’s been very pleasing that the improved soil structure we’ve built up over the years has really helped with the cover crop establishment this season,” he reports. All straw has been chopped and returned across the farm for the past 12 years, with a long-term strategy of cover crops to give continuous ground cover as much as possible.

David’s cover crops are sown with a Techneat Multicast 200 (formerly the Avacast GR200), mounted on a Bateman RB16 sprayer with 12 splash plate distribution heads across a 12-metre working width. The simple set-up can easily cover eight to nine hectares an hour, he says.

This year, he’s also fitted a new cover crop metering system, specifically designed for consistently distributing small seeds through the Multicast. The rubber roller construction ensures a smooth flow without blockages and a gentler action on the seeds.

Fields destined for winter cropping are sown with a fast-establishing Smart Radish®, to gain maximum benefit from the plant’s deep taproot, while those that will over-winter for spring cropping get a mix of phacelia, vetch and clover. Both options qualify for SFI points, but it’s the soil-improving properties of cover crops that are of greatest importance to David.

Advisor Harry Moffat (right), of Oakbank, highlights that the root structure of the cover crops, particularly deep-rooting fodder radish, improves porosity of the soil and maintains air and water movement through the soil profile.

“Poorly structured soils often lead to rapid surface runoff, reducing water reserves during dry periods and lowering water use efficiency,” he says.

“In contrast, well-structured soils, reinforced by cover crops, are less prone to erosion, which is particularly important on sloped land or during periods of prolonged wet weather. Improved water infiltration reduces pesticide and nutrient leaching, which can cause significant water pollution in poorly structured, bare soils.”

Harry highlights that overwinter cover crops significantly reduce nitrate leaching compared to bare stubble, especially where species like oil radish are included. “Green biomass returns organic matter to the soil, feeding microbial life and building long-term resilience. Greater diversity in the soil biota improves function and carbon cycling.”

This winter, for the first time, David Beesley’s cover crops have also been grazed by the farm’s sheep flock, providing valuable fodder after the dry summer. With continued regrowth of the cover crops into the new year, nutrients have been recycled and importantly held in the field, instead of washed away by heavy rain.

His establishment system is to rake



Smart Radish

with a Claydon as soon as possible after combining, to create a little tilth and spread the chopped straw. That’s followed by a further rake and roll after broadcasting the seed.

“With the continuous improvement in the soil organic matter and structure, the rake is now proving better each year at getting 10 to 20mm of surface tilth. Even this year we’ve got rapid cover crop establishment as soon as we had some rain.”

Improved soil structure for crop establishment has been key to enabling shallower drilling with his Mzuri drill – without the renowned high-power requirement and heavy wear of soil contact parts associated with deeper strip till seed placement.

Deep rooting of the fast-growing radish effectively acts as the subsoiler to break up the soil, says David. “The sown crop finds it far easier to follow the natural fissures of a cover crop root, compared to the channel of a mechanical subsoil shatter,” he believes.

The farm’s 30 ha of OSR is also



Sheep grazing

established with a companion crop of buckwheat and vetch, which is broadcast by the Multicast, the day before the crop is drilled with an Accord drill. "The system has been working well, although we're thinking that maybe in future to establish the companion crop first, and then drill through with the Mzuri to create a competition-free strip for the oilseed rape to grow," he suggests.

David acknowledges that with the continuous cover crop strategy there had been concerns about

losing opportunities for a stale seedbed. However, since the cover crops are removed with a robust glyphosate rate, and then autumn crops established with minimal soil movement that could trigger weed germination, the farm's overall grass weed populations have declined and, while not completely clear, are certainly in control.

The autumn grass weed programme, based around pre-emergence herbicide followed by peri-emergence Luximo, along with Avadex granules that are also applied with the Multicast 200, has been extremely effective this season, he reports.

Improved workability of the soil with the cover crop strategy has seen fuel use halved across the farm rotation, while yields have been maintained. "The organic matter is certainly improving soil moisture retention, which is helping with crop resilience against drought.

"While the better structure also helps drainage, so crops are not sitting in water so much when we have heavy rainfall." The farm at Ecton, between Northampton and Wellingborough, covers around 200 ha of cropping,



Smart radish rooting

including 85 ha of spring barley and oats, along with winter wheat and oilseed rape.

With the combination of establishing the cover crops, companion crops and application of Avadex granules, as well as slug pellet spreading where required, the Techneat Multicast has proven to be one of the most used bits of machinery on the farm this year.

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FARMING

YOUNG FARMERS TAKE PARLIAMENT BY STORM AND BACK REGENERATIVE FARMING

Written by Charley Snowdon, Office of Blake Stephenson MP

Young Farmers from across the country stepped into the spotlight this month as Mid Bedfordshire MP Blake Stephenson hosted a two-part debating programme designed to inspire young people in agriculture and place their voices at the heart of national discussion. The initiative began as an event for Bedfordshire Young Farmers, but interest grew so quickly that it was opened up to Young Farmers from counties nationwide.

The programme started on 4 March at Shuttleworth College, where students took part in a debate skills session with expert speakers John Cherry, a leading figure in regenerative farming, and Oli Fletcher of Farming Explained. This session was also live streamed, allowing additional Young Farmers who could not attend in person to benefit from the presentations and training. Their insights on regenerative and conventional systems prepared young farmers for the parliamentary debate the following week, with a particular focus on how different choices affect soil health, biodiversity, water resilience and farm profitability.

On 11 March, participants gathered in Parliament's historic Committee Room 14 for a lively debate chaired by Shadow Farming Minister Robbie Moore. Young farmers from Bedfordshire, Hertfordshire, Buckinghamshire, Leicestershire and beyond presented thoughtful and informed arguments on both sides of the motion, "Can the UK feed the nation through regenerative farming?" After robust discussion and closing statements, the room voted in favour of regenerative farming, backing a transition that is context-specific, evidence-led and focused on

measurable outcomes in the soil.

During this parliamentary debate, John Cherry and Joanna Bowen, co-founders of the Groundswell Festival, contributed powerful arguments in favour of regenerative practices. Joanna spoke about the noticeable increase in wildlife and biodiversity on their farm since adopting regenerative methods, while John emphasised the need for farming systems that balance reliable food production with long-term soil function. Sussex farmer Oliver Field added an important perspective from conventional farming, highlighting the challenge of producing enough food while also delivering environmental improvements, underlining that successful transitions must be practical and resilient for farm businesses of all sizes.

MPs in attendance also included Shadow Defra Secretary of State Victoria Atkins, Greg Smith and Richard Fuller. Richard Fuller, MP for North Bedfordshire, attended to support young people from his constituency and to champion the importance of involving future farmers in national policy discussions. Greg Smith, MP for Mid Buckinghamshire, served as a judge for the debate and recognised the high standard of contributions from participants, including those from his own area.

The event was also supported by Olivers Agriculture, the well-known Bedfordshire machinery firm, who kindly sponsored the post-debate refreshments, adding to the warm and collaborative atmosphere of the evening.

Molly Bampton of Bedfordshire was named top contributor for her compelling, evidence-led case for regenerative farming, making the connection between



Blake Stephenson and Alfie Smith

minimal soil disturbance, continuous cover, diverse rotations and living roots, and the economic resilience of farm businesses. Twelve-year-old Alfie Smith, a Bedfordshire Young Farmer, also impressed with his passion for the future of food and farming. Their contributions, alongside those of their peers, captured the spirit of the programme: thoughtful, engaged and forward-looking.

Blake Stephenson MP said the initiative was designed to give young farmers the confidence and platform they deserve, praising participants for their insight and enthusiasm. President of Bedfordshire Young Farmers Blanche Walker described the evening as an invaluable opportunity to debate real issues in a parliamentary setting. Farming influencer Olly Harrison also commended the group, noting that he had "never seen so much sensible debate in Parliament."

The programme has been widely praised as a major milestone and a clear demonstration of the energy, passion and capability of the next generation of British farmers, one that is ready to lead on soil health, biodiversity and practical, profitable regenerative systems.



Young farmers filled Parliament

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Where farming starts

FARMER FOCUS

RYAN MCCORMACK



Straight after the NFU conference on the 25th February, I left Birmingham and made my way to Heathrow Airport to catch an Etihad flight for a 10-day holiday in the Maldives. Now, I'm not saying I go on many holidays and, to be honest, I'm not even sure I enjoy going away due to having to leave the farm behind with 1,400 lambs grazing cover crops, Red Poll cows calving and land just getting dry enough to travel for the first dose of fertiliser. That said, it is good to get away, relax, and it gives my head some time to clear, re-evaluate and focus.

We travelled via Abu Dhabi to Malé, hopped on a small seaplane and eventually turned up on Thursday afternoon at a picture-perfect island with white sand, clear water and plenty of food and drink. By Saturday morning, a bit of anxiety kicked in when scrolling BBC News to discover that Donald Trump had decided to "bomb, bomb Iran", which in turn closed all airspace for our scheduled return flight. Thoughts go out to anybody caught up in the middle of a war, and naturally, I had some concern about how I was going to get home safely in a few days' time. But then came the next thought – what does this mean for us farming back in the UK?



I don't need to explain to anybody reading this what followed. Fuel and fertiliser prices increased, in some cases doubled, and ordering diesel without knowing the price on delivery became a real concern. It made me think back to the overall theme of the NFU conference and a word that we really need to work towards: resilience.

Every farming business will have a different strategy, different core values, different direction and different outcomes, and resilience will mean something different to each of us. But overall, we all need to be more resilient to withstand the more frequent shocks that we seem to keep facing as an industry and as a nation.

Here at Dennington Hall Farms in East Suffolk, we are putting a real focus on creating what I believe is a resilient business. One of our biggest focuses is our soils. We have matched our machinery to suit the soil type, rotation and our ambition to look after and improve soil health. This includes direct drills, a low-disturbance subsoiler, a grain chaser bin, wider tyres and central tyre inflation on the primary tractors. We are now operating a 12-year rotation, including overwinter cover crops, summer catch crops, rotational muck spreading of FYM, mole ploughing and in-depth soil analysis every four years. Livestock has also been introduced back into the arable system, with mob grazing lambs on cover crops, and when conditions allow, cattle grazing covers as well.

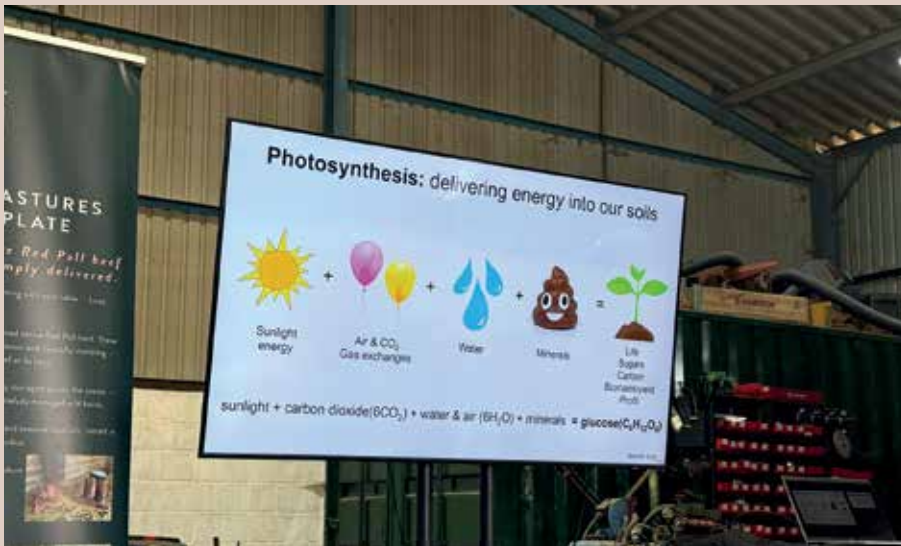
Alongside this, we have recently started an ADOPT-funded project called Roots of Change, partnering with NIAB, Limagrain and Thomas Todd. This project will help us better understand exactly what role cover crops and summer catch crops are playing in the soil, alongside a legume bi-crop, and ultimately the impact on the following crop, with the aim of reducing reliance on fertiliser.



