



C-BIO PRODUCT GUIDE **BROCHURE**

Revolutionising Agriculture

Seaweed Biostimulant

Explore our range of biostimulant products designed to complement fertilisers, fostering nutrient absorption and strengthening plants at every growth stage.

2025/2026

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C-BIO

A SUSTAINABLE GREENER FUTURE

Revolutionising Agriculture with Premium Plant Biostimulants

Hand-harvesting seaweed sustainably, ensuring marine ecosystems thrive and communities benefit from long-term, renewable agricultural

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WELCOME

We aim to lead in environmentally conscious farming, offering solutions that boost productivity and reduce environmental footprints. Join us in shaping the future of sustainable agriculture.



At C-Bio, we are dedicated to revolutionising farming with sustainable, seaweed-based solutions. Our advanced biostimulant products empower farmers to achieve higher yields while preserving natural ecosystems. Located in Donegal, Ireland, we combine traditional methods with cutting-edge innovation to support agriculture across the planet.

C-BIO

HELPING THE WORLD GROW

In the coming decades, farmers will face the challenges of a more unpredictable and harsh climate, increasing scarcity of natural resources, and the rising global demand for food. That's why C-Bio's primary focus is on producing more with fewer resources. At C-Bio, we embrace the a mindset, striving for excellence and applying scientific innovation to agriculture to deliver greater yields of healthier food, all with sustainability at the core.



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**A SUSTAINABLE
GREENER FUTURE**

We have set ourselves apart in the global market by delivering high-quality, effective solutions for plant nutrition and health. We are committed to advancing our innovations, with the goal of becoming a leading force in agricultural nutrition and biostimulants.



Sustainable Practices at Work

At our manufacturing facility, we prioritise sustainability and ensure minimal environmental impact. We implement energy-efficient processes, reduce waste through recycling, and utilise renewable resources. Our commitment to sustainability extends to every stage, from responsible seaweed sourcing to producing high-quality, environmentally conscious products.

CEO'S MESSAGE

"Empowering farmers with sustainable tools to boost yields and protect the environment."



BARRY Doherty
Chief Executive Officer

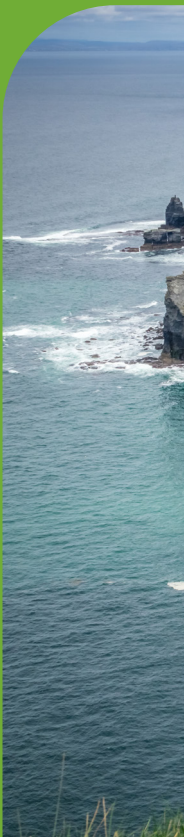
"As the first generation to truly experience the effects of climate change, we also stand as the frontline generation with the power to make a meaningful difference. At C&B Agri Enterprise Limited, we are committed to taking proactive steps today to ensure a sustainable greener future for tomorrow."



ASCOPHYLLUM NODOSUM & SUSTAINABILITY

At C-BIO, we understand that how we harvest seaweed plays a crucial role in the health of our ecosystems. In Ireland, sustainability is at the heart of our seaweed harvesting methods, and we take pride in upholding this responsibility from the very first step – the harvest itself. Our seaweed is ethically sourced, contributing to both the environment and the communities that rely on it.

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HAND HARVESTED

Traditionally, seaweed harvesting in Ireland has been done by hand, a practice that has deep roots in local culture. Our harvesters continue this time-honoured method, venturing out during low tide to carefully gather *Ascophyllum nodosum*, a key species of seaweed, from rocks and boulders along the coastline. Using a serrated sickle (Knife), they cut the seaweed from its holdfast (the root), ensuring that 12 to 20 cm of the plant remains attached to the rock. This allows the seaweed to regrow naturally and ensures the sustainability of the harvest for future generations.

OUR CULTURE

C-BIO

“To build a sustainable future that empowers our customers and preserves nature.”

As the world faces increasingly unpredictable climate conditions and a tightening supply of natural resources, farmers will be tasked with producing more food to meet rising global demand with more constraints. At C-BIO, our central focus is on helping them do this with better and fewer resources. Embracing the “Sustainability” approach in our production system, we apply cutting-edge science to agriculture, aiming to produce healthier food while prioritising sustainability along the chain. This is the future we are working toward. C-BIO is been recognised globally for offering high-quality, effective plant nutrition solutions, and we continue to innovate as we strive to become a leading force in agricultural biostimulation and nutrition.

