SEA2SOIL
fish hydrolysate

SOIL HEALTH MATTERS

Latest findings helping shape soil management in 2026.

The year biology-first farming proved its value.

"Sea2Soil has long been committed to supporting independent trials that take place across the UK at multiple sites. Each of them continuing to demonstrate what we've long believed: when you feed the soil's underground ecosystem, everything above ground benefits."

Geraldine Granger - Supporting Scientist, Sea2Soil

A landmark year for soil health research in the UK

From grassland to arable crops, the results speak for themselves.

"As climate volatility continues to challenge conventional farming systems, more growers are asking: how do we build resilience into our soils while maintaining profitability? The answer increasingly lies in understanding and supporting soil biology."

Geraldine Granger - Supporting Scientist, Sea2Soil

Key findings from 2025 trials

▲7
Farm trial sites
Terrafarmer grassland programme.

▲2.25M
Earthworms/ha
Vs. 400k/ha untreated with Sea2Soil.

▼£5/ha
Cost Saving
Using biologicals & foliar nitrogen vs. conventional approach.

▼32%
CSFB Damage Reduction
To cotyledons in NIAB trials.

Terrafarmer Grassland Trials:

- Number one ranking for crude protein improvement across 7 biological products tested
- 136.225 g/kg crude protein – highest of all treatments
- Top three ranking for improving microbial biomass
- Trials conducted across 7 different farm sites using 20 x 160m test strips
- Data collected at three GPS sample points = 24 data points per farm for robust results

Claydon Farms Arable Trials:

- 4% yield increase in winter wheat
- 20% increase in tiller counts in spring oats
- Two years of ongoing trials at Wickhambrook, Suffolk

University of Nottingham Research:

- 5x increase in earthworm populations
- 35.8% increase in soil organic matter
- 1.2% increase in soil carbon content
- Significant improvements in pH, moisture, and porosity

Product info.

Frequently Asked Questions

Will Sea2Soil increase my yields?

Sea2Soil has been tested under real farm conditions for several years. Many growers report small yield increases (c.5%+), with most also reporting improved soil health reflected in better biological activity and increased earthworm numbers.

Independent research trials since 2020 across wheat, barley, oilseed rape, oats and beans have found very positive results, with crop yields either maintained or increased across trial work.

Will Sea2Soil increase sugars and proteins?

Grassland trials conducted by research partners have shown beneficial increases in sugar content from Brix tests on Sea2Soil-treated grassland compared to non-treated areas. Work on bi-crops of cereals and pulses has highlighted clear improvements in growth and photosynthetic capacity using NDVI measurements.

Importantly, farmers are seeing improvements in return on investment when using Sea2Soil.

What crops can I use Sea2Soil on?

Sea2Soil is approved for use on a wide range of crops including cereals, oilseed rape, linseed, potatoes, pulses, field vegetables, maize, grassland and agro-forestry.

Where can I see trial results?

Trial results are published on the Sea2Soil website in the Resources and Articles sections. You can also access detailed trial data through our annual reports and by contacting Sea2Soil team directly.

Get More Online
See all the frequently asked questions, submit your own and get the answers you need.

Application Guidance for Spring 2026

Spring Cereals, Potatoes, Pulses, Maize, New Grass Leys

- Spray 10 L/ha pre-emergence, or soon after drilling
- Follow-up with 5-10 L/ha later in spring (before stem elongation in cereals)

Winter Cereals

- Pre-emergence or soon after drilling: 10 L/ha
- Early spring (while leaf area small): 10 L/ha or split 5 L/ha @ GS30 + 5 L/ha @ GS31/32

Winter Oilseed Rape

- Pre-emergence or soon after drilling: 10 L/ha
- Autumn (4-6 leaves): 5 L/ha
- Spring (before stem elongation): 5 L/ha

Grassland

- Before active spring growth: 10 L/ha
- Follow-up in May: 5-10 L/ha
- Multiple applications 3-6 times per year work well

Discover More

- All episodes of The Sea2Soil Podcast
- Video library featuring farmers, agronomists and scientists
- Latest trial results and research
- Technical information and compatibility lists
- Articles tagged by topic, expert and content type

Get More From Sea2Soil
Scan the QR code to explore the full resource library and subscribe to our newsletter for updates.