The need to better understand our soils was really brought home to me when I listened to Dr David Purdy speak at our most recent AHDB Monitor Farm event. That night, I actually questioned myself – do I even know what I'm doing, and what impact I am having on the one thing I can't replace, the soil? Listening to somebody talk about my own soils with such passion and knowledge has really rekindled the passion in me to understand them better. When you truly understand what your soil analysis is telling you, you can then make the right improvements.

I do have a question for all readers:





Do you really know what you're doing? How many of us go through the motions because we've always done it that way? Why do we grow the crops we grow? Do we blame the weather for failing crops rather than the decisions we've made? Do we actually read into our soil analysis and understand what's going on below our feet? To create resilience, we probably need to start answering some of these questions. I'm not saying we all need to know everything, but even a rough understanding could lead to different decisions.

Our second focus is around reducing inputs. As mentioned, soil-friendly machinery is helping reduce the need for diesel; improved soil health and FYM are reducing the need for full-rate fertiliser; and with a healthier growing medium, we hope to reduce the need for fungicides. Some of the other work we are doing includes



hosting the Limagrain Demo Farm for the East. In my opinion, this could be the future of how farmers choose varieties to grow on their own farms. We have 13 different varieties of wheat growing across three different establishment techniques, six hybrid oilseed rape varieties on full tramline widths, and a number of barley plots. We also have five different Limagrain wheat varieties growing across the farm, following different crops, cultivations and drill dates. On the 4th June, we will open the farm for people to come and see these trials at farm scale.

Technology has also been introduced, as we have taken delivery of an Optigene MDx4a plant DNA reader. This allows us to carry out rapid tests, within 30 minutes, from a leaf sample to determine if a pathogen is actually present within the plant and has reached the threshold requiring treatment. It is early days, but I am really excited to feed back to the Optigene team with my findings. It feels a bit like having a crystal ball when it comes to disease monitoring. Plans are also in place to construct new grain storage using biomass heat for drying, building on the two biomass boilers already producing heat and hot water across the estate.

My third focus, and the last one for this article, is adding value. We are growing Wildfarmed wheat on around 50 hectares and learning a lot about supply chain, lowering inputs and the wider effects on soil and

the environment. It has been really interesting to try farming differently within the Wildfarmed system. Some of our other crops have also undergone real scrutiny, and we are now growing more seed crops, such as peas, triticale and spring barley, along with a 7ha trial of broad bean seed.

The BASE conference earlier this year also highlighted that we need to look at taking more control of the supply chain – food for thought, quite literally. We have already started supplying our own beef direct to consumers through online meat box sales, with customers able to have it delivered to their doorstep or collected from the farm. Could this happen with some of our crops? Could we add more value? Watch this space.



And finally, yes, I did make it home to sunny Suffolk, although it involved a 14-hour wait in Malé airport and a direct repatriation flight into Manchester. Thankfully, I had paid for extended parking at Heathrow.

Ryan McCormack, Farmers Weekly Farm Manager of the Year 2025, Dennington Hall Farms in East Suffolk, a 1,600ha arable farm with 12-year rotation and a suckler herd of Red Poll cattle. Woodland, Countryside stewardship Mid-tier, 4x SFI agreement, residential and commercial property and Bruisyard Country Estate (wedding and events business).

AGRONOMIST IN FOCUS...

HUTCHINSONS

PROTECT THE FLAG LEAF TO FULFIL YIELD POTENTIAL

With many crops facing higher disease pressure this spring, Direct Driller takes a look at what this will mean for the crucial flag leaf (T2) fungicide timing

Of all the main wheat fungicide timings, the flag leaf (GS 37-39) application delivers by far the greatest return, with the top two leaves typically contributing two-thirds of total yield.

Protecting them for as long as possible will take careful planning, especially given the high pressure from both rust and Septoria that many parts of the country have experienced so far this season.

In Warwickshire, as in many other areas, yellow rust has been the dominant disease around T0 and T1, particularly in more susceptible varieties, such as Champion and Bamford, Hutchinsons agronomist,



Hutchinsons agronomist, Katie Davies

Katie Davies says.

Septoria is also present on lower leaves of many crops, especially those sown early, although at the time of writing, pressure appears to have been tempered slightly by cooler, drier conditions, she notes.

“Given the amount of early-sown crops this year, we could well see more Septoria come to the fore as temperatures rise, especially if it is unsettled during April and into May.”

Another important implication of early drilling is to extend the phyllochron – the gap between leaf emergence – which poses challenges for traditional “T” fungicide timings, Ms Davies says. These timings are designed around Septoria management and its 360 day-degrees latent period. However, yellow rust operates on a much shorter timeline, nearer 180 day-degrees, so there may be a need for an interim spray, such as a T1.5, in higher-risk crops to “buy time” ahead of flag leaf emergence.

“If there are longer gaps between leaf emergence and the main fungicide timings, then given that yellow rust is so prolific, it needs to be dealt with to avoid putting undue pressure on later chemistry. Tebuconazole offers quick knock-down and is pretty cost-effective.

“This year more than ever, growers have to monitor crops really closely and make decisions according to growth stage, leaf emergence and disease pressure; don’t rely on traditional calendar dates to determine fungicide timings.”

Weighting up the options

Typically, the strongest chemistry is often reserved for T2, given the greater yield response, with Septoria being the main focus, especially in



Agronomy Innovation Director, David Howard

wetter western and southwestern areas.

However, with changes to Yr15 resistance and yellow rust coming to the fore in more crops, beyond the usual higher risk eastern areas, guarding against both diseases will be a priority, and choosing products carefully is key, as many modern fungicides are increasingly specialised, Ms Davies says.

In the highest Septoria situations, pydiflumetofen and fepicoxamid are two of the strongest actives available, Hutchinsons Agronomy Innovation Director, David Howard advises.

“Isoflucypram is more of an all-rounder for rust and Septoria, but Septoria control can be bolstered by using it with other chemistry, such as prothioconazole or fepicoxamid. Alternatively, look to mixtures of fepicoxamid with other rust-active chemistry to achieve balanced protection.”

Given their rust activity and longevity, strobilurins have a valuable role at T2, providing they have not already been applied earlier in the programme, he adds. “Equally, milling wheat growers concerned about brown rust may

want to reserve a strob for T3. However, if pressure is high at T2, react to what is already there, rather than risk letting disease get established."

Folpet may be a useful addition in high Septoria situations, and as a multisite, aids resistance management, Mr Howard says. "Indeed, wherever possible, aim to bring different modes of action into the programme, as persisting with SDHI/azole mixes repeatedly will potentially cause challenges going forward."

He also stresses the importance of longevity for later sprays, to protect key yield-building leaves as long as possible.

"We are increasingly seeing more unsettled weather into June and July, which adds to later disease pressure. Longevity is achieved by selecting the most suitable product(s) for specific situations and disease pressures, using the correct dose, and applying fungicides well."

Optimise coverage

Good coverage underpins fungicide efficacy but can be challenging in large biomass crops where sprays can struggle to penetrate down the canopy.

Mr Howard says this is particularly relevant for rust control, which as a sporulating disease with a short lifecycle, can rapidly reinfect up the crop from any inoculum on lower leaves. "This is unlike Septoria, which is spread by rain splash, so risk can be reduced by maintaining a "buffer" of clean leaves between the lower and upper canopy.

"Pay attention to nozzle choice, forward speed, boom height, and crucially, water volume. Some growers look to reduce water volume to save time during busy periods, but this should not compromise coverage. Upping rates from 100 to 200 litres water/ha may be a step too far, but 150 litres/ha could be a good compromise in certain situations."

Finally, Ms Davies advises growers to consider if any final growth regulation is required in high biomass crops. Although typically done earlier at T0/T1, a late PGR such as ethephon + mepiquat, can help shorten and stiffen upper internodes, reducing lodging and brackling risk.

"If you've got high lodging risk, it has to be acted upon at all stages of the programme, but assess risk field-by-field, and consider varietal responsiveness to PGRs when making final decisions."

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WHAT IF FARMERS WEREN'T JUST PRODUCING FOOD, BUT FUEL TOO?

This is one of the questions being explored by 2026 Nuffield Scholar Matthew Steel

As agriculture faces increasing pressure to reduce emissions, cut input costs and improve efficiency, many farm businesses are already evolving. Renewable energy is already part of the picture on many farms, from solar to AD, but what if the next step goes further?

Green hydrogen is starting to enter the conversation.

At its simplest, the concept sounds almost too good to be true: using renewable electricity to split water into hydrogen and oxygen, creating a clean fuel where the only by-product is water. In theory, it offers a way for farms to produce their own energy, reduce reliance on fossil fuels and potentially create an entirely new income stream.

Matthew's topic, "*Green Hydrogen: a new product for UK agriculture to produce and sell?*" is a perfect example of that.

Growing up on a family farm and now managing director of a diversified business producing potatoes, free range eggs, cereals and renewable energy, Matthew is no stranger to adapting and evolving. Like many farmers, he is constantly looking at ways to improve efficiency, strengthen the business and future-proof operations.

His interest in hydrogen began years ago, sparked by the idea of it as a clean fuel. Now, with increasing focus on decarbonisation and energy



independence, that curiosity has turned into a serious question: could green hydrogen realistically work on UK farms?

As Matthew explains:

"Through my Nuffield journey, I hope to explore whether green hydrogen can be a practical fuel for production and use on UK farms... It has the potential not only to save money by reducing inputs, but also to create a new commodity to sell. After all, farmers are not just food producers; we are energy producers, so why not sell fuel as well as food?"

On paper, the opportunity is clear. It fits into a wider shift we're already seeing across agriculture: farms becoming more diverse, more resilient businesses, generating value in multiple ways.

Through his Nuffield Scholarship, Matthew will travel to explore these questions in depth, speaking to producers, researchers and industry leaders to understand where hydrogen currently sits, and where it might realistically fit within UK agriculture.

Nuffield Scholarships give individuals across UK agriculture the opportunity to travel, research and challenge thinking

around some of the industry's biggest questions. Each year, scholars choose a topic they're passionate about, often something that sits slightly outside the norm and spend time exploring it on a global scale, bringing back practical insights for the industry.

It allows people within the industry to step outside their day-to-day, look beyond their own farm gate, and bring back ideas, evidence and perspective that can benefit the wider sector. Not every topic leads to a clear-cut answer, but it pushes forward-thinking, challenges assumptions and opens up new possibilities.