Our Vision

At C-Bio, we are dedicated to challenging the status quo. We combine expertise and business acumen to achieve outstanding results in our relentless pursuit of excellence in everything we do. Quality, staff safety, people, service, innovation and process.

Our Mission

The ocean is a vital resource, providing countless benefits to our planet. Seaweed, in particular, plays a crucial role in maintaining marine ecosystems, absorbing carbon dioxide, and producing oxygen. By harnessing the power of seaweed, we are not only enhancing plant quality and health but also contributing to environmental sustainability.

We strive to turn the impossible into reality. We cater to the curious minds who never stop learning, those who boldly drive change and embrace new ideas.

We value individuals who can share their expertise while respecting diversity and promoting inclusion.



OUR PILLARS

C-BIO

Environmental Stewardship

We harness the power of seaweed to create biostimulants that promote plant health while minimising environmental impact. Our commitment to sustainable practices ensures that we protect natural resources, reduce carbon footprints, and contribute to a healthier planet for future generations.

Customer-Centric Approach

We strive to deeply understand the needs of our customers and assist them in maximising the potential of their crops. Our goal is to ensure that they meet the ever-evolving demands and expectations of the market. By doing so, we help them achieve a higher return on their investment. Our commitment is to provide comprehensive support and innovative solutions that drive success and sustainability in their agricultural endeavours.

Innovation

Develop an ever-expanding and diversified range of solutions that seamlessly combine efficiency and efficacy with sustainability and productivity. Our commitment is to innovate continuously, ensuring that our products not only meet but exceed the expectations of our customers. By integrating advanced scientific research and sustainable practices, we aim to provide solutions that drive agricultural success while preserving the environment for future generations.

C-BIO CPS

HARVESTED SEAWEED

Extracted Seaweed Liquid
GRAINS, FRUIT & VEGETABLES

Enhance the root growth and overall health of all types of grasses and plants.

Biostimulant specially formulated to retain all of the natural nutrient content. C-BIO CPS Seaweed will actively stimulate root growth, defence and tillering functions.

Features and Benefits of C-BIO CPS

Enhances pasture nutrition with essential trace elements
Reduces wear stress • Promotes greater root mass
Increases tolerance to adverse environmental conditions
Improves growth and palatability • Boosts soil biological activity
Low application rate • Tank-mixable

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COMPANY INTRODUCTION

In Ireland, at the North West corner, within one of the purest habitats in the world, C-Bio has been passionately harvesting and processing *Ascophyllum nodosum* for years. This seaweed endures extreme climate stress, alternating between exposure to the sun and harsh weather, and immersion in cold north Atlantic waters. This unique environment fosters the development of active components of the highest quality and purity.

We adhere to a strict harvesting process to preserve the seaweed's quality, utilising advanced tools and technologies that leave the environment completely unchanged. Processing occurs near the harvesting areas to maintain all properties intact. We have established a new, ultra-modern plant for seaweed processing.



SOFT AND SMART

With the Soft and Smart technology system developed by C-BIO, we have gained comprehensive knowledge of *Ascophyllum nodosum*. This enables us to design and develop innovative solutions using seaweed for specific purposes in agriculture.

STRATEGIC PARTNERSHIPS

In 2022, C-Bio partnered with Mitsui & Co. as its strategic partner, further enhancing our capabilities and reach.



TECHNOLOGICAL **PROCESS**

Our rigorous production chain, environmental stewardship, and commitment to the surrounding communities, along with stringent product testing, have established us as a global leader in the production and marketing of seaweed products.





STRATEGY FOR IMPROVING **Quality, Sustainability, & safety**

Environmental Protection Journey

In 2020, C-Bio's initiated its journey towards achieving total quality, beginning with a focus on environmental protection. Today, a dedicated manager applies its expertise to safeguard the environment and enhance quality and safety, both within the company and beyond its boundaries.

Commitment to Product Quality

Since its foundation, C-BIO has been dedicated to achieving the highest product quality standards. The management ensures the company is well-structured and fully prepared for quality management, establishing a strong foundation for traceability procedures.

