

YOUR FORMULATION PARTNER



YOUR INGREDIENT PARTNER

Brandon Bioscience and Hebridean Seaweed Company's range of Technical Ingredients offers superior value, synergy, and quality. Let our portfolio of highly concentrated *Ascophyllum nodosum* ingredients help sustain your competitive edge by optimising for both performance and efficiency.



WITH YOU AT EVERY STEP

SOURCE

With access to thousands of miles of pristine coastline, we ensure a reliable and sustainable supply of our prime raw material, *Ascophyllum nodosum*.

DOMAIN KNOWLEDGE & INNOVATION

We collaborate directly with you throughout the development process, assist with trials and resolve production issues. Our ability to flex and scale with you ensures your ambitions are met.

PROCESS

We remain at the forefront of *Ascophyllum nodosum* production. Our purpose-built state-of-the-art facilities have been futureproofed with unlimited potential to expand.

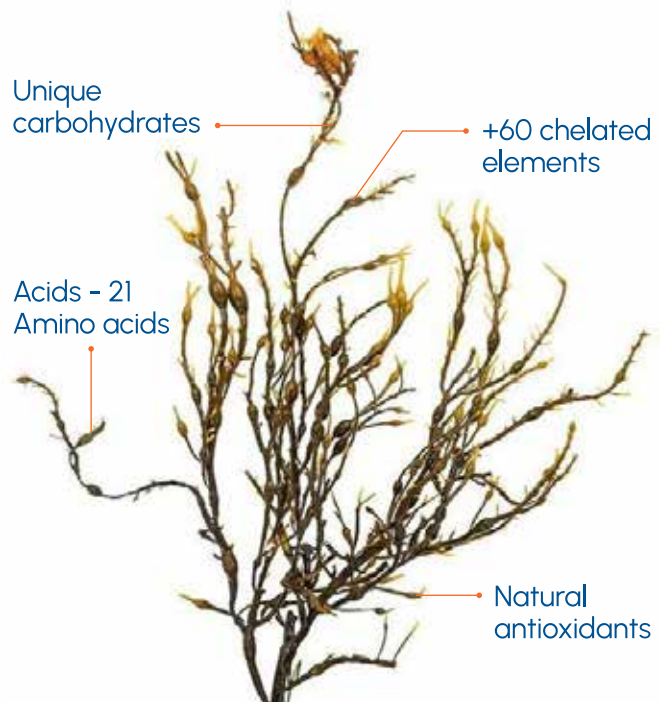
YOUR PREFERRED PARTNER

Brandon Bioscience and Hebridean Seaweed Company's technical ingredients are designed to support your long-term growth. We accompany you on your product journey, from development through launch and beyond. Utilising advanced technologies and core technical expertise in large-scale seaweed extract production, we become more than a supplier - we become your trusted partner.

YOUR SOURCING PARTNER

OUR SOURCE

Ascophyllum nodosum is an inter-tidal seaweed found only in the pristine waters of the North Atlantic. In the unrelenting environment between the changing tides, *Ascophyllum nodosum* has developed a natural biochemistry that allows it to thrive & grow. This plant has evolved a unique array of bioactive compounds that allow it to survive extreme climatic conditions ranging from immersion in temperate water to exposure to scorching sunshine or shoreline frost.



SUSTAINABLY HARVESTED



When submerged in water, *Ascophyllum nodosum* floats. Using purpose-built boats, our harvesters trim the top of the seaweed, leaving the seaweed to regrow & replenish within a 2 year cycle. This practice has been endorsed as the most sustainable method for seaweed harvesting.

Looking after our source and managing it correctly is incredibly important to us. We work with several local government bodies to ensure accurate measurement & responsible management of the valuable resource.

SECURE SUPPLY

By maintaining a vertically integrated supply chain across harvesting, manufacturing, R&D and innovation, our customers have access to a reliable & consistent portfolio of technical ingredients backed by science, technical advice, and support to ensure optimum performance and efficiency in formulations.