Hydrogen may not be the answer for every farm. But with the scale of change facing agriculture, exploring ideas like this and asking difficult questions has never been more important.

Have you got a question or topic you'd like to explore? Applications for the 2027 Nuffield Scholarships are now open.



NUFFIELD
Farming Scholarships



2026 Nuffield Scholar Matthew Steel.

FARMER FOCUS

ANDY HOWARD



Spring Hope

Sitting here writing this on April Fool's Day, a full nine months since my last article, I'm wondering if I am the fool for believing farming was improving! The farm seems to have fared well through the winter in general. A nice, easy autumn, so we should be happy. Well, I was until the Tango Man decided to bomb the Middle East. I know he is not into reading or a details man, but with recent historical events in Afghanistan and Iraq, you would think he would realise that these kinds of incursions never end well. Just shows in farming how exposed we can be to events completely out of our control. We are okay for this season's fertiliser, but if the price for next season's does not reduce from its current highs, we will all have to think seriously about having a year off and leaving the drill in the shed.

Having walked some of our early drilled wheats (22nd of September), there is a little bit of BYDV showing. Neither myself nor my agronomist could find hardly any aphids in our wheat last autumn, but there were obviously a few there. I think next year, our early drilled wheats will be drilled with Goldfinch, which looks fantastic, just to lower the risk. Some people may ask why do you not just spray an insecticide in the autumn? My answer is threefold: when I have applied insecticides in the past, they have made me feel ill with bad headaches. Secondly, speaking to my agronomist today, he has been sending off aphid samples as they have been sprayed four times this year with an insecticide and the crop is still full of them - this is not sustainable. Lastly, I am a strong believer that using insecticides beget the use of insecticides. Our insect pressure is lower than most, but is not perfect, so this is why the use of BYDV-tolerant genetics feels necessary.

The wheat came out of the winter

with high disease pressure of brown rust and septoria. Our Nelson is the worst, blends a lot better, and Goldfinch is very clean. Even though our wheat had autumn nutrition, it could not stop the disease from taking hold. After the disaster of one field of Crusoe two years ago, where we missed a TO fungicide in similar conditions and lost half the yield, I am not willing to leave the crops' fate to nutrition and "magic potions" in some vain hope it will be alright. There's not enough money in the job to chase rainbows anymore; I need a decent crop to harvest!

Some good news is that we have been successful with our ADOPT grant application.

We only have one small field of winter beans this year (luckily mixed with winter peas), and it has been hit hard by chocolate spot. Fortunately, we saw it early, and the beans are now recovering; some died, but most survived. This year, the beans are only a scaffold to hold up the peas. At £200/t, beans do not make financial sense to grow. I had Josiah Meldrum of Hodmedod's come to the farm last Friday. He made an interesting point that organic farmers do not grow winter beans, only spring beans, due to chocolate spot pressure. I had not realised this.

Some good news is that we have been successful with our ADOPT grant application. Simon Cowell is leading the project with Rothamsted, David Purdy and others involved. We are looking into the effects of long-term no till. We have seen a steady decline in yield and some strange in-field effects, and we want to investigate why. I have established autumn trial plots of no till vs Claydon, no till vs shallow cultivation, and with and without applied biology. At the

moment, the Claydon looks the best; shallow cultivation, second; and no till, third. The biology is currently showing no effect. Harvest will be the ultimate judge. I have also taken various soil samples at various depths; these will be tested for nutrients, pesticide residue and anything else deemed relevant. I look forward to getting the results and trying to improve our farm system.

Other additions to the farm are some Cricket Bat Willow trees planted recently. We are working with a local company that makes bats, and my 11-year-old cricket-obsessed son is looking forward, in 12 years' time, to maybe having a homegrown cricket bat!! We are also looking into growing wildflowers this autumn as a crop. A small farm like ours really needs to add value to our crops, and I see these niche crops as a way of doing this. Obviously, this does come with higher risk, but every crop seems high-risk at the moment and some with known dubious returns.

I wish you all good luck for the coming months. May the weather gods be kind.



ADOPT will support collaborative farmer-led, on-farm trials or experiments to generate, test and demonstrate innovative solutions to farming challenges. Project outputs will provide knowledge of new approaches which will be shared to the wider sector to provide confidence for others to adopt

WHY WE SHOULD “FEED THE SOIL”

Written by James Warne from Soil First Farming

“Feed the soil” is one of those phrases that sounds faintly virtuous, like taking a cardigan to the theatre or remembering to write thank-you letters. You hear it and think, yes, quite right, very sensible. Though what it actually involves, and why we’ve not been doing it all along, is another matter entirely.

For years, we have behaved towards the soil rather as an impatient diner might behave towards a waiter: less interested in the kitchen than in what arrives on the plate. We have fed the plants directly, tipped nutrients at them in tidy, measurable quantities, and expected gratitude in the form of larger carrots and more obliging wheat. And for a time, the soil complied. Or at least, it did not complain audibly. Soil is good like that: long-suffering, not given to scenes.

But beneath the surface (and soil, one feels, is very much about what happens beneath the surface), things have been going steadily downhill. Because soil, it turns out, is not merely dirt. It is not a sort of brown filler, like the packaging in a parcel. It is alive. Alarmingly so, if one stops to think about it. A handful of decent soil contains more organisms than there are people on the planet, all busily getting on with things, eating, excreting, collaborating, rather like a small, subterranean city.

To feed the soil, then, is really to feed this unseen population. And they are, in their way, the real gardeners. They break things down, pass things along, make nutrients available and generally keep the whole enterprise ticking over. Without them, the soil is less a system and more a stage set; convincing at a glance, but hollow if you prod it.

What we have done, rather cleverly and rather foolishly, is bypass this entire arrangement. Instead of allowing the soil’s inhabitants to do their work, we have gone straight to the plants, delivering nutrients in a form that requires no interpretation, no mediation. It is efficient, certainly. But it is rather like feeding a household entirely on takeaway; convenient, but not much of a foundation for long-term health.

And health, in this context, is not just a matter of nutrients. Soil has a structure, a kind of architecture, held together by organic matter and the activities of its

residents. When that structure is intact, the soil behaves admirably; it absorbs water, holds onto it, lets air circulate, and provides roots with room to stretch. When it is damaged – by overuse, by chemicals, by a general neglect of its inner life – it becomes compacted and sullen. Water runs off it or sits about unhelpfully. Roots struggle. One might say it loses its manners.

Feeding the soil, by adding compost, growing cover crops and returning organic matter, is a way of restoring both its health and its dignity. It gives the organisms something to work with, something to turn over and transform. It rebuilds the structure, encourages cooperation, and, in time, produces soil that is not merely functional but positively generous.

There is also the question of water, which the British tend to think they have plenty of until, suddenly, they do not. Healthy soil behaves like a sponge, soaking up rainfall and releasing it gradually. Poor soil does the opposite; it either lets water rush away or refuses to give it up when needed. In an age of unpredictable weather, this capacity for quiet moderation seems less like a luxury and more like a necessity.

Then there is carbon, which one hears about a great deal these days, usually in tones of mounting concern. Soil, it emerges, is an excellent place to put carbon, out of the atmosphere and into the ground, where it can do some good. Feeding the soil increases its organic matter, and with it, its ability to store carbon. It is, in its modest way, a contribution to a much larger problem. Not a grand gesture, perhaps, but then most worthwhile things are not.

Of course, there is a tendency to see all this as slightly romantic: returning to older methods, communing with the earth, and so on. One imagines a certain amount of mud and earnestness. But feeding the soil is not about nostalgia. It is



about practicality. Depleted soil requires ever more intervention – more fertiliser, more water, more effort – to produce the same results. Healthy soil, by contrast, becomes easier to work with over time. It is less demanding and more reliable. One might almost say it develops a sense of responsibility.

And there is, too, a certain moral dimension. Not in a hectoring sense, but in the quieter recognition that soil is not an infinite resource. It takes time to form, centuries, in many cases, and yet can be degraded in a matter of years. To treat it as disposable seems, when put like that, rather short-sighted. Feeding the soil is a way of acknowledging its value, of giving something back rather than continually taking.

In the end, it is perhaps a matter of perspective. If one sees soil merely as a means to an end, then feeding the plants directly will always seem the more straightforward option. But if one sees it as a living system, complex, patient, and quietly industrious, then the idea of feeding the soil begins to make a different kind of sense.

It is less dramatic than many of the solutions we are invited to consider. There are no grand announcements, no ribbon-cuttings. Just the steady addition of organic matter, the careful avoidance of harm, and a willingness to let things take their course. It is, in other words, the sort of solution that does not draw much attention to itself.

Which is, perhaps, exactly why it is needed.

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FARMER FOCUS

JOHN PAWSEY



A rumination on scale in three songs

*I've got a brand new combine harvester,
an I'll give you the key.
Come on now let's get together
In perfect harmony.
I've got twenty acres,
an' you've got forty-three.
I've got a brand new combine harvester,
an' I'll give you the key.*

I am sure that this well-known chorus is still sung by young farmers at some of their more debauched gatherings, but the words written in 1976 by the Somerset super-ish group The Wurzels proved to be alarmingly prophetic.

Back in the early 1980s, when I first started farming with my maternal grandfather, farm machinery costs were much lower, relative to the farm's output, and labour was readily available. In fact, we had an



My grandfather (David Alston) grouse shooting in Derbyshire



Case Quadtrac cultivating

embarrassment of willing hands – ten including myself – farming a thousand acres. On some mornings, I remember walking across the meadow from the farmhouse to the tractor shed, which is where the farm men congregated at seven o'clock every morning, trying to work out what everyone was going to do that day, such was the embarrassment of people. And thinking about my grandfather in his latter years, I'm not sure what he did, but I do know that he had a bath before breakfast, read the paper after lunch, followed by a snooze, and spent most of August in Derbyshire shooting grouse.

The barn was called the "tractor shed" because it was full of tractors. Thirteen, in fact. One for every man, with a few to spare. One had a hedge cutter permanently on it, because we could. The farm foreman came to work on a Massey Ferguson 135 and then went home on it at the end of the day. That's all it did.

Pretty soon after I arrived, it all changed. Any notion I had of spending most of the year in tweed in the field of sport was clouded by falling cereal prices and exploding machinery costs. The nail in the coffin was hearing a chap called Simon Ward from Bidwells speaking at the annual winter Suffolk Farming Conference, lecturing a room

full of farmer types, still flushed from the shooting field, or indeed, the Alps. Simon announced that if we wanted to remain in business, we needed to get off the slopes and get behind the wheel of a tractor. One man to a thousand acres, Mr Ward said. The audience looked decidedly uncomfortable.

Because I had recently left college, I came armed to the farm with an Apple IIc and a floppy disc, and although my grandfather was able to work out that the farm was unprofitable on the back of an envelope, it seemed much more real when printed out in dot matrix on six feet of continuous paper. It's probably what killed him.

His demise left me wondering what I was to do with a business that demanded more cash every month, and it seemed entirely sensible that the first course of action was to share my combine harvester key with my neighbour and join our two farms together so that we could live in perfect harmony. I hasten to add that the kind of harmony I arranged with my neighbour was not the same kind that The Wurzels had planned with their hopefully gingham-dressed counterpart; my plan was to make hay with them rather than roll around in it.