Health and Safety

Worker safety has always been a core focus of C-Bio's strategies and has always been a top priority. To ensure continuous improvement, we provide regular safety training for all staff. So far, we've invested over 200 hours in training sessions, with a strong commitment to maintaining a safe and secure workplace for everyone.



Traceability

Committed to maintaining the highest standards of quality, C-BIO implements a comprehensive traceability system for all its products. As a global partner in addressing the challenges of modern agriculture, this system is essential for managing any issues that may arise throughout the supply chain.

Sustainability & Climate Change

C-Bio has increasingly focused on the life cycle concept when assessing the environmental impact of its products. Today, in developing new production lines, we consider not only the environmental impacts within our company but also those resulting from raw materials and the use of our products in the field.

BOOST
your Plants
Immunity

Strengthens
Disease
Resistance



CUSTOMER **TESTIMONIAL**

I've been using C-Bio CPS Liquid on my row crops and root vegetables, and the results have been outstanding! My plants are stronger, the roots develop deeper, and the overall yield has noticeably improved. I've also seen better disease resistance and healthier soil. This product has made a real difference in my farming, and I highly recommend it to anyone looking to boost crop performance naturally!

-John D., Commercial Grower



C – BIO CPS

Optimising Nutrient Uptake and Plant Vigor

C – BIO CPS is a premium quality, natural liquid bio-stimulant based on 100% pure *Ascophyllum Nodosum*. It is manufactured using a unique cold extraction process, conducted within 12 hours, which assists in the elimination of the residue of Sodium Chloride, optimising compatibility and product miscibility.



C – BIO SeaActiv

Natural Concentrated Bio-Stimulant from Fish

C – BIO SeaActiv is a natural, concentrated bio-stimulant derived from fish. It will increase plant resistance to insect pressure and disease, as well as to heat or drought stress. It is also a natural source of essential macro- and micro-nutrients required for healthy growth soil restructuring and assists in producing higher production yields.

FORMULATED PRODUCTS

At C-BIO, we take pride in our innovative approach to manufacturing, combining cutting-edge technology with sustainable practices to create high-quality seaweed-based products. Our cold-process liquid seaweed is a perfect example of this synergy, harnessing nature's power while preserving the integrity of its valuable bioactive compounds. Unlike traditional extraction methods, which often use heat or harsh chemicals, our cold-process technology ensures that the natural benefits of seaweed remain intact, resulting in a potent and effective liquid concentrate.

C-BIO CPS + FE

Iron is an essential nutrient for all plants. It helps to stimulate chlorophyll production, which is why iron-deficient plants will have a yellow tint. It is also a key oxygen carrier. Without iron, the crops' respiratory efficiency decreases, which slows cell growth and the transfer of sugars through the plant.

C-BIO 10% N

Nitrogen is not always available to the plant this is why it is important to apply when needed. It is one of the many nutrients the plant needs to grow.

C-BIO Mg8

C-BIO CPS Liquid Seaweed with Magnesium is a premium foliar liquid designed to nourish crops with magnesium. This liquid is specifically designed to address magnesium deficiency in plants. Magnesium (Mg) plays a crucial role in the distribution of phosphorus, which is vital for developing flowers, fruits, and roots. Low magnesium can lead to poor fruit production and underdeveloped root systems, limiting nutrient uptake. C-BIO CPS Mg8 Liquid Seaweed is highly effective in mitigating magnesium deficiency.

C-BIO GUARD

C-BIO GUARD containing 4% magnesium and 3% Iron. It is designed to easily correct or prevent magnesium and Iron deficiencies for all types of crops and soil conditions. The liquid is best used to prevent magnesium deficiencies before or during planting, however, it can also be used to correct growth problems during the growing season. Iron is an essential nutrient for all plants. It helps to stimulate chlorophyll production, which is why iron-deficient plants will have a yellow tint. It is also a key oxygen carrier. Without iron, the crops' respiratory efficiency decreases, which slows cell growth and the transfer of sugars through the plant.

