



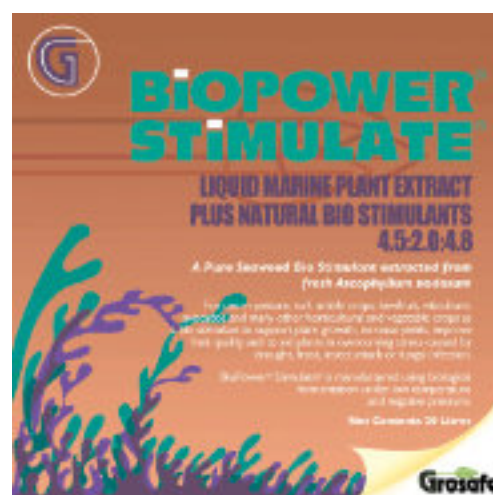
BioPower® Stimulate® Liquid Marine Plant Extract PLUS Natural Bio Stimulants 4.5:2.0:4.8

BioPower® Stimulate - A pure liquid seaweed biostimulant extracted from fresh *Ascophyllum nodosum*. Manufactured using biological fermentation under low temperature and negative pressure.

BioPower® Stimulate is among the highest quality seaweed products you can buy. It is derived from the seaweed species *Ascophyllum nodosum* which has proven to be the most effective seaweed biostimulant.

BioPower® Stimulate is a natural plant food that provides a range of benefits for plant health and growth. Another one of the few natural 'miracle' foods that you can give to your crops.

BioPower® Stimulate will increase your crop's resistance to stresses such as excessive heat, wind and drought conditions. It will stimulate natural root growth, mineral uptake and overall plant growth and vigour.



You can use **BioPower® Stimulate** in conjunction with other fertilizers, or by itself. Use on all plants, seedlings fruit trees, houseplants in a regular health maintenance program.

The Benefits of BioPower® Stimulate® PLUS Natural BioStimulants

- Improves seed germination and increases root development.
- Increases bloom set and size of flowers and fruit.
- Increases and stabilizes chlorophyll in plants, which results in darker green leaves and increased sugar content in plants.
- Relieves stress in plants caused by extreme weather conditions.
- Increases plant vigor, and thus imparts a greater resistance to disease, insect attack, drought, and frost.
- Increases microorganisms in the soil that can fix nitrogen from the air.
- Increases mineral uptake from the soil.
- Increases the storage life of fruits and vegetables by retarding the loss of protein, chlorophyll, and ribonucleic acid (RNA).
- Retards the aging process in plants (senescence), thereby lengthening the production season.

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So what are Biostimulants?

The term biostimulant is defined as a substance that is neither a plant nutrient nor a pesticide, but has a positive impact on plant health. A biostimulant is an organic material that, when applied in small quantities, enhances plant growth and development such that the response cannot be attributed to application of traditional plant nutrients.

Biostimulants have been shown to influence several metabolic processes such as respiration, photosynthesis, nucleic acid synthesis and ion uptake.

Biostimulants are not fertilizers meant to correct a severe nutrient deficiency, but are mixtures of one or more things such as microorganisms, trace elements, enzymes, plant hormones and seaweed extracts.

They may enhance nutrient availability, water-holding capacity, increase antioxidants, enhance metabolism and increase chlorophyll production.

Directions for Use

BioPower® Stimulate® is water soluble and is suitable for use in liquid foliar, soil applied, irrigation and fertigation applications.

Mixing Instructions: When possible, add BioPower® Stimulate® to the spray or fertiliser tank mix first. Fill half the mixing tank with clean water, begin agitation and gradually add recommended quantity of BioPower® Stimulate® and the remainder of the water.

Foliar Applications: Use enough water for good spray coverage. Foliar sprays should be applied as a fine mist with low fluid velocity until the foliage is wet. In general terms application rates should not exceed 2000 litres per hectare in dense tree crop situations and be scaled back in crops where the foliage is sparser. Do not foliar apply during times of moisture or heat stress. For best results apply during the cool part of the day (morning or evening), when temperatures are below 25°C. Do not spray just before or after rainfall or sprinkler irrigation. Use a non-ionic surfactant for maximum coverage and leaf adhesion.