YOUR KNOWLEDGE PARTNER



One of our key assets is our deep domain knowledge and understanding of our solutions; from how to best produce them to how to maximise their efficacy out in the field. We achieve this by having complete control over how the fresh source material is harvested, conclusively examining the composition, and intensely examining its effect on the plant response both in the lab and through field trials. This consistency is critical for performance.



UNRIVALLED TECHNICAL SUPPORT

Built on 26 years of experience, our unrivalled technical support helps transfer our agronomic expertise and knowledge onto formulators and producers so that they can get the most out of our solutions. We employ the right people with the skills and knowledge in the right places to deliver smart & efficient solutions.



PUBLISHED RESEARCH

As a company we continue to research and innovate. Our team of world class scientists continually tap into the undiscovered potential of marine biomolecules. With 16 peer reviewed papers published to date, our customers can rely on us for a technical ingredient portfolio that empowers them to create top-tier formulations.



INNOVATION

Innovation starts and ends with you, our customer. Brandon Bioscience invests 15% of turnover annually into R&D. Our ingredients continue to exceed industry standards, making us your perfect innovation partner.

YOUR PROCESS PARTNER

Our facilities deliver best in class operational efficiency, lean practices & energy efficiency to create our portfolio technical ingredients. By investing in our facilities, we reinforce our commitment to quality and ensure our process is efficient and consistent for our customers. We currently operate multiple lines concurrently and have futureproofed our business with unlimited potential to expand.



OPTIMISED EXTRACTION

The choice between a hot or cold process can significantly influence the composition, quality, and performance of seaweed extracts. At our company, we employ proprietary hot processes that unlock the full bioactivity potential of our seaweed extracts, ensuring maximum performance. These meticulously optimised and proven processes are designed to release the highest number of eliciting bioactives, resulting in exceptional product effectiveness.

COMPOSITION IS KEY

Not all seaweed extracts are the same. Our portfolio of technical ingredients contains more bioactives per litre.



Higher %
of solids



Proven performance



Greater formulation
potential



Lower application
rates (1-2l/ha)