C-BIO Honor

C-BIO HONOR contains 3% Zinc, 3% Mn and 8% Fe. Zinc is essential for the function of various enzymes, playing a key role in auxin activity, which includes growth-promoting substances and inhibitors of vegetative growth, such as abscisic acid that limits tuberization. Additionally, zinc is involved in the metabolism of carbohydrates and proteins. Manganese deficiency is characterised by interveinal yellowing in young leaves, while grasses may show brownish spots or streaks on the base to middle parts of younger leaves. Several factors can contribute to manganese deficiency, including: High levels of phosphorus, calcium, and magnesium in the soil, Liming of acidic soils, Elevated soil pH and Heavily leached sands and light-textured soils. Iron deficiency, often referred to as "lime-induced chlorosis," leads to chlorosis in crops grown in calcareous soils where high pH limits iron availability. Iron is crucial for chlorophyll production and activates several enzymes, particularly those involved in the oxidation/reduction processes of photosynthesis and respiration.

C-BIO EDGE

C – Bio Edge contains C – BIO CPS, 6% Boron and 3% Molybdenum. This stable solution is ideal for use during vegetative growth, particularly from bud development to pre-flowering stages. The unique blend of seaweed extract, Boron, and Molybdenum in our formulation enhances cell division, and cell wall formation, and aids in managing the plant's Nitrogen requirements. It can also be used post-harvest on perennials to build reserves in dormant buds. High-quality seaweed ensures efficient nutrient uptake, transport to developing tissues, and increased resistance to abiotic stress.

C-BIO GOLD

C-BIO CPS + Fulvic Acid + Amino Acid is an innovative blend of seaweed, fish, and fulvic acid, carefully formulated to enhance plant growth and health. This unique combination harnesses the natural benefits of sea-derived ingredients, providing essential nutrients that promote robust root development and improved nutrient uptake. The addition of plant growth promotants further amplifies its effectiveness, stimulating vital physiological processes within the plant. This powerful formula not only boosts growth but also enhances resilience against environmental stresses.



BENEFITS OF ASCOPHYLLUM NODOSUM



Biostimulant for plant stress

Ascophyllum nodosum extracts contain Polysaccharides such as Fucoidans, Laminarin and Alginates which help fight against diseases and pests, insures a positive response to abiotic factors.



Biostimulants for Plant Health

The extracts are rich in biostimulants like betaine, polyamines, and oligosaccharides, which enhance plant resistance to stress factors such as extreme weather, pests, and diseases, leading to stronger, more resilient crops.

ASCOPHYLLUM NODOSUM

For centuries, agricultural communities along coastal regions have harvested seaweed for use in farming practices. Seaweed is a vital source of organic matter that enriches the soil and nourishes plants. Over time, research has identified its many benefits for soil fertility and plant health. Among the various seaweed species, *Ascophyllum nodosum* stands out as the most extensively researched and widely utilized in agricultural applications. This species, commonly known as rockweed, is known for its rich nutrient profile, which includes essential trace minerals, amino acids, and growth regulators such as cytokinins and auxins. These compounds help promote plant growth, enhance stress tolerance, and stimulate root development.

Seaweed-based products, especially those derived from *Ascophyllum nodosum*, are used to improving soil structure, water retention, and microbial activity. As sustainable farming practices become increasingly important, *Ascophyllum nodosum* offers an eco-friendly solution for boosting soil health and improving crop yields. The growing body of research continues to uncover the full potential of this marine resource in promoting healthier, more resilient plants.



Increase your crop yields and sustainable

By boosting plant resistance and overall growth, *Ascophyllum nodosum* extracts help optimize yields while promoting sustainable agricultural practices.



Environmentally Friendly

As the agricultural sector seeks natural solutions, seaweed extracts like *Ascophyllum nodosum* play a critical role in shaping the future of environmentally friendly crop nutrition and protection.

C – BIO Application Rate

Direction for use Apply 1.5-3 l/ha for most crops in a minimum of 200 l/ha water. the spray tank should be filled with half the required water. after shaking the container, measure the required amount of c-bio cps and add to the tank whilst maintaining constant agitation. add remaining water to correct dilution and spray

Classification Seaweed Biostimulant

Composition Cold Process Ascophyllum nodosum

Recommended use All Agriculture, Horticulture crops, turf, grassland and amenity

Rates of use For C-Bio application rates, please follow the specific guidance below. The L/HA rate refers to the dose at each application

Crop	Timing	Rate L/Ha	Comments
Cereals	As soon as spring growth is evident	1.5-2	Increases tillering, root growth, protects against stress. An optional 2nd application may be made 3-6 weeks later
Vegetables	4 true leaves	2-3	Repeat applications 14-21 days later to stimulate growth and improve shelf life. Maximum dose per crop is 6 litres
Grassland and pasture	Apply in March and again in June or July	4-5	Promotes vigorous spring growth, reduces die-back in late summer, aids recovery after grazing/cutting, helps establishment of new leys. Repeat mid-summer or at re-tillering

Mixing Shake the container well before use. Dilute the required quantity of C-BIO in a minimum of 200 litres of water per hectare.