However, The Wurzels not only



Picture of sunflower in wild bird mixture

reimagined the 1971 song Brand New Key by the American folk singer Melanie, they also reworked the way that many farmers collaborated in the late 1980s to the early 1990s. The Contract Farming Arrangement (CFA) was born. As I said, they were prophetic.

Although there was no government edict of the day to “Get efficient or get out”, farming was expected to behave more like a business, rather than a protected way of life. The MacSharry Reforms of 1992, cutting price support and introducing area-based payments, certainly forced most farmers’ hands. The CFA was the perfect vehicle for farmers who did want to “get out”, but who needed to remain being a “farmer” to enjoy tax relief and the ability to capture the new payments. You know the wheeze.

I wanted to “get efficient”; I wanted in. I did exactly what Simon Ward told me to do, and made half of my workforce redundant, got on a huge tractor and took on most of the fieldwork myself. We bought the next-door farm, almost doubling our size and took on six different CFAs within a seven-mile radius of the farm, including my neighbours, doubling our farmed area again. All redundant farm buildings were repurposed and let.

To effect all of this, I took on a huge amount of financial risk to fund the transition and lapped up all the stress that the bank could throw at me. I enthusiastically engaged with every environmental scheme going, even before wildlife had been invented. I even went organic.

I was a farming hero.

Save me, save me, save me from this



Drone shot of Shimpling Park Farm

squeeze.

I got a big fat mama tryin’ to break me.

And I love to live so pleasantly,

Live this life of luxury.

Lazin’ on a sunny afternoon

While The Wurzels’ earworm drove me to expansion, my neighbouring farming brothers, let’s call them Doug and Dave, had been listening to a very different song.

Both had realised that their two hundred acres under the new reforms couldn’t support the lifestyle that they had become used to; the kind that my grandfather had latterly enjoyed.

Farming part-time, Doug had spent his remaining hours working on his website business while Dave converted the farm lorry into a mobile workshop to aid fellow farmers weld up their overworked implements in the field. Doug and Dave quickly realised that their time was much better spent doing something else and began to resent the time that they had to spend in the summer evenings and weekends tending to their struggling farm. They decided to “get out”.

Luckily for them, they had an eager terrier on their doorstep – me. I arrived tail wagging, slavering, promising

lucrative financial returns, fuelled by my impressive economies of scale. For Doug and Dave, it was a dream come true. They still had control over their farm and everything that went with it, and as their favourite song promised, they regained a life of living more pleasantly and lazing around in the sunny afternoons of harvest while I worked late into the summer nights.

Often, when drilling in the dark, with rain forecasted, on a field near Doug's house, I could see into the warm glow of his sitting room. Alone in my towering seat of depreciating machinery, I would imagine that Doug was watching the late news, drinking his last glass of wine before going to bed. Meanwhile, I had two more hours of sowing before the field was done. In my own home, Alice and the children had long gone to bed.

But I was farming four thousand acres, with three people, three tractors and one combine harvester.

I was a farming hero.

Ch-ch-ch-ch-changes, turn and face the strange.

Ch-ch-changes, don't want to be a richer man.

Ch-ch-ch-ch-changes, turn and face the strange.

Ch-ch-changes, there's gonna have to be a different man.

Time may change me, but I can't trace time.

So, this all happened almost twenty years ago, and I still farm for Doug and Dave as well as five other local farming families. I love them all and am still grateful for the opportunity they have given me.

Contract farming offered us a business lifeline at the time, and I have no regrets, but handing my business onto the next generation has focused my mind on what it looked like then and what it looks like now.

Although we were exposed to financial risk in those early contracts, we did benefit from a genuine economy of scale, and there was more risk-free

money sloshing about, so achieving a surplus even in a poor harvest or a period of poor prices meant that there was always something to share. We made a modest profit, and our farmers achieved a better-than-rent equivalent.

But we did expect a lot from our farm staff as well as ourselves. Long hours at drilling and harvest time, very few whole weekends off and constant pressure. But was it fun? Yes, it was, especially when the sun shone, we were all making some money, and I was a thrusting young(er) farmer. Nobody made a fortune, but we were all making a reasonable profit for the capital employed.

A relative of mine, James Alston, published his recollections of growing up on a farm in Stirlingshire at the turn of the last century and his subsequent move to Norfolk as a tenant in 1923. Written in 1966 and having been through two agricultural depressions, he suggested that farmers in the 1960s could not weather poor prices and bad harvests for more than two years due to the cost of modern farming, whereas when they were more self-sufficient between the wars, farmers could batten down the hatches and survive for up to twelve years.

If James were alive today, I think he would be shocked at the amount of money we have employed in our current farming model. I nearly wrote "business model", but that would suggest a rational investment decision with the possibility of a healthy return, so let's just leave it at "model".

Working out how a scaled modern farming operation battens down the hatches is the test. Environmental schemes certainly have been one solution; just max out on some of the field-scale options to regroup for three years. But the recent £100,000 cap to the Sustainable Farming Incentive does nothing to help those of us working who "got efficient" and developed our businesses. It does help Doug and Dave, as they still enjoy the benefits of our scale and are still fully rewarded for any environmental options they choose, still falling under

the cap. It doesn't feel right somehow.

The other battening-down approach would be to fully test the financial implications of our current contract farming business arrangements.

To do this, I extracted them from our budgets and modelled farming just our own in-hand land, focusing our extra time from farming less to developing our own asset base and diversifications. In an average year with average prices, there was no difference in financial terms, but in a good year we were comfortably better off. The shocker was the poor years. We not only suffered in terms of our in-hand land, but that was magnified exponentially when we failed to achieve meaningful surpluses in our CFA agreements. We not only had our own bad harvest, but we also had the weight of five other farmers' bad harvests as well. Like my grandfather, I could have probably told you that from working it out on the back of an envelope, but seeing the impact on ink-jetted black-and-white A4 pieces of paper does make it very real.

I'm not sure where this is all going, but for the next generation, something will have to ch-ch-ch-ch-change.

I have always "turned and faced the strange" (as I said, I went organic) because it makes getting up in the morning exciting, every single day. Everyone wants to be a richer man, but not at any cost. Arguably, I have been a different man, too. And yes, we are constantly being changed by time, but we owe it to ourselves and those who come after us to clearly see, measure and control how that change happens.

John is the owner of Shimpling Park Farms Limited, a farm that grows a range of crops and a breeding flock of sheep. He converted the farm to organic production in 1999 and, since then, has improved the soil and increased biodiversity while maintaining profitable food production. He is a Fellow of the Royal Agricultural Society.



We are the premier organisation, dedicated to promoting independent, farmer-led, regenerative agricultural knowledge across the UK.

Our mission is to enhance soil health, increase biodiversity, and support businesses by embracing sustainable farming practices that benefit both farmers and the environment.

ANNUAL CONFERENCE REVIEW The annual conference held in February proved to be an engaging and thought-provoking event, bringing together farmers, agronomists, researchers and industry leaders for a timely discussion on the future of agriculture. With input costs, sustainability pressures and evolving policy frameworks all front of mind, the event struck a strong balance between practical insight and forward-looking innovation.

There was a diverse speaker line-up, which combined real-world experience with scientific expertise. A key theme throughout was improving efficiency, doing more with less through better nutrient use, refined crop protection strategies and smarter decision-making. Presentations will be available to members on our website.

Overall, the event stood out as highly worthwhile, combining innovation with practicality and addressing the key challenges facing modern agriculture. Attendees left in good spirits, with fresh ideas, new connections and a clearer sense of how to navigate an increasingly complex farming landscape. Thanks goes to Tees Law for their support and to GFW for providing the programmes. **£790** was raised for Cambs Air Ambulance – MAGPAS.

Save the Date

** Annual Conference 2027 – 10th and 11th February 2027 at The Delta Hotel, Huntingdon. **

CEREALS 2026

We will be hosting the Regenerative Agriculture Conference Stage at Cereals 2026 on **10th and 11th June at Diddly Squat Farm**. The stage will be sponsored by Tees Law again. Members can register for tickets by inputting their membership number (contact Rebecca for help finding yours) to prove their eligibility to attend.

The theme will mirror the Annual Conference – **“Growing Without Government Support”** and will cover the following topics: (Go to the Cereals website for more information and speaker details.)

Livestock: “The Good, The Bad and The Ugly”

Livestock can be one of the most powerful tools in a mixed regenerative farming system – but only when managed well. This session explores the real role of animals in building soil health, cycling nutrients and improving farm resilience. We will also address common challenges and pitfalls, and look at practical ways livestock can be integrated into different farming systems, from mixed enterprises to arable rotations.

Biologicals in Modern Farming; Do More with Less

This panel will explore how biological inputs could help reduce reliance on costly synthetic fertilisers and crop protection products, while maintaining yield and crop performance. Speakers will share practical insights on where biologicals fit within current systems and how they could support more cost-effective, resilient farming.

Focus on Finance: The Elephant in the Room

Farm performance isn't just about yields – it's about profitability. This session tackles the often-avoided topic of understanding the true costs of farming.

Collaboration: The Next Model

As farming faces increasing economic and structural pressures, collaboration is emerging as a powerful way forward. This session looks at new models for sharing resources, skills and infrastructure – from joint farming partnerships to diversification projects – and how changing farm structures can unlock greater efficiency, resilience and opportunity.

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THE ALLERTON PROJECT

Over the past thirty-five years, the Allerton Project has been at the forefront of many developments in how we now manage the farmed landscape. In that time, we've collected a huge volume of often quixotic data on everything from farmland bird and insect numbers to the rooting depths of plants under different biostimulant treatments. However, until the 2024-5 growing season, we hadn't undertaken a comprehensive farm carbon audit; having done so, the results were illuminating.

Carbon (its storage on-farm and movement through the system) is one of the key focuses of the industry today (or so it seems). Yet according to the latest Farm Business Survey data from Defra (2023-4), only 20% of English farms had undertaken one (so at least the Allerton Project was still technically in the vanguard!) Unsurprisingly, dairy farms were the most likely to have undertaken a full carbon audit (57%), while (surprisingly to me) less than 10% of specialist pig/ poultry and horticulture units had completed one. For most other sectors, the figure was between 15-20% (figure 1).

Large farms were more likely to have completed a carbon audit than smaller units, while the top two reasons for doing so (by a considerable margin) were cited as "contractual obligation" and "general interest". The main reasons cited as to why farms hadn't opted to undertake an audit were "unsure of benefits", followed by the delightfully straightforward "not interested" and "time".

As a research and demonstration

farm, I considered it important that the Allerton Project had been through the carbon auditing process so that we could have more informed discussions on the topic. As a commercial arable unit, there is currently limited pressure on us to undertake one from the supply chain, while English post-Brexit agricultural support policy has no data collection requirements whatsoever (unlike the devolved nations, where the value of data collection and baselining is clearly considered to be much greater).

However, as with completing your own soil, nutrient or IPM plan, regardless of the current regulatory or commercial requirements to undertake such an exacting process, I do think there's value to be gained in understanding better the flow of carbon through your own farm business and how that baseline knowledge of the "big ticket items" might help shape future decision-making. Certainly, given the direction of travel of the farming sector in terms of sustainability, having a baseline of any number of natural capital inventories can be no bad thing; who

knows when it will come in handy and generate a cash value?