Easy to measure,
pour & store

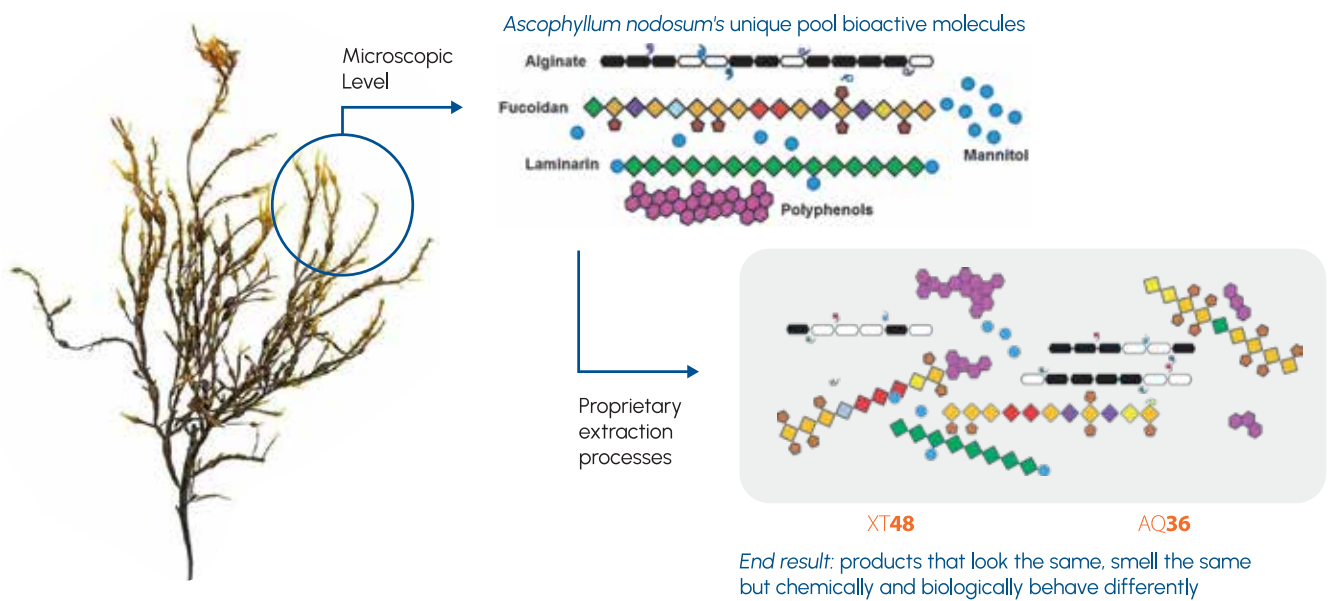


Proven by science

YOUR EXPERT PARTNER

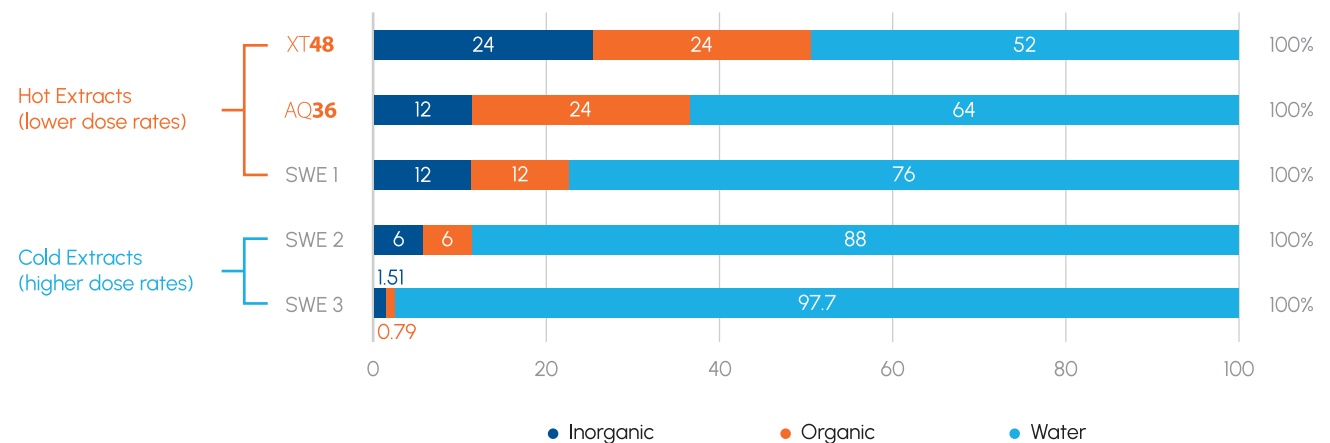
SAME SEAWEED BUT DIFFERENT: WHY EXTRACTION MATTERS

We understand that not all seaweed extracts are created equal - even if they may look, smell, and pour the same. That's why we have developed our proprietary extraction processes to unlock the bioactivity of our extracts and provide you with unparalleled efficacy and efficiency. Our seaweed extracts, XT48 and AQ36, are optimised and standardised using cutting-edge extraction processes that are tailored to meet your unique formulation needs. Our extracts have specific quality traits that are guaranteed to deliver the desired results every time.



NOT ALL 100% SEAWEED EXTRACTS ARE EQUAL

At Brandon Bioscience, we take pride in providing our customers with a top-quality product that contains zero additives or fillers, so you can be confident that you are getting nothing but the best. What sets us apart is our commitment to delivering the highest total solids per litre in our seaweed extracts.