Making grassland work harder.

Funded through an Innovate UK research project, we have been working in partnership with Terrafarmer to test Sea2Soil alongside a range of biological stimulants applied to grassland across seven working farms. The aim? To establish whether biologicals can reduce input costs whilst improving forage quality – critical questions for any livestock or grassland enterprise.

Get More Online
Scan to read up on the full study, and watch interviews with Tom direct from the field.

Tom Tolputt,
Founder, Terrafarmer

The Methodology

Each farm trial site used large 20 x 160m test strips to compare seven different biological treatments plus a control. Baseline analysis measurements were taken across all sites for consistency, with data collected at three GPS sample points creating 24 data points per farm for statistical rigour.

Assessments focused on:

- Dry matter yield (kg DM/ha)
- Crude protein content
- Trace element availability
- Microbial biomass
- Sugar content (Brix testing)

Applications were made using Tow and Fert equipment for precision and consistency across all trial sites.

How Sea2Soil Performed

Out of seven biological products tested, Sea2Soil ranked number one for crude protein improvement, delivering 136.225 g/kg compared to all other products and the control treatment. It also ranked #3 for improving microbial biomass in mid-season assessments.

"A number of products tested, including Sea2Soil, are improving crude proteins and sugar. If that goes into a silage clamp, you've got more sugars for the fermentation process. If you get a better fermentation, you get better-quality forage. The results from these tests could even reduce the need to supplement trace minerals given to livestock through licks or drenches "

Will Marris, Regenerative Agronomist & Soil Consultant, Terrafarmer

The science behind it

Sea2Soil fish hydrolysate, as a naturally high source of protein and carbohydrate, provides an ideal food source for soil biology.

"By feeding the beneficial underground livestock in the soil – the bacteria and fungi – these in turn are helping with the mobilisation of vital trace minerals such as boron, manganese, and magnesium."

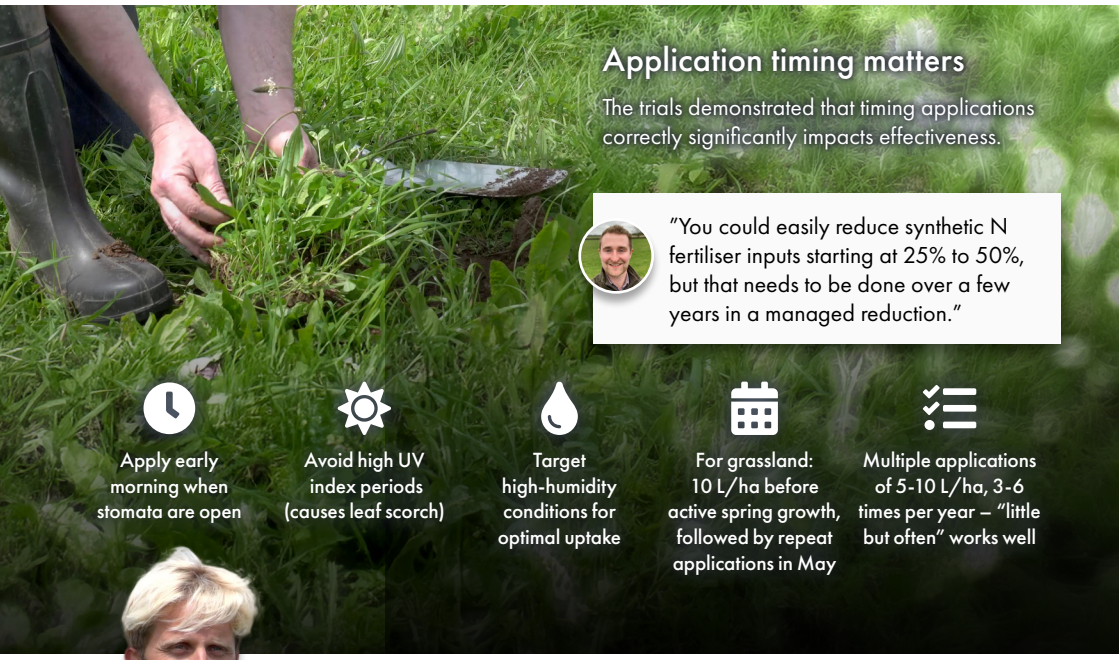
Grant James - Business Development Manager at Sea2Soil.