Soil Applications: Soil applied treatments can be made by soil directed sprays of BioPower® Stimulate® on its own or tank mixed with other fertilisers or pesticides, by sidedress treatments, applications through irrigation systems or other methods which effectively apply BioPower® Stimulate® to the soil. When making irrigation treatments dilute 1 part BioPower® Stimulate® with at least 5 parts of water before adding to the supply tank. Continuous agitation of the supply tank is recommended. BioPower® Stimulate® can be applied through drip, micro sprinkler, overhead sprinkler, furrow, flood and other types of irrigation at recommended rates. For micro sprinkler, solid jet or drip irrigation apply after the system has reached operating pressure. Inject for at least one hour followed by a two hour flushing cycle to clear the system of all product. Avoid heavy irrigation following product application to prevent leaching of material from the plant root zone.



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Application Rates

Fertigation (Irrigation application): used alone or as a synergising agent to mineral fertilisers. Dosage 3.0 – 6.0 L/ha.

Seed Soaking: Soak seeds to be planted for 5 – 8 hours in a dilution of 3ml/litre of water (dilution rate of 1:333). Soakage time is dependent on the thickness of the seed coat.

Root Dipping: Can reduce mortality rates by dipping planter bags, plant containers or bare rooted plants for five minutes. Dosage 15ml/10 litres of water prior to planting (dilution rate of 1:666). After planting bare rooted plants a root drenching at the same dilution rate is recommended.

Foliar Application: Apply at 150 – 300mls per 100 litres of water. Apply a minimum of 3Litres per hectare. Do not exceed 2000 litres of water per hectare.

VEGETABLES	Foliar Application Timing — Application Rate 3.0 – 6.0 L/ha			
	1st Application	2nd Application	3rd Application	Optional
Beans and Peas	Six-leaf stage	Commencement of flowering	First pods	Pod fill
Broccoli, Cabbage, Cauliflower	Six-leaf stage	3 weeks after first application	Head initiation	Head development
Carrots, Leeks and Onions	2 weeks after emergence	Root enlargement	Every two weeks until harvest	
Capsicums, Eggplants, Melons Squash and Pumpkins	Six-leaf stage	Commencement of flowering	First fruit set	4 weeks after 3rd application
Cucurbits and Cucumbers	Six-leaf stage	Immediately prior to flowering	Every two weeks until harvest	
Sweetcorn	Six-leaf stage	55–75cm height	Just prior to tasselling	
Potatoes	Six-leaf stage	0.5cm tubers	Commencement of flowering	Tuber growth
Tomatoes (Fresh Market)	Six-leaf stage	Commencement of flowering	Apply at picking	2 weeks after 3rd application

FRUIT	Foliar Application Timing — Application Rate 3.0 – 6.0 L/ha				
	1st Application	2nd Application	3rd Application	4th Application	Optional
Grapes	20–30cm cane	45–60cm cane	Full bloom	Berry set	3 weeks after 4th application
Apples, Pears & Kiwifruit	Green tip	Pre-bloom pink bud	Full bloom	Early fruit formation	Every 3 weeks
Avocados and Citrus	Early bloom	Petal fall	Summer spray	Autumn spray	Every 3 weeks
Berry fruit	After transplant	Prior to bloom	While picking	3 weeks later	Every 3 weeks
Stone fruit	Bud burst	Petal fall	4 weeks after 2nd application	3 weeks after 3rd application	Every 3 weeks
Plums and Cherries	Pink white bud	Full bloom	Early fruit formation	3 weeks after 3rd application	Every 3 weeks

