SUSTAINABLE SOILS ALLIANCE

February 2024

**Soil Health Industry Platform (SHIP)**

*2023 Progress Report: Conclusions and Priorities for 2024*

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# 1. 2023 Analysis

***Steady growth for the Regenerative 'brand'***

2023 saw more UK and international food and drink businesses announce new and expanded ambitions around regenerative and sustainable agriculture. This includes SHIP members, Yeo Valley, G's Fresh, Arla, Nestlé, Tesco, Waitrose and PepsiCo (see section 3.a.) and other manufacturers/processors including Carlsberg, McCain, Oatly and Cargill.

These ambitions are reflected in new targets, partnerships, pilots and investments aimed at increasing the amount of land that is farmed regeneratively through these businesses' supply chains.
They also reflect a global trend. As part of the COP28 Action Agenda on Regenerative Landscapes, PepsiCo and Nestlé were among businesses that agreed to advance regenerative agriculture practices on 160 million hectares of land (triple the size of France), involving approximately 3.6 million farmers.
Soil health plays a prominent role in all of these initiatives – as both an outcome and indicator of progress, and we continue to see the Regenerative 'brand' as an important driver of overall soil awareness and understanding – uniquely capable of uniting corporations, consumers and farmers behind a common cause.

***…but the concept remains undefined***

An important caveat is that the definitions and criteria used to classify regenerative agriculture remain diverse, making it a challenge to identify trends, commonalities or a tangible evidence base. While we continue to believe (as we argued in this blog last year), that a loose, bottom-up philosophy will

generate the best results, those results need to be clearly and transparently quantified and communicated if the regenerative concept is to be trusted.

Some businesses have agreed to report and monitor the impact of their regenerative projects against a number of metrics such as soil health, greenhouse gas emissions and farmer livelihoods, but the lack of detail leaves the term – and its advocates – open to accusations of greenwashing. Research by FAIRR on 79 global agri-food firms found that despite 50 (63%) publicly referring to the potential of regenerative agriculture as a solution to the climate and biodiversity crises, more than half of these (32/50), have not put in place any formal quantitative company-wide targets to achieve those ambitions.

***Soils at the heart of climate resilience***

Corporate reputations are not the only factor on the line when it comes to soil health. UK research has shown how climate change has overtaken energy as the biggest driver of food price increases over the past 2 years - and healthy soils are a critical factor in this calculation. Healthy soils with good structure including optimum levels of organic matter can withstand storms and droughts better than degraded ones, but the consequence of today's industrial agriculture is that soil health is in systematic decline.

This is a global problem, but research published in *Nature* confirmed that regions with highly industrialised agriculture like North America and Europe suffer far greater yield declines during droughts than regions with more subsistence farming.

Soils – and in particular resilient, biodiverse, carbon and water storing soils – now have a clearer economic value than ever before, as is recognised by a growing list of stakeholders outside the food and drink sector – banks, insurance and water companies alongside governments and farmers.

***Data is key, and farmer control over it***

Aligning these stakeholders requires a joined-up approach, and fundamental to this is a consistent approach to soil data to demonstrate impact and change over time, but also illustrate who will benefit from, and therefore should pay, for the action required.

This question of payment is increasingly urgent as farming's role in delivering nature and climate change benefits becomes clearer. It came to light in farmers' resistance towards the proposed Red Tractor 'Greener Farms Commitment' (GFC) which farmers feared was a mechanism for transferring costs back to them - whilst preventing them from monetising ecosystem services elsewhere.

The GFC is on hold until the NFU's independent review of RT has been completed, but the incident highlights the importance of transparency over who benefits and who should pay for the practices that improve soil health, especially if stakeholders from outside the food supply chain are to be involved. This requires a consistent approach to the collection, interpretation, storage and ownership of soils data.

***Soil health is about more than soil carbon***

Practical concerns around the application of regenerative practices on farms have also emerged this year, in particular the over-emphasis of biodiversity/carbon enhancement outcomes at the expense of overall soil health. A widespread example is farmers adopting minimum tillage and direct drilling without first understanding – and addressing problems in their sub-soils.

Ignoring compacted subsoils for example can lead to runoff, surface water flooding and nitrous oxide being lost because of anaerobic conditions. In other words 'regenerative practices', if applied in the wrong context – and without an underlying understanding of soil health, risk achieving the opposite of what was intended.