Soil, leaf, and forage tests showed more of these nutrients becoming readily plant-available, moving from the soil into the leaf and therefore into the forage.

Cost savings in practice

Using biological and foliar fertilisers delivered tangible cost benefits. For a grass-based, multicut system using 250kg/ha of nitrogen:

- Standard urea application: £115/ha
- Foliar nitrogen + biologicals (molasses + Sea2Soil): £110/ha
- Additional benefit: 20% reduction in nitrogen use while feeding the soil



Application timing matters

The trials demonstrated that timing applications correctly significantly impacts effectiveness.

"You could easily reduce synthetic N fertiliser inputs starting at 25% to 50%, but that needs to be done over a few years in a managed reduction."

Apply early morning when stomata are open

Avoid high UV index periods (causes leaf scorch)

Target high-humidity conditions for optimal uptake

For grassland: 10 L/ha before active spring growth, followed by repeat applications in May

Multiple applications of 5-10 L/ha, 3-6 times per year – "little but often" works well

Sam Collins, General Manager, Terrafarmer

What this means for growers

These trials prove that biologicals like Sea2Soil can reduce reliance on synthetic nitrogen whilst improving forage quality and soil health – all at a lower cost. The approach supports building soil function, fertility, carbon and organic matter over the long term.

What our growers are seeing

Real farms, real farmers, real results.

"It's about making the system work smarter, not harder."

John Mackay - Mixed Farm, Caithness

Running a mixed arable and livestock farm across 300+ acres in the far north of Scotland, John brings an engineering mindset to regenerative farming. After extensive research into biological inputs and foliar nutrient systems, he discovered Sea2Soil.

What John's seeing:

- Crops holding colour and rooting well, even through dry spells
- Improved crop resilience in changing climate conditions

Grassland transformation: "We've got older fields that sheep used to avoid. Since applying Sea2Soil, they're now grazing those fields evenly. One field in particular was always strip-grazed for cattle, but the sheep would never touch the aftermath. Now they graze the whole lot without hesitation. That tells me something in the biology has shifted."

John's approach:

Trialling Sea2Soil alongside foliar-applied urea, Epsotop, and molasses – even without compound fertilisers, results have been encouraging. Working with NewGen Agri and Hybrid Farming Systems to build a longer-term biological-based nutrient plan.

"I know this isn't a quick fix, but I want to work to correct some of the damage that has been done to the land here without man-made fertiliser where I can. It's a big step for me, but I know I'm only just scratching the surface of what's possible."

"We've been using Sea2Soil for around three years now as we progress along our regen journey.

Whether you're a regen or conventional farmer, the product is incredibly useful as an organic fertiliser and soil improver. An eco-friendly option that is multifaceted in its benefits is only going to be something that grows in popularity among farmers as the industry shifts. The product has always been of great quality and is easy to use – we're certainly using more of it now than ever before. The Sea2Soil team is always a pleasure to deal with, the customer service has always been excellent and delivery is fast too."

James Bucher - Mixed Farm, Suffolk

"Spring beans showed a clear line across the field and a t/acre yield advantage. Fields showed a noticeable increase in worm numbers."

Colin Chappell* - Spring Greens & Mixed Arable, North Lincolnshire

*Photo by Joanne Coates for the Nature Friendly Farming Network

Colin's observations highlight Sea2Soil's versatility across different crop types, with measurable yield improvements in legumes and visible increases in biological activity – both key indicators of improving soil function.

Get More Online

See how our farmers are using Sea2Soil as part of their individual farming systems and reaping rewards.

"You could pick out every strip where Sea2Soil hadn't been sprayed – the plants were lighter in colour, they weren't as healthy."