So, what did our own audit, conducted with the Farm Carbon Calculator, reveal? The headline is that the Allerton Project is, to the best of our ability to demonstrate, "carbon negative". Excluding our visitor centre and research labs and including only the farming operations (including contract grazed sheep), we are emitting 318t of CO₂e, yet removing 436t via sequestration, for a net balance of -117t CO₂e and an average of 370kg of sequestration per hectare.

Emissions come from the expected sources, primarily "inputs" (of which some 91% was nitrogen fertiliser) and diesel fuel, together accounting for some 75% of total farm emissions. However, the removals were more interesting, with 19ha of established woodland accounting for less than 20% and our agri-environmental options accounting for the rest. Within that basket, the biggest carbon sponges were 29ha of herbal leys (28% of removals), 16ha of harvested low-input cereal (9%) and 11ha of grass buffers and winter bird seed areas (jointly contributing another 14%).

Given the uncertainty surrounding ELM/SFI in England since March 2025, combined with the second looming cliff edge for existing CS Mid-Tier agreements this coming December, not only does the chaotic implementation and lack of budget for post-Brexit policy continue to place our biodiversity and water quality targets at risk, but questions must also be asked about the impact of losing agri-environmental areas for our climate goals, too. The Allerton Project was among those farms last autumn planning to put much of our environmental area back into cropping rather than self-fund such areas in the absence of SFI; happily, a 12-month extension was offered to Mid-Tier schemes at the eleventh hour.

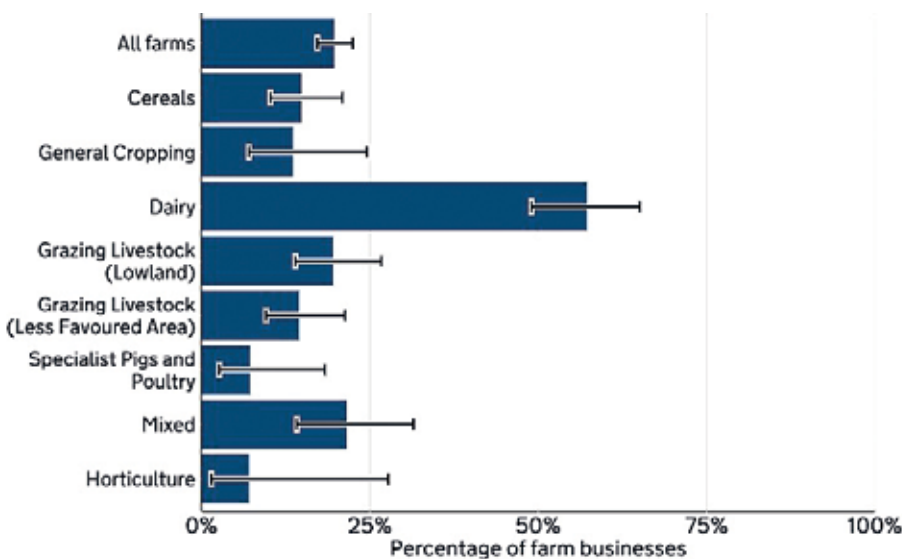


Figure 1: Percentage of farm businesses that have completed a carbon audit by farm type, England 2023/4 (Defra)



Figure 2: The Allerton Project farm's carbon balance (2024-5 season)

them reliant on Tier 1 and 2 average data, which will significantly reduce the value of the finished report. This is something we do need to address going forward, as it's inevitable that such data will become a necessary part of doing business. But farmers need to see the benefit of time-consuming data collection.

Many farmers clearly also feel that – given the massive differences reported between the different calculators – there is a credibility gap between the reality on-farm and what a carbon report might tell you. Certainly, this is increasingly recognised, hence the recent Defra-sponsored research into the issue by ADAS and subsequent agreement between three of the biggest players (Cool Farm Alliance, Farm Carbon Toolkit and Agrecalc) to attempt to harmonise their outputs. Some of our research at Allerton – for example, concerning nitrous oxide emissions from soils in varying states of compaction and waterlogging – would also raise a big flag over exactly how we can accurately account for all emissions in complex and dynamic real-world scenarios.



Better for farm carbon balance – but at what cost?

However, the experience of having conducted a farm carbon audit was highly instructive and certainly puts us in a better position going forward to consider where and how we can make easy wins to reduce our farm's carbon intensity and, hopefully, increase profitability. As more such data is collected in the coming years (sadly, in a non-organised way due to lack of coordination from government) we will hopefully see a more accurate picture of the climate impact of farming in the UK, which I can't help but think might be more positive (well, carbon negative, but you know what I mean) than we realise.

Frustratingly, it was too late to avoid the cropping of our herbal leys and legume fallows – potentially to the detriment of our (and the nation's) carbon balance.

Yet, a huge amount of goodwill and confidence has been lost in the government's ability to deliver a functioning farm support/environmental scheme; expectations are generally low for SFI's return in the autumn, and we all know the budget isn't there to support every farm to deliver on its potential. What a tragedy if decades-old environmental areas, many originally taken out of production because of their low yield potential, were put back to cultivation to the detriment of the carbon built up there over the years. But needs must.

It was also, more generally, of great surprise to me that the Allerton Project was so solidly carbon negative. We are, at heart, a largely conventional operation still using significant amounts of nitrogen and tillage where needed. I can't help but wonder what the true picture would be across the country if we could generate more of this Tier 3 (farm level) data and rely less on Tier 1 & 2 (international and national averages) to estimate the climate impact of UK agriculture, currently thought to be 12% of national emissions – and rising. Much of what the Allerton Project practises is now commonplace, and only some 15% of our arable area is permanently taken out of production into conservation margins and the like. The ongoing AHDB Environmental Baseline Pilot of some 180 farms will perhaps shed some light on this when its results are published.

Indeed, the Farm Carbon Calculator even allows you to estimate the difference between using the standard metric for

livestock methane emissions (GWP100) and the GWP* metric being championed by organisations such as AHDB. Under this scenario, our sheep emissions were reduced by 75%. Research at Allerton also shows that feeding small amounts of tannin-rich feeds, such as (in our case) willow, can help reduce emissions by around 50%. Thus, there is perhaps massive scope for a fundamental reassessment of the carbon impact of grazing livestock in a Tier-1 scenario.

There are, however, certain perversities in focusing too closely on carbon. For example, in separate modelling we conducted on our cropping a few seasons ago using the Cool Farm Tool, we saw a 28% decrease in carbon intensity per tonne of wheat produced if we baled and removed our straw vs the farm practice of returning to the soil. A supply chain focused too closely on carbon reduction might therefore advocate for the removal of valuable organic matter as a matter of course, in isolation from its longer-term benefit for soil health and nutrient cycling.

It was also clear from our report that although we were in the lowest 40% of all FCT users for emissions per tonne of output and the lowest 20% for emissions per hectare, we were also in the lowest 40% for crop yield; the "yield dilution" effect needs to be taken into account when considering the true carbon impact of, for example, very high-input-high-output systems, which aren't necessarily "worse" for carbon emissions.

There's also significant danger of the "crap in, crap out" scenario when it comes to using any calculator, and certainly when it comes to the arable and red meat sector, there are still very many farms who don't record much of the data needed for accurate calculations, leaving

FARMER FOCUS

CLIVE BAILYE



Dog & Stick

For many arable farms, good management on its own is no longer enough. Right now, combinable cropping feels increasingly like a high-stakes gamble, and survival may depend less on pushing forward and more on stripping the business back to the basics.

There are times in farming when good management really can make the difference. Times when attention to detail, sensible buying decisions, technical progress and a willingness to adapt can still tilt the odds in your favour. I still believe all of that matters, probably more than ever. But I also think there are moments when honesty matters most of all, and right now, honesty tells me that for many combinable crop farms, especially businesses like mine, this is not really a season of progress. It is a season of survival.

That is not me being negative for effect, and it is not me having a moan just because things feel tough. It is simply a realistic view of where the economics of arable farming now sit. On my farm, and I suspect on plenty of others, it feels like we are right in the middle of a perfect storm. Last year's weather knocked yields back and immediately reduced the amount of output available to spread fixed costs over. Normally, you might hope that if production is down, prices would at least offer some compensation, but that has not really happened in any meaningful way. Commodity prices remain poor, forward prices are hardly exciting, and the market seems remarkably uninterested in the fact that the cost of growing the crop has gone sharply the other way.

At the same time, support mechanisms that many businesses had built into their thinking have either disappeared or become unreliable. BPS has gone or is going,



The old expensive way

which we all knew was coming, but SFI looked as though it might provide part of the answer, and then suddenly looked a lot less secure. That matters not just financially but mentally as well. For years, we have all been told to become more efficient, more resilient, less reliant on subsidy, more environmentally aware and more innovative. Many of us have done exactly that. We have reduced cultivations, cut metal, challenged machinery costs, improved soils, adopted direct drilling, reduced labour where possible and tried to build businesses that can stand on their own feet. But there comes a point where resilience starts to look suspiciously like being expected to absorb every blow entirely on your own.

And the blows keep coming. Inflation has pushed up costs across the board. Repairs cost more, labour costs more, machinery parts cost more, finance costs more, insurance costs more; everything has ratcheted up. Then, just as margins were already

looking wafer-thin, recent events in the Middle East have piled yet more pressure on the system. Reuters has reported that the conflict has disrupted energy markets, cut LNG flows and hit fertiliser trade through the Strait of Hormuz, with urea prices rising sharply as a result.

That is where things start to feel genuinely absurd. Essential inputs such as nitrogen fertiliser have become dramatically more expensive in a very short space of time, but without any matching improvement in forward cereal prices. So, we are now staring at a situation where planting cereal crops this autumn could mean doing so knowing, on the figures in front of us today, that we are likely planting at a loss. The only real justification for doing it would be the hope that prices rise between autumn and next harvest. That is not a sensible or businesslike way to make decisions. It is not sound planning; it is gambling.

I think that is the uncomfortable truth at the heart of where we are. The

question is no longer simply whether a farm can grow a crop efficiently. The question is whether growing that crop represents a sensible commercial decision at all. That may sound like an odd thing for an arable farmer to say, but I think it needs saying. At current margins, with current volatility, with policy uncertainty where it is, and with working capital demands rising, planting a crop often feels less like an investment and more like a bet.

Think about what we are really doing. Before the combine has turned a wheel, before we know what the spring and summer weather will throw at us, before world politics has finished moving fertiliser and grain markets around, we have already committed a very large amount of capital. Seed, fertiliser, sprays, labour, diesel, machinery wear, rent, finance, insurance; it all starts stacking up early. By the time the crop is in the ground and established, a sizeable amount of money is already exposed, and exposed without any guarantee of a sensible return. Yes, we can budget. Yes, we can sharpen the pencil. Yes, we can market grain better and improve technical performance. All of that helps. But there comes a point where so much sits outside our control that we have to be honest with ourselves. If the likely margin is thin and the downside risk is huge, then what we are doing starts to look a lot like speculation, just dressed up in muddy boots.

In fact, if someone genuinely wanted to gamble on combinable crops, they could do it far more simply from a desk, trading futures and options. No tractors, no labour issues, no workshop bills, no establishment risk, no weather on the back of your neck all season. The difference is that they would know they were gambling. In farming, we sometimes pretend we are not, because we are producing something tangible, but that does not alter the economics underneath.