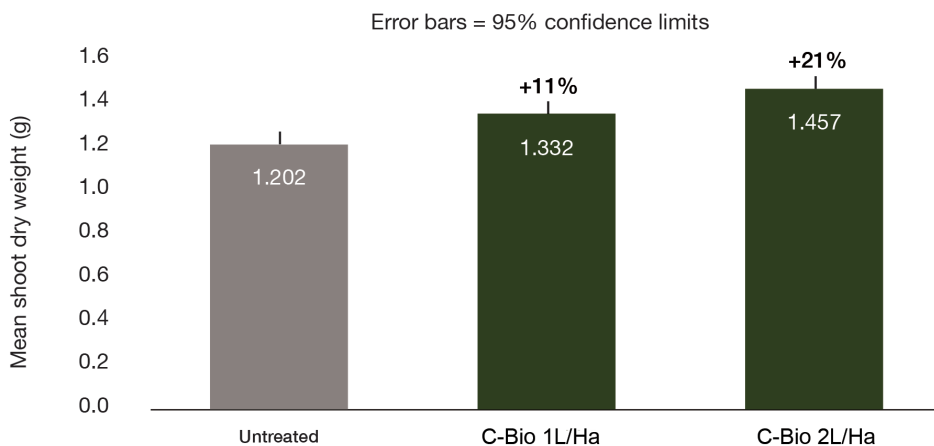
Compatibility C-BIO is compatible with the most common plant protection products and fertiliser. However, before use, we recommend testing for compatibility to avoid any doubt.

Pack size 1L, 5L, 10L, 20L, 200L, 1,000L

Storage Store in a cool, dry location away from direct sunlight. Keep cap closed when not in use