To avoid this, the regenerative 'curriculum' must address soil health holistically, and not just carbon. It must acknowledge risk as much as opportunity and it must be built around outcomes, rather than a one-size-fits all approach to practices.

## 2. 2024 SHIP Actions

Based on the analysis above, the following are the priority SHIP actions that the SSA proposes for 2024.

1. **Consistent Metrics:** *A universal set of farm soil metrics is established and rolled out across the industry, providing clarity and consistency to all farmers.*

- We are carrying out a comprehensive analysis of the critical drivers and tools for on-farm soil analysis and interpretation which we will share at a SHIP workshop early in 2024 to help businesses understand the different approaches, identify best practice and opportunities for a more joined up approach.
- This will sit alongside our analysis of national soil health monitoring schemes and identify opportunities for corporate support and data sharing. It will also enable the individual and cumulative impact of soil interventions to be measured and understood, establish the evidence base for regenerative farming and counter accusations of greenwashing.

2. **Soil Risk Reduction and Mitigation:** *Critical soil risks specific to individual crops, geographies and climates are identified and mitigation efforts introduced.*

- The Environment Agency were regular attendees at last year's SHIP meetings, and we will continue to explore collaboration with them, in particular developing materials to communicate key messages around the importance of soil health and relevant risks to sourcing teams, buyers and board members within businesses.
- This work will lead to a soil management baseline so that regenerative farming delivers for overall soil health and long-term resilience, not just soil carbon.

3. **Communications:** *Soil becomes a pillar of customer, investor, and stakeholder communications - alongside air, water and biodiversity.*

- We will continue to engage with industry, government and NGO eco-labelling, certification and assurance schemes (Defra's Food Data Transparency Partnership, IGD, C.L.E.A.R.) to ensure that soil is accurately reflected in them, that it is proportionate, contextual and aligned with available data and metrics.
- We will also engage with Red Tractor to understand how soil, and specifically soil carbon, is implemented in future standards, and advise where necessary about its implications for in-field measurement and the broader market for ecosystem services.
- The SSA will also be available to help any businesses who wish to do any comms work around soil health throughout the year.

4. **Knowledge Exchange:** *Best soil management practices and techniques are identified and disseminated throughout the industry.*

- The SSA will facilitate greater collaboration between industry and the research community via a newly launched Land Use for Net Zero (LUNZ) Hub - a government-funded transdisciplinary community which will support the large-scale transformation of the way land is used and managed in the UK. The SSA is co-lead for soils within LUNZ.
- The LUNZ Hub will give SHIP members the opportunity to showcase the results of their own research to policy, research and farming audiences, including projects such as the Landscape Enterprise Networks (LENs) led by Nestlé and 3Keel, as well as research on regenerative practices by G's Fresh, Yeo Valley and Arla. LUNZ will also provide the opportunity to highlight critical evidence gaps that prevent their own businesses' transition to Net Zero. The first 2024 SHIP meeting will introduce businesses to the hub and identify areas of joint interest and collaboration.

5. **Financial Support:** *Farmers are rewarded and compensated for management changes that improve or protect the soil.*

- Throughout 2024 the SSA will continue its collaboration with the Aqualate Mere farm cluster on a DEFRA Test and Trial to examine ecosystem marketplaces from the farmer's perspective. The work will identify the different mechanisms whereby 'investors' in soil (food businesses, banks, water companies, off-setters etc.) incentivise actions as well as the metrics and technologies used to assess change over time.
- This research will help SHIP businesses understand new and emerging sources of investment in sustainable farming and how it affects their suppliers' incomes and approaches, as well as the various opportunities and barriers to farmer engagement in these markets.


6. **Carbon/Net Zero:** *Farming's ability to capture and store carbon in the soil is understood, measured, promoted and rewarded.*

- The SSA will continue to await and report on the publication of the GHG protocol which will shine a light on where soil carbon sits within Forest, Land Use and Agriculture (FLAG) businesses' scope 3 emissions reporting. We will also engage with the British Standards Institute (BSI) on a new, consensus-based, UK-wide standard for ecosystem markets, including carbon (consultations expected throughout 2024).
- Through the LUNZ Hub, the SSA will also scrutinise the different carbon baselining methodologies leading to different results. We are keen to develop a better understanding of how they can help ensure greater integrity in this space.