Cash flow is where this becomes very real indeed. We can talk all day about margin per hectare and cost of production, and of course, those things matter, but the capital requirement to grow a crop has risen sharply. Even

where the budget still suggests there might be a small positive margin left at the end, the amount of cash tied up getting there is much higher than it used to be. Working capital is stretched. Overdrafts are tested. Input credit gets leaned on harder. And all of that is happening before you know what yield you are going to cut or what price you will finally achieve.

A lot of businesses will already be close to the limit of what the bank or merchant is comfortable with. Banks, understandably enough, do not love lending heavily into something that increasingly resembles a bet. If the figures look marginal before the seed is even in the ground, the issue is no longer just profitability; it is whether cropping can be funded properly in the first place. That is a deeply uncomfortable place for a sector to be, because once fundability becomes part of the discussion, you know the economics underneath are in a bad way.

Whenever farming faces a difficult spell, I think it is worth looking backwards as well as forwards. The details change, technology changes, ministers change (generally not for the better), but the basic truths of farm economics rarely do. The solution to many current or future problems usually lies somewhere in history. British agriculture has been through depressions before, and while this one may have its own modern ingredients, the broad lesson is much the same. When output value is poor and margins are broken, survival generally does not come from spending more, adding more complexity or convincing yourself that one more shiny bit of kit will somehow save the day.

That is why I keep coming back to the old phrase, dog-and-stick farmer.

I have seen some people take that too literally, as if it is purely a livestock phrase meaning a chap with a collie and not much else. I think that misses the point completely. To me, dog-

and-stick farming is really a mindset, and one that applies just as much to arable as it does to stock. It means that when output is poor, margins are miserable and events well beyond your control are stacked against you, survival comes from stripping the business back to its essentials. Minimum fixed-cost structure, minimum capital spending, minimum unnecessary complexity, minimum financial commitments that have to be fed before the business itself can breathe. In other words, when times are bad enough, the answer is not usually more; it is less.

That way of thinking has increasingly shaped my own decisions. In truth, it sharpened significantly after Rachel Reeves' Budget in 2024. When the changes around APR and BPR were announced, the incentive to invest felt as though it had disappeared almost overnight. I am not saying nobody should ever buy a machine again, or that investment is always wrong, but the whole lens through which capital spending was viewed changed immediately. If investment was already difficult to justify on a pure return basis, it became even harder to justify if all I might really be doing was storing up a bigger inheritance tax headache for the next generation.

Since then, everything else that has happened – poor yields, low grain prices, uncertainty around support, rising input costs – has only reinforced the same conclusion. This is not the time to be loading the business with more depreciation, more finance payments or more standing costs. So, what have I done? Quite simply, I have spent the absolute minimum possible on capital. Not nothing, because farming still has to function, but as little as I can get away with. We buy the inputs we need. We carry out the repairs and maintenance that are genuinely necessary to keep the operation safe and effective. We keep the core business moving. But beyond that, the wallet stays shut.

I am not interested at the moment in shiny machinery, in expansion for the sake of it, or in investment that looks clever in the yard but quietly

adds another burden to the profit and loss account. I do not need another repayment. I do not need another depreciating asset. I do not need another standing cost that has to be fed before the business can feed me. What I need, and what I think many farms need right now, is resilience.

There is a temptation in agriculture to see retrenchment as weakness, as though not investing somehow means you have lost your ambition or are going backwards. I do not see it like that at all. Some of the best decisions I have made over the last fifteen years have come not from asking what else I can add, but from asking what I can take away. Direct drilling itself was part of that logic: fewer passes, less horsepower requirement, less labour pressure, lower fuel use, more timeliness, lower fixed costs. It was not just a cultivation decision; it was a resilience decision. And that matters even more now than it did then.

Because in a period like this, you are not trying to look clever; you are trying to stay alive. That may sound stark, but I think a lot of arable businesses are now in exactly that place. The farms that come through this period best may not be the ones with the biggest kit, the grandest plans or the smartest yard. They may simply be the ones that remain financially light enough on their feet to absorb poor returns for longer without losing control of the business.

There is, though, one final thought I keep coming back to. Sometimes things have to get so bad that everybody is finally forced to confront reality. Perhaps this is one of those moments. Perhaps this is the point where the economics become so obviously broken, and the risks of dependency on imported inputs and imported food become so glaring, that politicians finally start to understand what farmers have been saying for years. Cheap food from elsewhere always looks clever until supply chains wobble, energy markets seize up and geopolitics intrudes. Then suddenly, food security stops being an abstract slogan and starts to look a lot more like national security.



Wet Option - Farm converted CO6 and front hopper establishing remaining wheat in a very wet autumn

Maybe, in time, we will look back on this period as the moment when that penny finally dropped. Maybe this is when people in power started to realise that allowing domestic production to wither while assuming the world market will always provide is not a strategy at all; it is complacency. Maybe this is the point where farming stopped being viewed as just another sector to load with policy, cost and regulation, and started being seen again for what it really is: a strategic national asset.

That may prove too optimistic, but I hope not. Because if there is any good to come out of a period like this, it would be that the country finally starts to value its own food-producing capacity properly. Not as a nostalgic extra, not as something nice to have, but as part of its essential resilience.

For now, though, my own view is simple: good farming on its own is not enough. You can be technically strong, operationally efficient and agronomically sound, and still be squeezed hard by forces well beyond the farm gate. When that happens, the answer is not to double down on

cost. It is to retreat to first principles, keep the business lean, keep the business liquid and keep the business in the game.

That, above all else, is the real job in front of us now. It is not about winning the horsepower war, having the smartest kit, buying machinery because everyone else is, or pretending these economics are normal when they clearly are not. It is about staying in the game long enough to see better days return. Right now, for combinable crop farmers, survival is success, and if history tells us anything, it is that in periods like this, the businesses most likely to come through are often not the boldest or the busiest, but the leanest, the most disciplined and the most determined to endure. In times like these, the old lessons are often still the best ones. Keep it simple, keep it lean, keep your powder dry, and make sure that when this cycle finally turns, you are still there to benefit from it. Because once again, as in previous agricultural depressions, this may be the moment when the survivors are the ones prepared to farm with a dog-and-stick attitude.

MAKING SENSE OF SATELLITE IMAGERY

It is more accessible and affordable than ever before, but do you know your RGB from your NDVI? Jonathan Trotter from Agrii delves into the details of satellite crop scanning

Unprecedented access to satellite imagery is giving growers a clearer and timelier picture of what is happening in crops throughout the season. Different types of imagery each bring their own strengths – from high-resolution optical data that highlights changes in crop colour and canopy development, to radar systems that can see through cloud cover and operate reliably in all weather conditions. The challenge is understanding where each approach delivers the most value, and whether there is a single option that allows farmers to confidently hedge their bets.

The most common form of satellite imagery is Normalised Difference Vegetation Index (NDVI). The science around NDVI is based on the principle of healthy vegetation absorbing red light (used for photosynthesis) and reflecting near infrared (NIR) light. Based on this understanding, NDVI uses the contrast between these two wavelengths to indicate crop health and (to a degree) biomass, explains Jonathan Trotter, Technology Trials Manager at Agrii.

“NDVI is a relative greenness index rather than a direct plant health index. It is useful for monitoring changes in relative greenness over time, which can then be related to plant health,” he adds.

The reason NDVI is best at examining



crop performance across a field over time is that it is on a fixed scale from -1 to 1, says Ben Foster, RHIZA Product Manager. The colour range on an NDVI image taken in one year is directly comparable to that from the same field taken at any point in the past.

“It is really useful for looking at establishment and crop growth early to mid-season. Because of this, NDVI tends to be the go-to for developing variable rate nitrogen plans for early spring,” adds Ben.

“Although NDVI provides a qualitative measure of early-season growth and can be used for year-to-year comparisons,

it should be used alongside ground truthing,” says Jonathan.

“Farmers need to know if an NDVI score of 0.58 in a wheat crop is good or bad,” he adds. “Is it showing stress from inadequate nutrition? Is it actually showing signs of drought? Or is it doing well for that soil type with the recent weather? It needs context and ground truthing.”

Another reason to ground truth the data is to determine whether the imagery is providing data on your crop or a combination of your crop and any weeds, advises Jonathan. He cites an example of this that came from Agrii’s Scottish Digital Technology Farm last year.

“From the NDVI imagery we captured, you’d potentially treat the field differently based on the darker green areas looking more advanced because of the higher biomass.

“We then used our drone crop surveying tool, Skippy Scout, to ground truth this. Skippy Scout can determine the Green Area Index (GAI) of the crop and uses AI to identify weed species, which it then removes from the calculation. This means we are able to accurately determine crop biomass and treat it accordingly.

“In this example, we discovered that a percentage of this relative greenness was



actually due to the annual meadow grass in the crop and were able to adjust our variable rate strategy to account for this.

“By ground truthing NDVI with drone imagery, we effectively tune up the resolution of remote sensing from 5-20 m² down to cm² level data.”

Once a crop reaches a full canopy, then NDVI becomes a much less reliable means of measuring a crop’s performance, says Ben. This is where a switch to normalised difference red edge (NDRE) is usually necessary. NDRE measures light in the near infrared red-edge spectrum. The NDRE index saturates less easily as the canopy fills out, allowing it to penetrate the crop at this stage and measure nitrogen stress and chlorophyll concentration.

An alternative to NDRE is the green chlorophyll vegetation index (GCVI), which is one of the two free satellite imagery options on Agrii’s Contour digital farming platform, says Ben.

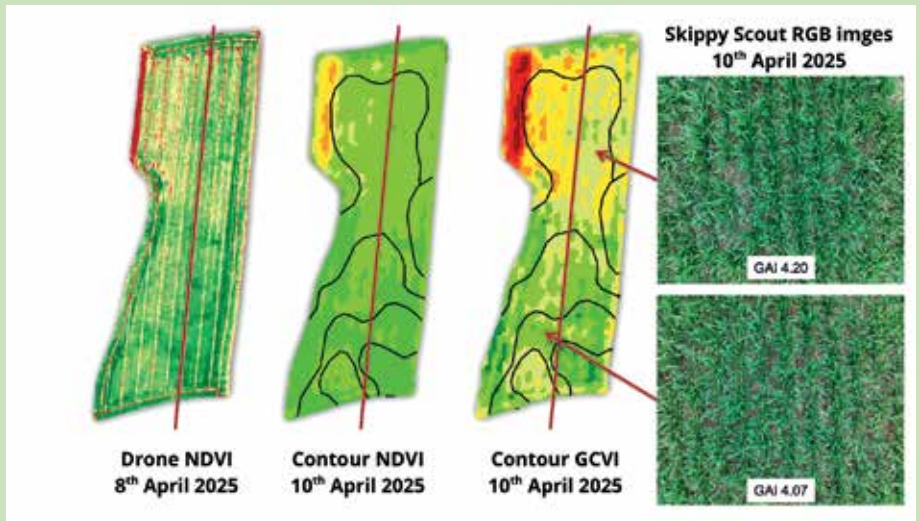
“GCVI looks at green reflectance rather than red, which is more responsive to variations in leaf chlorophyll. A key difference is that the scale is relative rather than fixed, meaning it moves as the image changes throughout the season.