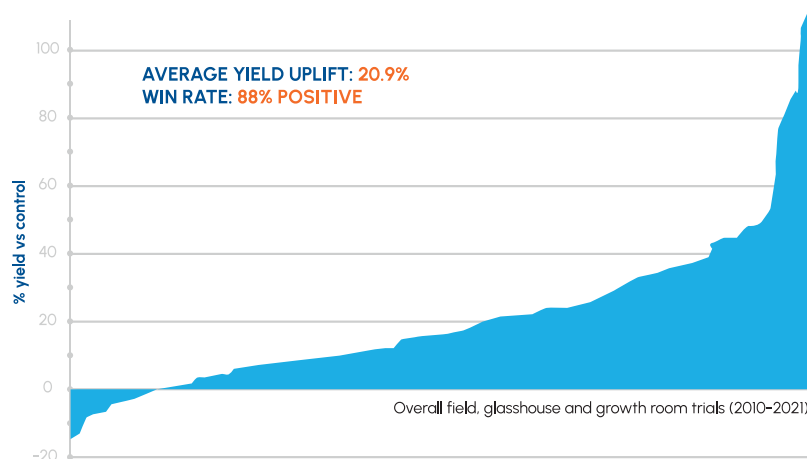
YOUR EXPERT PARTNER

TRIED AND TESTED PERFORMANCE

We understand that the most critical factor for our customers is performance. We continue to ensure that we capture and analyse data from every trial, allowing us to refine and perfect our products over time. With our proven track record of efficacy and performance, you can trust that our products will deliver the results you need, every time.

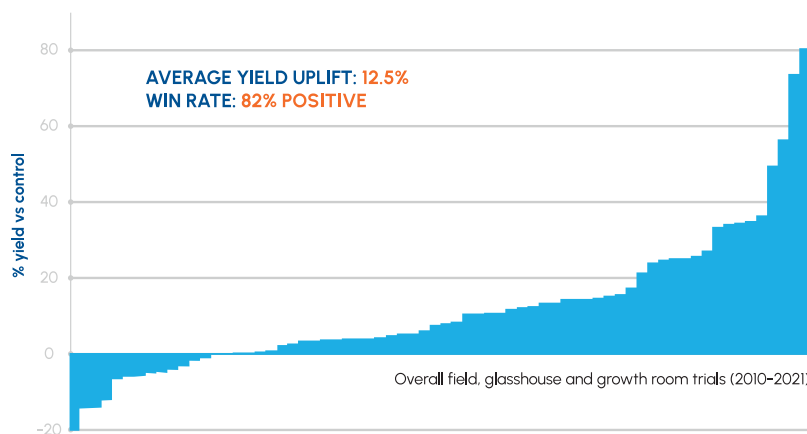
CHOOSE QUALITY, CONSISTENCY, AND PROVEN RESULTS.

XT48



Over a span of 12 years, XT48 has undergone 163 trials, with an 88%-win rate. These trials have shown a 20.9% yield advantage across a variety of crops in diverse landscapes when compared to crops that were not treated.

AQ36



AQ36 has undergone 36 trials over 11 years to determine its effectiveness in promoting crop health and yield in plants subjected to various types of stress. These trials have shown positive results of 12.5% average yield uplift, particularly in the areas of heat stress, drought stress, and salinity stress.

Before being released for commercial use, our extracts undergo quality assurance testing in our labs and are trialled in controlled environments to validate their efficacy.

