



PRO- ALGIN



**CONCENTRATED SEAWEED
EXTRACT BIOSTIMULANT**

PRO-ALGIN

pH
8.3

PRO-ALGIN is a fully water soluble gel biostimulant with a high concentration of seaweed extract enriched with polysaccharides, amino acids, glycine betaine, humic/fulvic acids, and organic acids. Pro-Algin improves crop tolerance, promotes nutrient uptake and enhances quality and crop yields



Packaging size: 200g, 1 kg, 5 kg



Ascophyllum nodosum seaweed

Ascophyllum nodosum is a large, brown seaweed of the family Fucaceae abundantly distributed throughout the northwest coast of Europe and the northeastern coast of North America. It is a rich source of various bioactive phenolic compounds (phlorotannins), unique polysaccharides such as alginic acid, fucoidans, mannitol, and laminarin, polyunsaturated fatty acids and enzymes.

In addition, glycine betaine plays an important role as an effective protectant against abiotic stresses (such as drought, salinity, cold and high temperatures) via osmoregulation or osmoprotection.

Why use PRO-ALGIN

- Improves plant growth by regulating phytohormone biosynthesis in plants.
- Mitigates abiotic and biotic stresses in plants.
- Increases number of marketable fruits, fruit quality, crop yield and root formation.
- Increases plant defenses against pathogen attacks, diseases and pests by the regulation of molecular, physiological, and biochemical processes.
- Enhances nutrient uptake.
- Improves photosynthetic efficiency.

Density: +/- 1.2 kg/liter

Specifications	W/W	W/V
Nitrogen Total (N)	1.80 %	2.14 %
Organic Nitrogen	1.80%	2.14%
Potassium Oxide (K ₂ O), soluble in water	6.50 %	7.73 %
Total Amino Acids	3.50 %	4.16 %
Glycine/Betaine	8.0 %	9.52 %
Seaweed Extracts	30.5 %	36.30 %
Oligosaccharides	3.90 %	4.64 %
Fulvic acid	1.30 %	1.55 %
Dry matter	55.00 %	65.45 %
Organic Matter	26.50 %	31.54 %
Organic Carbon (C)	13.00 %	15.47 %
Corg/N ratio	7.22	



Recommendations

Drip irrigation:

PRO-ALGIN is recommended for all type of crops. Apply 3 - 5 kg/ha/application, starting after transplanting or germination for vegetables or at the beginning of root activity for fruit trees. Repeat the application 2 - 3 times during the plant critical stages (flowering, fruit setting, fruit bulking,...) or during adverse climate and bad soil conditions.

Foliar spray:

Crop	Rate of use	Application rates	Application timing
Field crops (wheat, barley, etc..)	2.5 kg/ha	2	Before tillering (GS21) Inflorescence 1 cm (GS30)
Potato	2-3.5 kg/ha	2	During tuber initiation During bulking stage
GH & OF vegetables (strawberries, tomato, cucumber, melon, water melon, etc...)	2-3.5 kg/ha	3-5	After transplanting Before flowering After fruit set During fruit fattening
Fruit trees (apples, pears, peaches, plums, etc...)	3.5 kg/ha	3-4	On bud break After fruit set During fruit fattening Post -harvest
Citrus	2.5-3.5 kg/ha	3-4	On new shoots in spring After fruit set After the physiological drop in June During fruit fattening
Olives	2.5-3.5 kg/ha	3-4	On new shoots in spring After fruit set During fruit fattening Post-harvest
Vineyard	2-3.5 kg/ha	3-4	On new shoots in spring After fruit set During the véraison stage Post-harvest

COMPATIBILITY

GROGREEN PRO-ALGIN is compatible with the majority of agrochemicals and fertilizers used. It is recommended to perform a small scale test before proceeding. Product is incompatible with: acidic products, combustible materials, reducing agents. Always read the label of the partner product before mixing.

STORAGE

Protect from frost, store between 5°C and 50°C in a suitable warehouse with good aeration. Store in the original packing away from heat or direct sunlight. Partly used or damaged packing should be kept well closed. Keep out of reach of children. Store away from food, drink and animal feedstuff.

Do not eat, drink or smoke during use.

FIELD TRIALS

Test site information

Contract research organisation: GMW Bioscience

Crop: Tomato under open field conditions

Variety: Globetrotter

Locality: Alberic (Valencia), Spain

Number of variants/Number of replicates: 2/4

Type of soil: Loam

Soil pH: 8

Timing: July-October 2019

Fertilisation: Both the treated and control plots were subjected to an identical fertilisation program. However, the treated plots received supplementary amounts of PRO-ALGIN fertiliser. The applications were performed by foliar application.

Conclusions

Roots weight and volume: All treatments showed bigger root development compared to untreated plots with increases of 5 % for roots weight and 13% for volume.

Number of marketable fruits per plant: All treated plots showed higher amounts than untreated with an increase of 20% of the number of marketable fruits.