## 3. Context

### *a) 2023 Soil Related Business Initiatives*

The actions above look to support SHIP businesses in their efforts to drive improved soil management throughout their supply chains across the six categories of action. The highlights of individual and joint soil related initiatives from 2023 are as follows:

#### *1) Consistent Metrics*

***Arla**: Continues work with FAI on six regenerative pilot farms. Soil health is being measured to inform their regenerative transition and their Sustainable Incentive Model. Arla's 360 Programme also pays for soil sampling (no specific metrics are required other than Soil Organic Matter).*

***G's Fresh**: Continues developing their Regenerative Agriculture Blueprint for all supplying farms. The aim is for them to have started transitioning by 2030, and will in time include soil health metrics.*

***Tesco**: Following the end of their partnership with WWF, Tesco have published their Nature Program which will seek to address soil health in due course.*

#### *2) Soil Risk Reduction and Mitigation*

***Nestlé:** Continues working on their collaborative Landscape Enterprise Networks (LENs) model, which allows different industries and businesses to understand and invest in ways to reverse nature degradation and support farmers in doing so.*

#### *3) Communications*

***Nestlé:** Part of over 100 businesses urging the EU to pass the Nature Restoration law, emphasising the need for ambitious environmental policies.*

***Tesco**: Part of IDG steering group developing consumer facing eco-labels.*

#### *4) Knowledge Exchange*

***Tesco:** Partnered with fava bean processor AB Mauri and Samworth Brothers to launch new trials seeking to increase its production. Main benefits cited are the crop ability to promote healthy soils, cut emissions by locking in soil carbon and replacing some of the soy used in animal feed.*

***G's Fresh**: Collaborating with the University of Plymouth on a PhD studentship seeking to explore the trade-offs linked to peatland management and sustainable food production.*

***Nestlé** and Cargill, and **PepsiCo** and Walmart: Announced new collaborations and investments towards various regenerative agriculture projects.*

***Nestlé and PepsiCo:** Amongst some of the F&D businesses who are part of the Regenerating Together project rolled out by the Sustainable Agriculture Initiative (SAI) Platform. Members have signed up to a new framework agreement for the transition to regenerative agriculture.*

***Arla, Nestlé, Sainsbury's** and **Waitrose:** Amongst industry leaders who met at the Regenerative Farming and Food System Summit in Amsterdam to discuss ways to unify the food industry to accelerate regenerative agriculture practices through partnership and harmonisation.*

### *5) Financial support*

***Arla**: Announced that the first incentive payments part of its Sustainability Incentive Model took place in August 2023. Farmers will be paid more per kilogram of milk when taking action to reduce emissions across their value chain.*

***Nestlé:** NESCAFE plan is aiming to improve soil health and is supporting farmers to do so in order to provide sustainable coffee. Practices supported under the plan include composting, intercropping where two or more crops are grown alongside each other, and cover crops.*

***Waitrose** and **Pepsico:** Part of the Sustainable Markets Initiative's Agribusiness Task Force, who have launched a blended finance framework to make regenerative farming financially viable. The framework will be explored in the UK, India and the US.*

***Yeo Valley:** Working with First Milk to recruit a regenerative agriculture dairy group. These farmers will receive support for certain practices – largely based around 5 regenerative agriculture principals.*

### *6) Carbon/Net Zero*

***Nestlé:** Their joint venture with General Mills, Cereal Partners Worldwide (CPW), has pledged to halve its greenhouse gas emissions by 2030 and reach net zero by 2050. Part of this will include moving towards regenerative agriculture.*

***Morrisons:** Teamed up with Downforce Technologies to analyse soil health and calculate emissions on five pilot farms, forming their "Blueprint Farms". The collaboration aims to optimise sustainable farming practices and help Morrisons become the first UK supermarket directly supplied by net-zero carbon British farms by 2030.*

***Sainsbury's:** Launched the UK's largest lower carbon beef range, claiming to cut 25% off benchmark beef industry carbon footprint.*

***Arla**: Working more closely with retailers to understand how they can directly invest in activities on farms to contribute to scope 3 target.*

***Tesco**: WWF-Tesco partnership exploring the governance and frameworks around carbon insetting.*

***Yeo Valley:** Have finished collecting soil carbon data from 18 thousand acres and now have a soil dataset on their organic systems. They will now need a second data point to go beyond baselining, which will be carried out starting in 2025. They also launched a partnership with First Milk to establish a new conventional regenerative milk pool in the Southwest of England.*

*b) 2023 Soil Related Policy Developments*

Farming incentives:

