For best quality, value and service

Angus BioActive Seaweed

BioActive Seaweed is formulated to be high in soluble bioactive compounds and low in insoluble cell wall material, making it suitable for a vast range of amenity, horticultural and agricultural applications. We have integrated this design feature into the manufacturing process as it greatly increases tank mix capabilities and ease of use whilst also ensuring a high level of bioactive compounds are present in the final product to boost and develop plant health.

Bioactive Profile	BioActive Seaweed	Competitor Seaweed
Betaines Content (mg/100mls)	141	103
Auxins Content (mg/100mls)	22.5	21
Gibberellins Content (mg/100mls)	17.5	26
Cytokinins Content (mg/100mls)	15	19
Alginic acid (g/100mls)	10.9	9.2
Laminarin (g/100mls)	2.3	2.5
Fucoidan (g/100mls)	2.7	2.5
Mannitol (g/100mls)	2.4	2.3

How does it compare?

The product is designed to dissolve completely in water and leave no residue.

Our manufacturing process involves a filtration process designed to remove unwanted solids. This allows us to achieve a high level of bioactive compounds whilst also ensuring low solids, low viscosity and a low pH.

In order to verify this claim, the bioactive compound content was compared against another leading seaweed extract product by an independent laboratory.

The competitor product had approximately 50% solids (w/v), or 8 times the solids that are in our product (~6%). The table indicates that we still achieved phenomenal bioactive compound content alongside reduced solids and viscosity.

Resulting in a higher quality product all round.

Shelf life: 24 months

Sizes: 10l / 200l / 1000l

Nutrient Analyses

NPK	0-0-0.5	%W/W
pH	4.5	pH Units
Organic Matter	4	%
EC	12500	-
Magnesium as Mg	1000	ppm
Sulphur as S	3000	ppm
Boron as B	2	ppm
Copper as Cu	0.5	ppm
Iron as Fe	100	ppm
Manganese as Mn	3	ppm
Molybdenum as Mo	0.1	ppm
Calcium as Ca	1000	ppm
Zinc as Zn	0.1	ppm
Amino Acids	0.1	g/100mls

Application Rates

Amenity Grass

3-5 litres/ha in 300 – 500 litres of water

Top Fruit, Vines and Cane Fruit

1.5 litres/ha in 300 litres of water

Potatoes

0.5 litres/ha in 300 litres of water

‘How does BioActive Seaweed increase resilience?’

BioActive seaweed contains bioactive compounds such as alginic acid, laminarin, fucoidan, mannitol, and betaines. These compounds influence plant physiological and biochemical pathways, providing resilience and promoting growth.

Alginic acid, a polysaccharide, conditions soil and enhances plant nutrient uptake. It increases soil water retention and aeration, promoting healthier root systems. This is particularly beneficial in drought-prone regions. Alginates chelate essential nutrients, making them more available to roots. This leads to faster growth, greener foliage, and improved crop yields. By stimulating root elongation and lateral branching, alginic acid improves plant stability and nutrient absorption.

Laminarin is a beta-glucan polysaccharide that acts as a biological elicitor, enhancing plant defence mechanisms. It triggers systemic acquired resistance (SAR), leading to the production of pathogenesis-related proteins and antimicrobial compounds. Laminarin prepares plants for faster and more robust immune responses, reducing reliance on chemical pesticides. It enhances photosynthesis and stress response mechanisms, improving resilience to biotic and abiotic challenges.

Fucoidan, a sulphated polysaccharide, supports plant defence and stress tolerance. It induces local and systemic defence responses, including the production of reactive oxygen species (ROS) and antimicrobial enzymes. Fucoidan enhances antioxidant activity, protecting plants from oxidative damage caused by environmental stressors. It supports root and shoot development, enhancing overall plant vitality.

Mannitol, a sugar alcohol, acts as an osmoprotectant. It helps plants maintain cellular turgor under drought or salinity stress. Mannitol scavenges ROS, protecting cellular structures from oxidative damage. It supports carbohydrate metabolism, ensuring continued growth during stress.

Betaines enhance plant resilience through osmoprotection and improved metabolism. They stabilise proteins and membranes, maintaining enzymatic functions under extreme conditions. Betaines enhance chlorophyll synthesis and stomatal conductance, boosting carbon assimilation and energy production. They modulate stress-responsive genes, enhancing water-use efficiency and nutrient uptake.

‘Are my plants still guaranteed good growth and development?’

Beyond bioactive compounds, BioActive Seaweed is also rich in phytohormones such as cytokinins, gibberellins, auxins, and abscisic acid (ABA). These hormones regulate key physiological processes in plants and their exogenous application offers a multitude of benefits.

Cytokinins in seaweed stimulate cell division and differentiation, promoting shoot and leaf growth. Their application improves chloroplast development, enhances photosynthetic efficiency, and delays leaf senescence. Additionally, cytokinins mobilise nutrients to actively growing tissues and maintain a balanced root-to-shoot ratio, making plants more resilient under suboptimal conditions.

Gibberellins are crucial for cell elongation, seed germination, and flowering. When applied to plants, they enhance stem elongation, improve germination by breaking seed dormancy, and increase fruit and flower development. Gibberellins also mitigate abiotic stress effects, enabling plants to maintain growth under adverse environmental conditions.

Auxins play a pivotal role in root architecture. Exogenous application enhances lateral root formation, elongation, and root hair development, improving water and nutrient uptake. Auxins also regulate tropisms, enabling plants to optimise growth in response to light and gravity. By promoting callus formation, they aid tissue repair and regeneration.

ABA is vital for stress tolerance and water-use efficiency. It induces stomatal closure, reducing water loss under drought conditions, and reinforces seed dormancy in unfavorable environments. ABA also enhances root growth under stress, enabling plants to access deeper soil moisture.