YOUR SOLUTIONS PARTNER

XT48

Alkaline extract of *Ascophyllum nodosum* (48%)

XT48 promotes stronger root development and establishment, Increases metabolism and photosynthesis to deliver more energy for greater productivity. XT48 improves nutrient uptake and use efficiency and enhances fruit size and uniformity, increasing ROI

TECHNICAL BENEFITS

- High concentration makes stronger & unique formulations possible giving you greater competitive advantage
- Blends well with a wide range of products (easy to use)
- Does not require a rehydration step
- Easy to measure, pour & store
- Good liquid fermentation substrate with demonstrated growth of lactic acid bacteria

SUITABLE FOR ORGANIC FARMING



Product listed by OMRI for use in organic production



Product authorized in organic farming in accordance with the Standard UNE 142500 (CAAE controlled)



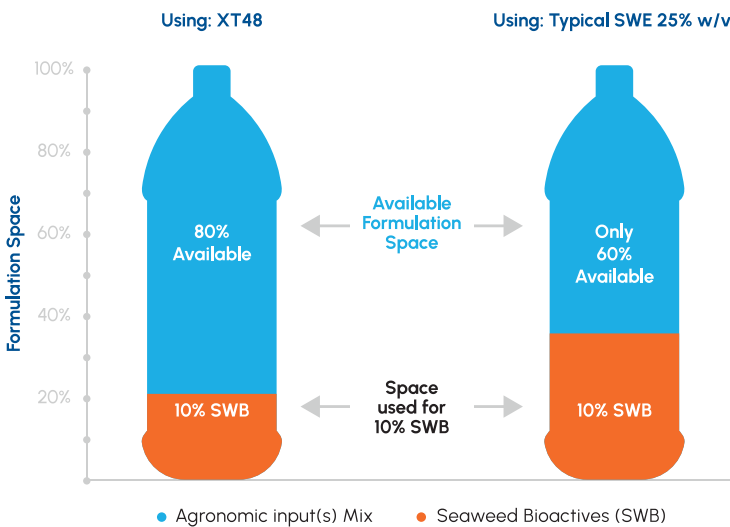
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TECHNICAL FEATURES

- 100% *Ascophyllum nodosum*, the industry standard
- >2.5% Mannitol, >4% Fucoidan, >4% Alginic Acid (in solution)
- Alkaline pH 8-10, NPK (0-0-8)
- 23-27% Organic Matter -> Ratio of Organic to Mineral (1:1)
- No hormones, dyes or miscellaneous seaweed species
- Good compatibility with other liquid ingredients
- 3-year shelf life
- Maximised concentration of fermentable seaweed poly- and oligosaccharides to ensure a consistent growth of lactic acid bacteria.

XT48 FORMULATION ADVANTAGES: CREATING A 10% SEAWEED FORMULATION

AVAILABLE IN



1000L IBC



210L DRUM

Products formulated using XT48 have more 'Available Space' for mixes with fertilisers and phytosanitary products. Such formulations are difficult to match, giving you greater competitive advantage

YOUR SOLUTIONS PARTNER

AQ36

Aqueous extract of *Ascophyllum nodosum* (36%)

AQ36 maximises yield & quality under prolonged stress, builds crop resilience to abiotic stress (heat, drought and salinity) and promotes antioxidants and anti-stress metabolites

TECHNICAL BENEFITS

- Chemical free extraction (No KOH)
- Easy to use, pour and store
- Does not require a rehydration step
- Uniquely has high compatibility with calcium & acidic ingredients
- Less need to chelate and complex = greater formulation flexibility
- Optimum fermentation substrate with demonstrated growth of lactic acid bacteria

SUITABLE FOR ORGANIC FARMING



Product listed by OMRI for use in organic production



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Control by ECOCERT F-32600

YOUR CALCIUM PARTNER



AQ36 offers great compatibility with calcium and acidic mix partners with a pH lower than 4. This makes it easy to use with other mix partners that have a slightly acidic pH range of 4.5-6.0, without the need for pH adjustment.