Doug Christie – 1,500-Acre Mixed Farm, Fife
2025 Great Groundswell Competition Winner
Agricologist & Pasture for Life Members

Doug runs 1,500 acres in Fife with a scientific approach to soil health. As a qualified agricologist and member of the Pasture for Life scheme, he brings both academic rigour and practical farming experience to his regenerative journey.

Doug conducted his own blind trial using a methodical approach: every 6 metres across his fields, he left an untreated strip. This created a clear visual comparison that removed any bias.

What Doug observed:

The difference was striking. Untreated strips showed noticeably lighter plant colour and reduced plant health compared to Sea2Soil-treated areas. The consistent pattern across multiple strips provided compelling visual evidence of Sea2Soil's impact on plant vigour and photosynthetic capacity.

Why it matters:

Doug's approach – using untreated control strips at regular intervals – offers a replicable, low-cost method for any farmer wanting to assess biological products on their own land. The visual differences he documented align with the measured improvements in crude protein and microbial biomass seen in the Terrafarmer trials.

As a **Groundswell 2025 winner**, Doug's work demonstrates that biological approaches can deliver results at scale on commercial farms whilst building long-term soil health.

"I have used Sea2Soil as the base for all my crop nutrition. I use Sea2Soil on all my combinable crops, herbal leys and establishment of cover crops.

I recently started using Sea2Soil when I apply my herbicides. Doing this, I noticed that my crops didn't show the same level of stress. The science behind this observation was confirmed by Joel Williams, when he explained that the plant utilises the free amino acids provided by Sea2Soil to counter the potential harmful effects of the herbicide."

Paul Davey - 1,100-Acre Mixed Farm, Lincs
Arable Innovator of the Year 2021 – Silver Award

From The Podcast

"Chemistry, physics, and biology must all work together for truly healthy soils. Sustainable change happens through community and shared learning."

Steve Townsend - Director, Soil First Farming

Get More Online
Watch Steve's episode of the Sea2Soil Podcast and find out why he recommends Sea2Soil to his customers and UK farmers.

The research continues

Our commitment to understanding how Sea2Soil works in different systems, soils and climates continues to grow. In 2026, ongoing research programmes include:

University of Nottingham – Phase 2

Building on 2025's positive results, Phase 2 research will assess Sea2Soil's impact on soil health and carbon footprint, including:

- Greenhouse gas emissions (nitrous oxide and carbon dioxide fluxes)
- Biomarker analysis of beneficial fungi and bacteria ratios
- Randomised block trials across two different crops
- Wider measurements across 20+ paired fields at commercial farms
- Crop yield measurements for practical grower context

Eurofins Compatibility Testing

Ongoing work testing tank mix compatibilities with crop protection products (herbicides, fungicides, PGRs, insecticides) across wheat, barley, oilseed rape, potatoes, sugar beet and grassland.

Waitrose & Partners Farms

Trials research in both winter wheat and oilseed rape, exploring Sea2Soil's role in retail supply chains.

European expansion

With European registration now secured, Sea2Soil is set to support growers across Europe in 2026, helping farmers battle changing climatic conditions with drought and excess rainfall while building long-term soil stability.

Join us at Cereals & Groundswell 2026

Join us at Cereals and Groundswell for what promises to be our most memorable events yet.

At both events we will be demonstrating the power of soil health with a NEW visual display, and at Groundswell 2026 we're as going to be joined by scientists from the University of Nottingham to offer on-site Soil Labs.

Bring your own soil sample for live microscope analysis and discover what's happening beneath your feet. Our team and University scientists will be on hand to discuss your results and explore how Sea2Soil could support your soil health journey.

Get More Online
Sign up for our newsletter for trial updates, application tips, and seasonal advice. Access our Resources Hub and get the full story behind the science.

Ready to see the difference on your farm?

"The easiest way to start your Sea2Soil journey is by working with us directly. Contact the team for orders, technical advice, and tailored support."

Sea2Soil UK Support Team:
E: sea2soil@pelagia.com, T: 01472 263 333

Scan to add Sea2Soil to your phone.

We also work with a number of **leading agricultural distributors across the UK**. Speak to your local agronomist or depot to place your order for the 2026 season.

SEA2SOIL fish hydrolysate

Sea2Soil is a Pelagia Brand.
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