- **England's** updated 2023 Sustainable Farming Incentive (SFI) includes 23 'pick and mix' actions to offer farmers more flexibility (rather than the previous standards). Applications opened in August 2023. Some of the soil-specific actions include assessing soil, producing a soil management plan, testing soil organic matter, multi-species winter cover and herbal leys are available. In January 2024, the government announced average payments rates to the SFI and Countryside Stewardship scheme are to increase by 10% and that there will be 50 new paid actions released in summer 2024, including no-till options.
- **Northern Ireland** announced the expansion of the Soil Nutrient Health Scheme in May 2023. Free soil sampling is being offered to farmers in new areas of Northern Ireland. The scheme aims to provide farmers with detailed information on soil nutrients and carbon management, helping reduce nutrient loss to the environment. So far, the scheme has seen a high uptake.
- The Agriculture and Rural Communities (**Scotland**) Bill has entered stage one. As it stands, the Bill requires Scottish Ministers to prepare a five year Rural Support Plan, which would help support the adoption and use of sustainable and regenerative agricultural practices. Scotland, also announced their new conditions for farming support payments, starting from 2025, will include soil testing as part of a comprehensive Whole Farm Plan.
- The **Welsh** government plans to launch a third consultation on its proposals for its new Sustainable Farming Scheme (SFS) before the final scheme is unveiled in 2024.
- In the **EU**, a new Soil Monitoring Law has been proposed under the EU soil strategy for 2030. Whilst the law does not set any legally binding targets, it should open the way to additional income opportunities for farmers and landowners through a voluntary certification scheme for soil health.

Net Zero/carbon ambitions:

- The **UK government** alongside the **British Standards Institute (BSI)** launched a new Green Finance Strategy and Nature Markets Framework aimed at boosting the development of green finance and investment in nature-based solutions. The framework also aims to develop high-integrity nature investment standards to ensure that emerging markets operate soundly and deliver benefits for nature, the economy, and local communities.
- In the UK Net Zero Grow Plan, **Defra** confirmed that it will be developing a harmonised approach to on-farm carbon auditing. Defra will set out how it intends to support farmers with carbon auditing by 2024 to ensure private finance opportunities can complement public funding.
- The **Advertising Standards Authority (ASA)** will be banning adverts that feature the terms 'carbon neutral' and 'net zero' unless companies can thoroughly back up their claims. Similarly, the **European parliament** has voted to ban claims of carbon neutrality if these are based on offsetting.

## 4. Background: About the Soil Health Industry Platform (SHIP)

The Soil Health Industry Platform (SHIP), established by the Sustainable Soils Alliance (SSA), has been running for two years to foster collaboration and cooperation in the field of soil health among major UK food and drink businesses. The SHIP consists of 11 members: Arla, G's Fresh, Kellogg's, Morrisons, Nestlé, Nomad Foods, PepsiCo, Sainsbury's, Tesco, Waitrose, Yeo Valley. In March 2023, members signed up to the following commitment:

*"By participating in the Soil Health Industry Platform (SHIP) we commit to knowledge exchange, identification and sharing of best practice and the adoption of proportionate and impactful actions that will contribute to the goal of sustainably managed soils in the UK by 2030".*

The commitment is broken down into six categories – specific areas where businesses can impact on soil health, through their supply chains, customers, internal audiences and other stakeholders.

**1. Consistent Metrics**

A consistent set of farm soil metrics is established and communicated throughout the industry, providing clarity and consistency to all farmers

**2. Risk reduction**

Critical soil risks specific to individual crops, geographies and climates are identified and mitigation efforts introduced

**3. Communications**

Soil becomes a pillar of customer, investor and stakeholder communications - alongside air, water and biodiversity


**6. Net Zero**

Farming's ability to capture and store carbon in the soil is understood, measured, promoted and rewarded

**5. Financial Support**

Farmers are rewarded and compensated for management changes that improve or protect the soil

**4. Knowledge Exchange**

Best soil management practices and techniques are identified and shared throughout the industry

*We would like to thank all guest speakers and collaborators who helped inform the SHIP in 2023. This includes: WWF, NFU, LEAF, Red Tractor, Soil Association Exchange, NIAB, Environment Agency, WRAP, Defra's Food Data Transparency Partnership, Allerton Project, Land App, academics from the UK Farm Soil Carbon Code Consortium, Agricarbon, 3Keel, Nature Friendly Farming Network (NFFN) and Dairy UK.*

All past meeting summaries, annual reports and supporting documents on where soil sits within scope 3 emissions and regenerative frameworks can be found here.