*2 ml of extract was added to 250 ml Calcium Nitrate solution (2% w/v)

TECHNICAL FEATURES

- 100% *Ascophyllum nodosum*, the industry standard
- >3% Mannitol, >4% Fucoidan, >4% Alginic Acid (in solution)
- Slightly acidic pH 4.5-6.0, no pH adjustment for acidic mixtures, NPK (0-0-1)
- 23-27% Organic Matter -> Ratio of Organic to Mineral (2:1)
- No hormones, dyes or miscellaneous seaweed species
- Compatibility with non-chelated divalents (Ca, Zn, Cu, Mn, Fe and Mg).
- 3-year shelf life
- Higher seaweed oligosaccharide content and low polyphenols amount to ensure an optimal fermentation by lactic acid bacteria

AVAILABLE IN



1000L IBC



210L DRUM

YOUR SOLUTIONS PARTNER

XT95

Dehydrated Alkaline extract of *Ascophyllum nodosum* (95%)

XT95 is a soluble seaweed powder exclusively derived from *Ascophyllum nodosum* tailored for Powder Formulators. XT95 enables the development of superior, stable formulations and is easily integrated with other formulation inputs.

TECHNICAL BENEFITS

- Products formulated using XT95 have more Available Space for stronger trace element mixes. Such formulations are difficult to match, giving you greater competitive advantage
- Easily incorporated into dry mixes (easy to use)
- Good solid fermentation substrate with demonstrated growth of lactic acid bacteria
- 100% Solubility in water

SUITABLE FOR ORGANIC FARMING



Product listed by OMRI for use in organic production

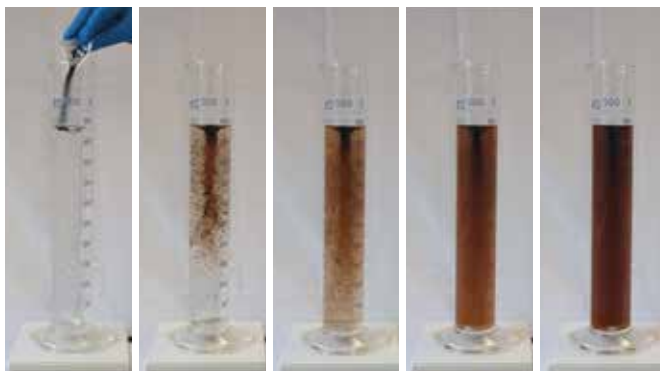


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Control by ECOCERT F-32600

RAPID & COMPLETE SOLUBILITY



0 seconds

3 seconds

5 seconds

7 seconds

10 seconds

TECHNICAL FEATURES

- 100% *Ascophyllum nodosum*
- >6% Mannitol, >10% Fucoidan, >10% Alginic Acid
- Alkaline pH 8.0-10.0, NPK (0-0-17)
- 49-55% Organic Matter -> Ratio of Organic to Mineral (1:1)
- No hormones, dyes or miscellaneous seaweed species
- Good compatibility with liquid ingredients
- 3-year shelf life
- Particle size D10: <82 µm, D50: <170 µm, D90: <280 µm

AVAILABLE IN



20kg bag. Water resistant lining to preserve hygroscopic product

XT95 SSP dissolved at a 0.5 kg/ha rate in application tank for field applications. The maximum solubility that XT95 SSP can dissolve is 30.4% w/v using a suitable mixing system for formulation purposes

YOUR STRATEGIC PARTNER

CUSTOM SOLUTIONS

Our dedicated team works with our customers to establish their product needs. Our flexibility exceeds our product offering and allows us to create tailored commercial solutions for your business.

- ✓ Fully equipped pilot plant for efficient solution production.
- ✓ Deep understanding of the raw material source.
- ✓ Value-added ingredients designed to enhance your formulations and meet market needs.

With 26 years of experience, we are the trusted experts in delivering efficiently and at scale. This continues to set us apart and makes us the preferred partner to so many brands.



Secure access
to raw material



State of the
art facilities



Solution
focused



Industry
Leaders



Proven
processes



Futureproofed
capacity

READY TO PARTNER WITH THE EXPERTS?

