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AgraAlgen

AgraAlgen forms part of our Bio Innovation™ range



Description

AgraAlgen is a concentrated microgranular extract produced from *Ascophyllum nodosum*. AgraAlgen contains natural active compounds that acts as bio-stimulants optimizing the growth of agricultural crops.

Key Benefits

- Is a powder formulation that can be applied as a seed treatment as well as foliar to crops.
- Is an environmentally safe natural product that can be used in organic agriculture.
- Is 100% water soluble.

Active Ingredient

A soluble seaweed extract (*Ascophyllum nodosum*)

Key functions

- Improves seedling establishment.
- Stimulates root and areal plant part development.
- Enhances mineral absorption from the soil medium that leads to higher crop yields and better quality.
- Contributes to the production of antioxidants to protect crops against harmful free radicals.

Application Rates

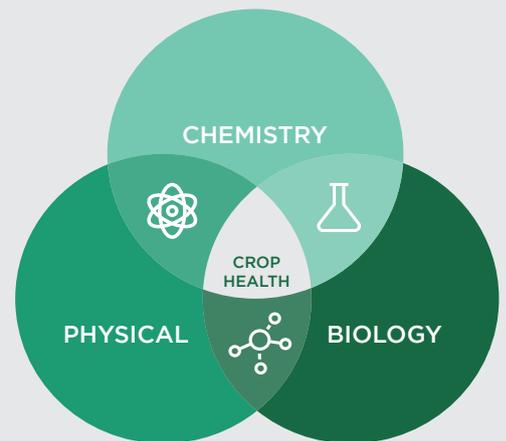
Crop	Time of application	Dosage
Maize seed application	Before planting	20 mg/kg seed (dissolve in 10 ml water/kg seed)
Grain crops	3-5 leaf stage	250 g/ha
Vegetables	3-5 leaf stage	250 g/ha

Why are organic acids, vitamins, hormones and bio-stimulants important in crop production?

In modern day agriculture, along with pesticides and fertilizers, several compounds classified as plant growth stimulants become exceedingly important for sustainable crop production.

Agricultural products in this category include diverse compounds that are applied to crops or soils towards improving growth, yield and quality of crops as well as tolerance towards environmental stresses.

Although these compounds influence plant growth and development throughout the entire crop life cycle, a summary of their main functions is supplied below.



Organic Acids

Alginate acid	Present in seaweed extracts; assist in maintaining turgor pressure in plant cells.
Amino acids	Building blocks of proteins that are essential for all metabolic processes.
Humic substances	Increase nutrient uptake by plants and improve overall soil structure and health.
Salicylic acid	Induces flowering and defence responses to environmental stresses.

Hormones & Bio-stimulants

Auxins (IAA)	Promote cell elongation in the stems, root tips and apical buds of plants.
Cytokinins (CYT)	Promote plant growth and development including as embryogenesis, maintenance of root and shoot meristems and vascular development.
Gibberellins (GA)	Stimulate stem elongation, seed germination and flowering.
Abscisic acid (ABA)	Induces stomatal closure when soil water is insufficient, maintaining transpiration.
Ethylene (ET)	Promotes seed germination, formation of root hairs, crop senescence and fruit ripening.
Jasmonic acid (JA)	Promotes fruit ripening and tuber formation as well as defence responses to environmental stresses.
Brassinosteroids (BR)	Optimize crop growth and yield as well as defence responses to environmental stresses.
Polyamines (PA)	Stimulate root initiation, flower development and tuber formation.

Other

Triacantanol	Optimizes photosynthesis and therefore plant growth.
Vitamins	Antioxidants protecting crops against oxidative stresses.
Chitosan	Supports crop growth and production and increases plant pigment concentrations.