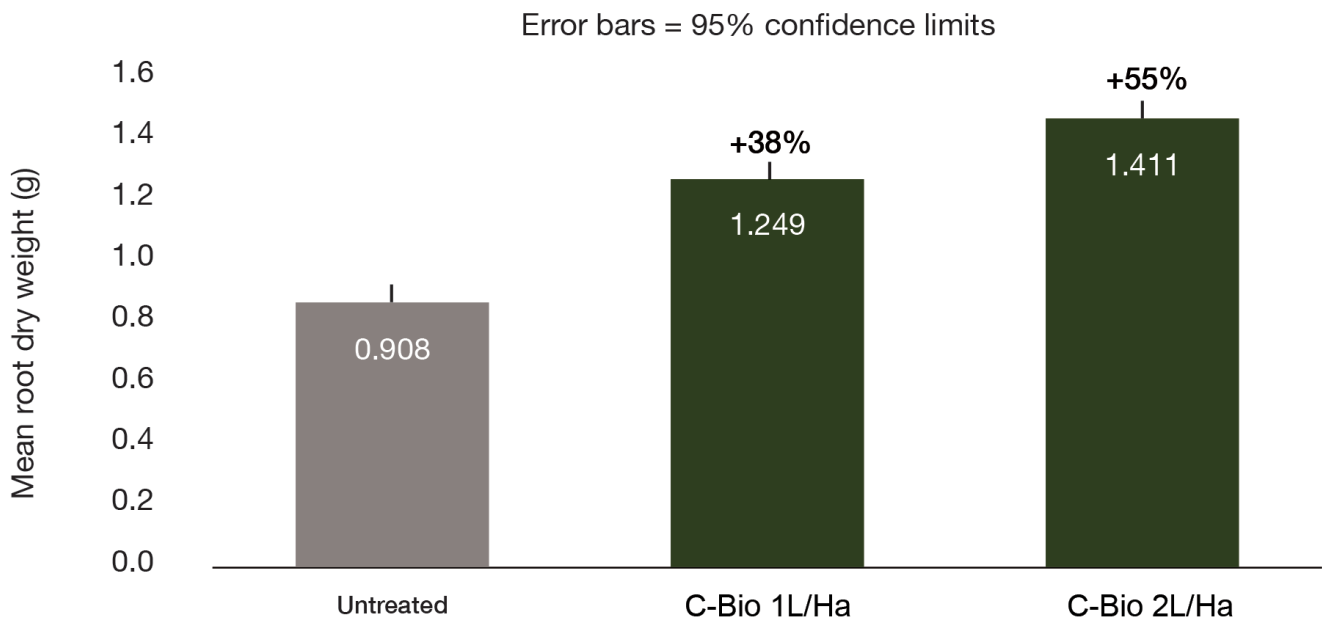
Self-life 24 months

Significant increase in shoot growth Effect of C-Bio on early root growth in Winter Wheat

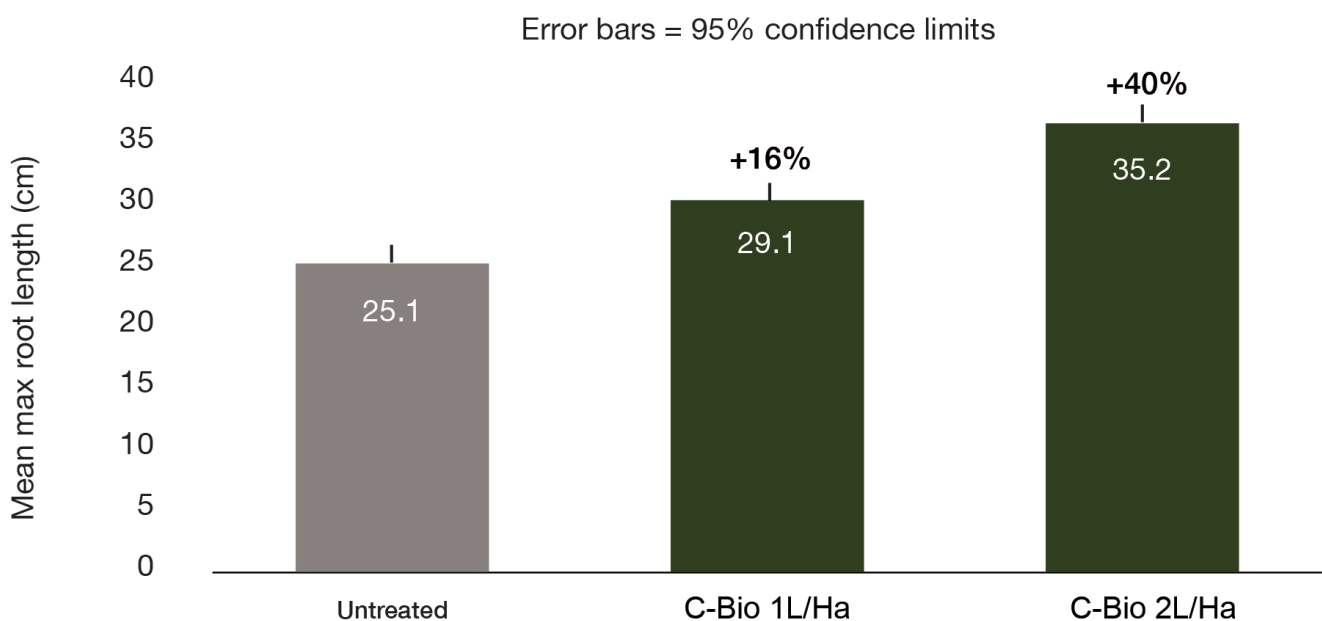


Trial data on C – BIO CPS

C-Bio increased Wheat root growth significantly Effect of C-Bio on early root growth in Winter Wheat



Significant increase in root length Effect of C-Bio on early root growth in Winter Wheat





C-BIO

A SUSTAINABLE GREENER FUTURE

Our brochure highlights the benefits of *Ascophyllum nodosum*, a seaweed used in farming for centuries. Rich in nutrients, amino acids, and polysaccharides, it enhances plant immunity, root development, and stress resistance. It improves soil structure, water retention, and microbial activity, offering an eco-friendly solution for sustainable farming. Products like C-BIO CPS, C-BIO Sea Active, and others support healthy plant growth, boost yields, and improve resilience.



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