Yield: All treatments showed higher yield (marketable fruits) than untreated plots. An increase of 18% of yield was obtained in treated plots.

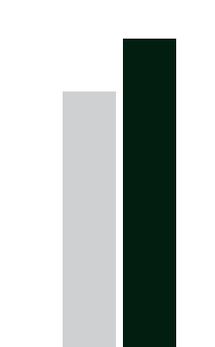
Product	Average dosage rate	Application details
Pro-Algin	2 kg/ha	At transplanting
	4 Kg/ha	BBCH 59 (Before flowering)
	5 Kg/ha	At BBCH 61 (flowering initiation) At BBCH 63 (3rd opened flower) At BBCH 65 (6th opened flower)
	6 Kg/ha	At BBCH 67 (7 or more flowers opened) At BBCH 69 (9 or more flowers opened)

Roots volume:



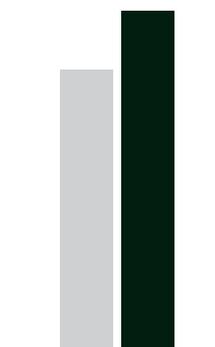
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Number of marketable fruits per plant:



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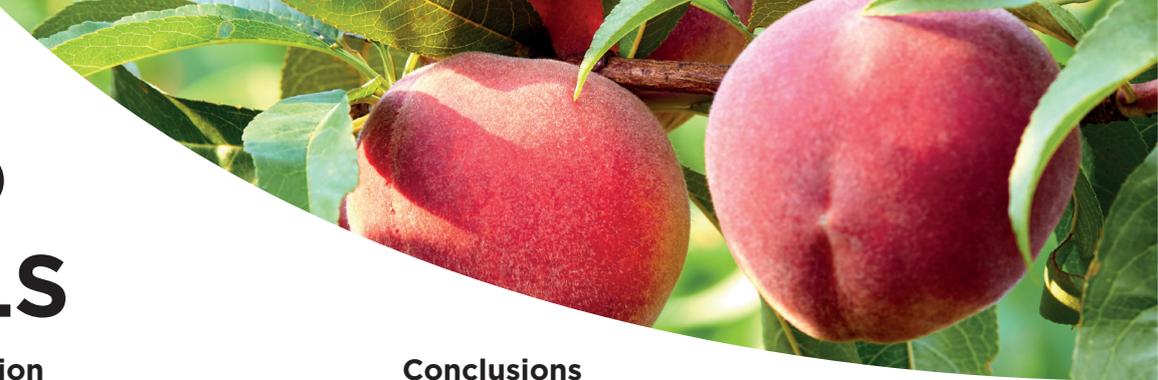
Yield kg/ha. Marketable fruits:



04/11/2019

Control
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FIELD TRIALS



Test site information

Contract research organisation: GMW Bioscience

Crop: Peach under open field conditions

Variety: Samantha

Locality: Turis (Valencia), Spain

Number of variants/Number of replicates: 2/6

Type of soil: Sandy Loam

Soil pH: 8.25

Timing: October 2019-May 2020

Fertilisation: Both the treated and control plots were subjected to an identical fertilisation program. However, the treated plots received supplementary amounts of PRO-ALGIN fertiliser. The applications were performed by foliar application.

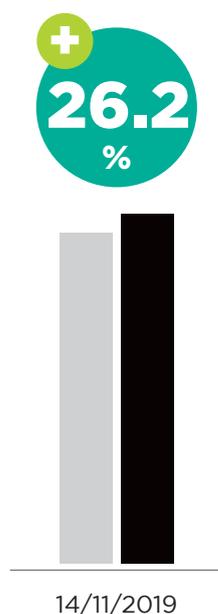
Conclusions

Flower assessment: All treatments showed a higher number of flowers than the untreated plots. An increase of 26.2% of flowers per plant was obtained in treated compared to untreated.

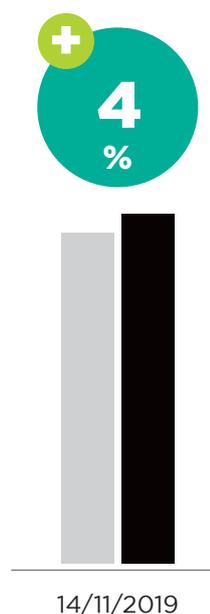
Yield assessment: All treatments showed higher yields than the untreated plots. An increase of 4% of total yield was obtained in treated compared to untreated.

Product	Average dosage rate	Application details
Pro-Algin	3.5 kg/ha	Postharvest (Autumn 2019)
	6 Kg/ha	Spring 2020 at starting of root activity
	3.5 kg/ha	At BBCH 72-73 (fruit setting)
	3.5 Kg/ha	At BBCH 75 (fruit bulking stage)

Number of flowers per plant:



Yield kg/ha:



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