“You could look at a GCVI image and see what appears to be a poor part of the field, but it is relative to the rest of the field. Again, this makes a farmer’s understanding of their fields and ground-truthing satellite imagery crucial,” he explains.

Regardless of the type of satellite image, they all require an unobstructed view of the field to provide valuable data. The UK’s cloudy weather offers a significant challenge to this. If there is a sustained period of unsettled weather, it is not unknown to wait three months for a usable satellite image, says Ben. Most digital farming platforms use the last best image they have to model how the image has moved forward over time.

“The problem is that there’s no fresh imagery being fed into the system over time. The Contour platform is unique in this regard because it has access to ClearSky, which can penetrate cloud cover.

“Satellites fire radar waves at the crop, which bounce around in the canopy before being detected by the satellite in space. This is an excellent alternative for effectively determining biomass. We model it in Contour to look like an NDVI



Satellite v Drone

image by comparing it against our NDVI data at a large scale,” says Ben.

Another technology we are starting to see being used is hyperspectral imagery via satellite, says Jonathan. This effectively uses more wavelengths than a traditional satellite to achieve similar crop health interpretations. The concept being that the more data you have, the better the interpretation will be.

However, he provides a note of caution about the capabilities of hyperspectral imagery. “Although hyperspectral imagery has advantages in being able to monitor plant health in greater spectrums, without ground truthing the data or interpreting the context with a detailed understanding of what is going on within the soil, it presently offers little over and above current capabilities, which are free and accessible via Contour.

The different types of satellite imagery at a glance

Index	Data type	Best for	Why?
NDVI (Normalized Difference Vegetation Index)	Red (620–670 nm) + NIR (841–876 nm)	Early to mid-season crop vigour	Shows overall biomass and canopy greenness; can saturate in dense canopies.
NDRE (Normalized Difference Red Edge Index)	Red-edge (705–750 nm) + NIR (780–850+ nm)	Mid- to late-season, nitrogen status	Red-edge penetrates dense canopies, highlighting chlorophyll and nutrient levels.
GCVI (Green Chlorophyll Vegetation Index)	Green (540–570 nm) + NIR (780–900 nm)	Biomass & canopy growth, nitrogen status	Tracks greenness and chlorophyll concentration throughout the season; less prone to early saturation.
SAR (Synthetic Aperture Radar) e.g. ClearSky	Microwave radar (varies by sensor, e.g., 5–10 cm wavelength for C-band)	All-weather monitoring	Penetrates clouds and works day/night; detects soil moisture, structure, and crop biomass.
RGB (Red, Green, Blue)	Visible spectrum (Red, Green, Blue: 400–700 nm)	Visual inspection, scouting	Penetrates clouds and works day/night; detects soil moisture, structure, and crop biomass.

MZURI FACTORY TOUR

Written by Neil White

If like me you wondered if Mzuri was going to fade away and had stopped all production, read on

If, like me, you wondered if Mzuri had stopped all production and was going to fade away, read on.

When I first heard the news that Mzuri were stopping production in the UK, naturally, I was gutted. Although they are still providing spares and support, I tried to plan what to do next. The Mzuri Pro-Til has been the catalyst for reforming my farming system, and I wanted to continue with the brand. The principle of the machine seems to fit perfectly with my land and my expectations. I spoke with some other Mzuri users in the area, and it seemed we had all concluded that if we were unable to replace our machines for some time, we would run them for as long as possible and hope that would give us time to formulate a plan. None of us wanted to move from the brand, as it works well for us all.

First stop was to speak to the people in the UK who had provided the excellent service and backup since I bought my first drill in 2016. They gave me some contacts at Mzuri World Poland, and I took it from there. The contact was Wojciech Żurek, head of UK sales, based in Śmielin, near Bydgoszcz, in northern Poland. He seemed very young, but every salesperson now looks very young as I get older. He speaks very good English, better than my Polish, or my English, now I think about it, and he was very keen to engage and reassure us of their commitment to the brand. He organised a Zoom meeting, during which I also briefly met Lukas, head of sales. The conversation was very positive, and they were keen to explain that Mzuri had never stopped production and were planning on coming back to the UK bigger and better than ever.

Wojciech made a special trip to Scotland to meet me and the other users I had invited to my farm. He talked us through the changes to the machine, of which there were many, and the desire to restart the UK marketing. Since then, he has made other trips to the UK, speaking to distributors and farmers alike. When he visited Scotland, we suggested a factory trip to Poland to see the new facilities and the production/assembly line. Wojciech was very keen and was quickly on the

case, with flights and a visit booked in mid-March, only two or three weeks after the first chat. There were only three of us who were able to go, but it was a trip we won't forget.

We flew into Gdansk, where we were picked up by Wojciech, easy to spot in his branded Mzuri car. We then drove down a very quiet but pristine motorway, heading south for 90 minutes. The country looked a little like home, but flatter, and the hard frost had made crops less green. We later found out the soil was considerably colder, lighter and sandier than at home. I think at the time, the daytime temperature in Poland was warmer than Scotland, but the nights were still very cold, and the crops were very much in shutdown and waiting for heat. You wouldn't have risked putting your bum on the soil to check if it was warming, as I think the old saying suggests, or have I been had by someone!

Wojciech made a special trip across to Scotland to meet myself and the other users I had invited to my farm.

We stayed in a hotel with other visitors to the factory, which was very interesting. After arriving, we joined a group of Ukrainian farmers from Odesa and through a combination of their good English and fruit-flavoured vodkas, we understood they had been buying many six-metre machines to take back home, ready for when the war ends. We hoped that was soon. They were passionate about the system, running multiple drills on their very large-scale operations.

The following day, the trip to the factory started with a visit to the old production line. Noise, smoke and good old-fashioned welding stations all around, recognisable to anyone as a machinery production line. Wojciech explained that in the new plant, most of the welding was now done by robot, removing human error from the process. There were some spares and various parts for the Pro-Til and Rezult rake, which looked familiar but had been given this "beefing up" touch.

Next stop, the new product testing

building and office. This had a stress-testing machine, which tests the parts to destruction to check whether they can cope with the forces applied. We also visited the corrosion testing tub and then the training area, where the engineers learn all there is to know from Michael, head of the design and manufacturing team. Michael then took time to talk through some of the improvements and the beefing up of many of the moving parts. His enthusiasm for the new, improved machine was palpable. A big hit with us was the addition of an auto-lubrication system, guaranteeing that "every" one of those grease nipples gets what it needs; hopefully, this addresses one of the issues for some on the old machine. The display machine showed us how to adjust the frequency of dosage, and how the dosage itself is different for each set of grease points as required.

The laboratory was next, with an area to test plant health, soil profile, OM and texture. They also had my favourite, a penetrometer, to test compaction. The lab was growing different crops drilled in different ways and at differing depths to find the optimum. The attention to detail regarding the benefits of using the system stood out during the tour. This led to a discussion about the certification of the Mzuri drills' green credentials. Mzuri World have undergone the strict testing and result-based procedures required to obtain actual EU accreditation for carbon sequestration when using the Mzuri system. This is a very important and pertinent topic to be discussed at greater length than we managed on the trip, but it is something which may become a very strong selling point to many inside and outside the EU – something to ask them about at Cereals 26.

Next up was the assembly building. We drove past the almost completed hotel, purpose-built to look after visitors to the factory; the swimming pool was being added as we passed. We looked forward to staying there at some time in the future. Having laid concrete recently, I was immediately very jealous of the acres of hand-laid cobbles surrounding all the buildings. The assembly building was

very impressive: huge, modern, and full of cutting-edge tech. In contrast to the original factory, this building was quieter and more airy. At one end, women sat at a workstation with brightly coloured cables, making up the wiring looms ready to be handed over to their colleagues on the assembly floor. The machines weren't moving on a conveyor but sat in various stages next to boxes of parts waiting to be added. This building had state-of-the-art parts stores with computer-controlled rotisserie-style systems, rotating the shelves of various components until your desired one appeared. The larger boxes were in a racking system, which will soon be stocked and fed to the assembly line by automated forklifts – all really interesting stuff.

From that building, we entered another large adjoining one, which still had a sand floor; this is soon to be the paint shop, keeping it all in-house. Outside the factory were Result rakes and Pro-Til drills, ready to go out to many different countries. The drills were all slightly different specs, reminding me of the Valtra factory and the individual service. We felt very reassured by the levels of investment and their obvious commitment to improving the product. We finished that day with a chat about money, over some fine food and, obviously, more vodka. I pointed out that there are no EU grants for us, so kit must earn its keep from day one, just like my other two Mzuri drills have.

On Saturday, we took a trip to the home

farm of Marek, the owner of Mzuri World. This didn't help the inferiority complex, as it was as impressive as the Mzuri buildings. The drive around the crops was a nice bit of fresh air after the very hospitable evening. Marek is a businessman and a farmer with vision, using his products on his own ground and making it work, too.

Warning: if you go to Mzuri in Poland, the level of investment in product development and infrastructure is very impressive and great to see, and it is matched by the welcome and the hospitality of the people living and working there. I think this is a working relationship which will continue for many years and for many people. Just go easy on the vodka.

MZURI WORLD

A POLISH FACTORY WRITES A NEW CHAPTER IN STRIP-TILL TECHNOLOGY

When British inventor Martin Lole first developed the Mzuri Pro-Til system, few could have foreseen that the technology's true evolution would unfold in Poland. Since 2018, Mzuri has been under Polish ownership. In the early years, the new owners chose to maintain production in the United Kingdom. During that period, we ourselves operated British-built machines and gained first-hand insight into the challenges faced by UK farmers.

Regrettably, the quality and consistency of those UK-manufactured units fell short of our exacting standards. Issues with repeatability, welding precision, component durability and overall reliability proved persistent. These were shortcomings we had experienced at first hand. Consequently, we took the strategic decision to cease production in Britain and relocate the entire manufacturing process to our state-of-the-art facility at Mzuri World in Poland.

This transition heralds a new era for the brand one defined by superior quality, meticulous precision and renewed confidence in every machine that leaves the line.

Today, all Mzuri equipment is manufactured exclusively in Poland. Our factory produces approximately 500 machines annually and is widely regarded as the most technologically advanced facility of its kind in Eastern Europe. Leveraging modern automation, high-precision welding, rigorous process controls and continuous field validation, the machines emerging from our plant deliver markedly greater reliability and are far better attuned to the demanding conditions of European agriculture.

Because we understand these challenges intimately having lived them ourselves Mzuri listens attentively to farmers' feedback and translates real world experience into tangible engineering improvements. We have systematically eliminated earlier weaknesses by adopting higher grade materials, achieving tighter component tolerances, reinforcing critical wear points, and refining the hydraulic and seeding systems.

The company operates its own 1,500-hectare research and testing estate, where every machine undergoes exhaustive evaluation under authentic field conditions. Insights gained from these trials, often corroborated by published scientific research, feed directly back into design and production. This seamless loop between practical farming and manufacturing ensures that Mzuri machines are not abstract concepts, but robust, field proven tools developed by those who work the land daily.

With more than 30 years of hands on farming expertise embedded in the team, and close collaboration with leading universities in the life sciences and engineering, Mzuri World fuses deep agronomic knowledge with cutting-edge manufacturing technology. We are now opening a fresh chapter re-entering the market with machines that genuinely fulfil farmers' expectations and resolve the very issues we encountered with earlier British production.