To learn more about our portfolio of premium technical ingredients or speak to a member of our team directly, contact us:



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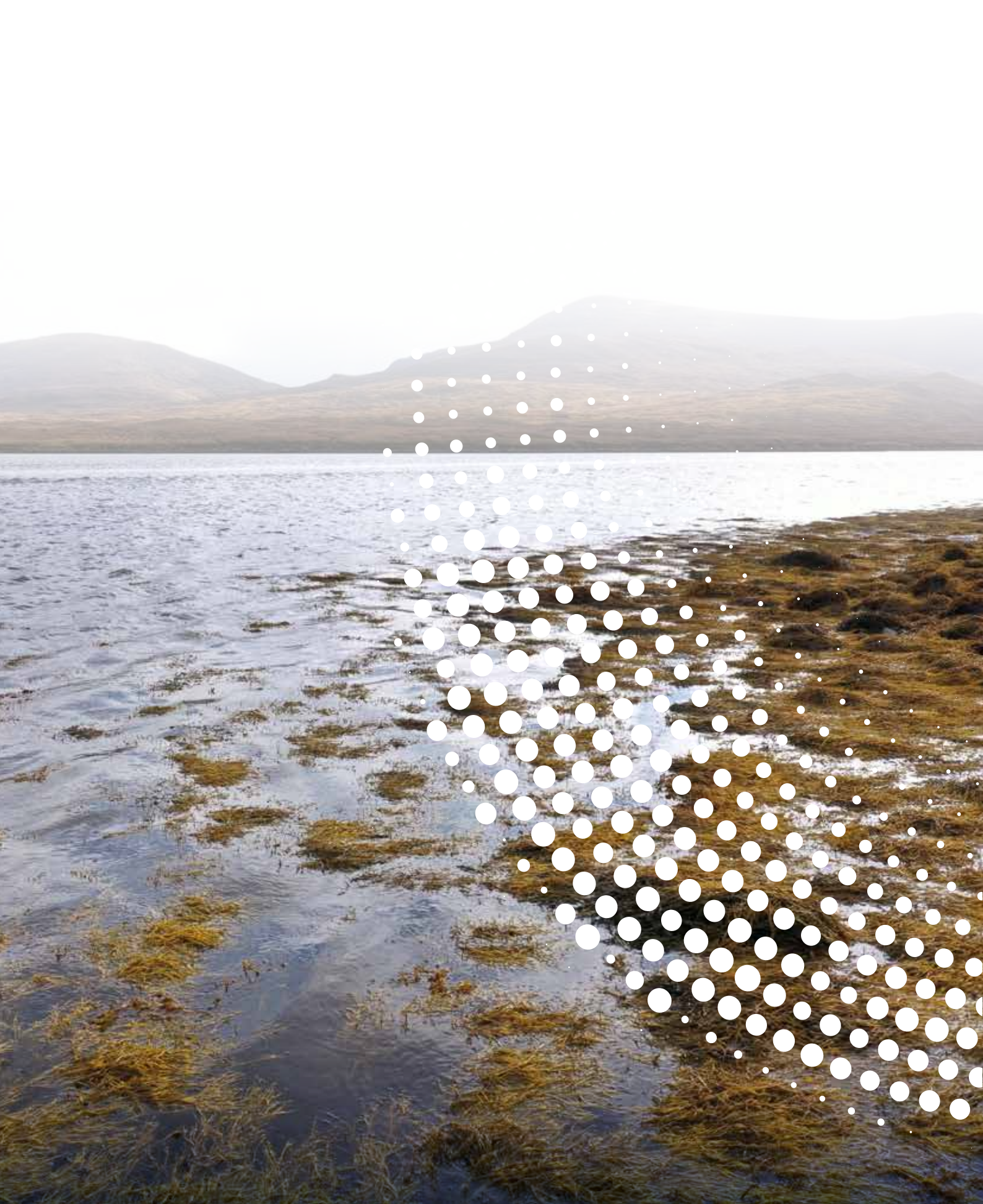
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