CEREALS	Foliar Application Timing — Application Rate 1.5 – 3.0 L/ha			
	1st Application	2nd Application	3rd Application	Optional
Wheat and Oats (Winter)	First node detectable	Flag leaf		After any environmental stress
Barley (Winter)	Early post emergence (2 leaf stage)	Flag leaf		After any environmental stress
Wheat and Oats (Spring)	1–3 Tillers (GS 12–13)	First node	Flag leaf and after any environmental stress	
Barley (Spring)	1–3 Tillers (GS 12–13)	First node	Flag leaf and after any environmental stress	
Maize	2–6 leaf stage	At 50–75cm growth	Just prior to tasselling	

BROAD ACRE	Broadcast Foliar Application, Overhead Sprinkler and Flood Irrigation
	Application: Apply 3.0 – 6.0 L/ha as a broadcast spray in 200–300 litres of water per hectare BioPower [®] Stimulate [®] can be added to irrigation systems as a metred dose
Lucerne	Apply after each cut.
Pasture	1. Recommended to apply 'little and often' once a month throughout the year. 2. Apply as a Bio-stimulant to increase the number and activity of beneficial soil micro-organisms. This will improve grass growth and help reduce soil-born disease symptoms in pasture.
Turf	1. Apply to greens, tees and fairways. 2. Regular applications (monthly) are beneficial. The Bio-stimulant activity of BioPower [®] Stimulate [®] will support beneficial soil micro-organisms, improve grass growth and help reduce soil born disease symptoms in turf. 3. Tilling in turf will also be increased, without excessive top growth.

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BioPower[®] - Lucerne's new best friend

INCREASE YOUR YIELD BY UP TO 15% WITH A RETURN ON INVESTMENT OF AT LEAST 8%*

Harness the power of the ocean & boost your lucerne crop with two exceptional bio-stimulants.

BioPower[®] Seaweed Flake and BioPower[®] Stimulate both offer exceptional value for money and a solid return on investment to any lucerne crop.

Grosafe[®] trial work has proven that a foliar application 4 weeks prior to each harvest will see yield increases of up to a 15% in green matter.

Both products can be tank mixed with any insecticide or herbicide sprays, spreading the cost of application & boosting yields.

Lucerne Trial

FIBRE FRESH, REPOROA

Treatments

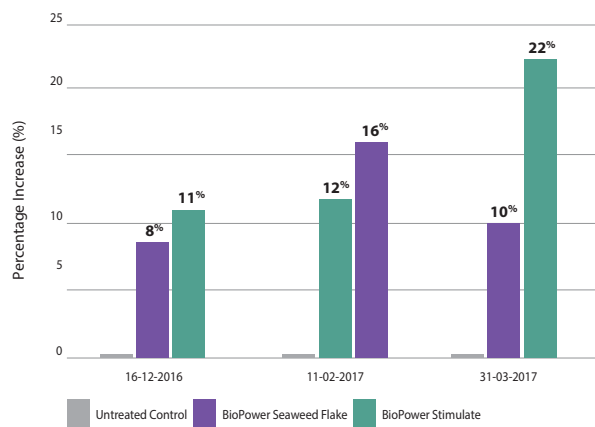
1. Untreated Control
2. BioPower[®] Seaweed Flake
3. Biopower[®] Stimulate

- Two treatments - each treatment applied 4 weeks before harvest
- Water rate - 200litre/ha
- 5 x 1m² sample herbage were cut at random positions in each plot
- Sub samples were sent to Hill Laboratories for herbage analysis