We warmly invite you to visit us at the Cereals exhibition, where we will showcase our latest machines, all built in the Polish factory. It will be the ideal opportunity to see and feel the difference for yourself.

For any enquiries or to arrange a discussion, please feel free to contact me directly:

Wojciech Żurek Sales Manager Tel: +48 887 111 117



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WELCOME TO THE GROUNDSWELL 2026 ISSUE

It is that time of year again. As we look ahead to the 1st and 2nd of July, anticipation for Groundswell 2026 is building. What began in 2016 as a modest gathering of 500 farmers in a barn at Lannock Manor Farm has evolved into the UK's flagship event for regenerative agriculture. Born out of the Cherry family's frustration that no summer show catered to the no-till movement, Groundswell has grown into a vibrant "Festival of Ideas" that now attracts thousands of farmers, scientists, policymakers, and food system innovators.

Over the years, *Direct Driller* has proudly chronicled this remarkable journey. We have watched the conversation expand from the

mechanics of direct drills and cover crops to encompass the entire food system. Recent years have seen the agenda broaden to tackle critical issues such as the nutrient density of our food, the integration of AI in agriculture and the profound connection between soil health and human health. As one attendee aptly noted, Groundswell is "not just about methods; it's about mindsets."

Yet, despite its exponential growth and the presence of high-profile keynote speakers, the core ethos remains unchanged. It is still a show "for farmers, by farmers". It remains a place where the community can gather in the Earthworm Arms to share hard-won knowledge, debate

the future of farming over a pint, and find inspiration in the successes and failures of their peers. It is a space where experimentation, critique and curiosity are alive.

In this special Groundswell preview section, we draw on the rich history of the event to set the stage for 2026. Whether you have attended since it was "two blokes and a spaniel" or are planning your first visit, we hope these pages capture the spirit of what to expect and the community that makes Groundswell the highlight of the regenerative farming calendar. We look forward to seeing you in Hertfordshire this July.

THE AERWORX VIPER DIRECT DOUBLE DISC SEED DRILL

In line with their no-till mantra, AerWorx offers up a drill that is straightforward, efficient and competitively priced.

The AerWorx VIPER series, which attracted much attention at Groundswell 25, will again be on display at this year's show. Suitable for grassland and arable use, the drill can accommodate a variety of seed sizes from clover to peas.

The linkage mounted drill has a standard hopper capacity of 1000L (other sizes available) mounted over the frame. Seeds are gravity fed to the 19/21/23 staggered rows (depending on model) of 10mm spring coulters with 125mm tine spacing and a working width up to 3m.

Making light work of the tough conditions last year, depth is controlled by hydraulic adjustments of the coulter parallel linkage.

Adjustments of individual spring tension and coulter disc positioning enables precise drilling in a wide range of conditions up to 100mm.

The hopper can be easily split between fertiliser and seed, which are each calibrated with separate metering to then mix in the seed delivery tubes.

Following on from the coulters are the press wheels and spring/pigtail tine levelling harrow, ensuring good seed to soil contact.

Optional extras include a tramline kit/area field meter and a trailed version.

Joining the Viper series for 2026 is the COBRA (single disc) and BOA

(tine coulter) series with The Cobra offering a 540-650L hopper capacity and the Boa 1000L, both available as mounted options.

Working in synergy with their no-till AerWorx aerator, AerWorx highlights the importance of drilling into aerated ground that is not compacted so that air and water infiltration can be optimised, mitigating the impact of weather extremes and reducing the need for fertiliser use as soil health restores.

"Seriously impressed with this no-nonsense user-friendly drill!"

Jeremy Buxton, Eves Hill Farm



THE GROUNDSWELL SESSIONS

Another two Groundswell Session summaries from Mike Abram's Regenerative Farmer Substack newsletter.

THE GROUNDSWELL SESSIONS

TELLING THE REGENERATIVE STORY IN THE MEDIA

Some brilliant advice on how to tell the regenerative farming story in the media, whether on TV, in a podcast or on social media from those who are doing it successfully

Location: Groundswell Festival

Seminar: Telling the Regenerative Story: Farming in Media & Culture

Published: 02-Mar-2026

Length: 59:51

Summary

Chaired by Cedric Petitpas, this session explores how farming and regenerative agriculture are portrayed through different media, and why storytelling matters for public understanding. The panel brings together a mix of voices including Hugh Fearnley-Whittingstall (River Cottage), Vicky Hoy (producer on Clarkson's Farm), Abby Rose (Farmerama podcast) and Ben Andrews (organic farmer and social media creator). Each shares how their work connects audiences with farming, from television and podcasts to Instagram.

A central theme is that most people remain disconnected from how food is produced, and media plays a key role in bridging that gap. Programmes like Clarkson's Farm have helped show the realities and risks of farming, while podcasts and social media allow for deeper or more personal storytelling. The panel agrees that authenticity is essential. Audiences respond best to real experiences, whether that is the emotional highs and lows of livestock farming or the day-to-day observations from the field.

For farmers, the discussion highlights both an opportunity and a responsibility. Sharing stories can influence how the public, policymakers and markets view agriculture. While large food companies still dominate messaging, there is growing power in farmer-led communication, especially through social media and community engagement. Education, particularly through schools and direct contact with farms, is seen as key to building a more informed public that values good food and farming.

Key takeaways

- Tell real, personal stories from your farm to build trust and engagement with the public
- Use simple, relatable moments to explain complex farming systems and decisions
- Engage directly with consumers through social media, markets and on-farm experiences
- Focus on authenticity rather than polished content, as audiences respond to honesty
- Support education by connecting with schools and helping people understand where food comes from

Digging deeper

Why storytelling matters in farming

Hugh Fearnley-Whittingstall reflects on how stories about food have always been central to human culture. Modern media can reconnect people with farming, but only if it captures genuine experiences rather than idealised versions.

He argues that people are naturally interested in food stories, and that connection can help shift attitudes towards better farming and diets.

Showing the realities of farming on screen

Vicky Hoy explains that Clarkson's Farm resonates because it shows real challenges, including financial risk, animal welfare and emotional strain. The unpredictability of farming creates compelling stories that cannot be scripted.

For many viewers, this is their first real insight into the pressures farmers face.

Long-form storytelling and system complexity

Abby Rose highlights the value of podcasts for exploring complex issues such as grain production, supply chains

and nutrition. By following a product from field to plate, listeners can understand the wider system and the decisions behind it. This format allows nuance that is often missing from shorter media.

Social media from the farm gate

Ben Andrews describes how sharing everyday observations, such as pest control through natural predators, can engage large audiences. Short, honest updates from the field help bridge the gap between farmers and the public.

"If you're just spitting facts out, it's not engaging."

Ben Andrews, farmer

Cutting through misinformation

The panel stresses that farmer voices are key to countering misinformation. Direct communication, whether through video, podcasts or farm visits, helps audiences understand the realities behind headlines and marketing claims.

There is also recognition that structural barriers remain, including dominant narratives from large food companies and policy constraints.

Education and future audiences

A strong focus is placed on education, particularly in schools. Giving children access to good food, farm visits and accurate teaching is seen as essential for long-term change. The panel suggests that building understanding early can reduce reliance on misleading marketing and create more informed consumers.

"We have to keep finding these stories."

Hugh Fearnley-Whittingstall, broadcaster

Original link

Watch the session on YouTube



THE GROUNDSWELL SESSIONS

YOUNG VOICES IN REGENERATIVE AGRICULTURE

How do young people get into regenerative agriculture? This panel highlighted the career stories from four young people

Location: Groundswell Festival

Seminar: Emergent Generation
– Young Voices in Regenerative Agriculture

Published: 09-Mar-2026

Length: 57:00

Summary

This session brings together members of the Emergent Generation network to share their experiences as young people working in or entering regenerative agriculture. Introduced by founders Jonty Brunyee and Becky Grove, the discussion focuses on the challenges of finding a place in the sector, building careers without clear pathways, and creating opportunities where none exist. The panel led by Mitch Green features Amy Chappell, Grace Mulhearn, Jake Waller and Melissa Walker, each offering a different route into farming and food systems, from family farms to new entrants and veterinary work.

A key theme is that there is no single route into regenerative agriculture. Several speakers describe piecing together careers through internships, short-term roles and networking rather than formal education. For many, regenerative agriculture made immediate sense but was not well covered in training or university courses. This has led to a reliance on peer networks, events and informal learning to build knowledge and confidence.

The session also explores the social side of working in agriculture as a young person. Feelings of isolation, imposter syndrome and lack of local support are common, particularly for those not from farming backgrounds. The Emergent Generation network is presented as a way to connect like-minded people, share opportunities and build confidence. The overall message is that the next generation will shape the future of farming by being proactive, collaborative and willing to take risks.

Key takeaways

- Build your own pathway by taking

opportunities, even if they are informal or short term.

- Use networks, events and peer groups to find jobs, advice and support.
- Do not wait for the perfect role; start somewhere and shape it over time.
- Overcome imposter syndrome by backing yourself and focusing on learning.
- Look for opportunities to create new enterprises or income streams on existing land.

Digging deeper

Creating opportunities rather than waiting

Amy Chappell explains how she developed her own business on the family farm after being told it could not support another income. Starting with pigs during COVID, she now runs a diversified enterprise selling direct to customers and restaurants. Her experience highlights how new ventures can sit alongside existing farm businesses rather than replace them.

“It’s kind of been a journey of discovering what you can actually do with land.”

– Amy Chappell, farmer

Learning outside formal education

Several speakers note that regenerative agriculture was not covered in their formal training. Grace Mulhearn describes leaving veterinary school unsure how her career would fit with environmental concerns, leading her to seek out farmers, networks and alternative approaches. Melissa Walker similarly built her skills through work experience, consultancy and on-farm roles rather than relying solely on university education.

The importance of networks

Emergent Generation is presented as a key support system for young people in the sector. Members use it to find jobs, share knowledge and build confidence. Melissa credits networking events with

helping her secure both consultancy and on-farm roles, while others highlight the value of WhatsApp groups and newsletters in sharing opportunities.

Imposter syndrome and belonging

A recurring issue is the feeling of not belonging, particularly for those without a farming background. Jake Waller describes feeling out of place both in traditional farming settings and in regenerative spaces, while others highlight how constantly explaining their background reinforces this feeling. The panel encourages young people to persist and build confidence through experience.

“You feel like... what am I doing here?”

– Jake Waller, dairy manager

Diversity of careers and lifestyles

The panel shows that careers in regenerative agriculture are varied and often non-linear. Grace combines veterinary work with community food projects and alternative therapies, while others balance livestock, arable and business ventures. This diversity is seen as a strength, allowing people to shape roles that suit their interests and lifestyles.

Isolation and rural life

Living and working in rural areas can be isolating, especially for young people. The panel discusses the contrast between rural and urban life, and the importance of maintaining social connections. While rural work offers independence and connection to land, it requires effort to build a supportive community.

Encouraging new entrants

For those looking to enter the sector, the advice is to be proactive. Contact farmers, visit different systems and take advantage of any opportunity to learn. The willingness of people in the sector to share knowledge is highlighted as a major strength, making it possible to build a career from scratch with persistence and curiosity.

Original link

Watch the session on YouTube.



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