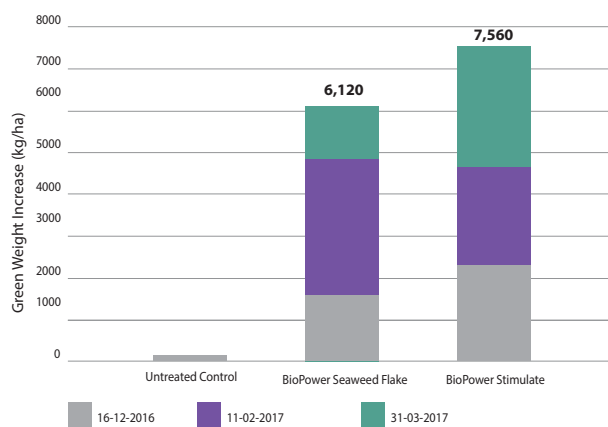


Product	Total Increase In Green Weight (kg/ha) Compared to Untreated Control	Average % Increase In Green Weight (kg/ha) Compared to Untreated Control	Product Cost/ha	ROI (%)
BioPower [®] Seaweed Flake	6,120	11%	\$22	13%
BioPower [®] Stimulate	7,560	15%	\$44	8%

Green Weight (kg/ha) Percentage Increase



Cumulative Green Weight Increase Over Control (kg/ha)



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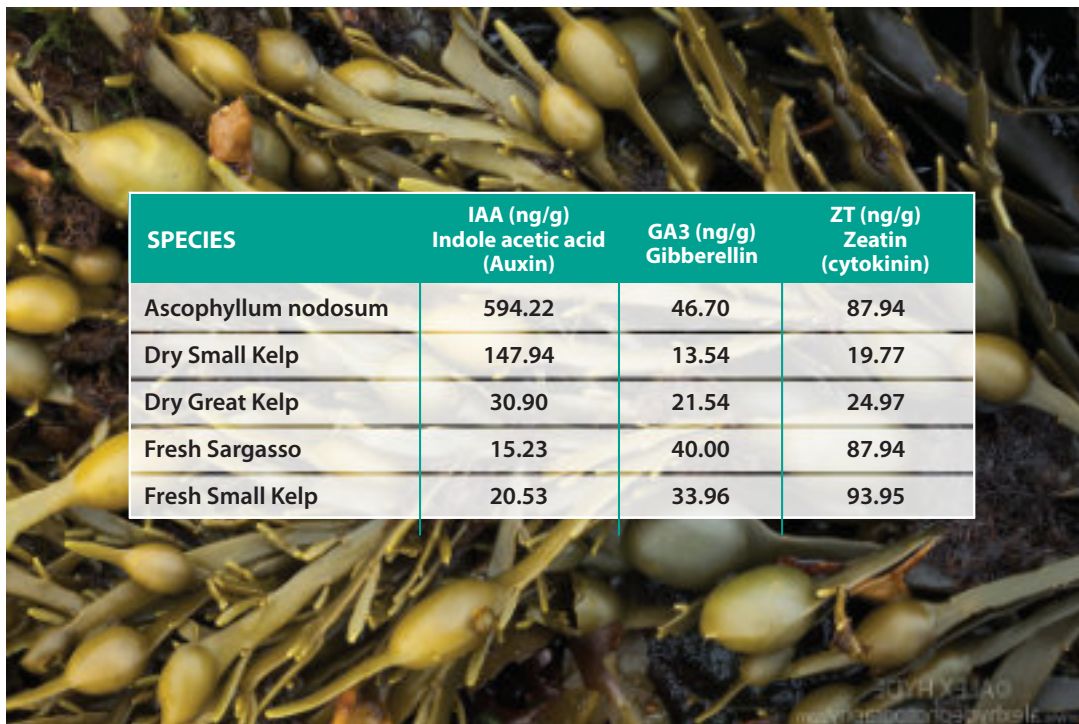


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Ascophyllum nodosum comparison with Bull Kelp



SPECIES	IAA (ng/g) Indole acetic acid (Auxin)	GA3 (ng/g) Gibberellin	ZT (ng/g) Zeatin (cytokinin)
Ascophyllum nodosum	594.22	46.70	87.94
Dry Small Kelp	147.94	13.54	19.77
Dry Great Kelp	30.90	21.54	24.97
Fresh Sargasso	15.23	40.00	87.94
Fresh Small Kelp	20.53	33.96	93.95

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